



Carmarthenshire County Council

Environment Act 1995

Air Quality Management

2017 Carmarthen and Llanelli AQMA's Draft Action Plan Report

(July 2017)

Action Planning Group

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1.0 Purpose of Report

This report details the work of the Action Plan Group in formulating the initial list of potential interventions for trying to improve air quality within the designated Air Quality Management Areas (AQMA) for the towns of Carmarthen and Llanelli in Carmarthenshire. This work contributes to the requirements of the Local Air Quality Management (LAQM) process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for Wales 2007 and the relevant Policy and Technical Guidance documents issued by Defra and Welsh Government. It should be noted that this work has taken due regard of the latest (2017) Policy and guidance updates issued by Welsh Government and the need to reduce air pollution in general and not just concentrating on trying to achieve the Air Quality Objective (AQO) in 'hot spot' areas.

Continued breaches of the AQO for nitrogen dioxide (NO₂) in the towns of Carmarthen and Llanelli led to Detailed Assessments (DA) being carried out during 2012 which unfortunately failed to identify the extent of the areas of exceedance. Therefore modified DA were performed in 2013 followed by Extended DA which then gave a clear indication of the problem areas and the extent of impacts on those areas. The results of the extensive monitoring confirmed the need to designate AQMA's in both towns. After wide consultation, and approval by full Council, the Orders for the AQMA's were signed and issued on the 2nd August 2016.

Experience gained from the work involved with the development of the Llandeilo Action Plan would be used to help inform the development of the Carmarthen and Llanelli Action Plans. The previous work carried out to date and reported to Welsh Government in Progress Reports and Updating & Screening Assessments, has been used to formulate the basis of the Draft Action Plans. Once complete, the Action Plans will be submitted to Welsh Government for approval.

2.0 Action Planning Group

The air quality work is reported to the Environmental and Public Protection Scrutiny Committee on a regular basis and in turn, the Council's Executive Board. The decision to designate the AQMA's for Carmarthen and Llanelli were approved by full Council.

The Llandeilo Action Planning Group already existed however there had not been a need for the Steering Group to meet for several years. During the development of the Llandeilo Action Plan the work of the two Groups very much overlapped and resulted in repetition. From this experience it was decided that not having a Steering Group would produce resource efficiencies. Consideration was given to whether three Action Planning Groups, one for each AQMA, would be required. However, the membership of the Groups would be virtually the same and the pollution source for all three was traffic related. Therefore to maximise efficiency and resources it was decided to have one Action Planning Group that looked at the work for all three AQMA's.

As the nature of the three AQMA's were slightly different it was acknowledged that membership of the Group may need to include other partners depending on Action Planning in each town and so it was agreed that co-opting members would remain flexible and could be initiated when required.

2.1 Action Planning Group Output

The main work stream of the AP Group is to review the Action Plan interventions and appraisal of options in Phase 1 of the Llandeilo Action Plan and report on that work, along with generating as many potential intervention options for the towns of Carmarthen and Llanelli. The 'nature' of the three towns are quite different resulting in the causes and locations of the air quality problems being quite different (other than the underlying issue being that the air quality problem relates significantly to traffic pollution). Whilst specific local issues were identified, such as traffic light sequencing and driver habit of using certain routes, it also be apparent that some options were applicable to

both towns. This led to the development of three lists, one for each town and then a generic list that could be applied anywhere.

For the Llandeilo Action Planning work the Group performed a screening exercise that effectively discounted some options prior to the public consultation. On reflection, this could be construed as not transparent and possibly discounting some options due to a 'hidden agenda'. Therefore it was deemed pragmatic to perform the screening process after the public consultation and prior to the formal issue of the Action Plan. It is intended that the public consultation exercise will commence in August 2017.

3.0 Development of Draft Action Plan

The Action Plan Group met and discussed the issues for both towns from varying perspectives. The discussions led to suggestions and proposals for potential interventions. The discussions also resulted in some outstanding queries and questions, some relating to potential developments within the towns, which were then formatted in to potential interventions.

3.1 NO₂ Reduction

Historically there has been a requirement to identify the reduction needed in NO₂ to achieve the objective level of 40µg/m³, as an annual mean. However, latest guidance issued by Welsh Government this year goes further and places a requirement for us to look at reducing pollution levels wherever possible (and not only within designated AQMA's). Rather than fixating on achievement of the Air Quality Objective, the source apportionment work should be used to help inform potential interventions that may result in improvement across the AQMA's and beyond. Source apportionment is where the contribution of each polluting source (e.g. class of vehicle) is estimated. Traffic counts have already been instigated that will assist with the source apportionment work, the results of which will feed in to the assessment of proposed interventions.

3.2 Areas of Concern

As with Llandeilo, the AQMA boundary map areas for Carmarthen and Llanelli cover a much wider area than the actual areas of exceedance. This is because any interventions aimed at improving the area of exceedance may simply move the problem, or the means to make any improvement requires action over a far greater area than the actual area of exceedance itself.

Figures 1a, 1b and 2 below identify (in blue shading) the actual areas of exceedance for both towns.

Figure 1a – Carmarthen AQMA Area of Exceedence (East)



Carmarthen AQMA Hot Spot (East)



0 50 100 150m

Graddfa
Scale
1:5000

Canol y Map
Map Centre
[241809.9,220466.3]

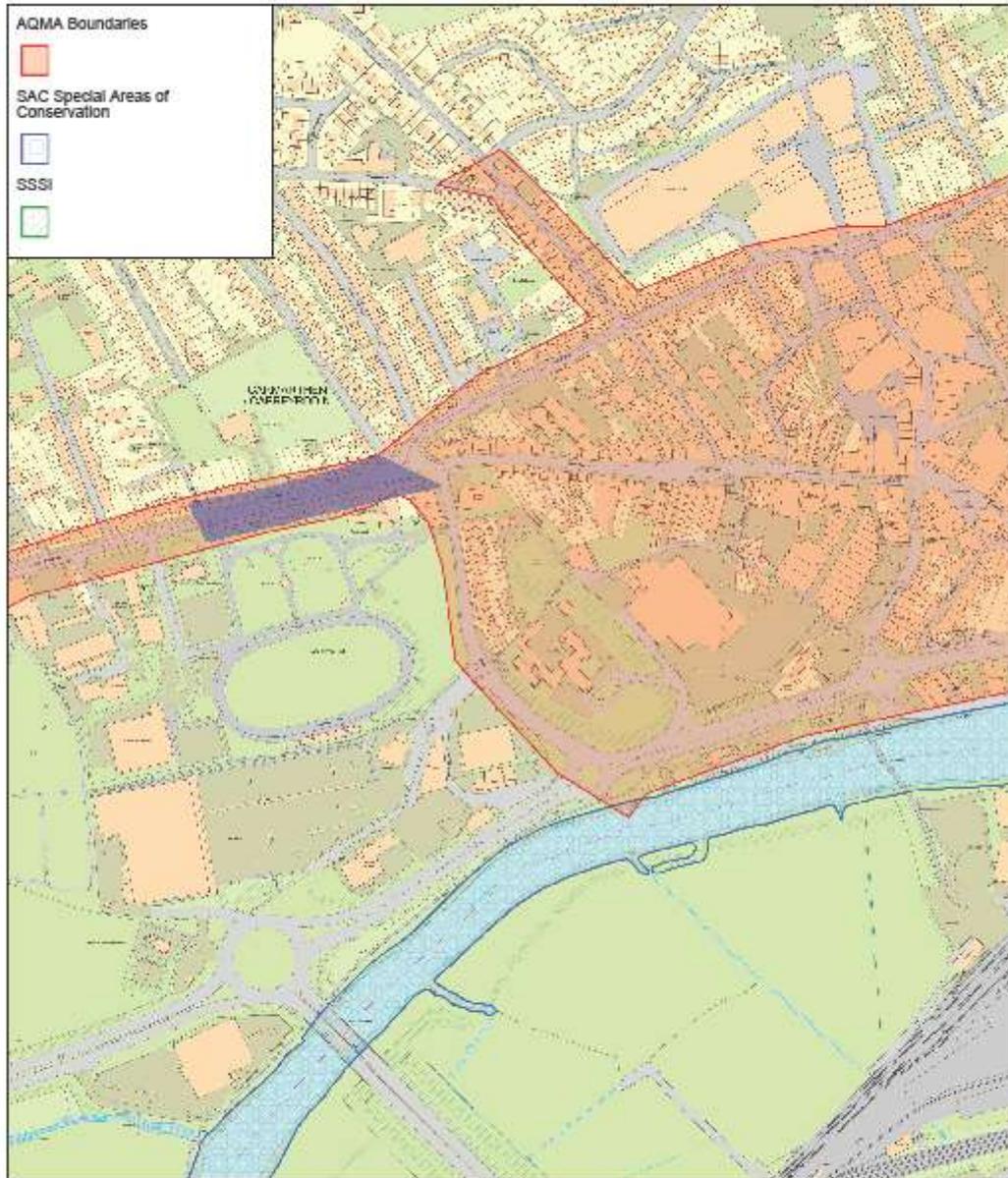
Dyddiad
Date
20/07/2017

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Figure 1b – Carmarthen AQMA Area of Exceedence (West)



Carmarthen AQMA Hot Spot (West)



0 50 100 150m

Graddfa
Scale
1:5000

Canol y Map
Map Centre
[240785.1, 219956.7]

Dyddiad
Date
20/07/2017

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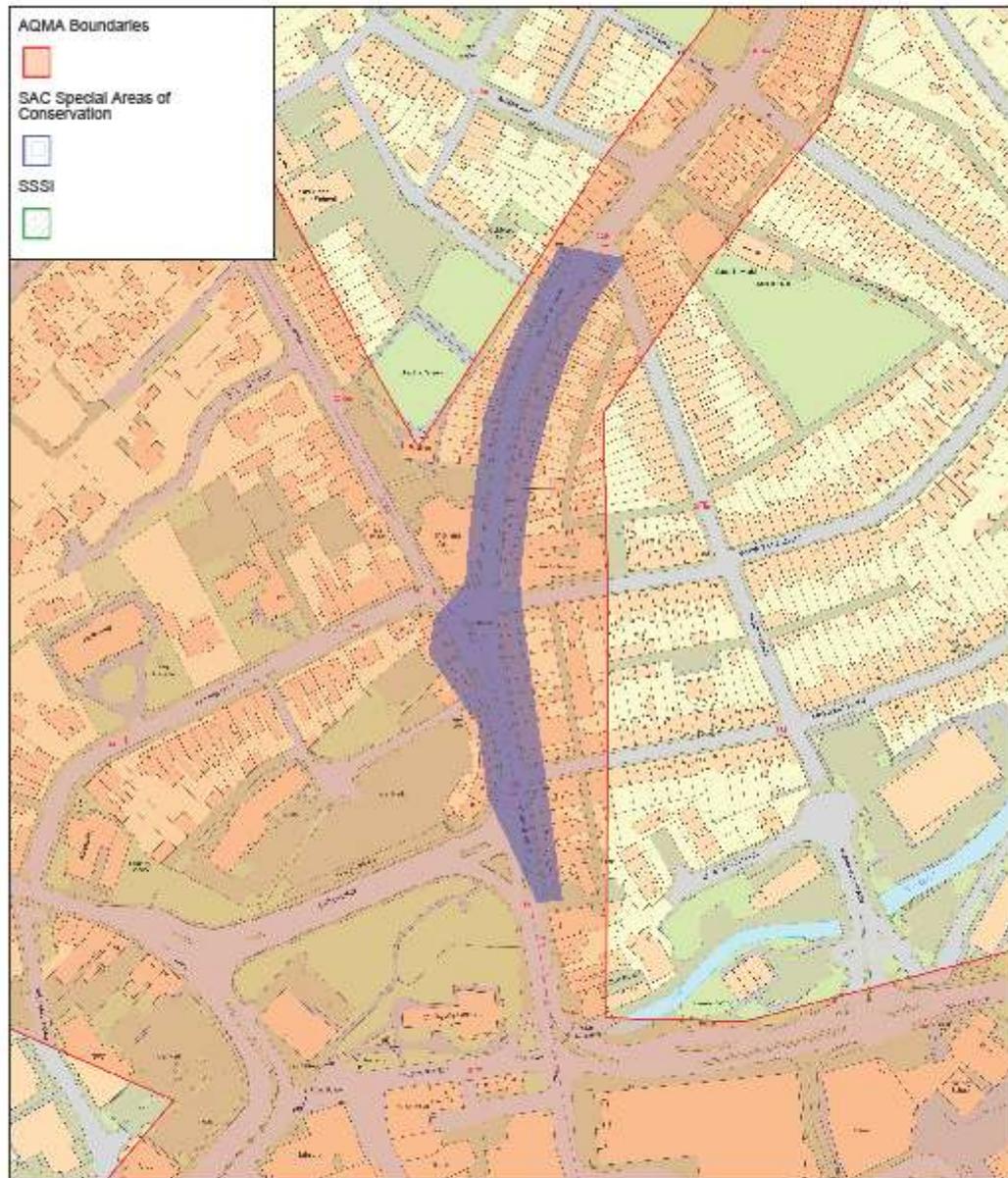
The hot spot areas identified by the blue shaded sections on the maps in Figures 1a and 1b above are small geographical areas with various constraints (such as narrow pavements and buildings close to the highway) that greatly restrict any significant interventions that would contribute towards achieving NO₂ reductions of the scale required. Both lengths of road are gradients that have roundabouts at their lower section and pedestrian crossings at the higher end of road section. The use of alternative routes for a number of the journeys made along these road sections would help improve the situation.

The hot spot area identified by the blue shaded area on the map in Figure 2 below encompasses the bottom of Felinfoel Road meeting Thomas Street and the junction at Gelli Onn. This is a small geographical area with various constraints (such as narrow pavements and buildings close to the highway) along with being the main intersection junction for routes that cross the town from east to west and north to south. The use of alternative routes for a number of the journeys made along these road sections would help improve the situation, along with potentially altering the traffic light sequencing.

Figure 2 – Llanelli AQMA Area of Exceedence



Llanelli AQMA Hot Spot



0 20 40 60m

Graddfa
Scale
1:2500

Canol y Map
Map Centre
[250720.9,200729.2]

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4.0 Initial Draft Action Plan Proposals

The Initial Draft Action Plan Proposals for the towns of Carmarthen and Llanelli are shown below in Tables 1 and 2. Table 3 lists potential proposals that could be used for the towns but also for any other areas across the county where it may be considered that air quality could be improved.

Table 1 – Carmarthen Initial Draft Action Plan Proposals

Proposal No.	Proposal Description	Predicted Reduction in NO ₂ (µg/m ³)	Estimated Cost	Lead	Consequential Effects
C1	Improve cycle routes in and around the town.				
C2	Utilise media resources to publicise the use of the Carmarthen by-pass to reduce traffic volumes travelling through the town unnecessarily.				
C3	Work with the Local Health Board and other partners to assess car parking issues at Glangwili Hospital.				
C4	Considering using signage to alert drivers they are entering the AQMA (possibly suggest alternative routes).				
C5	Assess the positive / negative impacts of the Western Link once opened.				
C6	Review the Park & Ride provision for the town. Work with partners to assess delivery of a joint service for multiple sites.				

C7	Assess the impact of introducing a 20mph speed limit in the town. (greater use of bypass, improve road safety, less congestion, encourage walking, improve health)				
C8	Provide greater support for car sharing / dedicated car parks (possibly involve supermarkets)				
C9	Alleviate traffic congestion on Llansteffan Road/Johnstown with a bridge scheme.				

Table 2 – Llanelli Initial Draft Action Plan Proposals

Proposal No.	Proposal Description	Predicted Reduction in NO ₂ (µg/m ³)	Estimated Cost	Lead	Consequential Effects
L1	Assess traffic light sequencing for Thomas Street/Gelli Onn junction.				
L2	Consider traffic survey for Llangennech / Dafen / Thomas Street to establish why that route is used.				
L3	Considering using signage to alert drivers they are entering the AQMA (possibly suggest				

	alternative routes).				
L4	Utilise media resources to publicise the use of the Coast road to reduce traffic volumes travelling through the town unnecessarily.				
L5	Assess the impact of introducing a 20mph speed limit in the town. (greater use of by-pass, improve road safety, less congestion, encourage walking, improve health)				
L6	Review the Park & Ride provision for the town. Work with partners to assess delivery of a joint service for multiple sites.				
L7	Assess the potential of re-opening Bridge Street.				
L8	Assess the potential for creating a by-pass for Sandy Road.				
L9	Assess the footpath / cycle path connectivity for the Sandy Road area.				
L10	Assess any impacts / opportunities from the Craig College development.				
L11	Assess any opportunities from the				

	Wellbeing Village development (e.g. electric vehicle charging points etc.)				
L12	Assess potential impact from the development of Parc Howard.				
L13	Assess impact of closing the turning junction from Felinfoel Road to Old Road.				
L14	Review and assess HGV delivery timings to businesses in and around the town centre.				

Table 3 – Generic Draft Air Quality Improvement Proposals

Proposal No.	Proposal Description	Predicted Reduction in NO ₂ (µg/m ³)	Estimated Cost	Lead	Consequential Effects
A	Consider implications of introducing Low Emission Zones.				
B	Consider implications of introducing Congestion Zones.				
C	Consider implications of introducing Taxi Idling Ban.				
D	Consider implications of introducing Idling Ban outside of schools etc.				
E	Develop Supplementary				

	Planning Guidance (e.g. provision of EV Charging points (- what criteria?).				
F	Engagement with SAT NAV providers to highlight AQMA's (possibly via Welsh Air Quality Forum).				
G	Set up messaging system that alerts of road works that may increase pollution levels over short periods.				
H	Introduce dummy speed cameras to aid traffic calming.				
I	Consider shared use footpaths.				
J	Advertise cycle paths.				
K	Advertise offices that have facilities for cyclists.				
L	Produce and distribute car stickers with messages (e.g. - turn engine off when parked/idling, slow down, consider air quality, stay back from car in front).				
M	Check tourist route maps / websites for advised routes (avoid AQMA's where relevant)				
N	Review timings				

	of bin collections & road sweeping				
O	Consider implications of making towns and villages vehicle free.				
P	Establish communications network with haulage contractors to improve service delivery and minimise impact on AQ.				
Q	Consider reward scheme for people who rarely use cars or for those that walk/cycle frequently.				
R	Look at potential for retrofitting buses / coaches to gas fuel.				
S	Consider removal of diesel engine vehicles.				
T	Enhance walking routes.				

5.0 Review and Monitoring

5.1 Review

The Action Planning Group will remain as an active working group that coordinates and oversees the implementation of the various Action Plan proposals. The data gathered from implementation will be documented and reviewed by the Group to ascertain the benefits gained from each proposal, along with assessing whether there have been negative impacts.

The Action Plans are deemed as 'live' documents that are likely to be subject to change over time and therefore should be reviewed on a regular basis. It is proposed that the review will be carried out as part of the annual reporting requirements to Welsh Government under the LAQM process, which is on an annual basis.

5.2 Monitoring

The use of an automatic analyser will allow 'trial periods' that can be used before full implementation of certain proposals. This means that should a trial period for a particular proposal come back with negative impacts, the proposal can either be modified or, if necessary, discounted before full implementation. This method has various benefits, and will indicate whether a particular proposal is likely to work. It will also ensure that public funds are allocated effectively, and are not wasted on fully implementing Action Plan proposals that would result in no improvement to air quality.

Our existing Nitrogen Dioxide Diffusion tube monitoring network will be maintained as this will provide longer term trends to be established without the need to keep the automatic analyser in situ for protracted periods of time.