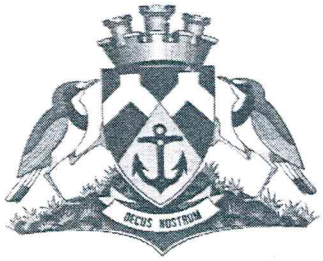
OVERBERG DISTRICT MUNICIPALITY

AIR QUALITY MANAGEMENT PLAN



Council Resolution No	: A58
Date	: 03.12.2012
Municipal Manager	: 18/3/2013 WA du Toit ACTING MUNICIPAL MANAGER
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OVERBERG DISTRICT MUNICIPALITY
AIR QUALITY MANAGEMENT PLAN

NOVEMBER 2012

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AIR QUALITY MANAGEMENT: OVERBERG

1. FOREWORD

The Overberg is a district in South Africa to the east of Cape Town beyond the Hottentots – Holland Mountains. It lies along the Western Cape south coast between the Cape Peninsula and the region known as the Garden route or the Eden District to the east. The boundaries of the Overberg are the Hottentots – Holland Mountains in the west, the Riviersonderend Mountains, part of the Cape Fold Belt, in the north, the Atlantic and Indian Oceans in the south and the Breede River in the East. The major towns in the region are Swellendam, Hermanus, Grabouw, Caledon and Bredasdorp. The region includes Cape Agulhas, the southernmost point of Africa and comprised four local municipalities, namely, Theewaterskloof, Cape Agulhas, Overstrand and Swellendam.

The landscape is dominated by gently to moderately undulating hills enclosed by mountains and the ocean. The flat and level coastal plain rises from sea level to 100m, the hillier inland coastal plato rises from 150m to 300m above seal level. The western part of the region is situated within the winter rainfall area of South Africa and the eastern part falls within the winter and summer rainfall areas. The average rainfall in the region is 650mm with the highest rainfall in the Grabouw area (1010mm) and the lowest in the Barrydale area (350mm).

The area has a strong agricultural sector which comprises 11.6 per cent of all agricultural production in the Western Cape. Table 1 below illustrates the real and projected population growth in the district for the period 1996 to 2015.

Table1: Population growth, 1996 – 2015

Area	1996	2001	Rate %	2007	Rate %	2015 Projection	Rate %
Overberg District Total	159 033	205 945	5,9	237 555	2,6	270 202	1,7
Overberg DMA				256			
Cape Agulhas	22 011	26 715	4,3	30 231	2,2	33 897	1,5
Overstrand	37 315	58 332	11,3	73 031	4,2	91 356	3,1
Swellendam	24 620	27 897	2,7	30 445	1,5	31 871	0,6
Theewaters-kloof	74 272	92 777	5,0	103 281	1,9	111 218	1,0

1996 and 2001 Source: Statistic SA
2006 and 2010 Source: Centre for Actuarial Research, UCT
Provincial Treasury Socio- Economic Profile for Overberg District and Local Municipalities, 2007

2. INTRODUCTION

PURPOSE OF THE PLAN

The National Environmental Management : Air Quality Act 39 of 2004 (AQA) requires Municipalities to introduce Air Quality Management Plans (AQMP) that set out what will be done to achieve the prescribed air quality standards. Municipalities are required to include an AQMP as part of its Integrated Development Plan.

As detailed in the AQA a district municipality has three primary statutory obligations with which it must comply and these three obligations are:-

- discharge the role of an atmospheric licensing authority
- designate an Air Quality Officer (AQO)
- incorporate an Air Quality Management Plan in its IDP

The Air Quality Management function within the Overberg District Municipality resolves under the Municipal Health Section of the Community Services Department, with the Head: Municipal Health designated as the Air Quality Officer. Before the promulgation of the Air Quality Act 39 of 2004 permits used to be issued by the National Government in terms of the Atmospheric Pollution Prevention Act, 1965(Act 45 of 1965). The district and the local municipalities had little or no input in relation to the issuing of these

permits. In the district and local municipalities air quality issues were restricted to the investigation of complaints and dealing with the complaints in terms of local by - laws and land – use planning. This resulted in a lack of skills in the field of air quality management at municipal level. The Air Quality Management Plan must acknowledge these shortcomings and objectives, identified within the plan and will focus on addressing issues of capacity building

This Air Quality Management Plan for the Overberg has thus been developed to comply with the National Environmental Management: Air Quality Act, 39 of 2004 and more specifically to provide guidance on Air Quality Management in the Overberg. Air quality is defined to include noise and odour and addresses all sources of air pollution, i.e. point, area and mobile sources.

2.2 THE AQMP DEVELOPMENT PROCESS

Public participation and cooperative governance is essential for the development of an AQMP. A workshop was held in Overberg with officials of the four B-municipalities, the Overberg district municipality and representatives from the DEADP. Participants provided inputs for this draft AQMP. The draft AQMP was presented to the Portfolio committee for Community Service of the Overberg District Municipality and was provisionally approved. The broader public was informed through the local media throughout the Overberg that the draft AQMP was available for 21 days for public scrutiny at all sub-district offices and libraries throughout the Overberg.

3. VISION OF THE AIR QUALITY MANAGEMENT PLAN

To be a district where the constitutional right of all human beings to clean air is maintained to such a standard where economic and social development will flourish without jeopardizing the environment.

4. MISSION OF THE AIR QUALITY MANAGEMENT PLAN

To ensure effective and maintain implementation of sustainable air quality management practices throughout the Overberg district to progressively achieve air quality goals.

5. SUMMARY OF STATUS QUO OF AIR QUALITY MANAGEMENT IN OVERBERG

5.1 Current institutional capacity of ODM

At the ODM the Municipal Health Services section situated within the Community Services Directorate will be responsible for air quality management. Municipal Health Services include most environmental health services as described in the National Health Act, Act 61 of 2003. This include water quality monitoring, food control, environmental pollution control, waste management, health surveillance premises, surveillance and prevention of communicable diseases, vector control, disposal of the dead and chemical

safety. 15 Environmental health practitioners are responsible for the execution of these functions throughout the district.

The ODM has appointed an Interim Air Quality Officer (The Head; Municipal Health Services) who in turn appointed an air quality management committee, consisting of the 4 area managers for municipal health, with The Head: Municipal Health Services as coordinator. The 4 area managers are to assist with the function of air quality management. As the members of the committee are currently occupying positions in the Municipal Health Services structure it is not foreseen that any additional staff structures will have to be established to implement this plan for the immediate future.

5.2 Air pollution sources in the Overberg

- Industrial operations especially fish factories in Gansbaai and Hermanus and clay brick manufacturing
- Agricultural activities such as crop burning and spraying
- Biomass burning (veld fires)
- Domestic fuel burning (wood and paraffin)
- Vehicle emissions
- Waste treatment and disposal
- Dust from unpaved roads
- Other fugitive dust sources such as wind erosion of exposed areas
-

There are few sources of air pollutants in the Overberg.The ambient air quality is generally good; however, emissions from industrial boilers are likely to result in local areas of elevated concentrations of air pollutants. Ambient particulate concentrations are likely to be high in low – income residential areas where wood is used as primary fuel source. The motor vehicle congestion in holiday towns and along the N2 road results in elevated ambient concentrations of particulates and NOx (Nitrogen Oxides) at times.

5.3 Air quality monitoring

During 2006 passive sampling was conducted throughout the district and 19 samples were suitably placed, monitoring all local municipal areas. The results obtained from the passive sampling project across the Overberg were low and well within the Lower Assessment Threshold (LAT) depicted in SANS 1929: 2005.
The Sulphur dioxide levels recorded during the period at the 19 sites in the Overberg are low. The two higher levels were at Gansbaai 6µg/m³ and Botriver 8µg/m³ (µ = micro grams per cubic meter). The nitrogen dioxide values recorded in the Overberg are low with an average across the area of 5µg/m³. The highest level recorded was at Zwelihle, Hermanus being 15µg/m³. The Benzene levels recorded at all sites within the Overberg reflect levels of <0.5µg/m³. The ozone levels monitored across the district were 48µg/m³. An overall perspective of the sample analysis indicated that the pollution levels are low within the district.

5.4 Number of registered industrial processes and scheduled processes in the Overberg District

Registered Sources	List of Activities
4	7

6 GAPS AND PROBLEMS

- The divisions of roles and responsibilities between local and district municipalities are not clearly understood or have not been accepted by certain local municipalities and this hampers cooperative governance and the implementation of the function.
- Until consensus has not been reach regarding the abovementioned, the ODM will only accept responsibility for the licensing of listed activities and the enforcement of legislation will be the local municipality's responsibilities.
- Not all local municipalities have appointed Air Quality Officers and this hampers communication and accountability.
- Air quality management requires cooperation from various disciplines within local government which includes amongst others traffic, municipal health, fire and rescue, town planning, engineering, building control etc. The successful implementation of air quality management is thus strongly dependant upon cooperation and communication among all sectors and all local governments within the district.
- Inadequate financial provision specifically earmarked for air quality management by all municipalities within the district.
- The availability of suitably skilled human resources also remains a challenge.
- The idea or perception "The Overberg's air is clean, so why is air quality management necessary" makes it difficult to gain the attention of decision makers as well as the general public.
- No Air Quality by-law has been promulgated.
- Personnel capacity building (EMI course)
- Town planning and road planning do not always consider the impact of developments on air quality.

7. GOALS

- Effective and consistent air quality management
- Promote communication in relation to air quality management
- Effective and consistent compliance monitoring and enforcement
- Develop and maintain institutional arrangement between the district and the local municipalities that support air quality management.
- Achieve and sustain acceptable air quality levels throughout the district
- Minimize the negative impact on human health and well – being and on the environment

8. OBJECTIVES

8.1 EFFECTIVE AIR QUALITY MANAGEMENT

- Build capacity in air quality management within the Municipal Health Services section of the Overberg District Municipality
- To develop and implement an effective Atmospheric Emissions Licensing System
- Develop, implement and maintain an Air Quality Management System
- Establish an annual AQMP review process
- Established an Emission Reduction Strategy

8.2 PROMOTE COMMUNICATION IN RELATION TO AIR QUALITY MANAGEMENT

- Establish an Air Quality Forum in order to ensure proper communication between the Overberg district municipality, local municipalities, provincial government, business and industry as well as interested and affected parties in the 4 sub-districts of the Overberg district municipality.

8.3 COMPLIANCE MONITORING

- Establish a compliance monitoring system within the Overberg district municipality.
- Ensure continuous compliance with the Atmospheric Licensing Conditions.
- Promulgation of Air Quality by-law

9. MONITORING EVALUATION AND REVIEW

Monitoring and reporting on progress with regard to the implementation of the AQMP is a key factor in maintaining momentum for the roll – out of interventions as well as providing a way to update key stakeholders.

Continuous evaluation is an essential element of the AQMP implementation as it allows for a thorough assessment of the AQMP. Annual evaluation of the AQMP implementation will be conducted. Monitoring and evaluation will be the responsibility of the Air Quality Management Committee.

The AQMP review comprises a review of the AQMP and the implementation and addresses further developments in the science, as well as the management of air quality. The review period will be every five years.

10. IMPLEMENTATION PLAN

Timeframes: Short-term (6-12 months); Medium-term (1-2 years): Long-term (3-5 years)

GOALS	OBJECTIVES	TARGETS	ACTIVITIES	TIMEFRAMES
Effective Air Quality Management	Effective Air Quality Management	Build capacity in air quality management within the Municipal Health Services section of the Overberg District Municipality.	Provide EHP's within the MHS directorate with continuous training and development in air quality management	Continuous
	To develop and implement an effective air emissions licensing system	Build capacity in air emissions licensing	Provide EHP's within the MHS directorate with training and development in Air Emissions Licensing	Short - Medium
			Secure assistance from the provincial department in relation to air emissions licensing	Short-term
		Develop an air emissions licensing administration and management system	Develop forms, procedures, documentation and protocols for the administration of air emissions licensing	Short – Medium
			Incorporate the air emissions licensing function into the MHS management system	Short – Medium
	Develop, implement and maintain an Air Quality Management System	Compilation of a comprehensive emissions inventory for the whole of the Overberg district	Compile an emission inventory of all line sources	Medium
			Compile an emission inventory of all area sources	Medium
			Compile an emission inventory of all industrial sources	Short
		Air Quality monitoring agreement with Province	Engagements with Province to assist with air quality monitoring within the district	Short – Long
	Establish an annual AQMP review process	Review systems, structures and processes to review progress in relation to the AQMP.	Establish a committee to review the AQMP	Short – Medium
			Establish a comprehensive complaints register.	Short

	Establish an emission reduction strategy.	Industries	Electronic database of all small industries to be regularly updated	Short – Medium
			Create awareness campaigns around the negative health impacts of domestic fuel burning	Continuous
			Encourage the distribution of alternative forms of domestic energy such as LPG, LSF, gas, methanol, etc	Continuous
		Traffic	Review vehicle emissions database with updated traffic count data as these become available	Medium – Long
			Promote comprehensive vehicle emissions monitoring and diesel vehicle testing programmes in congested areas	Continuous
			Compile a detailed assessment of the vehicle fleet in the District including information on vehicle numbers, type, age and fuel usage.	Long
		Agriculture	Obtain information on the quantity of pesticides used in the District	Continuous
			Promote the safe and responsible use of pesticides throughout the district.	Medium – Long
			Promote safe and responsible agricultural burning practices.	Short – Medium
		Biomass Burning	Liaise with fire services to assist in air pollution control	Short – Medium
			Obtain information from local Fire Departments to maintain and update a database of the locations of veld fires and the extent of the areas burnt	Short – Medium
			Maintain a database for regional scheduled burn areas that are published for agricultural and management fires	Short – Medium
		Waste Treatment and Disposal	Develop an emissions inventory of waste burning sources (incinerators, sewage and waste water treatment works)	Short – Medium
			Ensure all operating incinerators are permitted	Continuous

			Maintain a current database of permitted and non-permitted landfill sites	Continuous
Promote communication in relation to Air Quality Management	Establish an air quality forum in order to ensure proper communication between the Overberg district, Local municipalities, Provincial government, business and industry as well as interested and affected parties in the 4 sub-district of the Overberg district municipality.	A committee/forum at a sub-district level representing all interested and affected parties.	The ODM to take the leading role in the establishment and management of an Air Quality Officers Committee/ Forum	Short-term
		Clearing up the division of functions between the 4 B municipalities and District Municipality	Discussions on the division of functions between the 4 B municipalities and the Overberg district municipality	Short – Medium
		Regular reporting and discussions on issues of AQM.	Compile a annual state of air report for the district	Annually
Compliance monitoring	Establish a license compliance system within the Overberg district municipality.	Build capacity in license compliance within the district.	Provide EHP's within the MHS department with continuous training and development in compliance monitoring.	Continuous
			Design and implement a compliance monitoring system.	Short – Medium
	Ensure continuous compliance with Atmospheric Emission Licensing Conditions	Control emissions from listed Processes	Periodic site inspections and retrieval emissions data.	Continuous
			Licensing conditions to ensure compulsory monitoring and reporting by industries to the ODM	Short – Medium
	Develop an Air Quality by-law	Build capacity to ensure Air Quality compliance in the Overberg	Allow EHP's to investigate and maintain a good Air Quality standard	Medium - Long

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Our ref: GBM/1120/wb/ac

20 November 2012

Att. Mr W A du Toit

Acting Director: Community Services
Overberg District Municipality
26 Long Street
Bredasdorp

Sir

COMMENT ON DRAFT AIR QUALITY MANAGEMENT PLAN

I write in the role of technical consultant on behalf of my client, Gansbaai Marine (Pty) Ltd (GBM), a company that has continued for the past 50 years to operate a pelagic fish processing factory situated in the Old Harbour at Gansbaai.

Because GBM's operations include a fish meal plant for the reduction of industrial fish and cannery off-cuts to fish meal, the factory operates under an Atmospheric Pollution Prevention Act permit which is being converted to an Atmospheric Emissions Licence in terms of the NEM: Air Quality Act. Fish meal production is one of the few primary industries in the region but is, because of its intrinsically associated atmospheric emissions impact in regard to odour, categorised as a scheduled (erstwhile "listed") activity.

In light of the above GBM would like to see in the ODM Air Quality Management Plan some acknowledgement of the status of listed activities and the special conditions that pertain to them. For example, in the case of GBM, the choice of its location was made in terms of the Report of the Investigation Committee into Fish Meal Plants undertaken under the auspices of the then Provincial Administration of the Cape of Good Hope.

In the draft AQMP, the fourth bullet under Section 6, GAPS and PROBLEMS, identifies *inter alia* communication with the town planning discipline as an area requiring attention. Over the years, lack of proper attention to town planning issues has led to encroachment of inappropriate developments in close proximity to GBM. To address this, GBM would like to see a more *specific* mention of the *town planning discipline* being represented at all levels in the improved communication contemplated in Objective 8.2 between the authorities and all other interested and affected parties.

I trust that our comment will enjoy your attention.

Yours faithfully

W R Barnes

OVERBERG DISTRIKSMUN.
LÊERVERW:
VIR AFHANDELING: Mnr. R. du Toit
Hoof Munisipale Gesondheid
AFSKRIFTE:
No:

OVERBERG DISTRICT MUNICIPALITY: AIR QUALITY MANAGEMENT PLAN

Air quality management should be seen as an important part of Climate change adaptation and mitigation. Air quality can be sensitive to increased temperatures, increased greenhouse gas emissions as well as to an increased demand for local fuels such as paraffin and wood.

It can therefore be of value to take into account the National climate change response white paper as well as the Western Cape climate change response strategy and action plan when developing an AQMP.

NATIONAL CLIMATE CHANGE RESPONSE WHITE PAPER:

In light of COP17 and the signing of the Kyoto Protocol by the South African government, South Africa has committed to a fair contribution to stabilising global greenhouse gas (GHG) concentrations in the atmosphere and to protecting the country and its people from the impacts of inevitable climate change.

One of the White paper's strategic priorities read as such:

*"**Mitigation actions with significant outcomes** – prioritise cost effective and beneficial mitigation policies, measures and interventions that significantly contribute to the country's deviation from the GHG emission "business as usual trajectory" as measured against a benchmark "peak, plateau and decline" GHG emission trajectory where GHG emissions peak between 2020 and 2025 plateau for approximately a decade and begin declining in absolute terms thereafter."*

This GHG emissions trajectory reflects South Africa's fair contribution to the global effort to limit anthropogenic climate change to well below a maximum of 2oC above pre-industrial levels.

Thus this GHG emissions trajectory and its various details as described in the White paper could be relevant to some of the objectives as set out in the ODM AQMP, for example: "Establishing an Emission Reduction Strategy."

The White paper also included several adaptation proposals for various sectors that contribute to or is affected by climate change. This includes water, agriculture and commercial forestry, health, biodiversity and ecosystems, human settlements and disaster risk management. In most of these sectors GHG emissions and the management thereof is reflected as a priority.

As far as mitigation measures identified, it includes:

- Setting a performance benchmark using the national GHG emissions trajectory range.
- Identifying desired sectoral mitigation contributions. Defining desired emission reduction outcomes for each sector and sub-sector.
- Defining Carbon Budgets for significant GHG emitting sectors and/or sub sectors.
- Establishing a national system of data collection to provide detailed, complete, accurate and up-to-date emission data. Greenhouse Gas Inventory and a Monitoring and Evaluation System.

WESTERN CAPE CLIMATE CHANGE RESPONSE STRATEGY AND ACTION PLAN (2008):

One of the key outcomes identified in this strategy is: "REDUCE OUR CARBON FOOTPRINT". Various mitigation programmes has been identified in order to achieve or measure this specific outcome whereby air quality monitoring is one of the programmes.

Local and indoor air quality impacts on health, economic activities and the environment. Climate change and failure to mitigate may contribute to increased severe air pollution episodes but early warning systems can help mitigate this.

Some of the challenges facing the Province is that air quality monitoring is hugely under-capacitated, resulting in inconsistent and inadequate data and information for robust early warning systems.

Capacity building in rural areas for air quality monitoring includes both human capital and technology/equipment. It has been proposed that about seven new air quality monitoring station will be adequate for the entire province excluding the city of Cape Town.

The following two tables were also published as part of the action plan. (Take note that I am not sure with regards to the relevance of this information and if it is still applicable.)

Action:	Responsibility:
• Verify locations for stations	DEA&DP with local authorities
• **Allocate budget for stations and for education and awareness and response/early warning systems**	**Local authorities / Treasury**
• Establish monitoring human resource capacity and training	Local authorities
• Establish clear channels for disseminating monitored data (with reference to the AQ management act)	PCCC/AQ Committee
• Establish early warning mechanism and system with the Provincial Disaster Management Unit structures and the Department of Health.	PDMU / local authorities / Dept health.
• Establish communication channels with the Office of the Premier – for example to communicate high pollution events that aim to reduce / minimise the impact.	PCCC / Office of the Premier
• Educate and communicate	Local authorities?

Additional Air Quality Monitoring Costs:

AIR QUALITY MONITORING STATION BUDGET						
Type	Parameters	Cost capital	Cost operational	No. of stations	Total capital	Total operational
		R	R p/a		R	R
Urban	Nox, SO2, PM10, O3, Met	650 000	200 000	2	1 300 000	4 00 000
Rural	O3, Met	280 000	95 000	7	1 960 000	665 000
				Total	3 260 000	1 065 000

EXTRACT FROM THE COUNCIL MINUTES HELD ON 3 DECMEBER

Item A58. 3.12.2012

MUNICIPAL HEALTH: AIR QUALITY MANAGEMENT PLAN (REF : 18/3/12/3/1/B)

R du Toit: Head Municipal Health

PURPOSE

To obtained council approval of an Air Quality Management Plan for the Overberg District.

BACKGROUND

The National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) was promulgated. Municipalities, as with national department and the provincial departments, have a number of responsibilities within the governance cycle. Each municipality has a number of exclusive air quality management powers.

In this regard the municipality must:

- Designate a municipal air quality officer from its administration
- Develop an air quality plan for inclusion in its IDP (AQMP)
- Prepare an annual report including progress regarding the implementation of the AQMP and compliance with the plan.

In addition, Metropolitan and District Municipalities must:

- Implement the atmospheric emission licensing system
- Carry out the responsibility for performing the function of the licensing authority as set out in Chapter 5 of the AQ Act

The Department of Environmental Affairs & Development Planning and ODM staff had a meeting on 26 /09/2012 to discuss the new AQ plan of ODM that must be in place by January 2013. The B municipalities is not on board and have to create their own plans for air quality.

The Draft Air Quality plan has been advertised for comments with closing date of 21 November 2012.

Two comments has been received.

- ODM Environmental Management
- Montepesca

PERSONNEL AND INFRASTRUCTURE IMPLICATIONS

Air Quality Control is in the scope of practice of Municipal Health. There are an area manager in each municipal area in the district which will be responsible for this function

ANNEXURE

Draft Air Quality Management Plan and the comments is attached as Annexure F.

FINANCIAL IMPLICATIONS

Advertising and printing cost. Estimated amount R 7 000,00.

RECOMMENDATION FROM THE MAYORAL COMMITTEE TO COUNCIL :

1. That the previous decision of the Mayoral Committee meeting held on 13 March 2012 be repealed.
2. That this new draft document be approved.
3. A propper public participation process be followed.
4. Council approval be obtained by November 2012.

UNANIMOUSLY RESOLVED (Proposed by cllr L de Bruyn and seconded by cllr A Franken)

The draft Air Quality Plan is approved, with the two comments as received.