

Air Quality In the Mid Ulster District



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District Council



Air Quality Mid Ulster



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Air quality in the UK is generally good, and getting better. However more needs to be done, especially in the cities, to reduce the harmful effects of air pollution. Air pollution has negative impacts on human health and the natural environment. Air pollution has declined significantly over recent decades through measures to reduce pollution from transport, industrial and domestic sources.

Local Air Quality Management (LAQM) provides the framework within which air quality is managed by Northern Ireland's local authorities. The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether air quality objectives are likely to be achieved. Where exceedances are 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 improve air quality in its District so that these objectives are achieved.



Mid Ulster District District Council, and the former Cookstown, Dungannon and Magherafelt Councils have submitted Annual Air Quality Reports since 2002.

These reports looked at a number of pollutants listed under European Directives and examined whether or not air quality objectives were likely to be met in each of the three districts.

Surveys were undertaken, and data was obtained regarding a number of different elements in the district including housing types, industry, agriculture, road traffic volumes, and other transportation alternatives within the district,

The University of South West England was then commissioned to undertake modelling to predict the likelihood of air quality objectives being exceeded in the district.



Air Quality Objectives

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 µg/m ³	Running annual mean	31.12.2003
	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 mg/m ³	Running 8-hour mean	31.12.2003
Lead	0.50 µg/m ³	Annual mean	31.12.2004
	0.25 µg/m ³	Annual mean	31.12.2008
Nitrogen dioxide	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) (gravimetric)	50 µg/m ³ , not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 µg/m ³	Annual mean	31.12.2004
Sulphur dioxide	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



After the initial assessment it was determined that air quality objectives for four of these seven pollutants would be comfortably met within each of the three Districts. However it was felt that further examination would need to be undertaken for the remaining three pollutants.

These pollutants were Nitrogen Dioxide (NO₂), Sulphur Dioxide (SO₂) and PM10.

Nitrogen Dioxide (NO₂)



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Nitrogen dioxide (NO₂), is emitted from combustion processes.

Main sources include power generation, industrial combustion and road transport.

Road transport is now the largest single UK source of NO_x, accounting for almost one third of UK emissions.



Sulphur Dioxide (SO₂)



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Sulphur Dioxide (SO₂): an acid gas formed when fuels containing Sulphur impurities are burned.

The largest UK source is currently power generation.

Other important sources include industry, commercial fuel use, and residential fuel use in some areas.



Particulate Matter (PM10)



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The main source is combustion, e.g. vehicles, domestic burning and power stations.

Other man-made sources include quarrying and mining, industrial processes and tyre and brake wear.



Air Quality Monitoring In Mid Ulster



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Following this for a number of years the levels of SO₂ and PM10 were monitored at areas identified as 'worst case situations' in each of the districts. These areas were chosen due to the relatively high number of solid fuel burning properties near by the monitoring sites.

After several years of monitoring it was found that all the areas chosen were well within the air quality objectives and were extremely unlikely to exceed the objectives in the future. As a result monitoring was discontinued for these two pollutants. The only remaining pollutant that is routinely monitored in the Mid Ulster District is Nitrogen dioxide (NO₂).

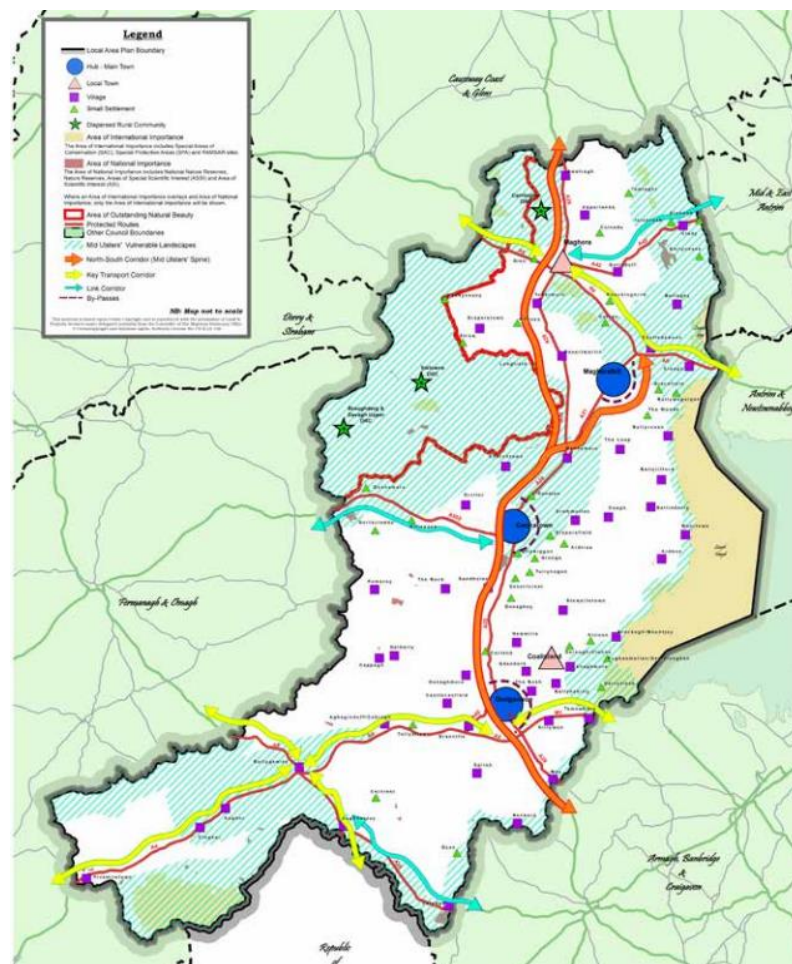
Air Quality Monitoring In Mid Ulster



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Air Quality monitoring has been carried out for Nitrogen Dioxide (NO_2) in Magherafelt, Cookstown and Dungannon since the initial reports were submitted in 2002. Monitoring is also undertaken in the villages of Moneymore and the Moy.

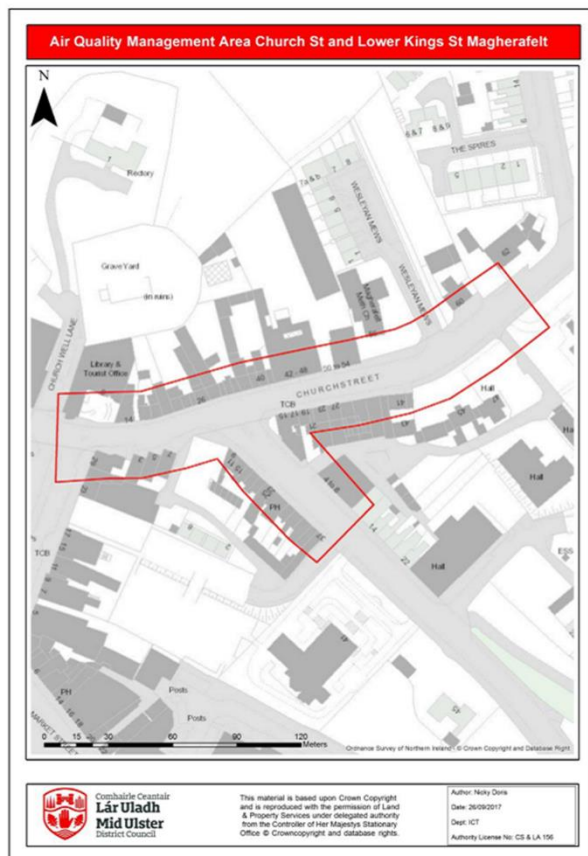
NO_2 is associated with road traffic and unsurprisingly the monitoring has taken place on congested traffic routes in the District. Mid Ulster District Council currently has three AQMA's within the District.



Air Quality Management Areas In Mid Ulster



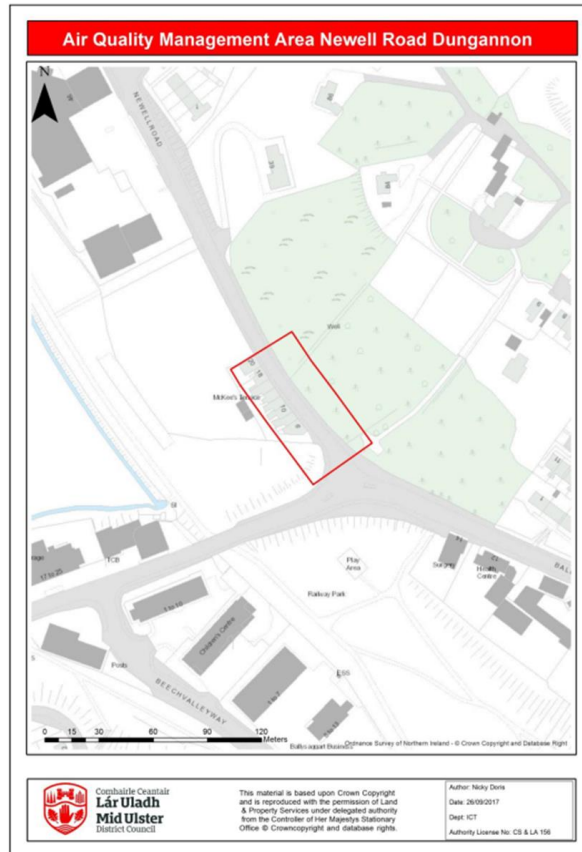
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Air Quality Management Areas In Mid Ulster



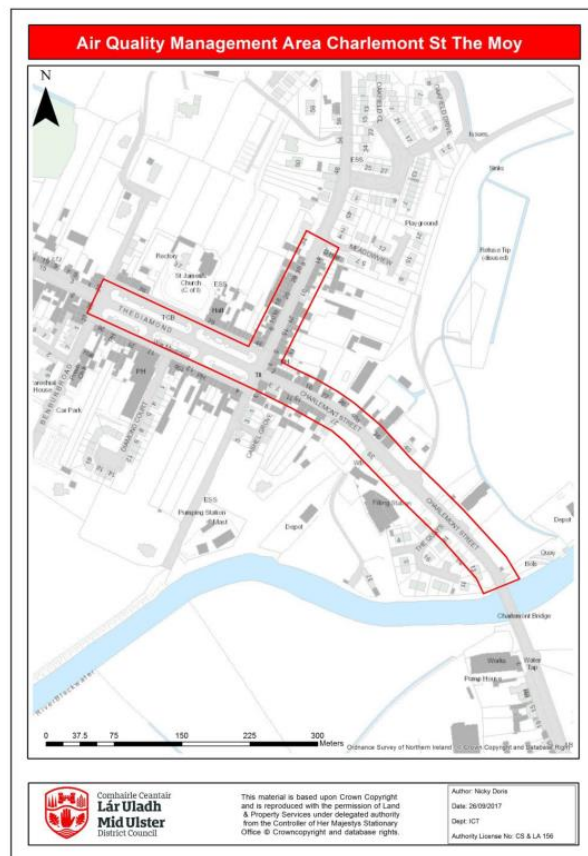
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Air Quality Management Areas In Mid Ulster



Results of NO2 Monitoring In Mid Ulster



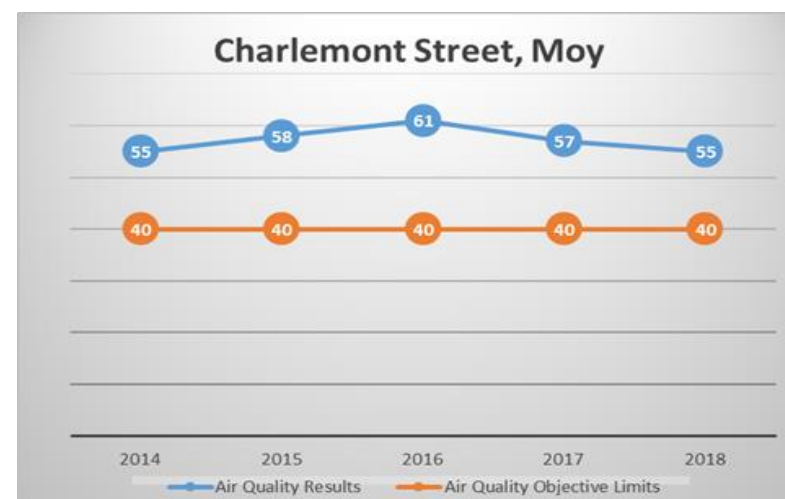
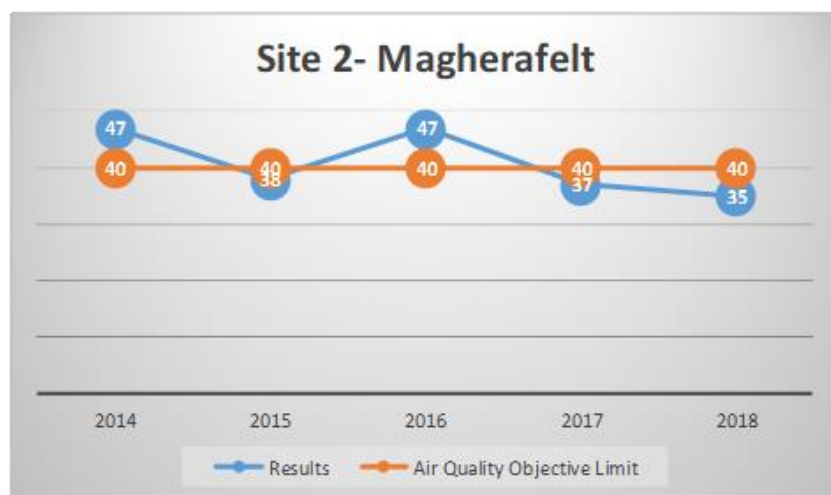
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Site ID	Location	Site Type	Within AQMA?	Triplicate or Co-located Tube	2018 Annual Mean Concentration ($\mu\text{g}/\text{m}^3$) - Bias Adjustment factor = 0.93 & 0.76 ^b
M2	22 Church Street	Roadside	Y	Triplicate	35
M9	12 Church Street	Roadside	Y	Triplicate	30
M10	30 Church Street	Roadside	Y	Triplicate	35
M11	11 King Street	Roadside	Y	Triplicate	24
M13	60 Church Street	Roadside	Y	Triplicate	23
M23	35 Church Street	Roadside	Y	Triplicate	33
D1	Ardgannon	Urban Background	N	N	12
D2	Newell Rd	Roadside	Y	Triplicate	50
D3	Charlemont St	Roadside	Y	Triplicate	55
D4	Killyman St	Roadside	N	Triplicate	26
D5	The Quays	Urban Background	N	Triplicate	9
D6	Dunclose Way	Urban Background	N	N	8
C1	Lawford St	Kerbside	N	N	35
C2	William St	Roadside	N	N	25
C3	James St	Kerbside	N	N	31
C4	Church St	Roadside	N	N	26
C5	Killymoon St	Kerbside	N	N	30
C8	Smith St	Kerbside	N	N	26
C10	Stonard St	Kerbside	N	N	37
C11	Conyngham St	Kerbside	N	N	17

Trends in Results

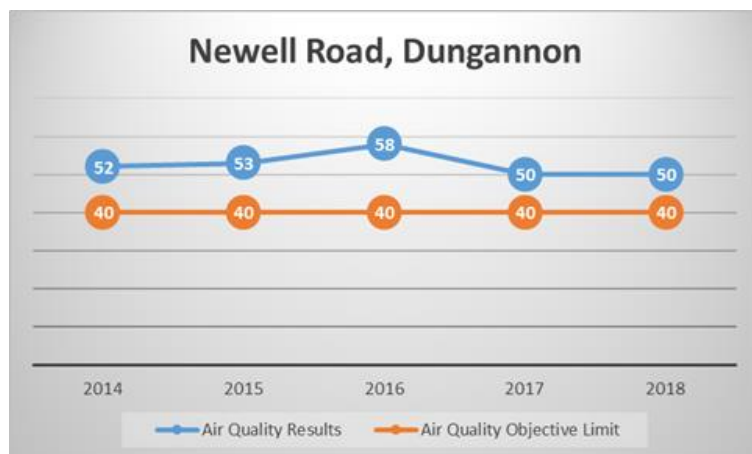


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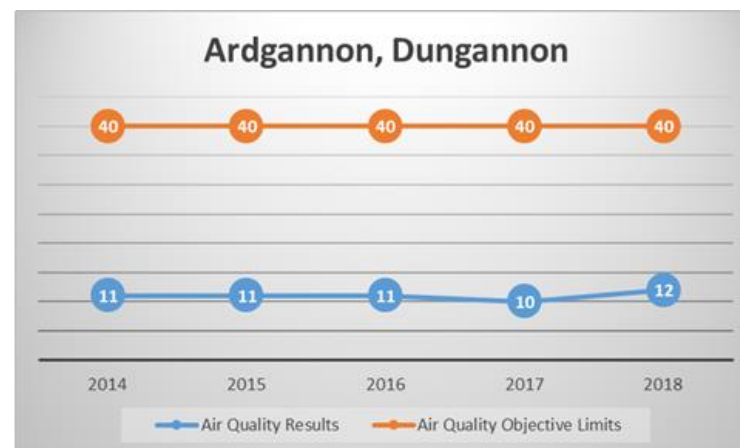




Newell Road, Dungannon



Ardgannon, Dungannon



What Next ?



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The Action Plan that has been produced by Mid Ulster District Council outlines the actions that the Council will deliver between 2017-2023 in order to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life of residents and visitors to the Mid Ulster District Council area.

It has been developed in recognition of the legal requirement on the local authority to work towards Air Quality Strategy (AQS) objectives under Part III of the Environment Order (NI) 2002 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process. This Plan will be reviewed biennially, at the latest and progress on measures set out within this Plan

Questions ???



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Action Points From Air Quality Meeting of 25th October 2019

Present: Conor Breslin Environmental health (MUDC); Cllr Barry Montieth (MUDC); Tracey Bratton Dfi Roads;
Sinead McAvoy Development Plan & Enforcement (MUDC); Michael McGibbon Development Plan & Enforcement (MUDC), Leah
McCann Communications (MUDC)

Objective/ Area	Suggested Improvement	Action to be taken
Traffic management Charlemont Street, Moy	Yellow box junction recently added.	Environmental Health to check No2 results to monitor any air quality improvement compared to last year's results in period to next meeting.
Traffic management Charlemont Street, Moy	Can any changes be made re signals for Right turn at certain times of the day?	Roads Service to consider whether changes to light phasing could be made at certain times.
Traffic management Charlemont Street, Moy	Can signage be erected to encourage idling traffic to turn off their engines at this location?	Planning to consider whether such signage can be erected.
Traffic management Charlemont Street, Moy	Can countdown to green light signal be added to lights at this location?	Environmental Health to write to relevant minister requesting trial of countdown lighting at this location.

Residential Improvement Newell Road, Dungannon	Has planning permission for housing on waste land to rear of houses on Newell Road expired?	Planning to check re current status of these plans.
Residential Improvement Newell Road, Dungannon	Mature trees that overhang Newell Road. Can these be cut back to allow greater dispersion of NO2 fumes from traffic.	Environmental Health to write to landowner requesting trees be cut back.
Alternative Transport General Air Quality- Promotion of walking	With regard to encouraging walking in the District ensure that planning proposals within these areas and linked areas have minimum width pavements to support both walking and safe cycling.	Planning consider this in applications. Consistent with area plan.
Alternative Transport General Air Quality- Promotion of walking.	Ensure all developments within urban areas, town and villages have safe walking and cycling linkages to ensure pedestrian and cycling routes away from main traffic routes. Consideration should be given to urban areas, towns and villages, in AQMAs and near to urban schools.	Planning consider this in applications. Consistent with area plan.
Alternative Transport	Discussion regarding return bus scheme in Kerry. Parents able to	Further details of Kerry scheme to be obtained. Env Health to write to

General Air Quality- Increasing use of Public Transport	accompany children on bus to school. Bus returns along same route enabling parents to return home. Could something similar be set up in Mid Ulster?	Translink exploring possibility of establishing similar.
Alternative Transport General Air Quality- promotion of cycling	Further to Bike to Work scheme in Mid Ulster District Council. Can further encouragement be given to staff to cycle to work by providing showering, changing, clothes storage at more locations?	Environmental Health To explore this possibility.
Traffic management General Air Quality- Car Emissions	Promotion of scheme to reduce car idling at hotspots such as local schools during drop off and pick up times at the school. Could be facilitated by posters or potentially by 'Roads Service Active Transport Initiative'.	Env Health to co-ordinate details of such a scheme.