

PRINCE ALBERT MUNICIPALITY AIR QUALITY MANAGEMENT PLAN



DRAFT

November 2014

TABLE OF CONTENTS

FOREWORD	3
Table1: Population growth, 1996 – 2015.....	Error! Bookmark not defined.
INTRODUCTION.....	7
1.1 PURPOSE OF THE PLAN	7
1.2 THE AQMP DEVELOPMENT PROCESS.....	8
2. VISION OF THE AIR QUALITY MANAGEMENT PLAN	8
3. MISSION OF THE AIR QUALITY MANAGEMENT PLAN.....	8
4. GOALS OF THE VISION AND MISSION.....	8
5. SUMMARY OF STATUS QUO OF AIR QUALITY MANAGEMENT IN CENTRAL KAROO.....	9
5.1 Current institutional capacity of CKDM.....	9
5.2 Air pollution sources in the Central Karoo	9
5.3 Air quality monitoring	10
6. GAPS AND PROBLEMS	10
7. GOALS	11
8. OBJECTIVES	11
8.1 EFFECTIVE AIR QUALITY MANAGEMENT	11
8.2 PROMOTE COMMUNICATION IN RELATION TO AIR QUALITY MANAGEMENT	12
8.3 COMPLIANCE MONITORING.....	12
9. MONITORING.....	12
10. EVALUATION.....	13
11. REVIEW	13
12. IMPLEMENTATION PLAN	14

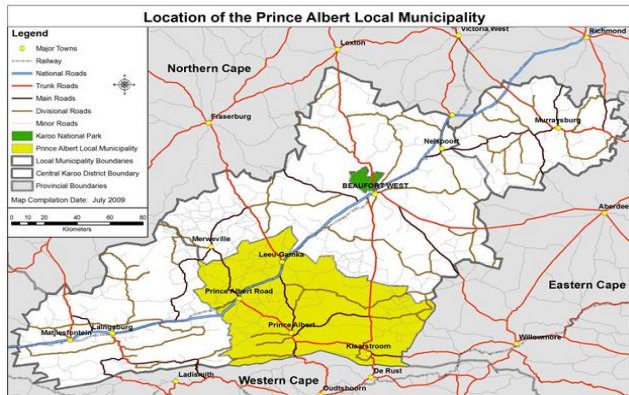
AIR QUALITY MANAGEMENT: PRINCE ALBERT MUNICIPALITY

FOREWORD

The Prince Albert Municipality is one of four municipalities in the Central Karoo District. It includes the scenic town of Prince Albert as well as the settlements of Leeu-Gamka, Klaarstroom, Prince Albert Road and Seekoeigat and surrounding rural area.

Prince Albert is approximately 400 km north of Cape Town and about 170km south of Beaufort West on the N1. To enhance effective and excellent service delivery the municipal area was divided into four wards, namely:

Ward No	Area
1	Leeu-Gamka & Prince Albert Road
2	Prince Albert North
3	Prince Albert South
4	Prince Albert North-end (Rondomskek) & Klaarstroom



The Prince Albert Municipality is current in its 113th year and is regarded as a niche municipality. Niche implies small, hard to find, expensive and unique. The small community of 13 136 + inhabitants are offered high quality living for those who can afford it and low to moderate quality to those who cannot.

Prince Albert historically positioned itself in the high end of the market and relied on Tourism, Heritage and Agriculture as its main sectorial economic drivers. This has proven to deepen the divide between the advantaged and disadvantaged and caused serious pressure on effective, efficient and economical service delivery. The bridge over the divide seemed impossible to cross due to the high barriers to entry for advantaged living. The majority of the population is limited to labour activities, which in essence is on the lower scale of income.

Service delivery is stressed because the majority (disadvantaged) who need services cannot pay and the minority (advantaged) who can afford to pay wants a higher quality of service. A strategy to position Prince Albert better economically would include a more balanced economic approach in order to facilitate the development of a middle class, and encourage the establishment of other economic activity that can empower the disadvantaged to better themselves and graduate into the higher income sphere. This implies that heritage based tourism should be scaled down and first phase agriculture should be upgraded, combined with the development of catalyst economic drivers in order to ensure the establishment of a wider middleclass so as to improve the municipal payment rate and subsequently improve the municipality's ability to fund the upgrading of infrastructure and improve service delivery.

Between 2001 and 2011, Prince Albert's population grew from 10 515 to 13 136 people, which represents a 24% increase during this period, or an average of 2.2% per annum. Its built footprint has also grown during the same period – mostly in the low income (subsidy housing) portion of the settlement. The SDF for the municipality was recently approved on the 27th of February 2014 and, overall, ensures that the issues of spatial restructuring, densification and integration are addressed. Now that the SDF and the Infrastructure and Growth Plan of the municipality are in place, it is critical that the municipality implement these through correctly directing its and the private sector's infrastructure development, land use approvals and new low income, GAP and market human settlement projects in line with the proposals of the SDF. The municipality is made up of the settlements of Prince Albert, Leeu Gamka, Klaarstroom and Prince Albert Road – all of which have been identified as having low human capital index, low to medium economic potential, very low institutional capacity index and resultantly a very low growth potential.

Whilst all settlements have identified adequate space for future development (particularly low income development), it should be noted that it is not desirable to locate any further low income housing in the settlements of Leeu Gamka, Prince Albert Road or Klaarstroom as these

settlements have limited / no employment prospects and are struggling settlements. Even locating low-income people within the settlement of Prince Albert is problematic as there are also very few employment opportunities in this settlement.

Prince Albert has a unique sense of place that is seen as highly desirable for those wishing either to retire or to escape the stresses of city life. It has a small yet growing number of middle to high-income people who are settling there. As a result, new industries (i.e. craft and tourism related) are growing and providing a limited number of job opportunities for low-income residents. This sense of place can be attributed to Prince Albert's unique and well-preserved heritage character, close relationship between the town and its surrounding farmland and its position at the foot of the Swartberg Pass. This 'inflow' of residents holds the potential to significantly grow the town's economy, if the town is able to position itself to further attract these residents and maintain its desirable qualities. This means maintaining and enhancing the heritage of the town, preventing urban development from encroaching on the 'town farms' and market the Swartberg Pass and associated activities as a tourism element of the town.

Mobility and access to services and facilities (between settlements – particularly from Leeu Gamka, Klaarstroom and Prince Albert Road to Prince Albert, Oudtshoorn and Beaufort West) is extremely limited by expensive and poorly developed public transport services.

Leeu Gamka and Bitterwater is currently pursuing a very undesirable growth and development path in that new development areas are largely disconnected from one another and straddle both sides of the N1 – posing safety issues for pedestrians. This new housing development is also largely low income in nature and not connected to any real growth in economic development or job creation. The risk is that this area becomes a pocket of poverty and future unrest as a result of its very low economic growth

As tourism appeal and heritage preservation are closely interlinked, future development (e.g. residential or business) must respect and adhere to the Karoo architectural heritage and seek to create vibrant, higher density and mixed-use areas that are serviced by adequate open space, services and facilities. New development should enhance and not detract from the character of the towns. Local vernacular Karoo-style housing typologies should be used for subsidy housing roll-out. There are examples of low-income housing proposals in McGregor and on the West Coast that are able to produce beautiful yet simple houses within the housing subsidy envelope.

Mobility and access to services and facilities is a key socio-economic development lever, and therefore the implementation of the Central Karoo Mobility Strategy and Integrated Public Transport Network is critical to improving regional access to facilities, opportunities and socio-economic development.

Klaarstroom is located in an advantageous position between Beaufort West and the garden route towns, along a beautiful stretch of road and just before the Meiringspoort Mountain Pass. It therefore must focus its attention to accessing opportunities that are presented by this location, such as service stops, tourism facilities and information.

At present the main employment drivers are Agriculture, Tourism, Heritage and Local Government. The first three drivers have high barriers to entry (too high) and are relying on cheap labour, hampering any opportunity for newcomers, especially for those graduating from the bottom. It is high capital industries and primary in nature. The fourth driver, local government is also only creating unsustainable part time opportunities, with low remuneration. The municipal area however offers many assets. Assets such as land, sunshine, wind etc. must be maximized and converted into some sort of cash flow for the benefit of the town and creation of employment.

Despite its significant agricultural and tourism advantages, economic development remains a significant challenge for Prince Albert Municipality. Low population density, distance from large markets and an arid climate translate into fewer development opportunities as compared to other parts of the Western Cape. An analysis of the Prince Albert economy indicates that a significant portion of the local community, especially those in Prince Albert Road, Leeu-Gamka and Klaarstroom remains marginalised, with limited access to employment and wealth creation opportunities. It is therefore critical that participation in the economy is broadened to include marginalised communities and address poverty, while not compromising on the things that attract people to Prince Albert such as a positive environment, clean and healthy with low pollution.

INTRODUCTION

1.1 PURPOSE OF THE PLAN

The Air Quality Management Plan for Prince Albert Municipality has been developed to comply with 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. This plan provides a logical and holistic approach for communities, industry, government to manage air quality in the Prince Albert Municipal area.

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

- designate an Air Quality Officer (AQO)
- incorporate an Air Quality Management Plan in its IDP

The Air Quality Management function within the Prince Albert Municipality resolves under the Community Services Department, with the Manager: Corporate and Community Services 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 Prince Albert Municipality 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 municipal area. Air quality is defined to include noise and odour and addresses all sources of air pollution, i.e. point, area and mobile sources.

1.2 THE AQMP DEVELOPMENT PROCESS

Public participation and cooperative governance is essential for the development of an AQMP development process. It is suggested that an Air Quality Management Forum must be established between the district municipality and the three local municipalities to provide technical guidance and a sharing of knowledge and challenges on Air Quality Management in the Central Karoo District.

2. VISION OF THE AIR QUALITY MANAGEMENT PLAN

The following vision for Air Quality Management in Prince Albert Municipality have been agreed upon.

"Clean and healthy air for all".

3. MISSION OF THE AIR QUALITY MANAGEMENT PLAN

"To ensure the effective and consistent implementation of sustainable air quality management practices, by progressively achieving and efficiently implementing clean and healthy air in Prince Albert".

4. GOALS OF THE AIR QUALITY MANAGEMENT PLAN

The four goals of the AQMP supports the vision and mission of Prince Albert Municipality as it relates to air quality and are:

1. To ensure effective and consistent air quality management.
2. To continually engage with stakeholders to raise awareness with respect to air quality.
3. To ensure effective and consistent compliance, monitoring and enforcement in respect of air quality.
4. To support climate change protection programmes, including promoting the reduction of the municipality's, residents' and visitors' carbon footprint.

5. SUMMARY OF STATUS QUO OF AIR QUALITY MANAGEMENT IN PRINCE ALBERT

5.1 Current institutional capacity of PAM

At Prince Albert Municipality the Manager: Corporate and Community Services will be responsible for air quality management. Training needs to be provided to said official to ensure that Air Quality Management enjoys serious priority in the operations and integrated planning of the Municipality. No Air Quality Management Committee have been established in the municipal area. As there is limited capacity within the Municipality it is again suggested that a regional Air Quality Management Forum must be established to ensure peer-learning and the sharing of best practices. It will also ensure that Air Quality Management remains on the regional agenda.

At present there is no funding set aside to undertake and implement Air Quality Management.

5.2 Air pollution sources in the Central Karoo

Generally there are few air pollutants in the Central Karoo region. Pollutants generally originate from some of the following sources:

- Industrial operations especially 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
- Lime dust
- Dust from gravel roads

There are few sources of air pollutants in Prince Albert. The ambient air quality is generally good. Ambient particulate concentrations are likely to be high in low – income residential areas where wood is used as primary fuel source and activities such as refuse burning occur. In Leeu-Gamka the newly developed 252 houses have not yet been connected to the electricity grid and make use of wood. The Municipality provided

permission that external temporary cooking structures can be erected until ESKOM connects residents to the grid. The estimated date for this connection is March 2015. This will limited carbon dioxide poisoning of residents in the new development.

Prince Albert have limited pesticide spraying of crops and some motor vehicle exhaust gassess on the N1 and N12. This leads to elevated ambient concentrations of particulates and NOx (Nitrogen Oxides) during peak holiday periods. Seasonable agricultural an biomass burning also occur but have a low impact on air quality.

5.3 Air quality monitoring

There have been no specific monitoring of air quality management. The Municipality do not have the necessary equipment to monitor air quality and and will only do so when there is a visible negative effect or when a complaint is received.

Residents wanting to have their air quality tested will have to pay the actual cost of said test.

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 all parties and this hampers cooperative governance and the implementation of the function.
- Until consensus has not been reach regarding the abovementioned, the CKDM will 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 “Prince Albert’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. (in progress)
- 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 area
- 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 Prince Albert Municipality
- To strengthen and build capacity in air quality management
- To promote cooperation amongst all spheres of government, business, industry and civil society
- To ensure adequate funding for the implementation of the AQMP
- To develop comprehensive education and communication mechanisms, strategies and programmes with respect to air quality

- Develop, implement and maintain an Air Quality Management System
- Establish an annual AQMP review process
- To promote environmental best practices and cleaner development technologies amongst all stakeholders
- To improve compliance monitoring and enforcement
- To promote continuous improvement with respect to compliance
- To ensure that health-based air quality standards are attained and continually met
- To reduce ozone depleting substances and greenhouse gas emissions, in line with national and international requirements
- Established an Emission Reduction Strategy
- To develop and implement an effective Atmospheric Emissions Licensing System (will be done by CKDM).

8.2 PROMOTE COMMUNICATION IN RELATION TO AIR QUALITY MANAGEMENT

- Establish an Air Quality Forum in order to ensure proper communication between the District municipality, local municipalities, provincial government, business and industry as well as interested and affected parties in Prince Albert municipality.

8.3 COMPLIANCE MONITORING

- Establish a compliance monitoring system within the Prince Albert municipality.
- Ensure continuous compliance with the Atmospheric Licensing Conditions.(CKDM)
- Promulgation of Air Quality by-law. (in progress)

9. MONITORING

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.

10. EVALUATION

Continuous evaluation is an essential element of the AQMP implementation as it allows for a thorough assessment of the AQMP including the shortcomings and strength evident in implementation. Evaluation is an internal mechanism to measure the performance with regard to the implementation of the AQMP. The evaluation process will assess the AQMP implementation outcomes, which are based on the AQMP indicators. Annual evaluation of the AQMP implementation will be conducted. Monitoring and evaluation will be the responsibility of the Air Quality Management Committee.

11. REVIEW

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. The definition of the review period is subject to funding and political cycles, as well as implementation outcomes. Therefore, an element of elastic is necessary. The internal revision is communicated to stakeholders through a limited public participation process, followed by a further iteration and publication.

12. 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 Building control section	With continuous training and development in air quality management in the Building control section	Continuous
	Develop, implement and maintain an Air Quality Management System	Compilation of a emissions inventory for PAM	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	Industries	Electronic database of all small industries to be regularly updated	Short – Medium

	reduction strategy.		Create awareness PAMpaigns 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 PAM 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 Central Karoo district, Local municipalities, Provincial government, business and industry as well as interested and affected parties in the 4 sub-district of the Central Karoo district municipality.	A committee/forum at a sub-district level representing all interested and affected parties.	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 Central Karoo 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				
	Develop an Air Quality by-law	Build capacity to ensure Air Quality compliance in the Central Karoo	Allow EHP's to investigate and maintain a good Air Quality standard	Medium - Long