Annual Progress Report (APR)

2017 Air Quality Annual Progress Report (APR) for East Lothian Council

In fulfilment of Part IV of the Environment Act 1995

Local Air Quality Management

August 2017

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Executive Summary: Air Quality in Our Area

Air Quality in East Lothian

East Lothian Council considered the declaration of an Air Quality Management Area (AQMA) for the Nitrogen dioxide (NO_2) annual mean Air Quality Objective (AQO) after submission of the 2013 Progress Report (Ref 1) if monitoring results obtained from new monitoring locations, in addition to existing monitoring locations, confirmed that the NO_2 annual mean AQO had been exceeded in Musselburgh High Street. In November 2013, following completion of the 2013 Progress Report (Ref 1), an AQMA was declared in Musselburgh (Ref 2) in relation to breaches and likely breaches of the Nitrogen Dioxide annual mean air quality objective. The extent of the AQMA is High Street, Musselburgh (A199) from its junction with Newbigging and extending westwards to the junction with Bridge Street and Mall Avenue.

Following declaration of the AQMA East Lothian Council commissioned a Further Assessment (Ref 3) of Air Quality in Musselburgh. The assessment provided the technical justification for the measures the authority later includes in any Air Quality Action Plan (AQAP). The Further Assessment (Ref 3) was completed in September 2014 and confirmed the findings of the previous Detailed Assessment in 2012 (Ref 4), namely that there are likely to be continued exceedences of the annual mean NO_2 objective where relevant exposure exists.

The Further Assessment (Ref 3) estimated that ambient Nitrogen oxides (NO_x) reductions in the AQMA of up to 27% at some locations were required in order to achieve compliance with the annual mean NO_2 objective and, furthermore, that a source apportionment exercise indicates that emissions from buses form the largest contribution at all locations along the High Street AQMA. An integrated package of interventions would most likely be required to provide the best NO_x reductions. Measures that reduced overall traffic, reduced queuing and reduced bus numbers, where appropriate, would reduce road NO_x significantly. These measures are however very challenging (both financially and technically) to implement.

The contour plots and dispersion modelling prepared for the Further Assessment (Ref 3) indicated that the AQMA boundary included all relevant sources and did not require revocation or amendment at that time.

The 2014 Progress Report (Ref 5) and 2015 Updating & Screening Assessment (Ref 6) confirmed that NO_2 emissions in 2013 and 2014 continued to exceed, or were very close to, the Annual Mean Air Quality Objective for NO_2 at some locations within the AQMA. The 2016 Progress Report (Ref 7) and monitoring results from 2015 indicated that all Air Quality Objectives were complied with and there were no exceedences of any objectives, including the NO_2 Annual Mean AQO. However, the 2017 report confirms that during 2016 exceedences of the NO_2 Annual Mean AQO within the AQMA were recorded at two locations. There were no other exceedences of any other AQO noted throughout the County.

East Lothian Council continued to developed and, in February 2017, published an AQAP to outline the measures to be taken to ensure compliance with the Objectives (Ref 8).

A summary of all previous Review and Assessment Reports is provided in Appendix E.

Actions to Improve Air Quality

Results of monitoring for the 12-month period from 01/01/16 to 31/12/16 indicate exceedences of the NO_2 Annual Mean AQO at two locations in Musselburgh. East Lothian Council published the Musselburgh Air Quality Action Plan (Ref 8) in February 2017. The AQAP outlines 13 measures to be implemented to improve air quality within the AQMA and throughout the County in general. One of these measures was to launch an Eco Stars Fleet Recognition Scheme which will assist in both reducing overall emissions to the local environment and educate fleet operators to the benefits to be gained from, and links between, environmentally friendly fleet operation and commercial efficiencies for their businesses. This scheme was launched in February 2017 to coincide with the publication of the AQAP.

Local Priorities and Challenges

Some of the mitigation measures outlined in the AQAP are likely to be very challenging (both financially and technically) to implement. In particular the development and implementation of the Local Transport Strategy in conjunction with the Local Development Plan will be key to managing air quality. The proposed transport mitigation measures set out in the LDP are anticipated to help improve Air Quality within the Musselburgh AQMA.

How to Get Involved

Further information on Air Quality within East Lothian, including access to annual air quality reports, can be obtained from the Councils website at:

http://www.eastlothian.gov.uk/info/1231/environmental_health/1583/air_quality_in_east_lothian

Information on local and national Air Quality, including access to real-time data and maps can be obtained from the Air Quality in Scotland website at:

http://www.scottishairquality.co.uk/

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1. Local Air Quality Management

This report provides an overview of air quality in East Lothian during 2016. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) (Ref 9) and the relevant Policy Guidance (Ref 10) and Technical Guidance (Ref 11) documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives. This Annual Progress Report (APR) is summarises the work being undertaken by East Lothian Council to improve air quality and any progress that has been made.

Table 1.1 – Summary of Air Quality Objectives in Scotland

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

2. Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority must prepare an Air Quality Action Plan (AQAP) within 12 months, setting out measures it intends to put in place in pursuit of the objectives.

A summary of AQMAs declared by East Lothian Council can be found in Table 2.1. Further information related to declared or revoked AQMAs, including maps of AQMA boundaries are available online at https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=368

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Pollutants and Air Quality Objectives	City / Town	Description	Action Plan
High Street, Musselburgh	NO_2 annual mean	Musselburgh	High Street, Musselburgh (A199) from its junction with Newbigging and extending westwards to the junction with Bridge Street and Mall Avenue	http://www.eastlothian.gov.uk/downloads/download/2437/air_quality_action_plan

2.2 Progress and Impact of Measures to address Air Quality in East Lothian

East Lothian Council has taken forward a number of measures in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. More detail on these measures can be found in the air quality Action Plan (Ref 8). Key completed measures are:

- **Eco Stars Fleet Recognition Scheme (Measure No 6)** – East Lothian Council secured funding from the Scottish Government and, in February 2017, formally launched an Eco Stars Fleet Recognition Scheme within East Lothian. The scheme provides recognition for best operational practices and guidance for making improvements to fleet operators with the ultimate aim of reducing fuel consumption and reduced emissions. The Council's own fleet, together with Commercial Fleet Operators will be encouraged to engage with

the scheme which will have a positive impact on emissions, including within the AQMA in Musselburgh High Street. The scheme currently has 59 members and will be continued through 2017/18 when it is anticipated membership numbers will increase further.

- **SCOOT Traffic Management System (Measure No 7)** – East Lothian Council have made a budgetary commitment this year to examine the Urban Traffic Control (UTC) system in Musselburgh which comprises SCOOT. ELC Road Services will be discussing appropriate solutions with City of Edinburgh Council, who manage the SCOOT system on behalf of East Lothian Council, and prepare an action plan based on LDP triggers and vehicle growth going forward.

- **The East Central Scotland Vehicle Emissions Partnership (Measure No 10)** – East Lothian Council work in partnership with Midlothian, West Lothian and Falkirk Councils aimed at raising awareness of vehicle emissions and impacts on air quality amongst the general public. The partnership also investigates complaints of idling and provides an educational element to increasing awareness of air quality impacts from road traffic.

  In Spring 2017 the partnership were the first in Scotland to use NASA technology to monitor vehicle emissions. They have undertaken a pilot scheme using state-of the-art remote Emissions Detecting and Reporting (EDAR) technology in sites in Edinburgh and Broxburn in West Lothian and are assisting with set up in Coatbridge in North Lanarkshire. EDAR uses satellite and laser technology to give a true picture of vehicle emissions, as well as recording license plate, speed, acceleration and temperature of the exhaust. Information recorded during the pilot will be shared between the local authorities involved, and Scottish Government agencies such as Transport Scotland and SEPA.

  Further information on the work of the Partnership can be obtained at the following link: http://switchoffandbreathe.org/about/

- **Provision of Information regarding Air Quality and Travel Options (Measure No 13)** – Information on Air Quality within East Lothian, including access to annual air quality reports, can be obtained from the Councils website at: http://www.eastlothian.gov.uk/info/1231/environmental_health/1583/air_quality_in_east_lothian

East Lothian Council expects the following measures to be completed over the course of the next reporting year or in the longer term:

- **Improving Links with Local Transport Strategy (Measure No 1)** - The development of the Local Transport Strategy was deferred because of the delay in determining the exact nature of the interventions associated with the LDP. To identify these interventions SIAS have been commissioned to build a micro-simulation (S-paramics) model of the strategic and local road network to form a 2012 base and predict cumulative traffic impacts on the strategic and local road network having regard to future development of the preferred sites identified in the LDP. The micro-simulation traffic modelling work is now complete and ELC will be consulting on the LTS in conjunction with its Strategic environmental assessment.
- **Improving Links with Local Development Plan (Measure No 2)** - The proposed LDP was submitted to Scottish Ministers for Examination in Public in May 2017. It contains transport mitigation measures that are intended to manage through traffic within Musselburgh town centre, including within the AQMA. Future traffic growth is anticipated to arise as a result of growth from existing users of the transport network and form committed developments (i.e. development that already has planning permission) as well as from new planned and uncommitted development across East Lothian. The proposed transport mitigation measures set out in the LDP are anticipated to help improve Air Quality within the Musselburgh AQMA. The LDP is also intended to be accompanied statutory Supplementary Guidance: Developer contributions Framework that will seek developer contributions towards the delivery of these interventions. The outcome of the Examination in Public of the proposed LDP is anticipated in February 2018, following which the LDP

and Developer Contributions Framework (modified if necessary and as appropriate) can be adopted by the Council.

- **Bus Stop Relocations on High Street, Musselburgh (Measure No 3)** – The local network Musselburgh town centre mitigations tested within the Musselburgh and Tranent Traffic Model (MTTM) for the High Street are:
  - Adjusting the eastbound lane arrangement for Mall Avenue at the A199 High Street/ Bridge Street junction.
  - Consolidation of pedestrian crossings between Bridge Street and Kilwinning Street.
  - Moving westbound bus lay-by into car parking spaces and further back from the Bridge Street junction to remove the traffic obstruction on the High Street.
  - Extending the eastbound bus lay-by to remove bus dwell obstruction on the High Street before Shorthope Street
  - Adding a bus lay-by westbound on the A199 Linkfield road opposite Loretto School
  - A right turn on the High Street for Kilwinning street.

  The timing of all of this is unknown at this time but the package of measures are required as well as new signalised junctions and re-signalisation of junctions. East Lothian Council Road Services are currently bidding for match funding to move forward active travel and future proof Musselburgh and these considerations will have to be taken into account.

- **Enforcement of idling provisions of the Road Traffic (Vehicle Emission) (Fixed Penalty) (Scotland) Regulations 2003 (Measure No 4)** – East Lothian Council Road Services are in discussions with NSL Ltd, who provide the Parking Attendant Service within the County, and are exploring the technicalities of them taking on this role.

- **Longer Trains and platforms at Musselburgh Rail Station (Measure No 8)** – Developer contributions are being collected through the planning process and individual agreements entered into with Network Rail. Longer platforms are required because longer train sets are needed to accommodate the predicted increased patronage. The platforms are only needed close to full

build out of all committed and LDP allocations. It is unlikely this will be delivered until CP7. (2024-2029)

- **AQMA Signage (Measure No 9)** – East Lothian Council are exploring the nature and content of any signage to advise drivers, and others, that an AQMA is in operation.
- **Development of Green Travel Plans (Measure No 11) and Promotion of Cycling and Walking (Measure 12) –** The Smarter Choices, Smarter Places (SCSP) Programme is a Paths for All grant scheme to support behaviour change initiatives to increase active and sustainable travel. The programme is funded through Transport Scotland (Sustainable Transport team) and aims to make walking and cycling a mode of choice for short local journeys in our towns, cities and villages. It also encourages other forms of sustainable choices such as public transport use and car share. This will help to cut Scotland's carbon emissions and improve our air quality. It will help reverse the trend towards sedentary lifestyles and will tackle health inequalities. ELC obtained funding through the scheme to develop a Green Travel Plan for East Lothian Council. ELC commissioned Anson Consultants in 2016 to assess demand, employee travel choices, and barriers and prepare a report with recommendations. This has been completed subject to a final review and should be adopted by Council by 2018.

No progress has been made on the following measure:

- **Electrification of Lothian Buses in Musselburgh (Measure No 5)** – Due to a lack of commitment from relevant stakeholders regarding funding this project may not be taken forward although further funding may become available to allow this to be taken forward.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
1	Improving Links with Local Transport Strategy	Transport planning and infrastructure	The development of the Local Transport Strategy was deferred because of the delay in determining the exact nature of the interventions associated with the LDP. To identify these interventions SIAS have been commissioned to build a micro-simulation (S-paramics) model of the strategic and local road network to form a 2012 base and predict cumulative traffic impacts on the strategic and local road network having regard to future development of the preferred sites identified in the LDP.	ELC Road Services					The micro-simulation traffic modelling work is now complete and ELC will be consulting on the LTS in conjunction with its Strategic environmental assessment.	February 2018	

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
2	Improving Links with Local Development Plan	Policy Guidance and Development Control	The proposed LDP contains transport mitigation measures that are intended to manage through traffic within Musselburgh town centre, including within the AQMA. Future traffic growth is anticipated to arise as a result of growth from existing users of the transport network and form committed developments (i.e. development that already has planning permission) as well as from new planned and uncommitted development across East Lothian. The proposed transport mitigation measures set out in the LDP are anticipated to help improve Air Quality within the Musselburgh AQMA.	ELC Planning Service					The LDP is also intended to be accompanied by statutory Supplementary Guidance: Developer contributions Framework that will seek developer contributions towards the delivery of proposed transport mitigation measures. The outcome of the Examination in Public of the proposed LDP is anticipated in February 2018, following which the LDP and Developer Contributions Framework (modified if necessary and as appropriate) can be adopted by the Council.	February 2018	

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
3	Bus Stop Relocations on High Street, Musselburgh	Traffic Management	To improve the flow of traffic within the AQMA and reduce congestion.	ELC Road Services					Various mitigation measures tested within the Musselburgh and Tranent Traffic Model (MTTM) for the High Street as well as new signalised junctions and re-signalisation of junctions will be required. East Lothian Council Road Services are currently bidding for match funding to move forward active travel and future proof Musselburgh and these considerations will have to be taken into account.	2019	
4	Enforcement of idling provisions of the Road Traffic (Vehicle Emission) (Fixed Penalty) (Scotland) Regulations 2003	Traffic Management	Prevention of unnecessary pollution from stationary vehicles within the AQMA and other busy town centres within the County.	ELC Road Services					East Lothian Council Road Services are in discussions with NSL Ltd, who provide the Parking Attendant Service within the County, and are exploring the technicalities of them taking on this role.	2018	

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
5	Electrification of Lothian Buses in Musselburgh	Promoting Low Emission Transport	Minimisation of pollution within AQMA by providing electric charging facility to allow buses to switch to electric operation.	ELC Transport Services, Lothian Buses					Due to a lack of commitment from relevant stakeholders regarding funding this project may not be taken forward although further funding may become available to allow this to be taken forward.	Unknown	
6	Eco Stars Fleet Recognition Scheme	Vehicle Fleet Efficiency	The scheme provides recognition for best operational practices and guidance for making improvements to fleet operators with the ultimate aim of reducing fuel consumption and reduced emissions.	ELC Env Health					The scheme was formally launched in February 2017 and currently has 59 members and will be continued through 2017/18 when it is anticipated membership numbers will increase further.	Ongoing	

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
7	SCOOT Traffic Management System	Traffic Management	SCOOT is a system of Urban Traffic Control and monitors queue lengths at all junctions on the main arterial routes and alters signal timing to suit. This is monitored every 120 seconds and although monitored by East Lothian Council is controlled by the City of Edinburgh Council through their Traffic Control Room	ELC Road Services					East Lothian Council have made a budgetary commitment this year to examine the Urban Traffic Control (UTC) system in Musselburgh which comprises SCOOT. ELC Road Services will be discussing appropriate solutions with City of Edinburgh Council, who manage the SCOOT system on behalf of East Lothian Council, and prepare an action plan based on LDP triggers and vehicle growth going forward.	2018	
8	Longer Trains and platforms at Musselburgh Rail Station	Transport planning and infrastructure	Provision of infrastructure to provide alternative mode of transport	ELC Road Services					Developer contributions are being collected through the planning process and individual agreements entered into with Network Rail. Longer platforms are required because longer train sets are needed to accommodate the predicted increased patronage. The platforms are only needed close to full build out of all committed and LDP allocations.)	It is unlikely this will be delivered until CP7. (2024-2029)	

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
9	AQMA Signage	Public Information	Increase awareness of Air Quality	ELC Env Health					East Lothian Council are exploring the nature and content of any signage to advise drivers, and others, that an AQMA is in operation.	2018	

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
10	The East Central Scotland Vehicle Emissions Partnership	Public Information	East Lothian Council work in partnership with Midlothian, West Lothian and Falkirk Councils aimed at raising awareness of vehicle emissions and impacts on air quality amongst the general public. The partnership also investigates complaints of idling and provides an educational element to increasing awareness of air quality impacts from road traffic	Vehicle Emissions Officer, East Central Scotland Vehicle Emissions Partnership at West Lothian Council		2003			In Spring 2017 the partnership were the first in Scotland to use NASA technology to monitor vehicle emissions. They have undertaken a pilot scheme using state-of the-art remote Emissions Detecting and Reporting (EDAR) technology in sites in Edinburgh and Broxburn in West Lothian and are assisting with set up in Coatbridge in North Lanarkshire. EDAR uses satellite and laser technology to give a true picture of vehicle emissions, as well as recording license plate, speed, acceleration and temperature of the exhaust. Information recorded during the pilot will be shared between the local authorities involved, and Scottish Government agencies such as Transport Scotland and SEPA.	Ongoing	

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
11	Development of Green Travel Plans	Promoting Travel Alternatives	The Smarter Choices, Smarter Places (SCSP) Programme is a Paths for All grant scheme to support behaviour change initiatives to increase active and sustainable travel. The programme is funded through Transport Scotland (Sustainable Transport team) and aims to make walking and cycling a mode of choice for short local journeys in our towns, cities and villages. It also encourages other forms of sustainable choices such as public transport use and car share. This will help to cut Scotland's carbon emissions and improve our air quality. It will help reverse the trend towards sedentary lifestyles and will tackle health inequalities.	ELC Road Services					ELC obtained funding through the scheme to develop a Green Travel Plan for East Lothian Council. ELC commissioned Anson Consultants in 2016 to assess demand, employee travel choices, and barriers and prepare a report with recommendations. This has been completed subject to a final review and should be adopted by Council by 2018	2018	

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
12	Promotion of cycling and walking	Promoting Travel Alternatives	The Smarter Choices, Smarter Places (SCSP) Programme is a Paths for All grant scheme to support behaviour change initiatives to increase active and sustainable travel. The programme is funded through Transport Scotland (Sustainable Transport team) and aims to make walking and cycling a mode of choice for short local journeys in our towns, cities and villages. It also encourages other forms of sustainable choices such as public transport use and car share. This will help to cut Scotland's carbon emissions and improve our air quality. It will help reverse the trend towards sedentary lifestyles and will tackle health inequalities.	ELC Road Services					ELC obtained funding through the scheme to develop a Green Travel Plan for East Lothian Council. ELC commissioned Anson Consultants in 2016 to assess demand, employee travel choices, and barriers and prepare a report with recommendations. This has been completed subject to a final review and should be adopted by Council by 2018	2018	
13	Provision of Information regarding Air Quality and Travel Options	Public Information	Increase awareness of Air Quality and alternative modes of transport and travel options	ELC Env Health ELC Road Services					Information on Air Quality within East Lothian, including access to annual air quality reports, can be obtained from the Councils website.	2018	

2.3 Cleaner Air for Scotland

Cleaner Air for Scotland – The Road to a Healthier Future (CAFS) is a national cross-government strategy that sets out how the Scottish Government and its partner organisations propose to reduce air pollution further to protect human health and fulfil Scotland's legal responsibilities as soon as possible. A series of actions across a range of policy areas are outlined, a summary of which is available at http://www.gov.scot/Publications/2015/11/5671/17. Progress by East Lothian Council against relevant actions within this strategy is demonstrated below.

2.3.1 Transport – Avoiding travel – T1

A key aspiration of the Local Transport Strategy is to encourage a shift from private car to active and sustainable transport modes. To support the development of this Strategy, a cross-departmental officer group has been working together within East Lothian Council to develop an Active Travel Improvement Plan, which is being developed as part of the LTS. Furthermore, The Smarter Choices, Smarter Places (SCSP) Programme is a Paths for All grant scheme to support behaviour change initiatives to increase active and sustainable travel. The programme is funded through Transport Scotland (Sustainable Transport team) and aims to make walking and cycling a mode of choice for short local journeys in our towns, cities and villages. It also encourages other forms of sustainable choices such as public transport use and car share. This will help to cut Scotland's carbon emissions and improve our air quality. It will help reverse the trend towards sedentary lifestyles and will tackle health inequalities. ELC obtained funding through the scheme to develop a Green Travel Plan for East Lothian Council. ELC commissioned Anson Consultants in 2016 to assess demand, employee travel choices, and barriers and prepare a report with recommendations. This has been completed subject to a final review and should be adopted by Council by 2018.

2.3.2 Climate Change – Effective co-ordination of climate change and air quality policies to deliver co-benefits – CC2

Scottish Government expects any Scottish local authority which has or is currently developing a Sustainable Energy Action Plan to ensure that air quality considerations are covered. East Lothian Council will produce a Sustainable Energy and Climate Action Plan (SECAP) during 2017/18, to identify priorities and actions which contribute to the delivery of East Lothian's climate change obligations.

2.3.3 Additional Actions

One of six main objectives to be achieved across Scotland is Place making: air quality not to be compromised by new or existing developments. Section 2.3.1 of the AQAP (Ref 8) refers. Furthermore, the National Transport Strategy for Scotland was updated in January 2016 and introduced 3 key strategic outcomes, one of which was to reduce emissions to tackle climate change. Another key outcome aims to improve journey times and connections by reducing congestion. Section 2.3.2 of the AQAP (Ref 8) refers. Other relevant regional and National strategies that impact on air quality are discussed in the AQAP (Ref 8). These include South East of Scotland Transport Partnership – SEStrans (in Section 2.3.3), East Lothian Council Local Transport Strategy (in Section 2.3.4), Strategic Development Plan for South East Scotland – SESplan (in Section 2.3.5), East Lothian Council Local Development Plan (in Section 2.3.6), Climate Change Declaration (in Section 2.3.7).

3. Air Quality Monitoring Data and Comparison with Air Quality Objectives

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

This section sets out what monitoring has taken place and how local concentrations of the main air pollutants compare with the objectives.

East Lothian Council undertook automatic (continuous) monitoring at 2 sites during 2016 Table A.1 in Appendix A shows the details of the sites. National monitoring results are available at http://www.scottishairquality.co.uk/

Maps showing the location of the monitoring sites are provided in Appendix D..

3.1.2 Non-Automatic Monitoring Sites

East Lothian Council undertook non- automatic (passive) monitoring of NO_2 at 23 sites during 2016. Table A.2 in Appendix A shows the details of the sites.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on bias adjustment for the diffusion tubes are included in Appendix B.

3.2 Individual pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for annualisation and bias. Further details on adjustments are provided in Appendix B.

3.2.1 Nitrogen Dioxide (NO_2)

Table A.3 in Appendix A compares the ratified and adjusted monitored NO_2 annual mean concentrations for the past 5 years with the air quality objective of 40µg/m^3.

For diffusion tubes, the full 2016 dataset of monthly mean values is provided in Appendix B. Details of ratified data for the automatic monitor for 2016 are provided in Appendix C. Exceedences of the Annual Mean NO_2 Objective were recorded at two locations within the AQMA, at T6 (147 High Street, Musselburgh) and T31 (69 High Street, Musselburgh) which is consistent with previous years with the exception of 2015 where no exceedences were recorded at any locations and results were generally lower throughout the County. The Objective was close to being exceeded at T11 (89 High Street, Tranent). However, this was most likely due to road works within the vicinity of the tubes in the town during October 2016 as results for that

month in Tranent were higher than normal. It is anticipated that results for Tranent will fall back to well within the objective levels in 2017 and provisional diffusion tube results from Jan-May indicate that to be the case.

Table A.4 in Appendix A compares the ratified continuous monitored NO_2 hourly mean concentrations for the past 5 years with the air quality objective of 200µg/m^3, not to be exceeded more than 18 times per year. There were no exceedences of the hourly mean air quality objective in 2016.

Particulate Matter (PM_{10})

Table A.5 in Appendix A compares the ratified and adjusted monitored PM_{10} annual mean concentrations for the past 5 years with the air quality objective of 18µg/m^3.

Table A.6 in Appendix A compares the ratified continuous monitored PM_{10} daily mean concentrations for the past 5 years with the air quality objective of 50µg/m^3, not to be exceeded more than 7 times per year.

There were no exceedences of the annual mean or daily mean air quality objectives in 2016.

3.2.2 Particulate Matter ($PM_{2.5}$)

East Lothian Council do not currently monitor $PM_{2.5}$ and have no plans to do so in the future

3.2.3 Sulphur Dioxide (SO_2)

East Lothian Council do not currently monitor Sulphur dioxide (SO_2).

3.2.4 Carbon Monoxide, Lead and 1,3-Butadiene

East Lothian Council do not currently monitor Carbon Monoxide, Lead or 1,3-Butadiene.

4. New Local Developments

4.1 Road Traffic Sources

East Lothian Council can confirm that there are no new:

- Narrow congested streets with residential properties close to the kerb.
- Busy streets where people may spend one hour or more close to traffic.
- Roads with a high flow of buses and/or HGVs.
- Junctions.
- New roads constructed or proposed.
- Roads with significantly changed traffic flows.
- Bus or coach stations.

since the 2016 Annual Progress Report (Ref)

4.2 Other Transport Sources

East Lothian Council can confirm that there are no new:

- Airports.
- Locations where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m.
- Locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m.
- Ports for shipping.

since the 2016 Annual Progress Report (Ref)

4.3 Industrial Sources

East Lothian Council can confirm that there are no new:

- **Industrial installations:** new or proposed installations for which an air quality assessment has been carried out.
- **Industrial installations:** existing installations where emissions have increased substantially or new relevant exposure has been introduced.
- **Industrial installations:** new or significantly changed installations with no previous air quality assessment.
- Major fuel storage depots storing petrol.
- Petrol stations.
- Poultry farms.

since the 2016 Annual Progress Report (Ref)

4.4 Commercial and Domestic Sources

East Lothian Council can confirm that there are no new:

- Biomass combustion plant – individual installations.
- Areas where the combined impact of several biomass combustion sources may be relevant.
- Areas where domestic solid fuel burning may be relevant.
- Combined Heat & Power (CHP) plant.

since the 2016 Annual Progress Report (Ref)

4.5 New Developments with Fugitive or Uncontrolled Sources

East Lothian Council can confirm that there are no new:

- Landfill sites.
- Quarries.
- Unmade haulage roads on industrial sites.
- Waste transfer stations etc.
- Other potential sources of fugitive particulate emissions.

since the 2016 Annual Progress Report (Ref).

5. Planning Applications

East Lothian Council are in process of finalising the Local Development Plan (LDP) and, as part of this process, a number of preferred sites throughout the county have been identified that may be used to accommodate up to 10, 000 new homes. A number of these sites are within the Musselburgh 'cluster' area and the cumulative impacts of these developments on the AQMA will have to be taken into account when determining associated planning applications. There are also a number of preferred sites within the Tranent "cluster" area and the impacts of these developments on local air quality will also be taken into account in order to minimise the possibility of a new AQMA being declared in Tranent. Air Quality Assessments will be required on a case-by-case basis but where assessment indicates that air quality is likely to be an issue, mitigation measures will need to be identified. These could include, but not be limited to, providing new housing with infrastructure to support modes of transport with low impact on air quality (e.g. electric vehicle charging points); or financial contributions from developers towards other infrastructure that may be required to off-set impacts upon air quality (e.g. alterations to road network). Developments that result in a breach of AQOs or significant increases in pollutant concentrations within an existing AQMA will not be supported.

The LDP will seek to integrate land use and transport and minimise the need to travel as well as the distance travelled. It will do this by promoting town centres as accessible locations for a mix of land uses and services and by providing community services locally. It will help promote active travel choices and public transport as alternatives to other motorised transport.

Planning Application 16/01029/AMM, seeks approval of matters specified in conditions of planning permission in principle 06/00770/OUT for the erection of 140 flats at a site on the former Tesco Store and adjacent land at Mall Avenue, Musselburgh. This site is located in very close proximity to the western perimeter of the AQMA. Although a decision on whether or not to grant consent remains pending, it was found during the consultation period that the impacts on local air quality, including the adjacent Air Quality Management Area in Musselburgh High Street, were predicted to be of neglible significance. However, it was recommended that principles of good practice described in the Environmental Protection Scotland/Royal

Town Planning Institute Scotland guidance document “Delivering Cleaner Air for Scotland, January 2017” be incorporated into the design. It was also recommended that a formal condition be attached to any consent to ensure the development be provided with at least 1 Electric Vehicle (EV) “rapid charge” point per 10 proposed residential dwellings as per the aforementioned guidance.

6. Conclusions and Proposed Actions

6.1 Conclusions from New Monitoring Data

Monitoring for the 12-month period from 01/01/16 to 31/12/16 indicates that exceedences of the Annual Mean NO_2 Objective were recorded at two locations within the AQMA, at T6 (147 High Street, Musselburgh) and T31 (69 High Street, Musselburgh) which is consistent with previous years with the exception of 2015 where no exceedences were recorded at any locations and results were generally lower throughout the County. The Objective was also close to being exceeded at T11 (89 High Street, Tranent). However, this was most likely due to roadworks within the vicinity of the tubes in the town during October 2016 as results for that month in Tranent were higher than normal (Appendix B). It is anticipated that results for Tranent will fall back to well within the objective levels in 2017 and provisional diffusion tube results from Jan-May indicate that to be the case.

There were no exceedences of any other Air Quality Objective in 2016.

6.2 Conclusions relating to New Local Developments

A decision has yet to be taken on whether or not to grant consent for planning application 16/01029/AMM referred to in Section 5 above. However, as this is for approval of matters for an application in principle lodged in 2006 and granted consent in 2008 when there was no AQMA within East Lothian, Air Quality was not highlighted at that time as being a significant planning issue. It was only in 2013 that an AQMA was declared and Air Quality in the vicinity has only become a significant material planning consideration since 2012. However, it remains to be seen whether or not consent will be granted or recommendations on good design layout incorporating installation of Electric Vehicle (EV) charging points will be conditioned. However, an initial response from planning colleagues indicates that they are unable to impose such a condition upon approval of matters as this was not raised at the original application for Permission in Principle 11 years previously. It seems that the Development Planning system is, in itself, prohibitive to ensuring relevant good practice guidance is incorporated into development design due to the timescales that may elapse from applications for major developments being lodged for or granted approval in principle to subsequent applications for approval of matters and the significant changes that can arise with regards to local air quality in that time.

6.3 Proposed Actions

The new monitoring data has not identified any new exceedences of the objectives for any pollutant. The exceedence of the NO_2 Annual Mean Objective within the existing AQMA has been recorded at the same locations as in previous years. As such, no new additional monitoring is required at this point, although existing monitoring of NO_2 will continue throughout East Lothian, including Musselburgh, while PM10 monitoring will continue in Musselburgh. The AQMA does not require amending or revoking.

East Lothian Council shall continue to implement measures outlined within the AQAP and also develop and publish policies that supplement CAFS throughout 2017 and will report progress in the Annual Progress Report due in June 2018.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
NO_X	Musselburgh North High Street - NO_x	Roadside	333 941	672837	NO_2	N	Gas-phase chemilluminescence detection	5	3	1.5
PM_{10}	Musselburgh North High Street - BAM	Roadside	333 941	672837	PM_{10}	N	BAM	5	3	1.5

(1) 0 if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable

.

Table A.2 – Details of Non-Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube collocated with a Continuous Analyser?
T1	Musselburgh – Newbigging Junction	Roadside	334659	672720	NO_2	Y	Y (15m)	2m	N
T4	Musselburgh - 87 High St	Roadside	334526	672700	NO_2	Y	Y (15m)	4m	N
T6	Musselburgh – 147 High Street	Roadside	334392	672652	NO_2	Y	Y 20m)	3m	N
T7	Musselburgh – 183 High St	Roadside	334301	672632	NO_2	Y	Y 20m)	3m	N
T8	Musselburgh - Mall Av	Roadside	334172	672524	NO_2	N	Y (25m)	4m	N
T9	Musselburgh – 45 Bridge Street	Roadside	334105	672750	NO_2	N	Y (3m)	4m	N
T10	Musselburgh – 150 North High St	Roadside	333800	672822	NO_2	N	Y (3m)	4m	N
T11	Tranent – 89 High St	Roadside	340686	672692	NO_2	N	Y (3m)	3m	N
T12	Tranent – 82 High St	Roadside	370738	672687	NO_2	N	Y (4m)	3m	N
T13	Tranent – 55 High Street	Roadside	340608	672738	NO_2	N	Y (4m)	3m	N
T14	Tranent – 26 High St	Roadside	340570	672780	NO_2	N	Y (2m)	2m	N
T15	Tranent – 58 Bridge St	Roadside	340112	672905	NO_2	N	Y (5m)	2m	N
T16	Haddington - Lyn Lea	Urban	352249	673631	NO_2	N	Y 8m)	3m	N
T23	Musselburgh - Co-located 133 N High St	Roadside	333941	672837	NO_2	N	Y (5m)	3m	Y
T24	Musselburgh - Co-located 133 N High St	Roadside	333941	672837	NO_2	N	Y (5m)	3m	Y
T25	Musselburgh - Co-located 133 N High St	Roadside	333941	672837	NO_2	N	Y (5m)	3m	Y
T26	Wallyford - 116 Salters Rd	Roadside	336691	672055	NO_2	N	Y (5m)	2m	N
T27	Wallyford - 71 Salters Rd	Roadside	336769	672127	NO_2	N	Y (5m)	2m	N
T28	Musselburgh - 15 Bridge Street	Roadside	334164	672708	NO_2	N	Y (5m)	3m	N
T29	Musselburgh - 167 High Street	Roadside	334354	672643	NO_2	Y	Y (5m)	3m	N
T30	Musselburgh - 137 High Street	Roadside	334427	672664	NO_2	Y	Y (5m)	3m	N
T31	Musselburgh - 69 High Street	Roadside	334580	672713	NO_2	Y	Y (5m)	3m	N
T32	Musselburgh - 86 High Street	Roadside	334578	672695	NO_2	Y	Y (5m)	3m	N

(1) 0 if the monitoring site is at a location of exposure (e.g. installed on/adjacent to the façade of a residential property).

(2) N/A if not applicable.

Table A.3 – Annual Mean NO_2 Monitoring Results 2012 - 2016

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2016 (%) (2)	NO_2 Annual Mean Concentration (µg/m^3)				
					2012	2013	2014	2015	2016
NO_x	Roadside	Automatic	96	94	24	24	23	22	25
T1	Roadside	Passive Diffusion Tube	100	100	30	30	30	27	29
T4	Roadside	Passive Diffusion Tube	91.7	91.7	25	25	25	25	25
T6	Roadside	Passive Diffusion Tube	100	100	**43**	**42**	**43**	36	**40**
T7	Roadside	Passive Diffusion Tube	100	100	39	37	38	33	39
T8	Roadside	Passive Diffusion Tube	100	100	24	24	23	21	24
T9	Roadside	Passive Diffusion Tube	100	100	27	26	28	24	28
T10	Roadside	Passive Diffusion Tube	100	100	33	34	34	31	34
T11	Roadside	Passive Diffusion Tube	100	100	30	32	33	31	39
T12	Roadside	Passive Diffusion Tube	100	100	28	28	25	24	29
T13	Roadside	Passive Diffusion Tube	100	100	28	28	29	27	30
T14	Roadside	Passive Diffusion Tube	91.7	91.7	26	24	24	21	25
T15	Roadside	Passive Diffusion Tube	100	100	19	19	17	16	20
T16	Urban	Passive Diffusion Tube	100	100	8	8	8	8	9
T23	Roadside	Passive Diffusion Tube	100	100	24	23	23	22	24
T24	Roadside	Passive Diffusion Tube	100	100	25	24	22	22	25
T25	Roadside	Passive Diffusion Tube	100	100	26	24	23	22	26
T26	Roadside	Passive Diffusion Tube	91.7	91.7	23	23	24	21	25
T27	Roadside	Passive Diffusion Tube	100	100	23	24	22	21	26
T28	Roadside	Passive Diffusion Tube	100	100	29	26	26	23	28
T29	Roadside	Passive Diffusion Tube	91.7	91.7	**42**	38	39	32	39
T30	Roadside	Passive Diffusion Tube	100	100	34	30	32	27	31
T31	Roadside	Passive Diffusion Tube	100	100	**47**	**43**	**44**	35	**43**
T32	Roadside	Passive Diffusion Tube	100	100	32	34	37	30	33

Notes: Exceedences of the NO_2 annual mean objective of 40µg/m3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedence of the NO_2 1-hour mean objective are shown in **bold and underlined.**

(1) data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.4 – 1-Hour Mean NO_2 Monitoring Results 2012 – 2016

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2015 (%) (2)	NO_2 1-Hour Means > 200µg/m^3 (3)				
					2012	2013	2014	2015	2016
NO_X	Roadside	Automatic	94	94	0	0 (101)	0 (78)	0 (75)	0

Notes: Exceedences of the NO_2 1-hour mean objective (200µg/m^3 not to be exceeded more than 18 times/year) are shown in **bold.**

(1) data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

Table A.5 – Annual Mean PM_{10} Monitoring Results 2012 - 2016

Site ID	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2015 (%) (2)	PM_{10} Annual Mean Concentration (µg/m^3)				
				2012	2013	2014	2015	2016
PM_{10}	Roadside	90.5	90.5	12	16	17	12	10

Notes: Exceedences of the PM_{10} annual mean objective of 18µg/m^3 are shown in **bold.**

(1) data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) All means have been "annualised" as per LAQM.TG(16), valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Table A.6 – 24-Hour Mean PM_{10} Monitoring Results

Site ID	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2015 (%) (2)	PM_{10} 24-Hour Means > 50µg/m^3 (3)				
				2012	2013	2014	2015	2016
PM_{10}	Roadside			0	2 (32)	3	1	0

Notes: Exceedences of the PM_{10} 24-hour mean objective (50µg/m^3 not to be exceeded more than 7 times/year) are shown in **bold.**

(1) data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) If the period of valid data is less than 85%, the 90.4th percentile of 24-hour means is provided in brackets.

Appendix B: Full Monthly Diffusion Tube Results for 2016

Table B.1 – NO_2 Monthly Diffusion Tube Results for 2016

Site ID	Location	01/01/16 – 31/12/16												AVERAGE	Data Capture %	BIAS ADJUSTED (0.95 local)(1)
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
T1	Musselburgh – Newbigging Junction	34	31	30	29	24	23	28	30	33	30	32	39	30	100	29
T4	Musselburgh - 87 High St	36	35	25	MISSING	23	19	20	21	23	23	32	35	27	91.7	25
T6	Musselburgh – 147 High Street	43	44	41	52	47	46	33	45	38	42	32	40	**42**	100	**40**
T7	Musselburgh – 183 High St	42	38	40	47	52	50	31	34	35	36	45	39	**41**	100	39
T8	Musselburgh - Mall Av	29	27	23	25	28	21	21	21	23	24	30	32	25	100	24
T9	Musselburgh – 45 Bridge Street	34	29	31	35	33	30	20	26	27	36	33	23	30	100	28
T10	Musselburgh – 150 North High St	48	38	30	33	30	24	33	31	34	31	52	45	36	100	34
T11	Tranent – 89 High St	32	44	41	36	32	33	32	38	37	75	46	44	**41**	100	39
T12	Tranent – 82 High St	29	32	28	34	37	39	17	25	21	61	27	21	31	100	29
T13	Tranent – 55 High Street	38	38	28	36	31	27	23	28	27	30	37	33	31	100	30
T14	Tranent – 26 High St	31	24	24	29	30	MISSING	14	25	17	38	30	22	26	91.7	25
T15	Tranent – 58 Bridge St	23	30	21	17	19	19	17	16	20	19	23	23	21	100	20
T16	Haddington - Lyn Lea	14	15	10	9	8	7	5	5	6	7	14	10	9	100	9
T23	Musselburgh - 133 N High St(1)	26	28	25	30	28	28	18	23	21	24	29	29	25	100	24
T24	Musselburgh - 133 N High St(1)	29	29	25	27	27	29	20	21	23	24	35	27	26	100	25
T25	Musselburgh - 133 N High St(1)	32	27	27	31	30	28	17	22	22	23	35	31	27	100	26
T26	Wallyford - 116 Salters Rd	26	27	28	31	27	28	23	10	28	26	40	MISSING	27	91.7	25
T27	Wallyford - 71 Salters Rd	35	26	30	25	29	25	22	20	19	26	40	30	27	100	26
*T28	Musselburgh - 15 Bridge Street	31	29	29	34	32	35	18	26	28	31	36	22	29	100	28
*T29	Musselburgh - 167 High Street	42	45	40	50	49	50	29	MISSING	36	35	48	30	**41**	91.7	39
*T30	Musselburgh - 137 High Street	28	34	34	33	37	39	26	27	25	28	41	38	33	100	31
*T31	Musselburgh - 69 High Street	49	43	47	50	53	52	38	44	38	39	44	40	**45**	100	**43**
*T32	Musselburgh - 86 High Street	52	42	20	39	32	30	29	26	27	33	42	39	34	100	33

Three of the diffusion tubes are co-located with the continuous analyser on Musselburgh North High Street (Tube Numbers T23, T24 and T25). The bias adjustment factor has been calculated from the comparison of the diffusion tubes and continuous analyser measurements during the monitoring period. The average for the co-located tubes was 26.3 μg/m^3. The average for the continuous analyser was 25 μg/m^3. This provided a diffusion tube bias adjustment factor of 0.95.

Method	Average for period (μg/m^3)
Analyser	25
Tubes	26.3
BIAS ADJUSTMENT	**0.95**

Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

Air Pollution Report

1st January to 31st December 2016

Air Quality in Scotland

East Lothian Musselburgh N High St (Site ID: MUSS)

Note: These data are provisional

Only relevant statistics for LAQM are presented in the table. Cells with - indicate no data available or calculated.

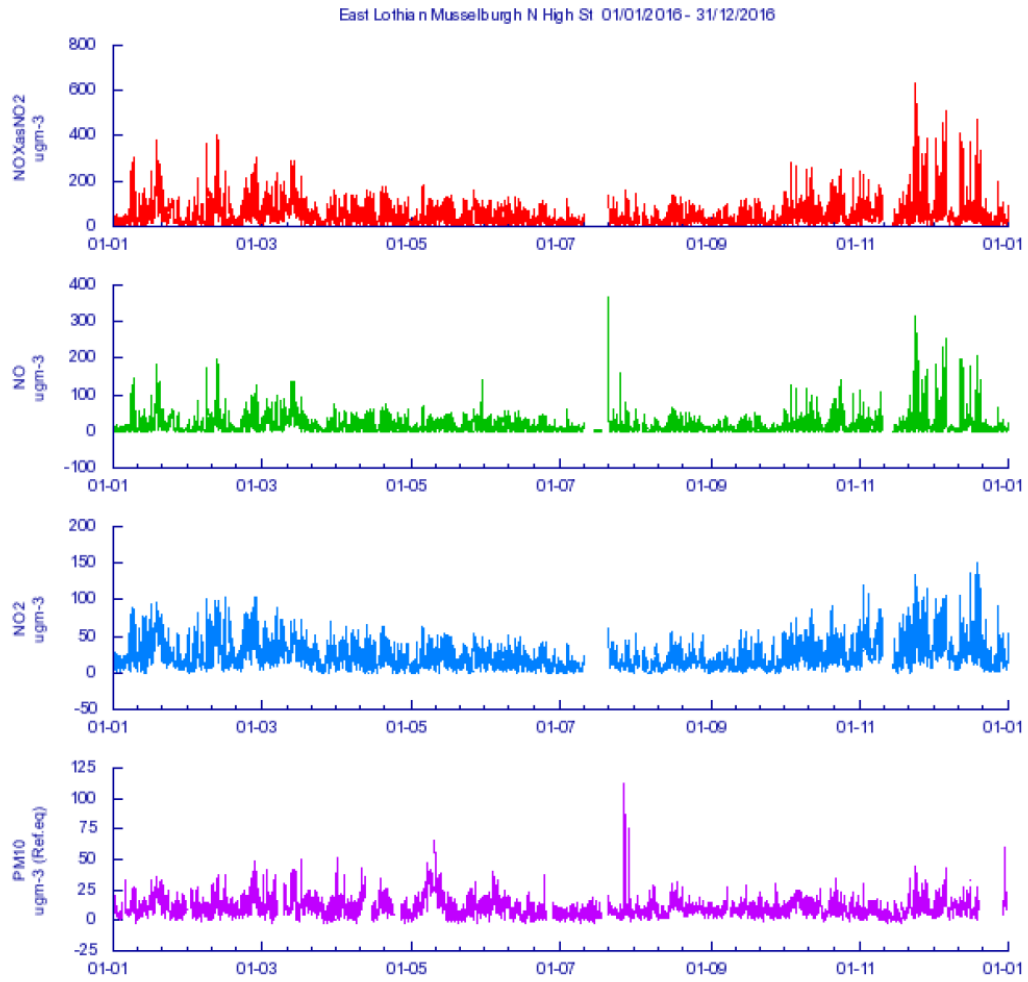
Pollutant	NO µg/m³	NO_2 µg/m³	NO_x as NO_2 µg/m³	PM_{10} µg/m³
Number Days Low	-	353	-	328
Number Days Moderate	-	0	-	0
Number Days High	-	0	-	0
Number Days Very High	-	0	-	0
Max Daily Mean	137	80	292	34
Annual Max	369	152	630	112
Annual Mean	18	25	54	10
98th Percentile of daily mean	-	-	-	25
90th Percentile of daily mean	-	-	-	17
99.8th Percentile of hourly mean	-	114	-	-
98th Percentile of hourly mean	87	79	211	32
95th Percentile of hourly mean	57	64	147	25
50th Percentile of hourly mean	10	20	37	8
% Annual data capture	**94.89%**	**93.94%**	**93.94%**	**90.57%**

All gaseous pollutant mass units are at 20°C and 1013mb. Particulate matter concentrations are reported at ambient temperature and pressure. NO_X mass units are NO_X as NO_2 µg m-3

Note: For a strict comparison against the objectives there must be a data capture of 85% or greater throughout the calendar year.

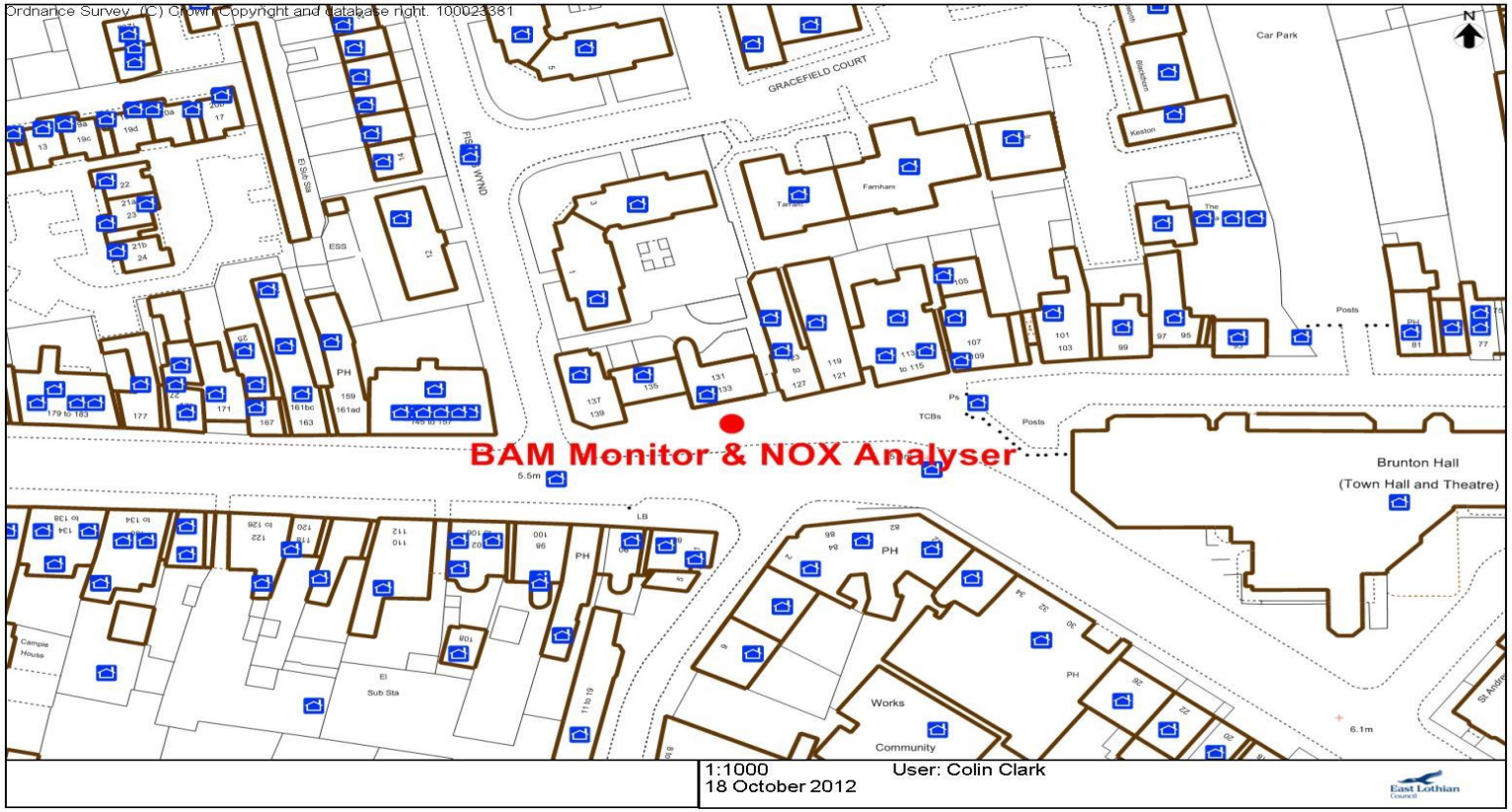
Pollutant	Air Quality Standards (Scotland) Regulations 2010	Exceedances	Days
PM10 particulate matter (Hourly measured)	daily mean > 50 microgrammes per metre cubed	0	0
PM10 particulate matter (Hourly measured)	Annual mean > 18 microgrammes per metre cubed	0	-
Nitrogen dioxide	Hourly Mean > 200 microgrammes per metre cubed	0	0
Nitrogen dioxide	Annual Mean > 40 microgrammes per metre cubed	0	-

Annual Graph

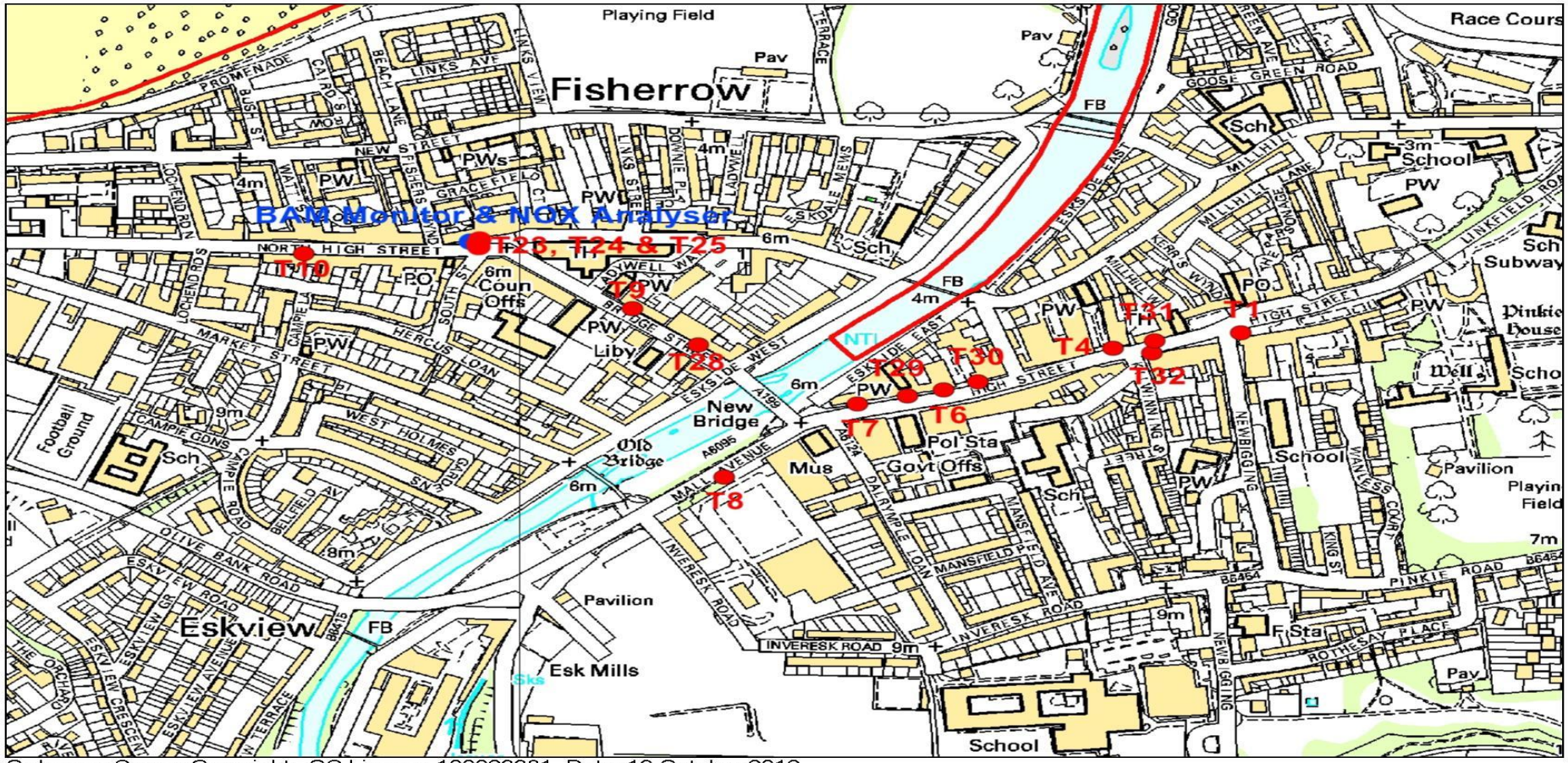


Appendix D: Maps of monitoring locations

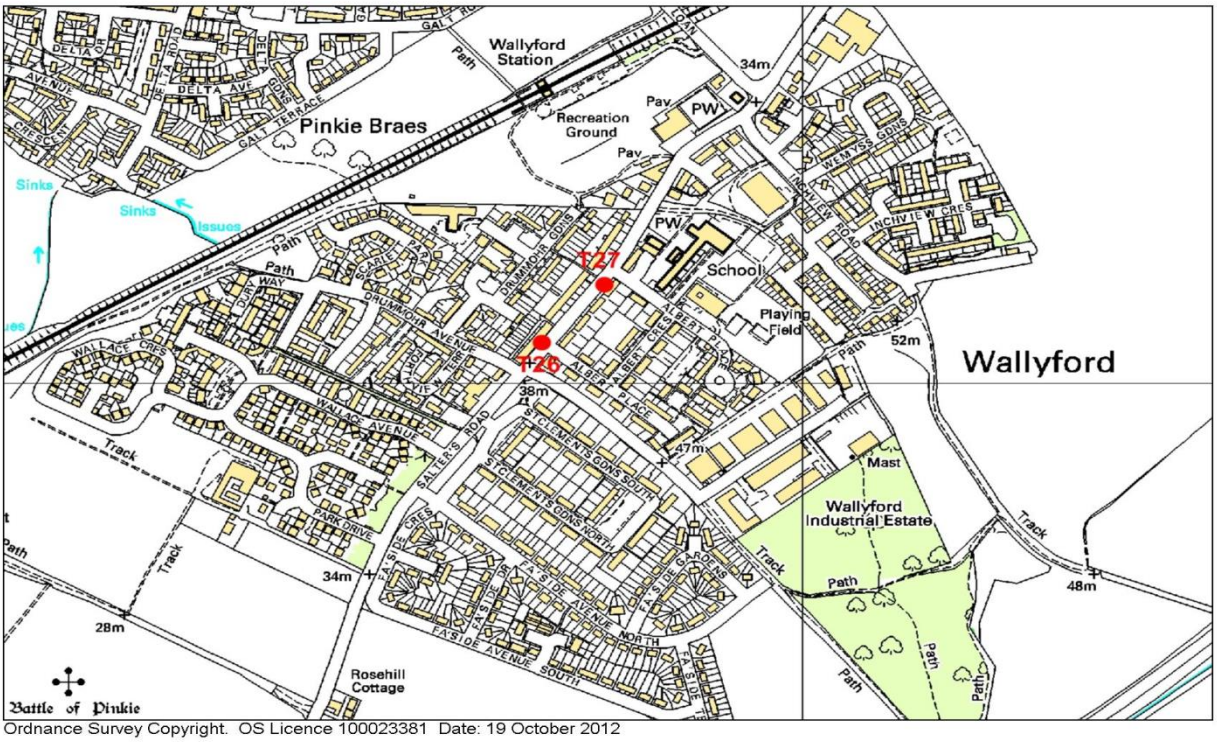
Map of Automatic Monitoring Site in Musselburgh



Map of Non-Automatic Monitoring Sites in Musselburgh



Map of Non-Automatic Monitoring Sites in Wallyford



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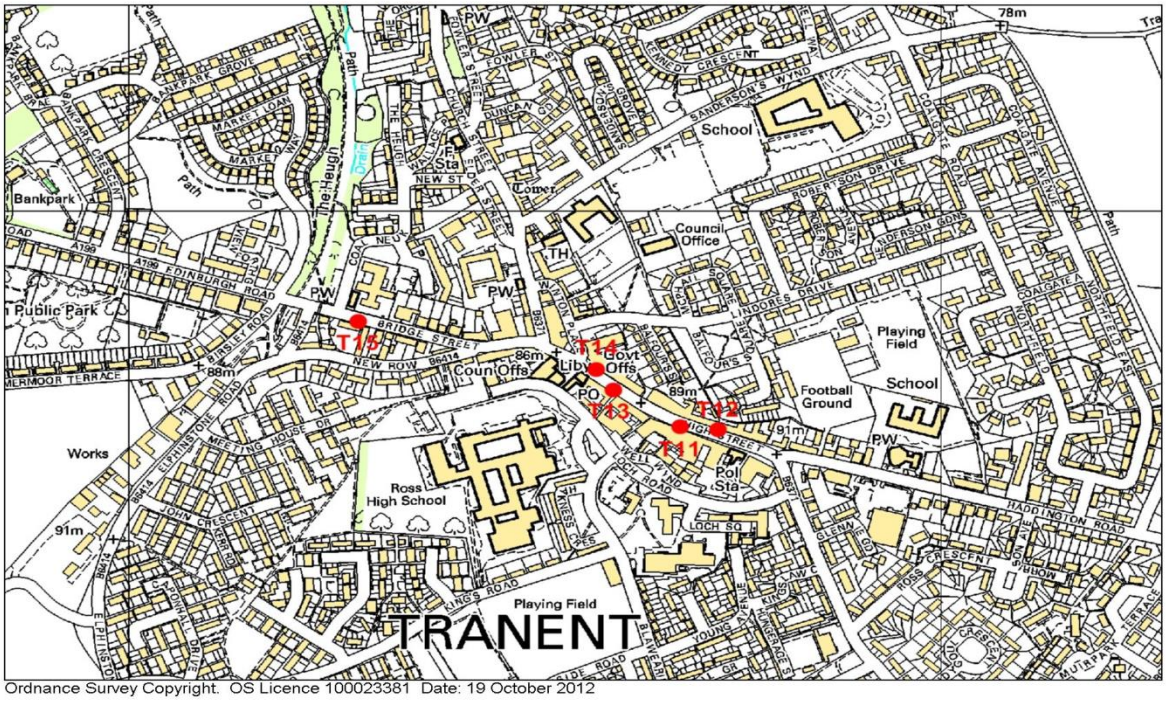
Map of Non-Automatic Monitoring Sites in Tranent



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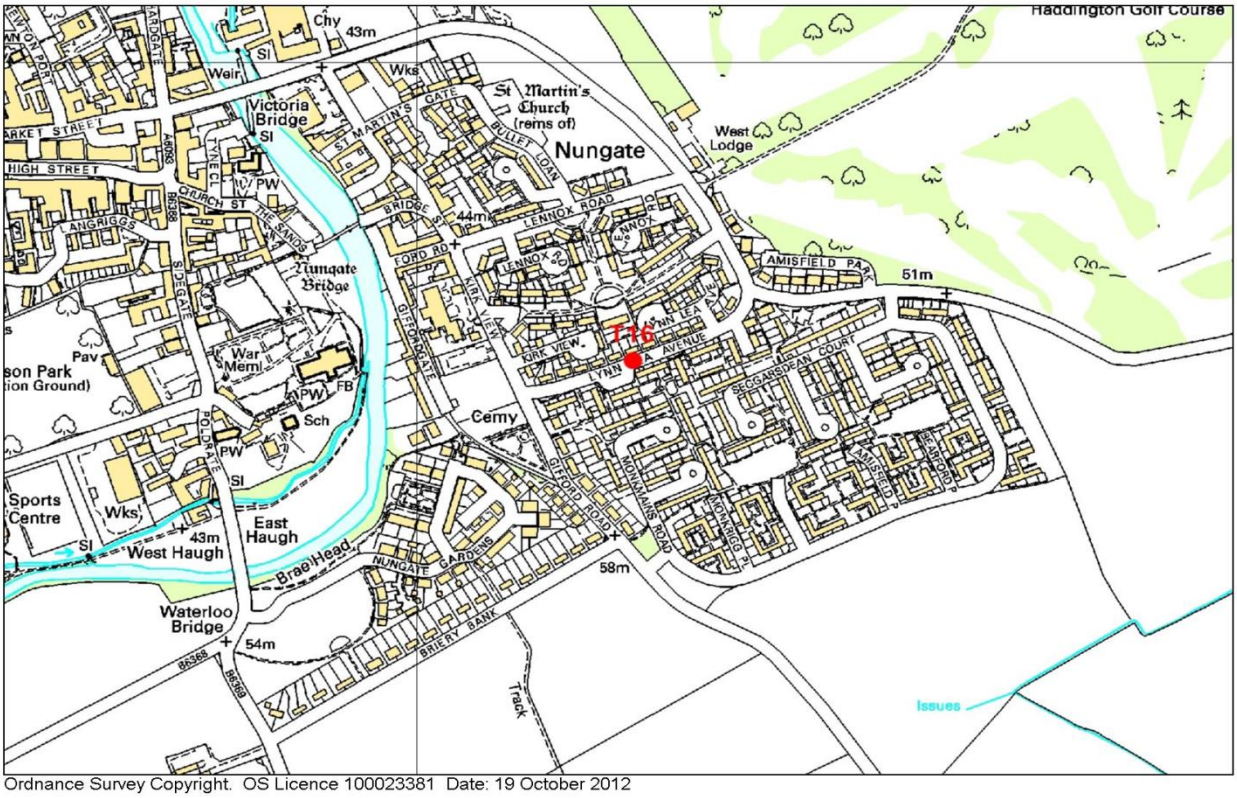
Map of Non-Automatic Monitoring Sites in Haddington



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Appendix E: Summary of Previous Rounds of Review and Assessment

Summary of Previous Review and Assessment Reports				
ROUND	**REPORT TYPE**	**REPORT DUE DATE**	**REPORT COMPLETION DATE**	**CONCLUSIONS**
2	**Updating & Screening Assessment**	**April 2003**	March 2004	No further assessments required for **Carbon Monoxide, Benzene, Lead and 1,3-Butadiene**. Detailed Assessments required for: **Nitrogen Dioxide** due to road traffic sources in Musselburgh High St **Sulphur Dioxide** due to industrial sources (Cockenzie Power Station and Lafarge Cement Works) **PM10** due to road traffic sources in Musselburgh High St and North High St and also due to industrial source (Cockenzie Power Station)
2-1	**Detailed Assessment**	**April 2004**	**April 2005**	**Nitrogen Dioxide** due to road traffic in Musselburgh High St expected to meet Objectives by target year of 2005. No Further Assessment required at this time. **Sulphur Dioxide** in vicinity of Cockenzie Power Station was not forecast to exceed Objectives. 15-minute mean Objective forecast to be slightly exceeded in vicinity of Lafarge Cement Works, although abatement equipment to be installed should ensure that Objective will be met. No further assessments required at this time. PM10 **Annual Mean Objective forecast to be exceeded in Musselburgh High St due to roadwork's and Cockenzie due to emissions from Coal Plant at Cockenzie Power Station. However, results were based on Osiris monitoring system and use of correction factors. Further Assessments to be carried out by East Lothian Council using TEOM Analyser for road traffic sources in Musselburgh and by SEPA using Gravimetric Sampler for industrial source in Cockenzie.**
2-2	**Progress Report**	**April 2005**	**August 2005**	**Nitrogen Dioxide** levels due to road traffic sources continue to comply with Objectives within Musselburgh and throughout East Lothian. PM10 **Further Assessments due to road traffic sources in Musselburgh and industrial source in Cockenzie still to be completed and results to be incorporated in Updating and Screening Assessment Report due in April 2006.**
3	**Updating & Screening Assessment**	**April 2006**	**August 2006**	No exceedences of any Objectives forecast. No Further Assessments required
3-1	**Progress Report**	**April 2007**	**July 2007**	**Nitrogen Dioxide** levels due to road traffic sources in Musselburgh and proposed expansions of Musselburgh Racecourse and Wallyford Village continue, and are forecast, to comply with Objectives. **PM10** levels due to road traffic in Musselburgh complied with using local correction factor but exceeded using national correction factor. TEOM unit to be replaced with a BAM unit following results of Equivalence Study carried out by DEFRA.
3-2	**Progress Report**	**April 2008**	**February 2009**	**Nitrogen Dioxide** levels due to road traffic sources in Musselburgh and proposed expansions of Musselburgh Racecourse and Wallyford Village continue, and are forecast, to comply with Objectives. Passive monitoring to be introduced in Wallyford.

Summary of Previous Review and Assessment Reports				
Round	**Report Type**	**Report Due Date**	**Report Completion Date**	**Conclusions**
4	**Updating & Screening Assessment**	**April 2009**	**November 2009**	**PM10 and Nitrogen Dioxide** levels in Musselburgh will require to be subject of a Detailed Assessment due to the Biomass Unit located at Queen Margaret University. The results of the Updating and Screening Assessment carried out for all other pollutants indicates that current Air Quality Objectives are being complied with.
4-1.1	**Detailed Assessment of Nitrogen Dioxide and PM10 due to QMU Biomass Unit**	**2010**	**October 2010**	**PM10 and Nitrogen Dioxide** levels continue to be met
4-1	**Progress Report**	**April 2010**	**October 2010**	All AQO's being complied with
4-2	**Progress Report**	**April 2011**	**June 2011**	Detailed Assessment of **Nitrogen Dioxide** required for Musselburgh High Street. All other AQO's being complied with.
4-2.1	**Detailed Assessment of Nitrogen Dioxide in Musselburgh due to Road Traffic**	**2012**	**May 2012**	AQMA required for Bridge Street and High Street due to forecast exceedence of Annual Mean AQO if additional monitoring confirms predicted exceedences.
5	**Updating &Screening Assessment**	**April 2012**		AQMA required for Bridge Street and High Street due to forecast exceedence of Annual Mean AQO ***if additional monitoring confirms predicted exceedences in 2012.***
5-1	**Progress Report**	**April 2013**	**August 2013**	AQMA to be declared in Musselburgh in relation to exceedences of NO2 Annual Mean Objective. Further Assessment to be commissioned.
5-1.1	**Further assessment**	**November 2014**	**June 2014**	It is estimated that ambient NOx reductions in the AQMA of between 0% and 27% are required in order to achieve compliance with the annual mean NO2 objective. The source apportionment exercise indicates that emissions from buses form the largest contribution at all locations along the High St AQMA. Modelling of the mitigation scenarios agreed with the Council indicates that an integrated package of interventions would provide the best NOx reductions. Measures that reduce overall traffic, reduce queuing and reduce bus numbers, where appropriate, will reduce road NOx significantly.
5-2	**Progress Report**	**April 2014**	**August 2014**	Monitoring results for 2013, indicate that the current AQMA boundary includes all relevant sources and does not require revocation or amendment at this time. NO_2 levels in AQMA continue to exceed or remain very close to objective.
6-1	**Updating & Screening Assessment**	**April 2015**	**September 2015**	Monitoring results for 2014, indicate that the current AQMA boundary includes all relevant sources and does not require revocation or amendment at this time. NO_2 levels in AQMA continue to exceed or remain very close to objective. Progress is being made wrt development of Action Plan with draft expected early 2016.
6-2	**Annual Progress Report**	**June 2016**	**July 2016**	No exceedences of Air Quality Objectives with downward trend noted in NO_2.Action Plan being progressed. Awaiting results of Micro-simulation traffic model to allow traffic-related mitigation measures to be identified for inclusion in Action Plan.
6-3	**Annual Progress Report**	**June 2017**	**July 2017**	Exceedences of NO2 Annual Mean recorded at T6 and T31.

Glossary of Terms

Please add a description of any abbreviation included in the APR – An example is provided below.

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the LA intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
APR	Air quality Annual Progress Report
AURN	Automatic Urban and Rural Network (UK air quality monitoring network)
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by Highways England
FDMS	Filter Dynamics Measurement System
LAQM	Local Air Quality Management
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO_2	Sulphur Dioxide

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