

Air Quality Planning Guidance

East Dunbartonshire Council

2018

(Updated October 2022)



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1. Introduction

This planning guidance is intended to support implementation of the East Dunbartonshire Local Development Plan (LDP). The relationship between the LDP, Supplementary Guidance and Planning Guidance is established in Scottish Government Circular 6/2013, and summarised in the table below.

Document	Purpose and Scope
LDP	Sets out the Council’s policies for the development and use of land, including community strategies which identify opportunities for development, for the period up to ten years from adoption.
Supplementary Guidance (SG): <ul style="list-style-type: none"> – Developer Contributions – Design and Placemaking – Green Infrastructure and Green Network – Frontiers of the Roman Empire (Antonine Wall) World Heritage Site 	SG is statutory as it forms part of the development plan, and has that status for decision making. It is limited to the provision of further information or detail in respect of policies or proposals set out in the LDP. SG will be adopted with the LDP and lasts for the period of the Plan.
Planning Guidance	Non-statutory planning guidance may be used to provide detail on a range of subject areas. This form of guidance should not be termed SG and will not form part of the development plan. However, adoption of this guidance by the Council gives it formal status, meaning that it may be a material consideration in decision making. Planning guidance can be updated as required and without the need for scrutiny by Scottish Ministers. Such updates are normally required where a specific issue arises during the period of the Plan.

Air pollution has been estimated to reduce the life expectancy of every person in the UK on average by 6 months and costs the UK economy an estimated £16 billion per year.¹ Poor air can cause or exacerbate health issues such as asthma, heart and respiratory diseases.² Cleaner air, as well as reducing the impacts on the health problems noted above, can have overall benefits for the immune system and personal sense of wellbeing.

It is therefore essential that East Dunbartonshire Council contributes to national actions, such as those set out in national strategy ‘Cleaner Air for Scotland’, to reduce exposure to harmful pollutants.

This planning guidance sets out an overview of national, regional, and local policy related to air quality and planning and describes the existing Air Quality Management Areas (AQMA) in

¹ DEFRA (2010) – ‘Valuing the overall impacts of air pollution’

² SEPA – ‘The air that I breathe’

East Dunbartonshire. This planning guidance sets out the criteria that will be used by the Planning Authority to determine the need for an Air Quality Assessment (AQA) as part of the planning process. Where development is expected to have an impact on local air quality, this guidance also sets out the requirements for mitigation measures that could be utilised.

2. Policy Context

The following section sets out the policy context which has informed this planning guidance. The relevant national, regional and local legislative and policy and documents are outlined below³.

National

Environment Act 1995

Environment Act 1995 Part IV Local Air Quality Management requires the UK Government and devolved administrations to publish an Air Quality Strategy and establishes the system of Local Air Quality Management. The obligations detailed within the Environment Act requires local authorities to consider air quality matters beyond these standards.

Cleaner Air for Scotland – The Road to a Healthier Scotland (CAFS) 2015

Cleaner Air for Scotland (CAFS) is a Scottish Government strategy that sets out proposals to reduce air pollution, improve air quality and ultimately improve human health in Scotland. It sets out a vision for Scotland to have ‘the best air quality in Europe’. Achieving cleaner air in Scotland will deliver positive outcomes across national indicators from the National Performance Framework –

- Creating a supportive business environment
- Achieving a low carbon economy
- Tackling health and wellbeing and social problems
- Maintaining a high quality environment, and;
- Passing on a sustainable legacy for future generations

CAFS will require partnership working between the Scottish Government, Local Government and organisations across the public and private sector to ensure efficient delivery of cleaner air across Scotland to create and maintain a strong, healthy and fair society that can live within its environmental limits.

Scottish Planning Policy

Scottish Planning Policy (SPP) sets out the policy of “A Connected Place” which promotes sustainable travel and active travel. The planning system will support patterns of development which optimises the use of existing infrastructure, reduces the need to travel, and provides opportunities for active travel and public transport. The aim is to promote development which maximises the extent to which its travel demands are met first by walking, then cycling, then public transport and finally through the use of private cars with the aim of reducing the impact of development on air quality.

National Transport Strategy

The National Transport Strategy aims to create an accessible Scotland with safe, integrated, and reliable transport that supports economic growth, provides opportunities for all and is easy to use. The transport system should respect the environment and contribute to health. The NTS includes three strategic outcomes, one of which relates to air quality:

- 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

Regional

Regional Transport Strategy “A Catalyst for Change – 2008-2021”

The RTS contains four strategic outcomes which are:

- Improved connectivity
- Access for all
- Reduced emissions
- Attractive, Seamless and reliable travel.

The strategic outcome of ‘Reduced emissions’ focuses on encouraging modal shift to more sustainable modes of travel and promoting ‘smarter choices’, travel planning and active travel. This will aim to ensure the West of Scotland has a transport system that promotes sustainable travel for a cleaner environment and healthier lives.

Strategic Development Plan (Clydeplan) 2017

Clydeplan is committed to supporting successful and sustainable places by supporting low carbon, natural, resilient and well connected places. It seeks to ensure development proposals are designed and located in order to maintain and improve air quality.

Local

Local Outcomes Improvement Plan 2017-2027

The East Dunbartonshire Local Outcomes Improvement Plan (LOIP) was collaboratively produced by the Community Planning Partnership for East Dunbartonshire. It provides an understanding of local needs, issues and aspirations within our communities. The LOIP details 6 key outcomes that together will work towards achieving a better East Dunbartonshire.

The main outcomes which relate to air quality and incorporating air quality in to the planning process are listed below.

Outcome 3 – Our children and young people are safe, healthy, and ready to learn

Outcome 4 – East Dunbartonshire is a safe place in which to live, work and visit.

Outcome 5 –Our people experience good physical and mental health and wellbeing with access to a quality built and natural environment in which to lead healthier and more active lifestyles.

These outcomes are reflected in this planning guidance and will be incorporated into the assessment and determination of planning applications.

The Plan also contains 7 guiding principles which will guide the planning and delivery of activities under all of the outcomes. The Sustainability guiding principle is relevant to air quality and states that:

“We will create the conditions for a better quality of life for East Dunbartonshire residents, by recognising their health and wellbeing needs without compromising the quality of our built, natural and historic environment. In doing so we will build resilience to a changing climate, use our natural resources prudently and consider the long term implications of our decisions for present and future generations”.

Local Development Plan (LDP) – 2017-2022

The East Dunbartonshire Local Development Plan sets a framework for the growth and development of East Dunbartonshire and establishes a presumption in favour of development that contributes to sustainable development as defined in Scottish Planning Policy (2014). The Plan will help to guide development and regeneration strategies by clearly illustrating where and how development should and should not take place. Key themes running through the entire Plan are the need to ensure high-quality design and placemaking, consideration of climate change and delivery on climate change legislation and obligations.

Policy 2 – Design and Placemaking seeks to ensure proposals take a design-led approach to all forms of development, and put high-quality design at the heart of the decision-making process. All proposals should create a welcoming and safe environment, which has a positive impact on the character, function and amenity of the surrounding area, including compatibility with existing uses. Air Quality is an important consideration in ensuring that developments are appropriately located, appropriately managed and will not have an adverse impact on adjacent uses.

Policy 4 – Sustainable Transport details the role of traffic on air quality as a material consideration for future development. This includes a requirement for Air Quality Assessments to be carried out as part of the planning process where it is deemed there will be a significant impact on the natural, historic or community environment. It also details that where there are air quality impacts from development within or adjacent to existing AQMAs they should be mitigated by provision of measures that support active travel and public transport as an alternative to reliance on the private vehicle. The content of existing Air Quality Action Plans (AQAP) will be a key consideration in assessing proposals that have a potential to impact local air quality within these areas.

Policy 15 – Renewable Energy and Low-Carbon Technology requires development to support the change to a low carbon economy by ensuring that all new development reduces emissions and energy use in new buildings. Development will be supported where the location, siting and design has no unacceptable individual or cumulative impact on the environment, including air quality.

Policy 16 – Managing Waste requires that waste is properly managed as part of development. The development of waste-management infrastructure, technologies and/or industry which maximise the value of secondary resources from waste to the economy will be supported where it has no unacceptable impact on air quality.

This planning guidance will expand further LDP policy and will explain in greater detail what the 'significant impacts' are, in relation to the requirement for an Air Quality Assessment.

Local Transport Strategy – 2013-2017

East Dunbartonshire Council's Local Transport Strategy 2013-2017 (LTS) sets out the Council's position in relation to transport policy. The LTS provides a transport policy link to the LDP and other main Council documents such as the LOIP.

A review of the transport network was carried out as part of the LTS process and identified a number of issues within East Dunbartonshire. There is a high reliance on the private vehicle for travel in East Dunbartonshire and very low participation rates of active travel. The LTS sets out a number of interventions to reduce emissions by increasing the number of travellers using more sustainable means of transport including by active travel. The LTS sets out 7 transport objectives, with two directly relevant to this planning guidance, these are:

- Improving the health and wellbeing of the community through promoting sustainable travel, attractive well designed streets and active travel routes throughout East Dunbartonshire
- Ensuring that the impacts from transportation on the environment and air quality are mitigated in order to work towards the targets set out in the Climate Change Act 2008.

Active Travel Strategy – 2015-2020

East Dunbartonshire Council's Active Travel Strategy 2015-2020 sits alongside the LTS and sets a framework and evidence base for active travel projects in East Dunbartonshire. It is a strategy for increasing participation in active travel and will complement and deliver on the interventions within the current LTS. One of the main benefits of increased active travel is the reduction in mode share of private vehicles. This can reduce the emissions within the local area, leading to improved air quality and health of the local residents as well as the obvious health benefits to those directly participating in walking and cycling.

³ Update 2022 - Note that some of the above documents and strategies have been refreshed or superseded. However, the overall context, drivers and requirements for air quality management remain the same.

3. Air Quality in East Dunbartonshire

Air Quality Monitoring in East Dunbartonshire

There are four continuous automatic air quality monitors within East Dunbartonshire. These monitors are situated in the following locations:

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

The Council also undertake non-automatic monitoring at a number of sites throughout East Dunbartonshire through the use of diffusion tubes. More detail on the monitoring sites, results and further information on air quality in East Dunbartonshire can be viewed at the following web address: <https://www.eastdunbarton.gov.uk/residents/environmental-health-residents/pollution>

As part of Local Air Quality Management, East Dunbartonshire Council continuously monitors local air quality against the objectives set out in the Air Quality (Scotland) Amendment Regulations 2002. As a result of this ongoing assessment, two Air Quality Management Areas (AQMA) have been declared in East Dunbartonshire due to exceedances of the Scottish Air Quality objective levels of fine particulate matter (PM₁₀) and Nitrogen Dioxide (NO₂). One of these AQMA's continues to be designated whilst the other has now been revoked.

Bishopbriggs (Existing)

In 2005, the Council declared an AQMA in Bishopbriggs, covering the A803 corridor. A map of the AQMA is included in Appendix 1. In order to improve air quality, an Air Quality Action Plan (AQAP) was developed to identify actions and policies which the Council can implement to ensure air quality objectives are met. The AQAP measures targeted a reduction in emissions from road traffic sources within the AQMA, with the overall aim being a reduction in pollutant concentrations

Since the AQMA was declared in 2005, the Council has continued to monitor both PM₁₀ and NO₂ at several locations in Bishopbriggs, using both automatic and passive sampling methods.

Bearsden (Revoked)

In 2011, the Council declared an AQMA in Bearsden which covered the corridor from Canniesburn Toll to A810 Duntocher Road, as shown in Appendix 2. Due to improvements in the presence of particulate matter (PM₁₀) and Nitrogen Dioxide (NO₂) since then, the Council formally revoked the Bearsden AQMA in September 2022.

4. Air Quality and Planning

Air Quality has the potential to affect the environment, character, function and amenity of the local area. The Local Development Plan (LDP) sets out the policy context for the determination of planning applications. The 20 policies contained within the LDP provide guidance for new development on a number of topics. Any planning application that is submitted to the Council is assessed against these policies and a decision is made whether or not to grant planning permission based on how well the application fits with the LDP policies. To assist with this process, several of the policies are described in greater detail through additional planning guidance. This planning guidance provides detailed information on the Council's approach to incorporating Air Quality into the planning process. Any air quality issue which affects the use or development of land can be considered a material planning consideration. Where potential air quality issues have been identified as part of a planning application (both within and outwith Air Quality Management Areas), an Air Quality Assessment will be required to be submitted as part of the planning application to determine the potential issues and impacts of air quality. The results of the air quality assessment will be used in conjunction with an assessment of the applications performance against the other LDP policies to decide whether or not to grant planning permission.

Air Quality Assessment

An Air Quality Assessment (AQA) assesses the potential impact of air quality issues in relation to proposed development. The planning authority will separately consider the need for an AQA for:

- Potential adverse effects of local air quality on proposed development and,
- Potential adverse effects of the proposed development on local air quality.

Developers are expected to identify the need for an AQA as early as possible, so that alterations as a result of the AQA can be taken into account as part of any detailed design. It is important therefore, that developers discuss potential impacts of the development on local air quality and any potential AQA with the Council during pre-application discussions and the Scottish Environment Protection Agency if appropriate.

When should an Air Quality Assessment be carried out

When considering if an AQA is required to determine the potential adverse effects of local air quality on proposed development, the Planning Authority will decide this on a matter of judgement and will take into account:

- Current air quality in the vicinity of the proposed development area and whether this is likely to approach or exceed Scottish air quality objectives in the future
- Location of AQMAs and Low Emission Zones in relation to the proposed development
- Presence of heavily trafficked roads in the vicinity of the proposed development
- Presence of odour or dust that may affect amenity for prospective residents or users of the development and adjacent uses

When considering whether an AQA is required in order to determine the potential adverse effects of the proposed development on local air quality, it is a requirement to use a two stage process. This process applies to the whole of East Dunbartonshire. A two stage process allows for smaller scale developments to be screened out in the initial stage.

The criteria below sets out when development will require an AQA. The applicant is encouraged to engage with the Planning Authority at an early stage, including during pre-application discussions, to understand whether there is the need for such an AQA and discuss likely content.

Table 1 – Stage 1 Criteria – Scale of development³

A	<p>If any of the following apply:</p> <ul style="list-style-type: none"> - 10 or more residential units or a site area of more than 0.5ha - More than 1000m² of floor space for all other uses or a site greater than 1 ha
B	<p>And either of the following</p> <ul style="list-style-type: none"> - The development has more than 10 parking spaces - The development will have a centralised energy facility
C	<p>OR The application involves a combustion process such as centralised biomass facilities, a crematorium or the use of Short-Term Operating Reserve (STOR) electrical generators.⁵</p> <p>(Automatically pass onto stage 2 below)</p>

If a proposal includes at least one of the requirements in both A and B, OR meets the requirement in C in isolation, the proposal needs to be assessed against the criteria in Stage 2. If development does not meet the thresholds in stage 1 then there should not normally be a requirement to carry out an AQA on this development and it can be considered that the potential impacts on air quality arising from this proposed development are insignificant.

Table 2 - Stage 2 Criteria⁴ - possible impacts of development

The development will:	Indicative criteria to proceed to an air quality assessment
Cause a significant change in Light Duty Vehicle (LDV) traffic flows on local roads with relevant receptors (receptors refers to who or what will be affected, e.g. human or environmental receptors). (LDV = cars and small vans <3.5t gross vehicle weight)	<p>A change of LDV flows of:</p> <ul style="list-style-type: none"> - More than 100 Annual Average Daily Traffic (AADT) movements within or adjacent to an Air Quality Management Area

⁴ Environmental Protection Scotland and the Royal Town Planning Institute (2017) – Delivering Cleaner Air for Scotland – Development Management

⁵ STOR generators are generally 2 to 3 banks of electrical generators that run on diesel or gas and when in operation contribute to the UK National Grid when resources are running low or where peak levels of use are expected to be recorded. These type of generators have the potential to have a significant negative affect on local air quality.

	- More than 500 AADT movements elsewhere
Cause a significant change in Heavy Duty Vehicle (HDV) traffic flows on local roads with relevant receptors. (HDV = goods vehicles and buses >3.5t gross vehicle weight)	A change of HDV flows of: - More than 25 AADT movements within or adjacent to an Air Quality Management Area - More than 100 AADT movements elsewhere
Realign roads, i.e. changing the proximity of receptors to traffic lanes	Where the change is 5m or more and the road is within an Air Quality Management Area.
Introduce a junction or remove an existing junction near to existing receptors.	Applies to junctions that cause traffic to significantly change vehicle speeds by causing vehicles to significantly accelerate or decelerate, e.g. traffic lights or roundabouts.
Introduce or change a bus station	Where bus flows will change by; - More than 25 AADT movements within or adjacent to an Air Quality Management Area. - More than 100 AADT movements elsewhere
Have an underground car park with extraction system	The ventilation extract for the car park will be within 20m of a relevant receptor. Coupled with the car park having more than 100 movements per day (total in and out).
Have one or more substantial combustion processes where there is a risk of impacts at relevant receptors. NB. This includes - Combustion plant associated with standby emergency generators (typically associated with centralised energy centres) and shipping. - The use of Short-Term Operating Reserve electrical generators	Typically any combustion plant where the single or combined NO _x emission rate is less than 5mg/sec is unlikely to give rise of impacts, provided that the emissions are released from a vent or stack in a location and at a height that provides adequate dispersion. In situations where the emissions are released close to buildings with relevant receptors, or where the dispersion of the plume may be adversely affected by the size and/or height of adjacent buildings (including situations where the stack height is lower than the receptor) then consideration will need to be given to potential impacts at much lower emission rates. Conversely, where existing nitrogen dioxide concentrations are low, and where the conditions are favourable, a much higher emission rate may be acceptable.

If the proposed development meets ANY of the criteria set out in Stage 2, an AQA will be required. If the proposed development does not meet any of the Stage 2 criteria an AQA will not normally be required.

Construction phase activities may result in localised air quality impacts, during both demolition and construction. An impact assessment of the effects of construction and demolition on air quality may be required dependent on the scale and location of the development and its proximity to sensitive receptors. Developers should highlight anticipated air quality issues arising from the construction phase to enable assessment of the need for a Construction Phase Impact Assessment being required. Where it is assessed that such an Impact Assessment is required, it should be prepared in accordance with Institute of Air Quality Management Guidance – “Assessment of dust from demolition and construction”, and “Air Quality Monitoring in the vicinity of demolition and construction sites”.

If you are unclear as to whether an AQA is required, please contact the planning department at planning@eastdunbarton.gov.uk. The Planning Authority will make a final decision on the requirements for an AQA.

What should an Air Quality Assessment contain?

Once the need for an AQA has been identified through the procedures above, the AQA can either take the form of a simple or detailed assessment. A simple assessment relies on already known information and does not require a quantification of the impacts, whereas a detailed assessment requires specific recorded data to be used through a detailed modelling process. In most circumstances, a detailed assessment will be required, particularly for sites in close proximity to an existing or proposed Air Quality Management Area and/or Low Emission Zone (LEZ). A detailed assessment will also be required where proposals include the installation of biomass, or where the pollutant levels are close to the Scottish Air Quality objective levels. In some circumstances a simple assessment may be sufficient, however the planning authority will make the final decision on this. Early engagement with the planning authority is encouraged to discuss likely AQAs and their content.

Any AQA should follow three basic steps

1. Assess the **existing** air quality in the proposed development area
2. Predict the future air quality **without** the proposed development taking place
3. Predict the future air quality **with** the proposed development in place

The assessment should follow the principles and methods set out in the Institute of Air Quality Management guidance ‘Land-Use Planning & Development Control: Planning for Air Quality’⁶ (January 2017). The guidance sets out in detail what steps and information an AQA should contain and the sub-headings are detailed below.

1. Details of the proposed development
2. The policy context for the assessment
3. Description of the relevant air quality standards and objectives
4. The basis for determining significance of effects arising from the impacts
5. Details of the assessment methods
6. Model verification
7. Identification of sensitive locations

8. Description of baseline conditions
9. Assessment of impacts
10. Description of construction phase impacts
11. Cumulative impacts of effects
12. Mitigation measures
13. Summary of the assessment results

Weight given to air quality as a material consideration

The weight given to air quality as a material consideration in the determination of planning applications will depend on a number of factors. As well as national policy and policy contained in Clydeplan (Strategic Development Plan) and the Local Development Plan, the following factors will be considered:

- The severity of the impacts on air quality
- The existing air quality within the local area around the proposed development
- The use of the proposed development and the expected time people are likely to be exposed to the conditions at that location
- The proximity to sensitive receptors. Sensitive receptors include, but are not limited to: schools, healthcare facilities, daycare facilities and elderly housing. It is important to consider the location of sensitive receptors in relation to proposed development as the people using these facilities can be disproportionately affected by poor air quality.

⁶ Institute of Air Quality Management and Environmental Protection UK - 'Land-Use Planning & Development Control: Planning for Air Quality' (January 2017).

<http://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf>

5. Mitigation Measures

Where the principle of development is acceptable, it may be considered appropriate to offset the impact of development on air quality or the impacts of existing air quality on development through mitigation measures. As part of the Air Quality Assessment, it is the responsibility of developers to provide a list of measures that can be implemented to mitigate the potential adverse impacts on air quality. While requesting that there are no adverse impacts on air quality is a reasonable requirement, there may be times where some impacts are inevitable which makes mitigation a crucial part in the planning process to ensure that impacts are kept to a minimum.

When selecting appropriate mitigation measures for the proposed development and corresponding application, it is important to follow a hierarchy of different types of mitigation⁷.

The first level of mitigation that should be considered are measures that prevent or avoid the exposure and impacts of the pollutant in the first instance by replacing the sources or activities that result in exposure. For example, in the case of a development which generates large traffic flows, mitigation measures should enhance and augment the measures that support active travel and public transport in the Local Development Plan as an alternative to reliance on the private vehicle. This level is most effective if air quality considerations are taken into account at the earliest possible opportunity in the process.

The second level is to minimise the exposure of the source or activities that expose people to the negative impacts. Mitigation measures should focus on minimising the exposure and impacts at the source, then the pathway to the source, then at or close to the point of receptor exposure.

The third and last level of mitigation measures should focus on offsetting the air quality impacts of new development by contributing financially to existing measures that are detailed in local air quality action plans, the Local Transport Strategy and the Active Travel Strategy. It is important that this last level will only be considered in exceptional circumstances, after levels 1 and 2 have been exhausted and at the discretion of the Planning Authority.

⁷ Institute of Air Quality Management (2015) – Mitigation of Development Air Quality Impacts

6. Contact Details

Environmental Protection

E-mail: environmental.health@eastdunbarton.gov.uk

Contact Number: 0300 1234510

Development Applications

E-mail: planning@eastdunbarton.gov.uk

Contact Number: 0300 1234510

Land Planning Policy

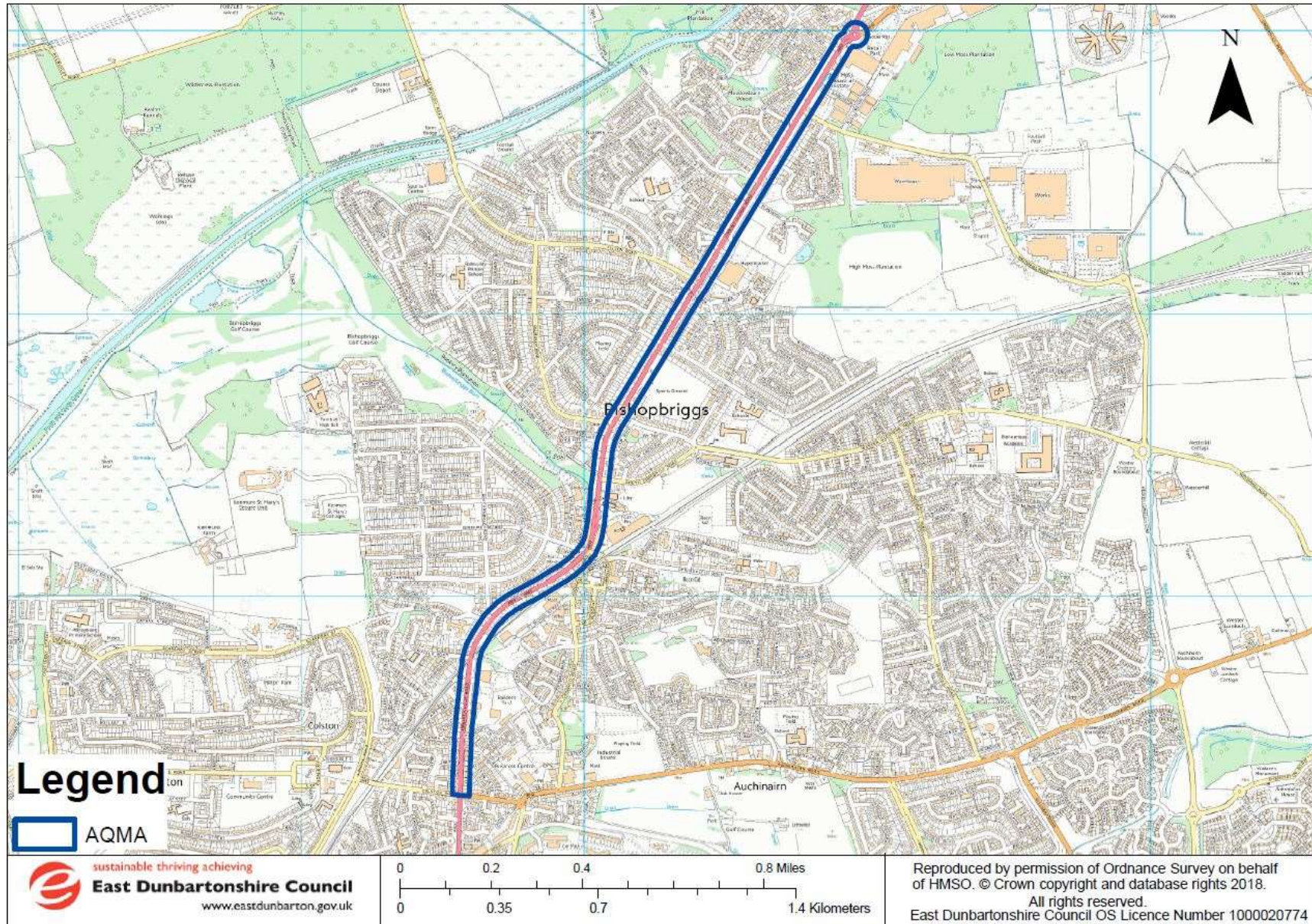
E-mail: development.plan@eastdunbarton.gov.uk

Contact Number: 0300 1234510

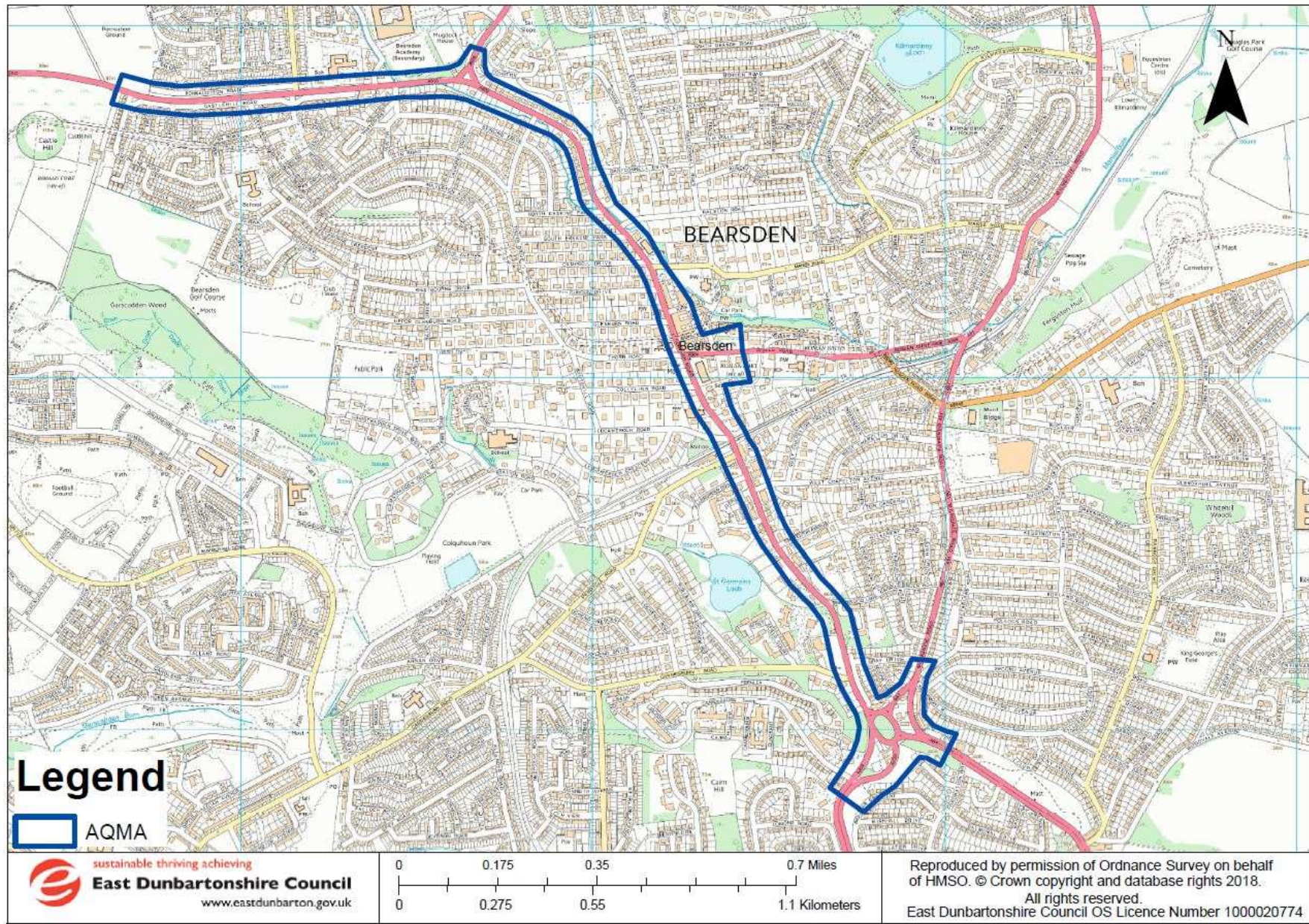
7. Glossary of Terms

AADT	Annual Average Daily Traffic
AQA	Air Quality Assessment
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
CAFS	Cleaner Air for Scotland
HDV	Heavy Duty Vehicle
LDP	Local Development Plan
LDV	Light Duty Vehicle
LEZ	Low Emission Zone
LTS	Local Transport Strategy
NO _x	Nitrogen Oxides
NO ₂	Nitrogen Dioxide
NTS	National Transport Strategy
PM _{2.5}	Particulate Matter > 2.5µm in diameter
PM ₁₀	Particulate Matter > 10µm in diameter
SDP	Strategic Development Plan

8. Appendices



Appendix 1 – Map of Bishopbriggs AQMA



Appendix 2 – Map of Revoked Bearsden AQMA