

SUBMISSIONS ON THE REVISED DRAFT AIR QUALITY MANAGEMENT PLAN
“ANNEXURE 2”

Introduction

1. Our clients acknowledge and appreciate that some of their suggested changes and amendments to the initial draft AQMP have been effected; however, they note that most of these have not been addressed. These concerns are highlighted at paragraphs 19 - 27 below and we request that regard be had to the initial comments submitted on 30 April 2015.
2. The following additional comments are made on the updated Draft AQMP dated 6 May 2015.

Accuracy / Correctness Issues

3. Our clients have made a few observations regarding the accuracy / correctness of the information presented in this version of the draft AQMP. While our clients are pleased to note that the Municipality had ambitious air quality management planning targets, it is submitted that, in general, the draft document fails to take into consideration the lack of capacity and resources available to the Municipality. Although the draft air quality management by-law indicates that the AQMP binds the Municipality, our clients are concerned that many of its interventions and activities will not be addressed in the timeframes specified. While the lack of capacity is detailed and acknowledged in the AQMP, there are limited interventions listed to address this critical issue.¹
4. Another significant oversight is the lack of reference to the Highveld Priority Area (HPA) AQMP interventions. There are many activities that overlap in the plans, and unless there is a co-ordinated effort, there is likely to be duplication of effort and resources, rather than the use of limited resources in the most effective manner.
5. There is interchangeable references in the AQMP to the Delmas & Victor Khanye Local Municipality. The official Municipal Demarcation Board reference, Victor Khanye Local Municipality, should be used consistently throughout the document.

AQMP Interventions

6. As stated above, our clients submit that the AQMP is overly ambitious, considering the very limited resources and capacity of NDM. In order to build a sustainable air quality management (AQM) structure in the first two years, resources should be used to fill the establishment, while offering the basic AQM functions i.e. licensing and reporting. The plan should then grow from Year 3 onwards with a combination of in-house and out-sourced AQM interventions, which should be chosen on a priority basis. All projects should support and or complement the HPA AQMP interventions; otherwise, there is a risk of NDM being stretched too thin and it may not be able to meet their targets.
7. After the initial two year capacity growth and skills development period planning should be in 5-year blocks, with the projects and interventions clearly detailed and developed along SMART (Simple, Measurable, Achievable, Realistic and Time Bound) principles. It is submitted that the current list provided in the draft AQMP is not realistic or achievable. Some of the listed projects appear to be outside of the NDM's mandate and require co-operation with other National and Provincial Departments.

¹ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 81-86 & 214-127

Additional comments on the technical aspects

An analysis of the modelled data, tables and figures revealed the following flaws and errors:

8. The wind rose for Elandsfontein appears to be very different to the other 5 stations presented. Is this data correct or does it belong to a different station? The prevailing wind directions appear to be in order, but the winds speeds look like they are much faster than the surrounding stations.²
9. Figure 2-10 - The Elandsfontein wind rose is in the incorrect location.³
10. Table 3-1 - The PM10 compliance timeframes are incorrect. The national ambient air quality standards do not provide for compliance dates later than 1 January 2015.⁴
11. Table 3-1 - The incorrect Benzene standards are reflected. A new standard was effective from 1 Jan 2015.⁵
12. The 300m modelling domain areas for Doornkop and Vosman are poorly selected. It is submitted that it would make more sense to have a single domain covering the core areas of eMalahleni and Middelburg. In the current layout, there are very large sources on the boundary of the modelling domain and this is not in line with dispersion modelling best practices.⁶
13. The index of agreement (IOA) results reveal that the modelling results correlate poorly with the observed ambient concentrations.⁷ This is not surprising, considering the significant sources not included in the modelling. . While it is useful to present the data that has been recorded for historical purposes, presenting data with large data gaps calls its representivity into question. All modelled results should be treated with a high level of uncertainty and not relied on in the AQMP. It is submitted that the ambient monitoring results relied upon for planning should be sufficient and achieve valid data capture of more than 80% in an averaging period.
14. Table 7-3⁸ is effectively duplicated by Figure 7-5.⁹
15. The consultants do not present the domestic fuel usage quantities and any of the assumptions that go into their estimation. Our clients submit that these usage factors must be published so that they can be understood.¹⁰
16. Section 7.1.4.2 should be removed, since there are no incinerators in this area.¹¹

² NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p22

³ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p23

⁴ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p30

⁵ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p30

⁶ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p30

⁷ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p68-69

⁸ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p90

⁹ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p93

¹⁰ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 see discussion in p93-99

¹¹ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 see discussion in p99

17. The section 7.1.4.4¹² discussion on open waste and 7.1.4.5¹³ on informal open waste must be merged, and they should be considered as only one source.
18. The household fuel combustion in Section 8.2¹⁴ should be part of section 8.1¹⁵ on measured and modelled ambient pollutant concentrations. It is not clear why this is presented separately.

General Comments not addressed in the updated Draft

19. In the comments submitted on 30 April, our clients were concerned that the draft AQMP highlighted emission reduction strategies like mining¹⁶ and transport¹⁷, but did not require collaboration with the relevant departments. We note that this has still not been addressed and urge that this be effected in order to ensure that this can be properly implemented.
20. Our clients highlighted that it is imperative to properly align the local government goals and objectives with those of the HPA AQMP to avoid duplication and a waste of scarce resources. We note that, in the current draft AQMP, these recommendations have not been incorporated.¹⁸ Once again, we urge that this alignment be effected to ensure the optimisation of resources and to avoid any further delays in the improvement of ambient air quality in the HPA.
21. Our clients would like to point out that the Section 9¹⁹ discussion on technology review adds no value to the AQMP. Instead, an assessment should be conducted on an industry-by-industry basis, aimed at assessing the actual versus the desired outcomes. Thereafter, this information should be used to get industries to commit to a retrofit schedule that ensure that emissions from industries are reduced as far as possible.
22. As stated in our previous comments, clean technologies ought to be a requirement and not a recommendation as stated in goal 2 objective 9 (which provides that the AEL should include clean technology recommendations).²⁰ AQA recognises in its preamble that: *“minimisation of pollution through vigorous control, cleaner technologies and cleaner production practices is key to ensuring that air quality is improved”*.²¹
23. Our clients have recommended that AELs and other air quality data and records be made publicly available – we believe that this is an important compliance monitoring and enforcement tool that essentially assists in deterring non-compliance. Our clients motivate strongly that there should be a requirement for public access to all air quality information including: AELs; compliance/emission reports; annual reports, external audits; fugitive emission management plans, atmospheric emission reduction/management plans, reports on maximum release rates; the complaints register; minutes of meetings including HPA and consultative community meetings; HPA presentations; and all other documents pertaining to processes in the HPA.

¹² NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 see discussion in p100

¹³ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 see discussion in p105

¹⁴ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 see discussion in p123

¹⁵ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 see discussion in p121

¹⁶ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 at 10.1.3 p142

¹⁷ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 at 10.1.4 p142

¹⁸ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p144-151

¹⁹ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p123

²⁰ NKAN AQMP_DraftV2 2015 05 06 AE Public LowRes - Draft Version 2 p157

²¹ Act 39 of 2004

24. In the previous comments, we also noted that there was no ambient monitoring being undertaken in Dr JS Moroka, Thembisile Hani, eMakhazeni and Victor Kanye local municipalities.²² No explanation is provided for this failure, nor is it explained whether steps are being or will be taken to address this – and why - and how this will affect the baseline assessment. We note that this is still not explained in Draft version 2,²³ and there is still no monitoring taking place. This is unacceptable to our clients.
25. In previous comments, our clients were concerned that objective 12 of the 2020 goal in the first draft of the AQMP²⁴ provided for quarterly consultative meetings with communities, but failed to clarify how these would be run and by whom, and how they were aligned to the HPA implementation process meetings. We note that, in the updated draft, it has been clarified that NDM will conduct quarterly consultative community meetings and that the AQMP provides details on how these meetings will be run and how communication will be effected. While our clients are pleased that the rules of engagement for these meetings have been outlined in the draft document, it is still not explained how these are aligned to the existing HPA implementation task team and multi-stakeholder meetings and whether these will be in addition to the existing processes.
26. The previous²⁵ and current draft²⁶ AQMP provide that, by 2020, air quality in all low income settlements would be in full compliance with ambient air quality standards. The AQMP also refers to promoting the objectives of the strategy for dense low income settlements in the NDM. In our previous comments, our clients asked whether this strategy had been finalised and whether it would be operational by the time that the AQMP is published. Our clients have yet to receive a response in this regard. This strategy is long overdue and must be fast-tracked, given the significant health impacts of domestic coal burning. The AQMP should address this strategy and clarify how it intends to monitor and or enforce the objectives of this strategy when it is in finalised.
27. Our clients also note that the updated AQMP has still not clarified whether Basa njengo Magogo (BnM) has been accepted and adopted as the strategic tool for the reduction of domestic coal burning in dense low income settlements.²⁷ As stated in the previous comments, our clients have consistently argued that BnM does not have the desired impact and there is an urgent need for improved housing and clean energy provision in dense low income settlements.

Dust Regulation

28. Our clients reiterate their concerns about the regulation of industrial dust emissions,²⁸ particularly because the existing National Dust Control Regulations have proved ineffective in ensuring that dust levels are regulated to a level that is not harmful to human health. We proposed that the draft AQMP and the By-law implement stricter dust control requirements, which are more aligned with the ambient air quality standards, aimed at minimising air pollution and the health effects on people. Our clients reiterate that using ambient air quality monitoring, particularly for

²² DraftV2 NDM AQMP OF 30 April 2015 objective 3pg 145 objective 3

²³ DraftV1 NDM AQMP paragraph 3.3 p21

²⁴ DraftV1 NDM AQMP paragraph 12 p101

²⁵ DraftV1 NDM AQMP 2020 goal 3 p102

²⁶ DraftV2 NDM AQMP OF 30 April 2015 pg 161 paragraph 3

²⁷ DraftV2 NDM AQMP OF 30 April 2015 pg 160-161

²⁸ See objective 4 of the 2020 goal requiring that emissions from dust -generating activities are reduced – this objective calls for the development and implementation of dust reduction programmes in line with industry best practice, considering technology and management interventions

PM10, would be a much quicker (and certain) means of determining whether a polluter needs to control fugitive dust emissions than using dustfall rates. At a fundamental level, it is the concentration of dust in air that people breathe, not how much dust falls to the ground that constitutes a public health risk.

Enforcement Strategy

29. Our clients previously noted that there is no enforcement strategy outlined to ensure compliance with obligations designed to achieve the identified goals and emission reduction plan. There is also no mention of a strategy for monitoring of compliance. Furthermore, the second draft AQMP only contains a passing reference^{29[1]} to training and designation of environmental management inspectors (EMIs). Since EMIs are the only officials with the necessary legal mandate to monitor and enforce compliance with the Air Quality Act, without an effective compliance and enforcement strategy dealing with the issues we list below, it is extremely unlikely that the overall HPA AQMP goal to improve ambient air quality in the AQMP will ever be met.

30. Most importantly, however, Table 6-2 of the AQMP indicate that only 3 officials are currently allocated to effectively all regulatory functions for AQM. The Constitutional obligations of NDM require nothing less than a dramatic increase in local capacity for this function.

31. We therefore strongly recommend that the following separate objective be included in the AQMP:

Objective X: Compliance with obligations under AQMP is effectively monitored and enforced

Objectives	Activities	Timeframe	Responsibility	Indicator
1) Comprehensive compliance and enforcement strategy developed.	Comprehensive compliance monitoring and enforcement strategy developed to include at least the following : 1. Staff structure with adequate positions for designation as Environmental Management Inspectors (EMIs), with dedicated compliance monitoring and enforcement functions. 2. Adequate resources for completion by prospective of official EMI Basic Training and any specialised training on compliance monitoring and enforcement of the Air Quality Act, and	01 June 2017	P – NDM I – MDEDET, DEA	A compliance and enforcement strategy has been formulated and made publicly available.

²⁹ DraftV2 NDM AQMP OF 30 April 2015 objective 3pg 145 objective 3

	<p>designation of EMIs by the MEC.</p> <ol style="list-style-type: none"> 3. Adequate resources for engaging external expertise where required to assist EMIs in exercise of duties. 4. A compliance monitoring strategy that addresses issues that include at least: <ol style="list-style-type: none"> a. the identification of priorities for proactive monitoring of compliance with the Air Quality Act and authorisations issued in terms of the Air Quality Act; b. frequency and duration of proactive inspections; c. reactive inspections in response to reports of suspected non-compliance; d. standard operating procedures and formats for compliance inspections and inspection reports. 5. Easily accessible mechanisms to report suspected non-compliance to EMIs. 6. Criteria and guidance for co-operation with other spheres of government with a mandate to enforce compliance with the Air Quality Act and related environmental laws. 7. An enforcement policy that guides the type and severity of enforcement action to follow different types of identified non-compliance. 8. An enforcement strategy that addresses issues that include at 			
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	<p>least: a.; d. standard operating procedures and formats for compliance inspections and inspection reports.</p> <p>9. Regular communication of compliance monitoring and enforcement results to the public.</p> <p>10. Easy public access to atmospheric emission licences, compliance inspection reports, compliance notices and directives, and external audit reports required by licences.</p>			
2) Comprehensive compliance and enforcement strategy implemented.	<p>1. Strategy incorporated into NDM's IDP.</p> <p>2. Adequate resources provided for implementation.</p>	Ongoing	P – NDM I – MDEDET, DEA	IDP Provisions in place.

Air Pollution and Health in the NDM

32. This section has been updated with baseline information from various research studies and we acknowledge that changes have been made to reflect the health impacts of domestic coal burning as well as that of Eskom's operations. The section states as follows:

*"This baseline study which informs this AQMP does not undertake an in depth health impact assessment in NDM, however various studies have been undertaken covering the HPA from which information has been gleaned. Although these do not encompass the entire NDM and do cover areas outside of the NDM as well, they provide significant insight into health risk related to air quality in the NDM."*³⁰

33. Our clients are of the opinion that, in order to be able to adequately improve the ambient air quality in NDM, an in depth health impact assessment may need to be conducted to determine the health effects of outdoor and indoor combustion.

³⁰ DraftV2 NDM AQMP OF 30 April 2015 objective 3 p145 P74

Conclusion

34. Our clients note that most of their comments and concerns from the previous input were not addressed and urge that these pertinent issues be considered and addressed in the AQMP.
35. Our clients reiterate that capacity development should be the first priority for the NDM, if the objectives of this draft AQMP are to be achieved. Our clients call for the proper alignment of the NDM AQMP with the HPA AQMP. Further, it is essential that the draft AQMP address the identified inaccuracies and modelling flaws.