



WEST DORSET DISTRICT COUNCIL

Local Air Quality Management Chideock Air Quality Action Plan

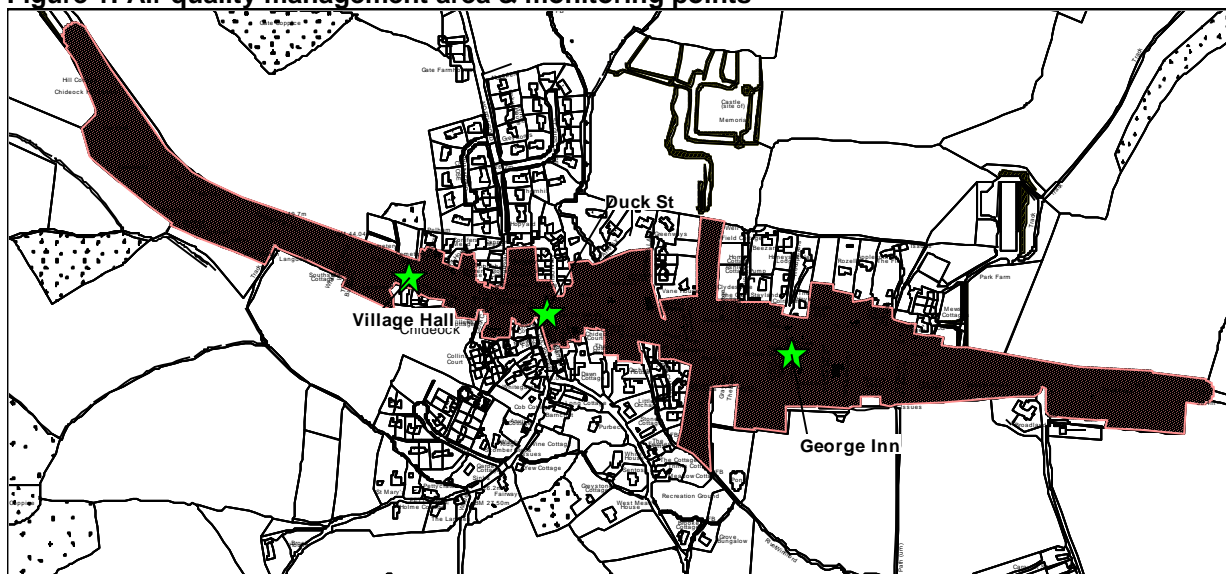
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1. Introduction

1.1 West Dorset District Council (WDDC) has a responsibility under Section 84(2) of the Environment Act 1995 to produce an **Air Quality Action Plan** that must detail the steps to be taken to improve air quality in an Air Quality Management Area (AQMA). An AQMA was declared in May 2007 covering part of the A35 that runs through the centre of Chideock. The Action Plan should detail specific options that can be implemented within a given timescale in order to reduce the annual mean Nitrogen Dioxide (NO₂) level at the façade of the adjoining properties to below the Government Objective level of 40µg/m³ by the year 2010. The present (representative*) annual mean value for NO₂ obtained on Duck Street is 42µg/m³ (in 2007) meaning a reduction of 2µg/m³ is required by 2010 in order to meet Government target levels. The hourly objective of 200µg/m³ (18 exceedences per year) is already being met.

Figure 1: Air quality management area & monitoring points



1.2 In the production of this Action Plan WDDC has attempted to involve all relevant parties and consultation with these groups and individuals has occurred throughout. Residents of Chideock have been kept informed of the process, and comments and suggestions sought by public consultation, through the use of the local media, holding a Public meeting and inviting residents to meet with WDDC officers involved to discuss any issues or concerns that they may have during our Chideock Air Quality Action Day.

1.3 The cause of the air quality exceedences in Chideock has been attributed to the traffic levels in that area. There are no significant contributions from industrial or point

sources within the District, therefore the options investigated to improve air quality have centered on those that will target traffic levels and emissions.

- 1.4 Each option available to the Council has been considered not only for its ability to alleviate air pollution problems, but also its effects on the area's economic stability and the welfare of the local population - in other words the overall sustainability of each option has been considered. Both negative and positive, direct and indirect effects have been detailed, with an attempt made to quantify the costs of each option.
- 1.5 The result of this plan will be the drawing up of a package of options which are predicted to result in improvement in air quality in Chideock, while balancing the financial, economic and social costs and benefits. The work involved must be proportionate to the benefits achieved. . A review of the options will take place in order to ensure they are actually being undertaken within the proposed timescale.
- 1.6 The A35 is a Trunk Road and as such is the responsibility of the Highways Agency (HA). The HA do not have any future major transport strategy plans that involve this part of the A35, reducing significantly any direct measures that would have a large impact on improving the air quality in Chideock. Therefore, actions will not necessarily focus or be implemented in Chideock directly, but will involve a wider area around West Dorset with associated benefits for the Air Quality Management Area.
- 1.7 In compiling this action plan, Government guidance LAQM.PG (03) and guidance from the national Society for Clean Air has been referred to; as well as guidance provided by the Department for Environment, Food and Rural Affairs through its air quality action plan helpdesk and website. This action plan should be read in conjunction with WDDC's Further Assessment 2008.

2. *Summary of Previous Review and Assessments*

- 2.1 Local air quality management forms a key part of the Government's strategies to achieve the air quality objectives under the Air Quality (England) Regulations 2000 and 2002.

2.2 As part of its duties the Council completed its Updating and Screening Assessment of the seven LAQM pollutants in 2006 and concluded that a Detailed Assessment for nitrogen dioxide was necessary in Chideock.

2.3 The results of the Detailed Assessment of NO₂ identified a risk of the annual mean Objective, (Appendix 1), being exceeded after 2005. As a result the Council designated an AQMA for nitrogen dioxide along the A35 running through the centre of Chideock in May 2007, (figure 1). A Further Assessment was undertaken in July 2008 an opportunity for a local authority to supplement the information they already have on local air quality, and to re-evaluate their AQMA designations. The Further Assessment should be taken forward in parallel with the development of an air quality action plan, and might usefully be seen as a technical annex to the action plan in order to provide scientific justification for the measures in the main body of the plan. The further assessment concluded the following:

- **Monitoring:** the diffusion tube monitoring undertaken at three locations since the declaration identified one area of exceedence (Duck Street), and one close to exceeding the annual objective (Village Hall), suggesting that the AQMA declared is justified and should be retained. The site near the George Inn is under the national objective, however as a pedestrian crossing is proposed in this area in the near future the Further Assessment recommended that the AQMA boundary is not decreased as the crossing could have a detrimental effect on air quality at this location. A continuous monitor will be installed to gain more accurate data and to allow local bias adjustment of the passive monitoring diffusion tubes.
- **Improvements required to achieve the objective:** The level of improvement required in order to achieve the annual mean objective for nitrogen dioxide (based on the traffic component only) is approximately 6%. Actions to reduce background concentrations will have a negligible effect; therefore, the majority of actions in the air quality action plan should be directed towards mitigating the road traffic component.

3. *Air Quality and Transport*

What is Nitrogen Dioxide?

- 3.1 Nitrogen dioxide (NO₂) is a gas produced by the reaction of nitrogen and oxygen during combustion processes. This happens in two stages: first one atom of each of the gases combine to form nitric oxide (NO). Then this compound reacts, over time, with ozone in the spring and summer and oxygen during still cold winter days to produce nitrogen dioxide. These oxides of nitrogen are known as NO_x

Why is it of concern?

- 3.2 NO₂ is a brown gas that acts as an irritant to the eyes, nose, throat and respiratory tract. It can have both short-term 'acute' effects and long-term 'chronic' effects.

Short-term effects of NO₂

- 3.3 The short-term 'acute' effects are irritation of the eyes, nose and throat and an increase of the symptoms of existing respiratory conditions such as asthma, bronchitis or emphysema. Because of the short-term health impacts the government has set a short-term hourly air quality objective (Appendix 1). In West Dorset the short-term concentrations of NO₂ are unlikely to give rise to acute health impacts even amongst the most vulnerable.

Long-term effects of NO₂

- 3.4 The long-term 'chronic' effects of nitrogen dioxide are associated with a gradual deterioration in the health of people who are already suffering from lung diseases, and an increased susceptibility to respiratory infections. Due to these debilitating health effects of long-term exposure the government has also set a long-term annual average objective for NO₂. (Appendix 1).
- 3.5 In WDDC it is the annual average NO₂ air quality objective that is being exceeded in the AQMA and likely to be having an adverse impact on the long-term health of the more vulnerable members of the public.

4. *Chideock AQMA*

Where does the pollution come from?

- 4.1 Chideock lies in a valley with steep inclines at each end of the village. A main trunk road (A35) runs through the centre and there are speed restriction cameras that reduce

vehicle speed to 30mph at both ends of the village. A traffic count undertaken in 2007 showed that there were approximately 16,000 vehicles per day travelling through Chideock, of these, 88% were Light Duty Vehicles (LDV's) and 12% Heavy Duty Vehicles (HDV's).

How much does pollution need to be reduced?

- 4.2 The objective level for nitrogen dioxide is $40\mu\text{g}/\text{m}^3$. For 2007 the average background concentration of nitrogen dioxide, that is the level in the atmosphere away from any pollution sources, measured $7\mu\text{g}/\text{m}^3$. Therefore, to achieve the objective level the maximum nitrogen dioxide contribution from traffic sources must not be greater than $33\mu\text{g}/\text{m}^3$. This is calculated by taking the background level from the objective level.
- 4.3 For the same period the average roadside concentration of nitrogen dioxide measured within the AQMA from traffic sources was $42\mu\text{g}/\text{m}^3$, this is $9\mu\text{g}/\text{m}^3$ above the required level of $33\mu\text{g}/\text{m}^3$. Based on the measured $\text{NO}_2 : \text{NO}_x$ conversion relationship, a $9\mu\text{g}/\text{m}^3$ reduction in nitrogen dioxide equates to a $21\mu\text{g}/\text{m}^3$ reduction in NO_x , which represents a 23% reduction in NO_x emissions.

5. Predicted Measures

- 5.1 The table below shows 2007-2008 bias adjusted diffusion tube results for Chideock, and projections to 2010 using the LAQM Year Adjustment Calculator provided in the UK Air Quality Archive Website.

Table 1.2: Predicted nitrogen dioxide results

Site	2007 annual mean ($\mu\text{g m}^{-3}$)	2007 annual mean adjusted Bias ($\mu\text{g m}^{-3}$)	Predicted to 2009 ($\mu\text{g m}^{-3}$)	Predicted to 2010 ($\mu\text{g m}^{-3}$)
CHIDEOCK				
Duck Street	44.76	41.62	38.63	34.03
George Inn	35.13	32.67	30.33	29.23
Village Hall	42.21	39.25	36.43	35.48

- 5.2 The predictions indicate that the national objective for nitrogen dioxide will be met in 2010 without any intervention. However WDDC is committed to developing an action plan to help improve air quality in Chideock. This action plan is being developed as a

contingency should the measured trend between now and 2010 not play out as the extrapolated trend suggests.

- 5.3 An annual consideration of the risk that the limit value will not be met by 2010 will be undertaken and a threshold will be set for 2008 and 2009 annual means above which additional measures in the action plan would be implemented. The Contingency plan will develop proportionate action plan measures so that decisions can be made to implement them depending on the result of the annual risk assessment.
- 5.4 A number of measures in the action plan will be implemented regardless of the risk assessment since they are proportionate, cost-effective, aligned with authority policies and may reduce the risk that more stringent measures will be required in future

6. Other Existing Programmes and Projects

- 6.1 There are a number of existing policies and strategies at the local and regional level that can be tied in directly with the aims of the AQAP, and will help contribute to overall improvements in air quality across the District.

Draft South West Plan (Regional Spatial Strategy)

- 6.2 At the Regional level the South West Regional Assembly prepares the Regional Spatial Strategy (RSS) for the South West. The draft RSS provides a broad development strategy that will govern the amount, distribution, nature and pace of development in the South West up to 2026. The RSS also informs the preparation of Local Development Frameworks (LDFs) prepared by District and Borough Councils, the Local Transport Plans (LTPs) prepared by the County and Unitary Councils and regional and sub-regional strategies that have a bearing on land use.

RE9 Air Quality

7.3.21 *Air quality is generally good in the South West, with low levels of sulphur, oxides of nitrogen and particulates in comparison to the rest of England, although 24 Air Quality Management Areas (AQMAs) have been declared in 12 local authority areas where national air quality objectives are not likely to be achieved. These are generally in urban areas where air pollution results mainly from traffic. Policies within this Draft RSS, which reduce the need to travel and encourage access by non-car modes, should help to reduce air pollution, as well as CO2 emissions. However, local authorities and others will need to ensure that air quality is considered when assessing development proposals, particularly in or near AQMA's and where significant doubt arises as to the air quality impact then the precautionary principle should be applied. The impacts of development proposals on air quality must be taken into account and local authorities should ensure, through LDDs, that new development will not exacerbate air quality problems in existing and potential AQMA's.*

West Dorset Local Development Scheme

- 6.3 The Council's LDS is a work programme giving a timetable for the preparation of planning policy documents and public consultation. The current LDS, which has been approved by the Government Office of the South West, and has been written to take account of the Draft Regional Spatial Strategy (RSS) Panel Report
- 6.4 The West Dorset Local Development Scheme (LDS) provides the starting point for the local Community to find out what our current planning policies are for the area. Current policies in the plan that relate to air quality are:

POLICY TRAN8 CYCLISTS AND PEDESTRIANS

All new development will be expected to take account of the needs of cyclists and pedestrians either by the direct provision, or by contribution to new routes or links to existing routes within or adjoining a settlement. Such routes should provide a safe, convenient, direct and attractive environment to the cyclist or pedestrian. Where conditions allow, a choice of routes should be provided to increase the trip potential.

POLICY TRAN12 TRAVEL PLANS

Development likely to have significant transport implications should provide a travel plan demonstrating practical measures for achieving sustainable transport objectives.

Nottingham Declaration & Draft Climate Change Strategy

- 6.5 In 2007 West Dorset District Council signed up to the Nottingham Declaration. The Nottingham Declaration is a voluntary pledge for local authorities to address the issues of climate change. It represents a high-level, broad statement of commitment for a council to make to its community. It now has over 300 councils as signatories. Under the Nottingham Declaration the council is committed to producing a strategy to reduce carbon emissions and the impact of climate change. The development of the strategy supports many of the aims set out in the West Dorset Community Plan 2006-2010 and has been drafted by the West Dorset Partnership with the aim of reducing carbon emissions in the district and adapting to the impacts of climate change. There are a number of actions that relate to transport and air quality. These actions can be viewed on the Dorsetforyou website at:

http://www.dorsetforyou.com/media/pdf/g/2/Climate_Change_Strategy_Consultaton_Draft_20081.pdf

Dorset Local Transport Plan 2006-2011

6.6 The Local Transport Plan is a five-year strategy and spending programme for transport in Dorset set within the context of National (Government) Transport Policy, Regional Planning Policy, the Community Strategy and Dorset's Corporate Plan. It covers the period from 2006 to 2011 and identifies the objectives and targets for bringing forward improvements to the Transport network. There are two Local Transport Plans for Dorset, one covering the South East Dorset conurbation, including Bournemouth and Poole, the other covering the more rural parts of the county, including Dorchester and Weymouth. The key actions under the LTP for air quality and the environment are:

- *Where areas of poor air quality are defined, which are linked to areas of excess or slow moving traffic, the County Council will work with the Borough or District Councils to develop transport strategies to reduce emission levels; particularly where air quality action plans are defined.*
- *The County Council will ensure that development designs and transport improvements are an appropriate response to the local context and create or reinforce local distinctiveness.*
- *The level of inappropriate speed will be reduced, not only where this is a major contributory factor to accidents, but also in areas where local communities find speed intimidating and detrimental to their quality of life.*
- *Traffic management measures will be introduced, including 20mph zones, to ameliorate damage to rural communities on heavily trafficked routes such as the A350/C13 and A35.*
- *Smart traffic management technology will be used to achieve reduced traffic impact where appropriate.*
- *Traffic management measures that restrict or remove unnecessary traffic will be introduced in Dorset's market towns to ensure that they function more effectively.*
- *A lorry routing strategy will be developed that is consistent with the regional freight strategy.*
- *A Rural Roads Protocol will be developed for the sensitive and sustainable treatment of rural roads, encompassing safety, information, environmental protection, landscape, biodiversity and heritage, and to develop design and management guidance to give effect to the protocol.*
- *Dorset will provide more sustainable options for access to the World Heritage site of the Dorset coast, including in particular the Isle of Purbeck and the reconnection of the Wareham to Swanage railway to the national rail network.*

6.7 Other locally involved schemes that will have a general measure on improving air quality in West Dorset include:

Car Share Dorset – An online tool to encourage and facilitate car sharing by matching journeys, run jointly by Dorset County Council and Bournemouth and Poole Borough Councils.

Bridport Bopper Bus - The Bopper Bus is a community based demand-responsive transport service for children in rural villages, including Chideock, to access leisure facilities on a Friday night. It helps with rural isolation and replaces the need for use of the car by parents dropping off and picking up children.

7. *Financing*

- 7.1 Under LTP2, Dorset County Council has allocated funding to a number of schemes in West Dorset that tie in with Action Plan measures to improve air quality in the area, such as, traffic management measures and encouraging the uptake of travel plans.
- 7.2 Annual funding for development of Quality Bus Partnerships, Safer Routes to School, Cycle Strategy and Walking Strategy are being made available through the LTP. WDDC will work together with DCC to review current schemes for the area in the light of the declaration of the A35 AQMA. Additional schemes will be implemented where possible to secure further improvements in air quality.
- 7.3 Other measures to improve air quality in the A35 AQMA and District wide, such as air quality monitoring, specific targets within the action plan and promotional activities, will be funded by WDDC, or by developers e.g. through the use of S106 contributions from developments in the A35 area. In addition, an Air Quality Grant has been secured from Defra to assist with action planning, and this has been used to commission a continuous air quality monitoring station in Chideock. This monitor will be installed by January 2008.

8. *The Consultation*

- 8.1 Under Schedule 11 of the Act, Local Authorities are required to consult on their draft LAQM Action Plan. It is important for the success of the Action Plan to have involvement by all local stakeholders including local residents in drawing up the Action Plan. The following is a list of statutory and non-statutory consultees to which this plan will be sent:

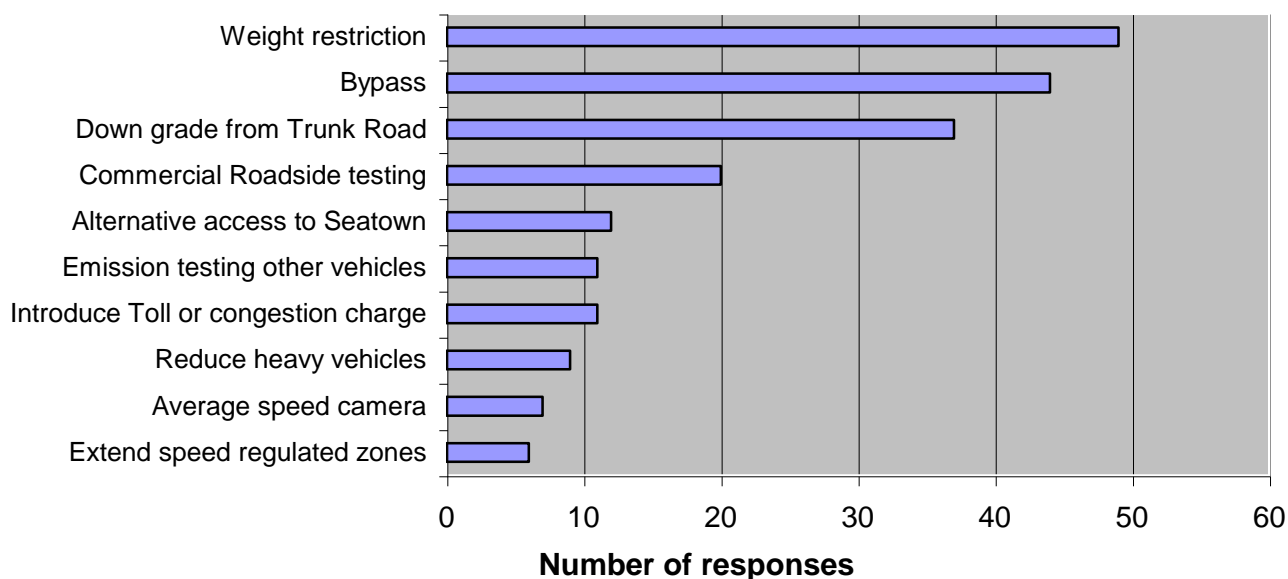
- Highways Agency
- Dorset County Council

- The Environment Agency
- Primary Care Trusts
- Neighbouring Local Authorities
- Chideock Parish Council
- Local residents and businesses

Previous consultations

- 8.2 Meetings with relevant stakeholders have occurred throughout the year, with an aim of agreeing a draft action plan to improve air quality in Chideock. This draft plan and consultation document went out to residents and businesses in Chideock during the summer of 2008. The consultation document asked for feedback on preferred actions and engaged residents to share their views on traffic pollution in Chideock.
- 8.3 As well as the consultation documents sent to residents, an open day was also held in the Chideock Village Hall on the 17th September between 12-6pm to give residents the opportunity to discuss air quality issues with Officers of WDDC. This was a productive day with about 50-60 villagers attending throughout the day. A Public Meeting was also held in the evening of 3rd September 08 to advise residents of the village about the issues with air quality and the consultation process.
- 8.4 Residents were asked in the consultation report for their top actions from the draft action plan. WDDC received a 25% response rate, and from the responses received, the graph below shows the 10 most preferred actions that residents wanted to see implemented in the finalised action plan.

Chideock residents preferred air quality actions



The responses received by all residents on the actions in the draft plan are attached in Appendix 2.

8.5 Other actions residents wanted to be included were as follows; these points were raised in the final Stakeholder meeting and were included in the drafting of the final action plan.

- *"...Pettycrate Lane and Combrey Lane are county roads as is Langdon Lane and should be maintained as such. This would allow traffic to exit westwards without using Duck Street. Dog House Lane should be made into a public road to allow traffic to exit eastwards. Hell Lane should also be maintained. This gives access to Bridport via Symmondsbury and takes away traffic queues at North Road."*
- *"...Enforce the 40mph limit up to the top of Chideock Hill."*
- *"Designate this section of the A35 as a 'Tourist Route' in context of Jurassic WHS status/2012 Olympics"*
- *"...Turn existing road into single carriageway flowing east/west and build west – east single carriageway north of the village"*
- *"Narrow area signage to discourage use of this route by HGV's"*
- *"Improve walking and cycling facilities, support the proposal for a Chideock-Eype path"*
- *"...Additional study to ascertain effects of brake pad and clutch particulates"*
- *"Divert the traffic through Yeovil via the A37 then onto A303"*

- *“Sat Nav instructions to lorry drivers to be amended to leave the A35 at Dorchester and to pick up the A37 A30 and A303”.*
- *“Road works to be completed quickly, not started one day and then left for days”.*
- *“Introduce width as well as weight restrictions to stop large vehicles going through the village”.*
- *“Roadworks along A35 should only occur overnight”.*
- *“Council to put pressure on Central Government and relevant bodies to increase train infrastructure especially Axminster to Lyme”.*
- *“Doghouse Lane to be used for Caravan Park, in & out”.*
- *“Stop letting the Caravan Parks getting bigger, increasing car numbers”.*

9. Proposed Measures

- 9.1 The following section outlines a number of proposed measures; those directly related to the A35 AQMA and those more indirect, general measures, which aim to improve air quality throughout the District.
- 9.2 **Direct measures** - aim to reduce NO₂ concentrations within the AQMA, concentrating on the dominant sources of emissions – road traffic. The A35 is the responsibility of the Highways Agency. The Highways Agency do not have any major schemes proposed for this section of the A35; therefore direct measures with high benefits are very limited in this action plan. Schemes have been put forward to the Highways Agency but have been dismissed on the grounds of cost and feasibility. These schemes as well as others that were considered but dismissed are discussed in section 11.
- 9.3 **General measures** - target those emissions within a more general area, and aim to further reduce background levels of pollution above and beyond that likely to be achieved by existing national and international agreements and policy. The ranking of options has been based on professional judgment through the assessment of a number of considerations; including the costs and benefits of all the options, feasibility and acceptability, and whether they will achieve the Air Quality Objective. It is likely that the NO₂ annual mean Objective will only be achieved through a combination of measures.
- 9.4 At this stage the impact assessment is qualitative. Quantitative air quality impact assessment measures will be undertaken when relevant information on the detailed schemes becomes available.

The costs are provided as:

- ‘Low’ (up to £100,000);
- ‘Moderate’ (between £100,000 – £1 million); and,
- ‘High’ (greater than £1 million).

The benefits are provided as:

- ‘Low’ (<0.2µg/m³);
- ‘Moderate’ (between 0.2 – 1 µg/m³); and,
- ‘High’ (greater than 1 µg/m³).

10. Air Quality Action Plan for Chideock AQMA

No	Action	Lead agency	Impacts	By..	Cost/Benefit
Promoting Alternatives to Road Transport					
A1	Publish an Action Plan to reduce road traffic by; <ul style="list-style-type: none"> Promoting local buses as commuter buses. Encouraging use by travellers of the Jurassic Coast bus 	DCC	Maximise bus usage. Improve tourism infrastructure	June 2010	Low/Low
A2	Publish a School Travel Plan for Symondsburry and other local schools. Include the investigation of Hell Lane as a Walking Bus route	DCC	Reduce local road traffic to/from schools	April 2010	Low/Low
A3	Publish an Action Plan to reduce road local traffic including; <ul style="list-style-type: none"> Promoting Car pool schemes. Increased promotion of the Car Share Dorset scheme Discussing solutions with local caravan park 	DCC	Reduce local road traffic	June 2010	Low/Low
A4	Bring a feasible scheme providing alternatives to local car travel into the Capital Programme from 2010/11 onwards	DCC	Improve cycling & walking facilities	April 2010	Medium/Low
A5	Lobby at regional level and through the LTP process for an improved Exeter/Weymouth railway route	DCC	Encourage more travellers to use railway to reduce road traffic	July 2010	Low/Medium
A6	Maintain the national concessionary bus scheme for concessionary users	WDDC (EH)	Maximise bus usage	Ongoing	Low/Low
A7	Encourage any proposals for new or improved footways or cycleways, in order to provide safe alternatives to car travel for local people and tourists.	WDDC (PI) /DCC	Reduce local traffic	Ongoing	Low/Low

No	Action	Lead agency	Impacts	By..	Cost/Benefit
Road Traffic Management					
B1	Clarify the Governments current and likely future position on building a by-pass	WDDC (EH)	Move through traffic away from the village. Displace traffic elsewhere	December 2008	Potentially High/High
B2	Maintain a programme of improvements to assist traffic flows on the A30/A35, specifically including bus stop facilities.	HA	Reduce congestion	Ongoing	Medium/Low
B4	Reduce road blockages via the Journey Time Reliability initiative, which ensures road works minimise delay. Contractors and statutory undertakers carry out the majority of their work at night to minimise congestion.	HA	Reduce congestion	Ongoing	Low/Low
B5	Prompt Dorset Road Safe (the camera partnership) to review options to smooth traffic flows, such as; <ul style="list-style-type: none"> • Remove speed limit and speed camera • Introduce "Average Speed" cameras • Point speed cameras up hill • Introduce a variable speed limit • Extend speed regulated zone 	DCC	Reduce congestion. Road safety issues.	April 2009	Low/medium
B6	Work with Somerset CC and other councils to amend SatNav systems to warn motorists (particularly HGV drivers) of steep hills at Chideock	DCC	Move HGV traffic away from the A35. Displace traffic elsewhere	April 2010	Low/Medium
B7	Complete a feasibility study to smooth flows of Seatown traffic turning onto and off the A35 and reduce pollution from queuing traffic, to deal with the seasonal traffic in particular. Submit proposal for inclusion in LTP	DCC DCC	Reduce congestion. Displace traffic elsewhere. Traffic confusion	Oct 2009 Dec 2009	Medium/medium
B8	Work with local businesses and delivery companies to voluntarily re-schedule deliveries that currently cause problems	WDDC (EH)	Reduce problem parking. Delivery problems	March 2009	Low/Low

No	Action	Lead agency	Impacts	By..	Cost/Benefit
B9	Investigate the possibility of re-scheduling refuse collection round to avoid creating additional road congestion	WDDC (WDS)	Reduce road blockages. Scheduling problems	March 2009	Low/Low
B10	Explore the effectiveness of products such as such TiO2 nano-coatings that claim to absorb pollutants when applied to road surface	HA	Absorb pollutants Aesthetic impact	Dependant on trial findings	Potentially Medium/Low
Reduce Vehicle Emissions					
C1	Ensure that contracts involving new buses (including school buses on Chideock routes meet an appropriate fuel and quality specification	DCC	Reduce air pollution from buses	Nov.2009	Low/Low
C2	Ensure that air pollution from DCC's own activities is reduced by <ul style="list-style-type: none"> Expansion of the use of bio-diesel by County Council Fleet vehicles. Promoting carbon reduction measures within Dorset schools as part of the development of the school travel plan process. Encouraging the uptake of clean, low carbon vehicles and fuels, including increasing the availability of low carbon fuels locally. Development of a safer driving policy for County Council staff, including fleet and lease drivers, that teaches and promotes safer eco-driving techniques. Awarding of Street Lighting PFI contract - This is expected to show significant CO2 savings within coming years from the use of new technologies. 	DCC	Reduce pollution from DCC vehicles and activities	Ongoing	Low/Low

No	Action	Lead agency	Impacts	By..	Cost/Benefit
C3	<p>Ensure that air pollution from WDDC's own activities is reduced by</p> <ul style="list-style-type: none"> Continuing drive to better fuel efficiency, engine emission standards and emission controls on council owned and leased vehicles Monitoring the implementation of the Corporate Travel Plan to reduce emissions resulting from both business travel and travel to work. Actions include the use of pool cars and bicycles for staff, encouragement of car sharing, and flexible working practices. 	<p>WDDC (WDS)</p> <p>WDDC (PI)</p>	<p>Reduce pollution from WDDC vehicles.</p> <p>Additional travel time</p>	Ongoing	Low/Low
C4	<p>Workplace Travel Plans - Encourage local employers to develop and implement workplace travel plans, in order to reduce the emissions resulting from both business travel and travel to work. Actions may include initiatives such as the use of pool cars and bicycles for staff, encouragement of car sharing, and flexible working practices.</p>	WDDC (PI)	<p>Reduce pollution from Local business vehicles</p>	Ongoing	Low/Low
C5	<p>Investigate differential licence fee for private hire vehicles & hackney carriages using 'greener' fuels</p>	WDDC (EH)	<p>Improve emissions from private hire vehicles & hackney carriages</p>	March 2009	Medium/Low
C6	<p>Organise a voluntary free emissions testing service for local residents</p>	WDDC (EH)	<p>Improve emissions from local residents vehicles</p>	June 2009	Low/Low
C7	<p>Investigate the feasibility of VOSA (Vehicle & Operator Services Agency) testing roadside weight, brakes and emissions of light and heavy goods vehicles at a nearby site on the A35</p>	CPC	<p>Improve emissions from larger vehicles</p>	October 2009	Medium/Low

No	Action	Lead agency	Impacts	By..	Cost/Benefit
Use Statutory and Other Powers to Limit Impact of Air Pollution					
D1	Take account of air quality issues in tendering process (where relevant)	DCC/WDDC	Protect air quality when letting contracts for goods and services	On-going	Low/Low
D2	Use existing environmental protection powers to reduce and control emissions from industrial processes, commercial & residential activities	WDDC (EH)	Reduce air pollution from industrial, commercial and residential activities	On-going	Low/Low
D3	Provide up to date / real-time air quality information on Dorsetforyou website. Investigate the potential for automatic alerts to vulnerable people (e.g. text alerts)	WDDC (EH)	Provide good air quality information	June 2009	Low/Low
D4	Use information from the continuous air pollution monitor and correlate with traffic management data to identify impacts and trends	WDDC (EH)	Help reduce air pollution by understanding its practical relationship with traffic flow	December 2009	Low/Low
D5	Investigate the desirability of declaring a smoke control area	WDDC (EH)	Reduce air pollution from domestic solid fuel burning	June 2009	Potentially Medium/Low
D6	Continue to implement the Home Energy Conservation Act policy for residential properties	WDDC (HSG)	Reduce emissions from home heating systems	On-going	Low/Low
D7	Subject to funding, monitor for relevant particulates and assess against air quality objectives. Research brake pad and clutch components as contributory factors	WDDC (EH)	Explore whether particulate matter is a significant component of air pollution locally	March 2010	Potentially Medium/Low
D8	Limit further development within the AQMA by continuing not to identify a Defined Development Boundary for the village within the local development framework. Ensure that the AQMA is taken into account as a material consideration in development control.	WDDC (PI)	Reduce the potential for air pollution from industrial, commercial and residential activities	Ongoing	Low/Low

No	Action	Lead agency	Impacts	By..	Cost/Benefit
D9	Refer to AQMA as an issue in developing the Local Development Framework and in bringing forward Local Transport Plan improvement schemes	WDDC (PI)	Reduce the potential for increased air pollution from development	Ongoing	Low/Low

KEY: **WDDC (EH)** = West Dorset District Council Environmental Health team, **WDDC (WDS)** = West Dorset Services, HA = Highways Agency
WDDC (PI) = West Dorset District Council Planning team, DCC = Dorset County Council, CPC = Chideock Parish Council

Emission reductions for Actions

A1 Publish an Action Plan to increase bus usage

Likely reduction in traffic volumes by encouraging travellers to transfer from cars to buses is impossible to accurately predict, so air pollution emissions reduction also cannot be calculated. The target is to publish the Action Plan to achieve the objective by June 2010.

A2 Publish a School Travel Plan to reduce road traffic in Symondsburry etc

Likely reduction in traffic volumes by encouraging scholars to transfer from cars to other forms of transport is impossible to accurately predict, so the reduction in air pollution also cannot be calculated. The target is to publish the Plan to achieve the objective by April 2010.

A3 Publish an Action Plan to reduce local road traffic

Likely reduction in traffic volumes by encouraging drivers to share cars or reroute is impossible to accurately predict, so the reduction in air pollution also cannot be calculated. The target is to publish the Action Plan to achieve the objective by June 2010.

A4 Publish a Feasibility Scheme to increase alternatives to road traffic

Likely reduction in traffic volumes by encouraging travellers to reduce local cars usage is impossible to accurately predict, so the reduction in air pollution also cannot be calculated. The target is to publish a Feasibility Scheme to achieve the objective by April 2010.

A5 Encourage improvements in rail transport

Likely reduction in traffic volumes by encouraging travellers to transfer from road to rail is impossible to accurately predict, so the reduction in air pollution also cannot be calculated. The target is to have lobbied at regional level to achieve the objective by July 2010.

A6 Maintain Incentives to increase bus usage

Likely reduction in traffic volumes by encouraging travellers to transfer from cars to buses is impossible to accurately predict, so the reduction in air pollution also cannot be calculated. The target is to increase take up of the scheme by a net 500 users a year.

A7 Encourage proposals to assist pedestrians and cyclists

Likely reduction in traffic volumes by encouraging travellers to transfer from cars to walking or cycling is impossible to accurately predict, so the reduction in air pollution also cannot be calculated. The target is to take all opportunities that arise in the life of the Plan to achieve the objective.

B1 Explore the government's stance on a bypass

Although air pollution emissions reduction from a bypass could be calculated, the government's intentions are not clear, and it would be premature in advance of an approved scheme. The target is to determine the government's plans by December 2008.

B2 Maintain improvements to the A30 and A35

Likely reduction in air pollution by improving the smooth flow of traffic on the main roads is impossible to accurately predict. The target is to take all opportunities that arise in the life of the Plan to achieve the objective.

B4 Reduce traffic jams due to road works

Likely reduction in air pollution by improving the smooth flow of traffic on the main roads is impossible to accurately predict. The target is to take all opportunities that arise in the life of the Plan to achieve the objective.

B5 Use speed cameras to smooth traffic flows

Likely reduction in air pollution by improving the smooth flow of traffic on the main roads is impossible to accurately predict. The target is to review at least four management options by December 2010.

B6 Reduce inappropriate use of the A35

Likely reduction in air pollution by advising particularly slow vehicles to avoid the hills on the A35 in the area is impossible to accurately predict. The target is to work with other councils to amend Sat Nav advice by April 2010.

B7 Improve a key road junction

Likely reduction in air pollution by smoothing the flow of traffic turning off the A35 to Seatown is impossible to accurately predict. The target is to complete a Feasibility Scheme to achieve the objective by October 2009, and if appropriate, submit a proposal for inclusion in the LTP by December 2009.

B8 Reschedule local deliveries

Likely reduction in air pollution by rescheduling local deliveries to smooth the flow of traffic on the A35 is impossible to accurately predict. The target is to have negotiated the matter with all businesses fronting the A35 in Chideock by March 2009.

B9 Investigate re-scheduling refuse collection

Likely reduction in air pollution by rescheduling local refuse collection to smooth the flow of traffic on the A35 is impossible to accurately predict. The target is to have negotiated the rescheduling by March 2009.

B10 Explore the effectiveness of products that claim to absorb pollutants

Likely reduction in air pollution by applying absorbing products to the road surface is impossible to accurately predict. The target is to review trial findings by September December 2010 before determining whether to proceed.

C1 Ensure that contracts involving new buses meet an appropriate specification

Likely reduction in air pollution by reducing air pollution from buses is impossible to accurately predict. The target is to have put the matter in all new contracts by November 2009.

C2 Ensure that air pollution from DCC's own travel activities is reduced

The likely reduction in air pollution from the county council's own travel activities is impossible to accurately predict. The target is to maintain a number of initiatives

C3 Ensure that air pollution from WDDC's own travel activities is reduced

The likely reduction in air pollution from the district council's own travel activities is impossible to accurately predict. The target is to maintain a number of initiatives

C4 Ensure that air pollution from the travel of local employers is reduced

The likely reduction in air pollution from the travel arrangements of local employers is impossible to accurately predict. The target is to maintain a number of initiatives

C5 Encourage taxis to use 'greener' fuels

The likely reduction in air pollution from differential licence fee for private hire vehicles & hackney carriages using 'greener' fuels is impossible to accurately predict. The target is to investigate the feasibility of the initiative by March 2009

C6 Encourage local voluntary emission testing

The likely reduction in air pollution from voluntary emission testing of local vehicles is impossible to accurately predict. The target is to organise an event by March 2009

C7 Encourage VOSA to carry out emission testing locally

The likely reduction in air pollution from VOSA (Vehicle & Operator Services Agency) carrying out roadside emissions testing of light and heavy goods vehicles at a nearby site on the A35 is impossible to accurately predict. The target is to investigate the feasibility of the initiative by October 2009

D1 Take account of air quality issues in tendering process

The likely reduction in air pollution from the councils including air quality issues in tendering processes is impossible to accurately predict. The target is to continue to include the matter in standard tendering processes where appropriate

D2 Reduce air pollution from commercial and residential activities

The likely reduction in air pollution from the council using its legal powers to reduce and control emissions from industrial processes, commercial & residential activities is impossible to accurately predict. The target is to maintain existing enforcement activity

D3 Provide public air quality information.

Providing up to date / real-time air quality information is unlikely to reduce air pollution, but will help to deal with it more effectively. The target is to provide the information on a website by June 2009

D4 Use air quality information to understand the impact of traffic more effectively.

Correlating traffic management data with information from the continuous air pollution monitor is unlikely to reduce air pollution, but will help to deal with it more effectively. The target is to understanding its practical relationship with traffic flow by December 2009

D5 Investigate the desirability of declaring a smoke control area

A smoke control area may reduce certain air pollutants, but its impact on NOx is impossible to accurately predict. The target is to investigate it by June 2009

D6 Provide home insulation

The likely reduction in air pollution resulting from the council continuing to implement the Home Energy Conservation Act is impossible to accurately predict. The target is to maintain existing levels of take-up activity

11. Measures Considered but Dismissed

11.1 The measures in the following table were assessed during the stakeholder meetings and were considered not viable at this present time. WDDC will continue to monitor progress and best practice on these and other measures and work in partnership with the Highways Agency and other partners to investigate their potential for implementation to improve air quality and the environment in general.

No	Description of Rejected Proposal	Reason for Rejection	Lead
2	Weight restriction would move heavy traffic away from Chideock and reduce pollution – but cause problems elsewhere	<i>“There are no suitable alternative routes for HGVs.– HA are not promoting this option”</i> – email from Highways Agency Dismissed on the grounds of cost and feasibility	Highways Agency
3	Downgrade A35 from Trunk Road might encourage traffic away from Chideock and reduce pollution – but conflict with AQMAs elsewhere	<i>“Detrunking on its own would have no effect on usage – HA are not promoting this option”</i> – email from Highways Agency Dismissed on the grounds of feasibility	Highways Agency
9	Toll or congestion charges for local road use would reduce traffic flow.	<i>“Toll schemes are expensive to build and run with their own environmental, delay and pollution problems. Not a cost effective solution to the problem – HA are not promoting this option”</i> – email from Highways Agency Dismissed on grounds of cost and feasibility	Highways Agency
17	The County Council will work in partnership with the bus operators to undertake a feasibility study into an enhanced bus service	Buses already run so frequently through Chideock that there is little likelihood that more will reduce pollution.	DCC
24	Promote take up of Park & Ride buses in Lyme Regis. Provide a Park & Ride buses for Charmouth	Will not impact on Chideock Dismissed on grounds of feasibility	DCC DCC

No	Description of Rejected Proposal	Reason for Rejection	Lead
28	Investigate feasibility of the Council adopting its duties under Road Traffic (Vehicle Emissions) (Fixed Penalty)(England) Regulations 2002 in respect of stopping of engines when vehicles are stationary with particular emphasis on LDV, HDV, bus/coach and taxi vehicles	Nature of congestion unlikely to benefit from stopped engines Dismissed on grounds of feasibility	DCC
31	Introduce signage to ask waiting motorists to “turn off engine”	Nature of congestion unlikely to benefit from stopped engines	DCC
33	Provide double glazing and artificial ventilation to houses in the AQMA	Good for noise reduction, but unlikely to have beneficial effect on air quality inside home. No benefit outside. Problem for listed buildings	WDDC
49	With PCT, promote health benefits of walking versus car driving	Input could be disproportionate to benefit to Chideock	WDDC
53	Lobbying of Government to create national policy to encourage and facilitate use of greener forms of transport	Input could be disproportionate to benefit to Chideock	WDDC CPC DCC
56	Information on Bonfires. Voluntary Bonfire Ban	Not popular locally. Input could be disproportionate to benefit, however Chideock Parish Council have already undertaken a bonfire leaflet drop on residents in the village.	WDDC CPC
57	Tree planting would have possible beneficial effects in absorbing emissions	Little space available - Input could be disproportionate to benefit to Chideock	WDDC DCC

12. *Implementation and Monitoring*

- 12.1 WDDC will work jointly on the proposed action plan measures with its partners including the Highways Agency, DCC. To secure the necessary air quality improvements there must be involvement by all local stakeholders and WDDC will actively work to encourage community participation in the process.
- 12.2 The implementation and effectiveness of the Action Plan will be carefully monitored through monitoring of nitrogen dioxide at relevant receptor locations within the AQMA. Indicators will be provided for measures to be undertaken by the Council to monitor progress annually.
- 12.3 Targets and indicators have also been established through the LTP. There will be regular review and assessment of the action plan proposals to evaluate progress and this will be reported annually, including through LAQM and LTP progress reports.

Appendix 1 - National Air Quality Objectives Table

Pollutant	Air Quality Objective		To be achieved by
	Concentration	Measured as	
Benzene			
All authorities	16.25 $\mu\text{g m}^{-3}$	Running annual mean	31 December 2003
England and Wales Only	5.00 $\mu\text{g m}^{-3}$	Annual mean	31 December 2010
Scotland and N. Ireland	3.25 $\mu\text{g m}^{-3}$	Running annual mean	31 December 2010
1,3-Butadiene	2.25 $\mu\text{g m}^{-3}$	Running annual mean	31 December 2003
Carbon Monoxide			
England, Wales and N. Ireland	10.0 mg m^{-3}	Maximum daily running 8-hour mean	31 December 2003
Scotland Only	10.0 mg m^{-3}	Running 8-hour mean	31 December 2003
Lead	0.5 $\mu\text{g m}^{-3}$	Annual mean	31 December 2004
	0.25 $\mu\text{g m}^{-3}$	Annual mean	31 December 2008
Nitrogen Dioxide	200 $\mu\text{g m}^{-3}$ not to be exceeded more than 18 times a year	1-hour mean	31 December 2005
	40 $\mu\text{g m}^{-3}$	Annual mean	31 December 2005
Particles (PM10) (gravimetric)			
All authorities	50 $\mu\text{g m}^{-3}$, not to be exceeded more than 35 times a year	24-hour mean	31 December 2004
	40 $\mu\text{g m}^{-3}$	Annual mean	31 December 2004
Scotland Only	50 $\mu\text{g m}^{-3}$, not to be exceeded more than 7 times a year	24-hour mean	31 December 2010
	18 $\mu\text{g m}^{-3}$	Annual mean	31 December 2010
Particles (PM2.5) (gravimetric) *			
All authorities	25 $\mu\text{g m}^{-3}$ (target)	Annual mean	2020
	15% cut in urban background exposure	Annual mean	2010 - 2020
Scotland Only	12 $\mu\text{g m}^{-3}$ (limit)	Annual mean	2010
Sulphur dioxide	350 $\mu\text{g m}^{-3}$, not to be exceeded more than 24 times a year	1-hour mean	31 December 2004

Pollutant	Air Quality Objective		To be achieved by
	Concentration	Measured as	
	125 $\mu\text{g m}^{-3}$, not to be exceeded more than 3 times a year	24-hour mean	31 December 2004
	266 $\mu\text{g m}^{-3}$, not to be exceeded more than 35 times a year	15-minute mean	31 December 2005
PAH *	0.25 ng m^{-3}	Annual mean	31 December 2010
Ozone *	100 $\mu\text{g m}^{-3}$ not to be exceeded more than 10 times a year	Daily maximum of running 8-hour mean	31 December 2005

* Not included in regulations at present
 Shaded data shows new objectives

Appendix 2

Number of Resident Responses to all Air Quality Actions

Action	Number of Responses
Road Traffic Related Action – Management	
Moving road traffic away - Bypass	44
Introduce weight restrictions	49
Downgrade A35 from Trunk Road	37
Remove speed limit and speed camera	1
Introduce “Average Speed” cameras	7
Point speed cameras up hill	1
Variable speed limit	1
Extend speed regulated zone	6
Introduce Toll or Congestion Charge	11
No right turn into or out of Seatown	5
Provide alternative access to Seatown	12
Improved cycling & walking facilities	3
Reduce problem parking	0
Reduce heavy vehicles – local businesses to reschedule delivery routes	9
Road surface treatment	5
Road Traffic Related – Public Transport	
Greener buses	2
Bus Quality Partnerships and Contracts	0
Maximise bus usage	0
Maximise bus usage	0
Reduced emissions from school buses	0
Reduce bus blockages	1
Encourage use of Jurassic Coast bus	1
Encourage a Exeter/Weymouth railway route	4
Encourage use of Park & Ride buses	2
General Measures	3
Road Traffic Related Action – Enforcement	
Commercial vehicle roadside testing	20
Roadside emission testing of other vehicles	11
Stationary engine powers	0
Road Traffic Related Action – Schemes	
Reduce road blockages – Reschedule waste collection to off peak	1
Reduce road blockages – Schedule road works to off peak periods	5
Reduce standing vehicle pollution – Signage asking to turn off engines	2
Reduce road traffic – Car Pool Schemes	2
Protect house holders in AQMA – Double Glazing to be provided	3
Reduce local traffic – Encourage cycling, promote local cycle ways	0
Improve Council owned vehicles	1

Council Green Travel Plans	0
Workplace Green Travel Plans	1
School Green Travel Plans	0
Hell Lane – Reopen as walking bus route	2
Voluntary emissions testing	0
General Policy Measures	
Land Use Planning	3
Raise profile of AQMA	0
Tendering Contracts	0
Land Use Planning – Use Section 106 agreements	0
Land Use Planning - LTP & Structure Plan to encompass transport issues	1
Land Use Planning - LDF to encompass transportation issues	0
Air Quality Planning – Consider AQMA in planning decisions	1
Control polluting processes	0
Walking for health	0
Support Green Transport Week and Car Free Day	0
Air quality information – Expand and improve AQ info	1
Track progress and correlate data	3
National action – Lobbying of Government on greener forms of transport	3
Domestic Emissions	
Smoke Control Zone	0
Home Insulation Schemes	1
Action on local bonfires	2
Tree planting as pollution sinks	3

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[HPA - Nitrogen Dioxide](#)