APPENDIX K4 – Minutes of Public Meeting in Richards Bay

MINUTES OF MEETING Public Meeting				Queries:	Donavan Henning ☎ 011 781 1730 ✉ donavanh@nemai.co.za
Project Name:	Proposed 750MW Combined Cycle Gas Turbine Power Plant in Richards Bay, City of uMhlathuze Local Municipality, King Cetshwayo District Municipality, KwaZulu-Natal				
Applicant:	mabasa energy & fuels			Environmental Assessment Practitioner:	NEMAI CONSULTING
Date:	26 August 2026	Time:	17:30 to 20:00		
Facilitator:	Donavan Henning	Venue:	Zululand Chamber of Commerce Community Park, Alton, Richards Bay		

A. ATTENDANCE

A copy of the Attendance Register is attached in Appendix A.

B. PRESENTATIONS & DISCUSSIONS

Note: These minutes provide a summary of the meeting and do not reflect a verbatim account of the discussions.

Item	Details	Action	Target Date
1.	**OPENING AND WELCOME**		
1.1.	D. Henning from Nemai Consulting welcomed everyone to the public meeting for the proposed 750MW Combined Cycle Gas Turbine (CCGT) Power Plant in Richards Bay, KwaZulu-Natal (KZN). The meeting commenced at approximately 17:45.	-	-
1.2.	N. Magubane requested that the meeting focuses on the Air Quality Impact Assessment.	-	-
2.	**OVERVIEW OF AIR QUALITY IMPACT ASSESSMENT**		
2.1.	M. Zunckel from uMoya-NILU Consulting presented an overview of the Air Quality Impact Assessment. His presentation (contained in Appendix B) included the following: • Objectives of the study; • Emission scenarios assessed; • Methodology; • Emission inventory; • Dispersion modelling results; • SO_2 Annual Average, 24-hour maximum & 1-hour maximum; • NO_2 1-hour maximum; • PM_{10} 24-hour maximum; • Summary of impacts; and • Conclusions.	-	-
3.	**DISCUSSION**		
3.1.	N. Magubane enquired about the cumulative traffic impacts associated with the project. S. Trickett noted that the natural gas is expected to be supplied through a pipeline from the Transnet natural gas terminal to the proposed facility. C. Marland advised that project-related truck traffic is expected to be minimal.	-	-

Item	Details	Action	Target Date
3.2.	N. Magubane noted the presence of the airport in Zinkwazi and enquired about the potential aviation risks associated with the proposed project. D. Henning explained that the project area already contains a number of existing tall buildings and structures. Based on this existing environment, it was determined that a dedicated Civil Aviation Study was not required.	-	-
3.3.	N. Magubane expressed concern over the water requirements of the proposed project. S. Trickett explained the water consumption requirements of the proposed project. He noted that an alternative water source such as seawater could be considered in the future. D. Henning indicated that the current EIA excludes any activities related to seawater use.	-	-
4.	**CLOSE**		
4.1.	D. Henning thanked all participants for their attendance and contributions. The meeting was concluded at approximately 18:45.	-	-

Item	Appendices
1.	Attendance Register
2.	Copy of Presentation

APPENDIX A

ATTENDANCE REGISTER

NEMAI CONSULTING	ATTENDANCE REGISTER / UHLU LWABABAMBE IQHAZA PUBLIC MEETING / UMHLANGANO WOMPHAKATHI	PROPOSED 750MW COMBINED CYCLE GAS TURBINE POWER PLANT IN RICHARDS BAY, CITY OF UMHLATHUZE LOCAL MUNICIPALITY, KING CETSHWAYO DISTRICT MUNICIPALITY, KWAZULU-NATAL ISIZINDA ESIHLONGOZWAYO SOKUPHEHLA UGESI ONGU 750MW NGEZIPHEHLI ZEGESI ERICHARDS BAY, KUMASIPALA WENDAWO I CITY OF UMHLATHUZE, UMASIPALA WESIFUNDA I-KING CETSHWAYO, KWAZULU-NATALI	
Applicant / Umfakisicelo:	mabasa	Date / Usuku:	26 August 2026
		Time / Isikhathi:	17:30 to 20:00
		Venue / Indawo:	Zululand Chamber of Commerce Community Park, Alton, Richards Bay

Name and Surname / Igama Nesibongo	Organisation / Inhlangano	Contact Number / Inombolo Yokuxhumana	Email Address / Ikheli Le-imeyili	Signature / Isiginesha
Donavan Henning	Nemai Consulting	[redacted]		
Shannon Murray	Prometheium Carbon			
Stephen Trueleff	PDEX Consulting			
Christopher Marland	PDEX Consulting			
Camden Neuschulz	Prometheium Carbon			
Nathi Ncube	Khaphemi			
Atham Raghunandan	uMoya-NILU			
Mark Zunckel	uMoya-NILU			
Nokwazi Magubane	SDCEA			

APPENDIX B

COPY OF PRESENTATION

(Note: In accordance with the request made during the meeting, the presentation was limited to the Air Quality Impact Assessment)

PROPOSED MABASA 750 MW COMBINED CYCLE GAS TURBINE POWER PLANT IN RICHARDS BAY

Public Meeting

Overview of Air Quality Impact Assessment

uMoya-NILU Consulting

Project Team

Mark Zunckel, Nopasika Xulu, Atham Raghunandan

uMOYA-NILU

OBJECTIVES OF STUDY

- Establish the existing air-quality environment
- Identify sensitive receptors
- Quantify emissions from the proposed plant
- Predict how pollutants disperse through the atmosphere
- Assess impacts during construction, operation and decommissioning
- Assess cumulative impacts with existing industries
- Assess potential future cumulative impacts
- Compare predicted concentrations with South African National Ambient Air Quality Standards (NAAQS)

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EMISSION SCENARIOS ASSESSED

- Scenario 1: Mabasa CCPP in simple cycle mode
  - Using Combustion Turbines to generate 500 MW of electricity and in isolation of other sources
- Scenario 2: Mabasa CCPP in combined-cycle mode
  - Using Combustion Turbines and Heat Recovery Steam Generators (HRSGs) to generate 750 MW of electricity and in isolation of other sources
- Scenario 3: Cumulative
  - Mabasa CCPP in combined-cycle mode with the contribution of existing industrial sources
- Scenario 4: Cumulative
  - Mabasa CCPP in combined-cycle mode with the contribution of existing industrial sources and approved future facilities

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METHODOLOGY

- Identified sensitive receptors
- Emission inventory
  - Characterised emissions for each scenario focusing on PM_{10}, SO_2 and NO_x
- Dispersion modelling
  - Applied the DEA-recommended CALPUFF model to predict ambient pollutant concentrations
- Impact assessment
  - Compared predicted concentrations against the National Ambient Air Quality Standards (NAAQS)
- Cumulative assessment
  - Quantified the combined effects of the project with existing major industrial sources and approved future gas-to-power projects in Richards Bay

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EMISSION INVENTORY

Stack parameters used for the Mabasa CCPP dispersion modelling assessment

Source name	Stack Height (m)	Stack Diameter (m)	Stack Exit Velocity (m/s)	Stack Temp. (°C)	Stack Flowrate (Nm^3/hr)
Gas Turbine 1 Stack	40	6.9	40	600	1 683 832
Gas Turbine 2 Stack	40	6.9	40	600	1 683 832
HRSG 1 Stack	65	6.3	25	100	2 053 370
HRSG 2 Stack	65	6.3	25	100	2 053 370

MES for Sub-category 1.4 and stack emission rates

Source name	MES (mg/Nm^3)	Emission rates (t/a)			
		Gas Turbine 1 Stack	Gas Turbine 2 Stack	HRSG 1 Stack	HRSG 2 Stack
SO_2	400	5 900	5 900	7 195	7 195
NO_X	50	737.5	737.5	899.3	899.3
PM_{10}	10	147.5	147.5	179.9	179.9

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EMISSION INVENTORY

Existing Industrial Sources

- Mondi
- Foskor
- Richards Bay Minerals
- Tongaat Hullet Felixton
- Transnet Port Terminals
- South 32
- MPACT

Approved Future Facilities

- Elegant Afro Chemicals Chlor-Alkali Plant
- Eskom 3000 MW CCPP
- Nseleni Power Corporation Limited Floating CCPP
- Nyanza Light Metals Titanium Dioxide Pigment Plant
- Phakwe Richards Bay Gas 3 CCPP (RBIDZ)
- Phakwe Richards Bay 320 MW Gas PP (Alton industrial)

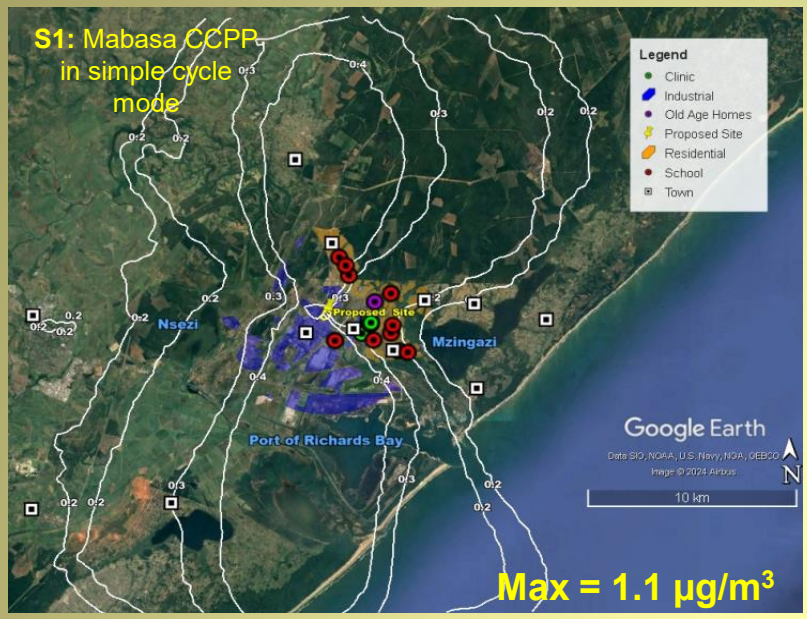
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DISPERSION MODELLING RESULTS

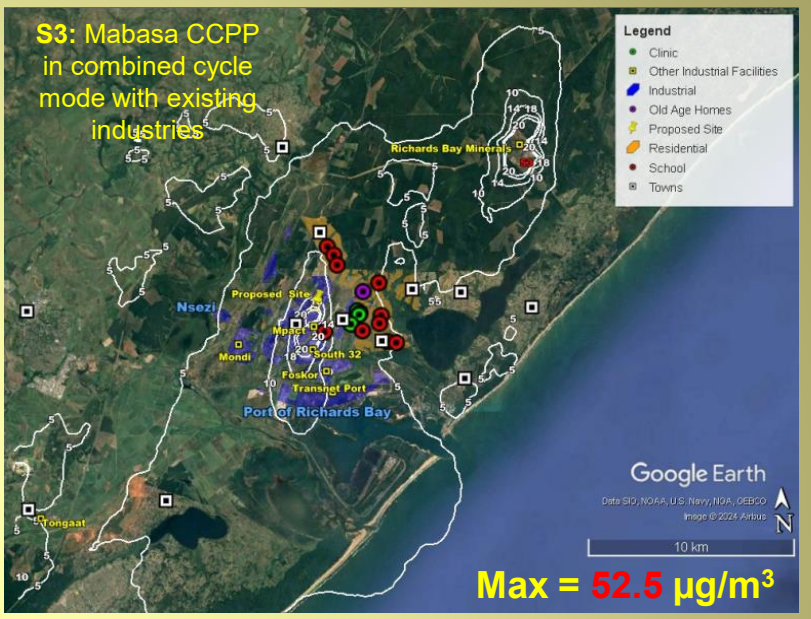
Description	Scenario	Pollutant and averaging period		
		SO_2		
		Annual	24-hour	1-hour
Predicted maximum SO_2	Scenario 1	1.1	14	41
	Scenario 2	4.2	37	110
	Scenario 3	**53**	**243**	**682**
	Scenario 4	**59**	**315**	**695**
NAAQS		**50**	**125**	**350**
		NO_2		
Predicted maximum NO_2	Scenario 1	0.1		4
	Scenario 2	0.4		11
	Scenario 3	21		**273**
	Scenario 4	22		**273**
NAAQS		**40**		**200**
		PM_{10}		
Predicted maximum PM_{10}	Scenario 1	0.03	0.4	
	Scenario 2	0.1	0.9	
	Scenario 3	26.8	**189**	
	Scenario 4	27.2	**189**	
NAAQS		**40**	**75**	

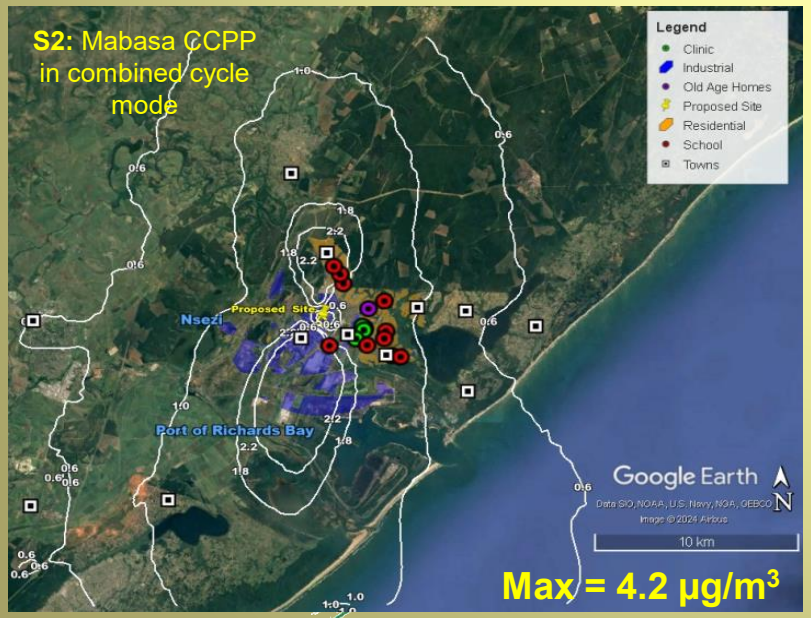
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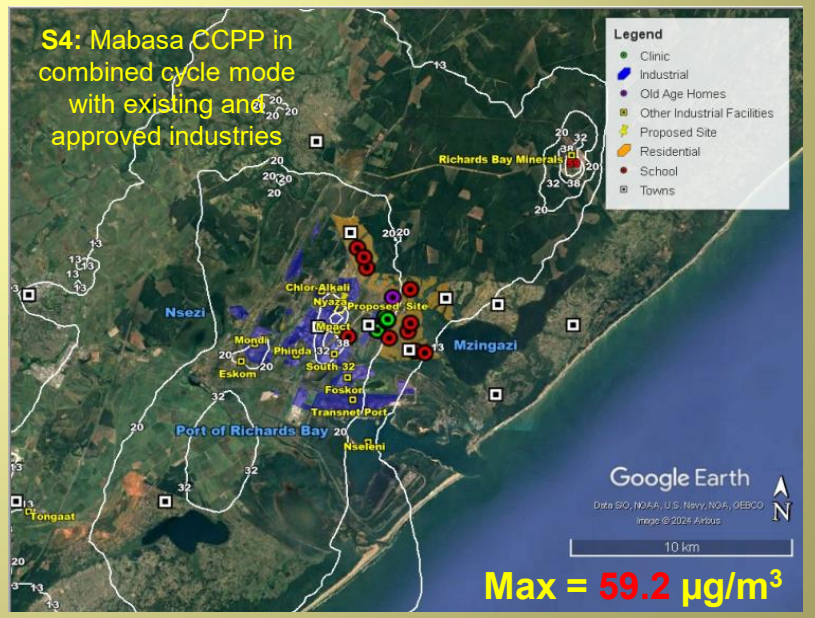
SO_2 Annual Average



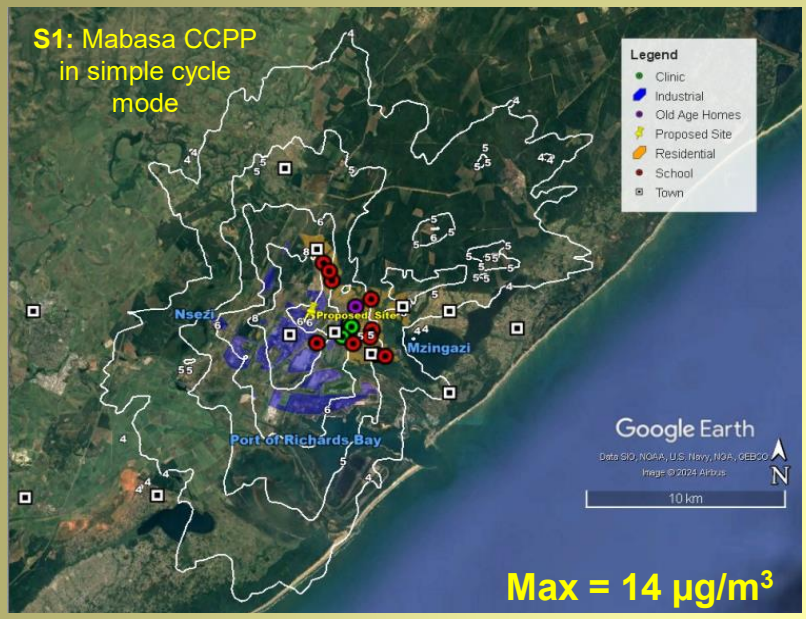
NAAQS
50 µg/m³



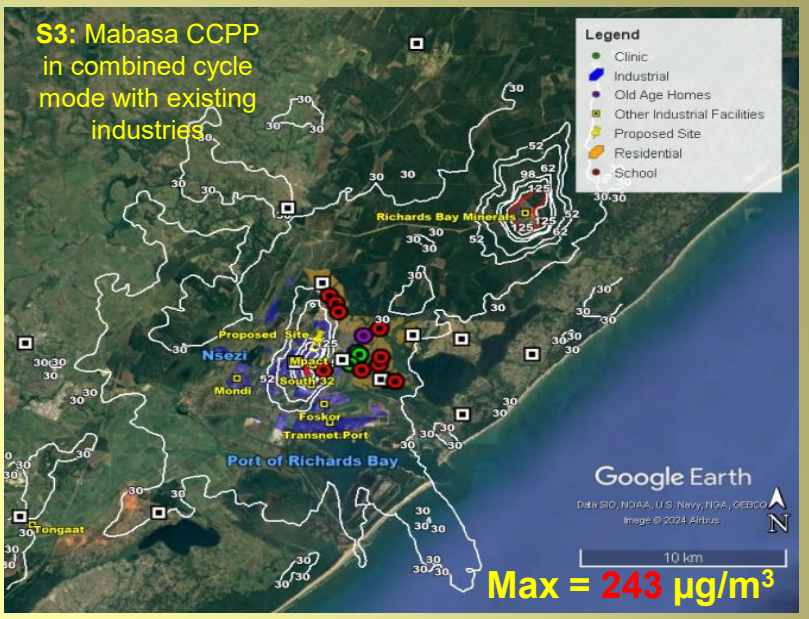


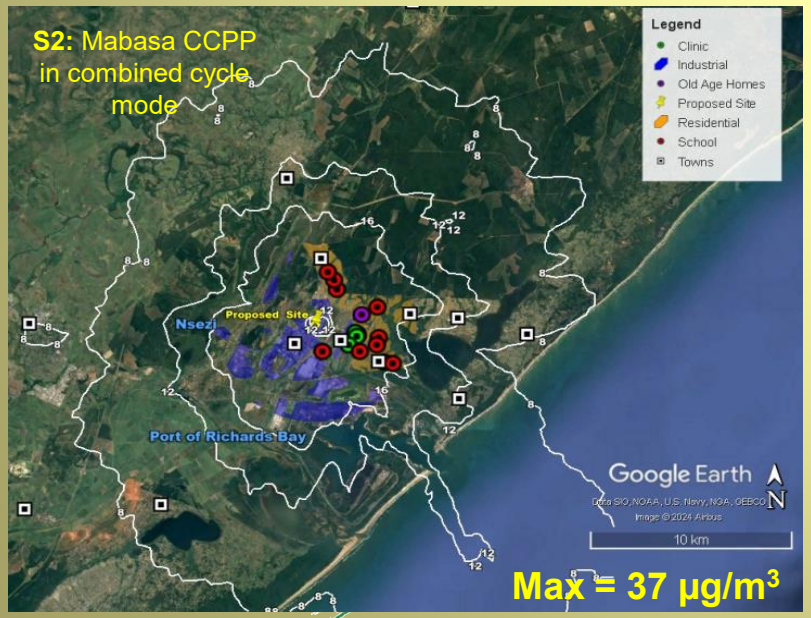


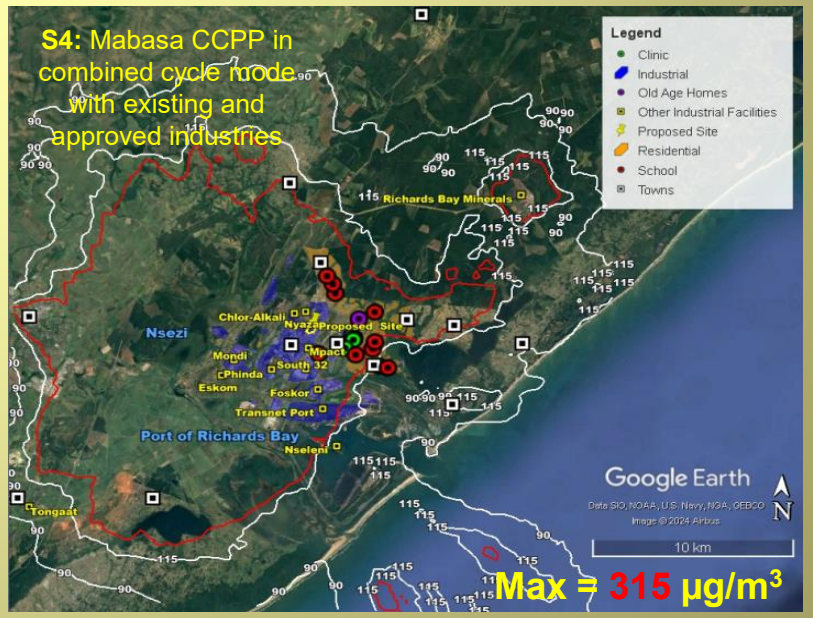
SO_2 24-hour maximum



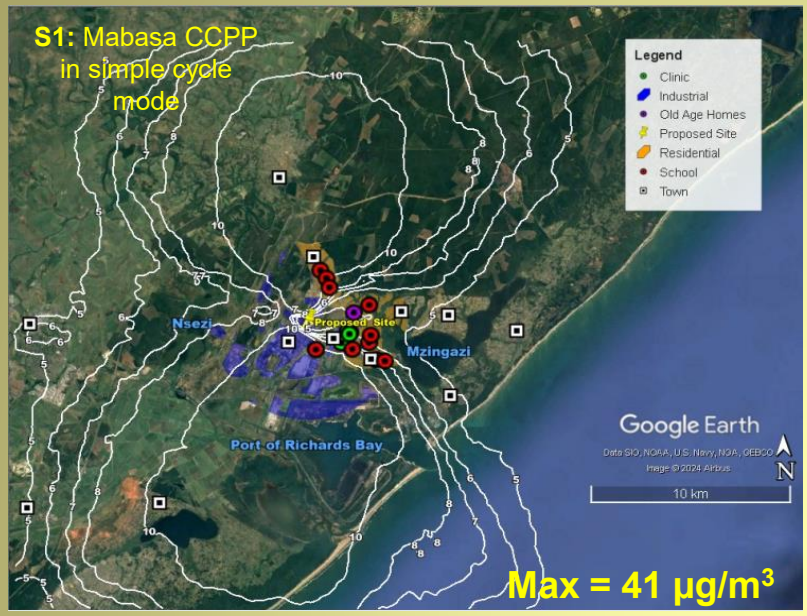
NAAQS
125 µg/m³



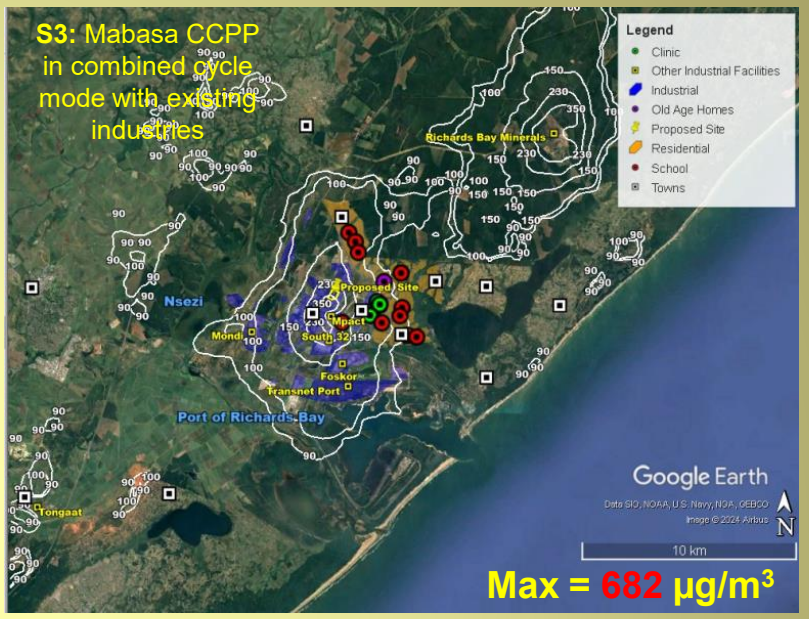


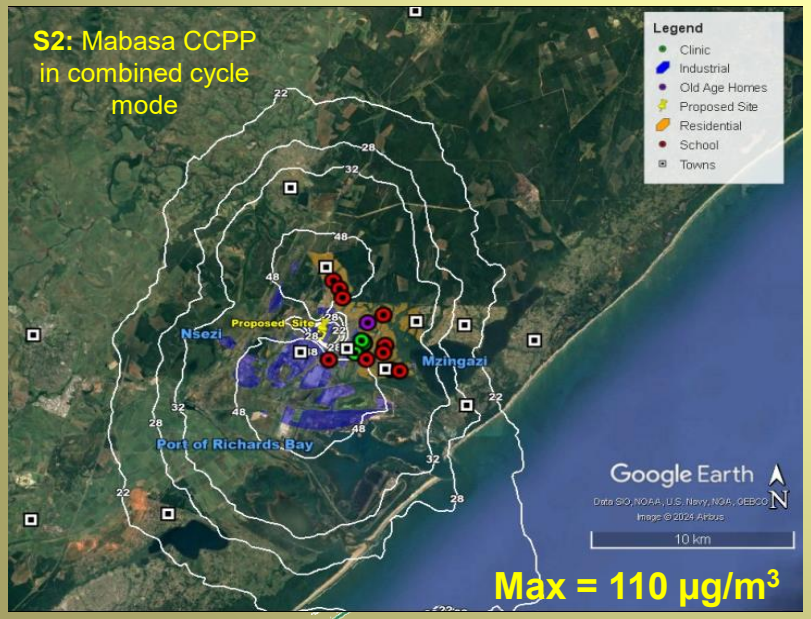


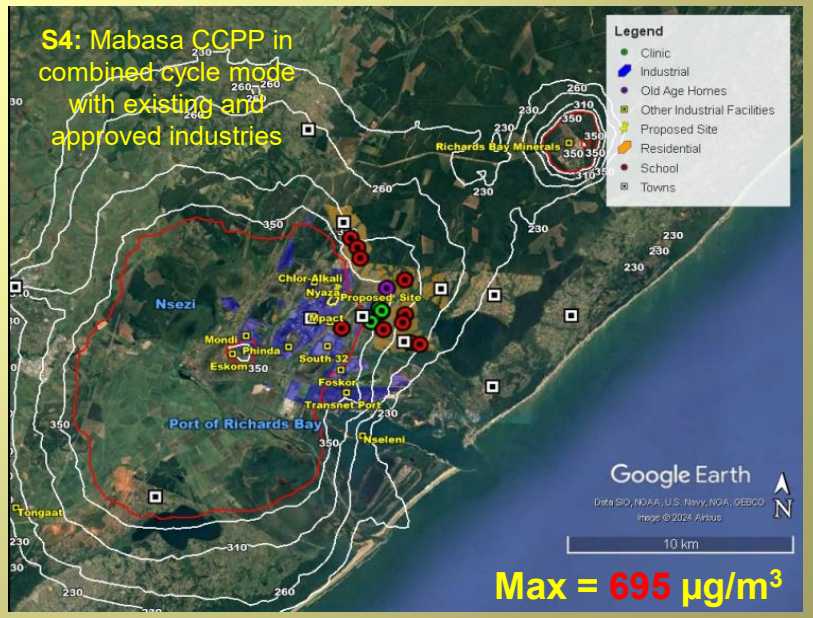
SO_2 1-hour maximum



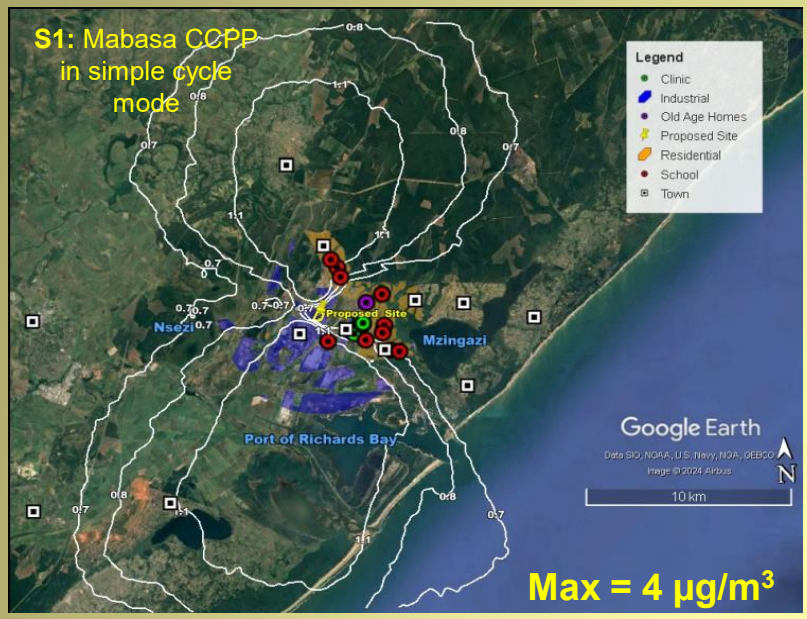
NAAQS 350 µg/m³



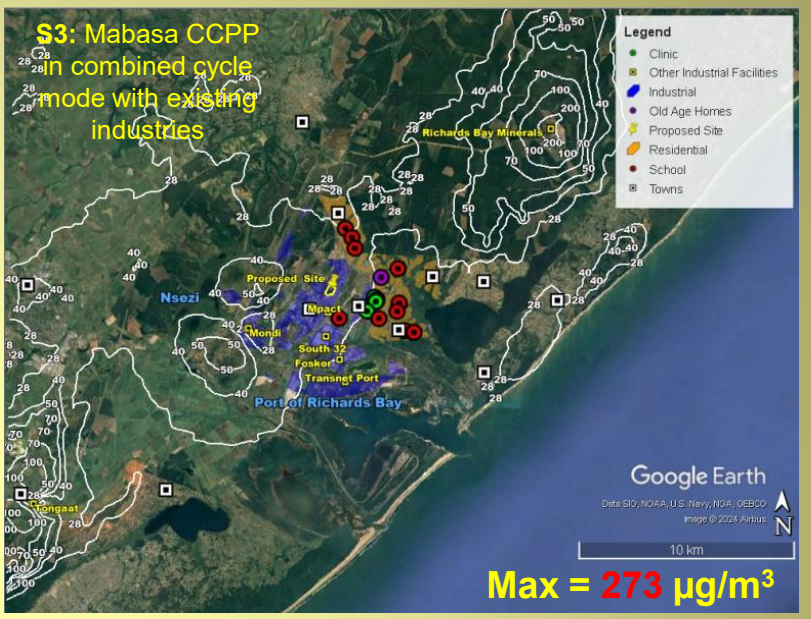


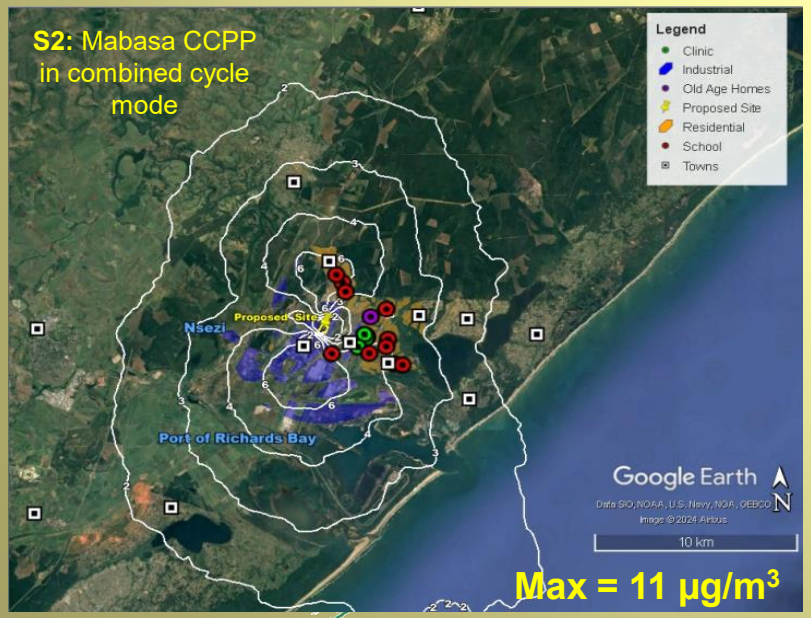


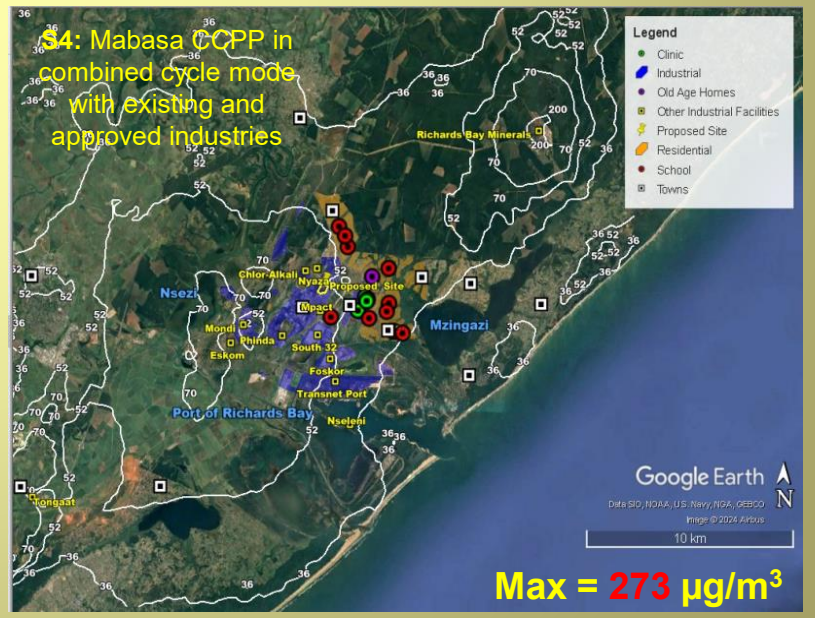
NO_2 1-hour maximum



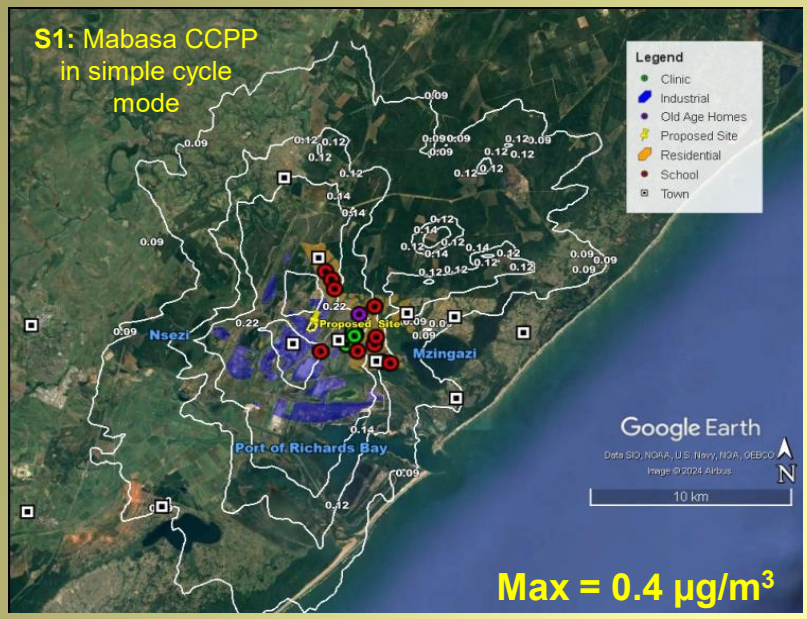
NAAQS 200 µg/m³



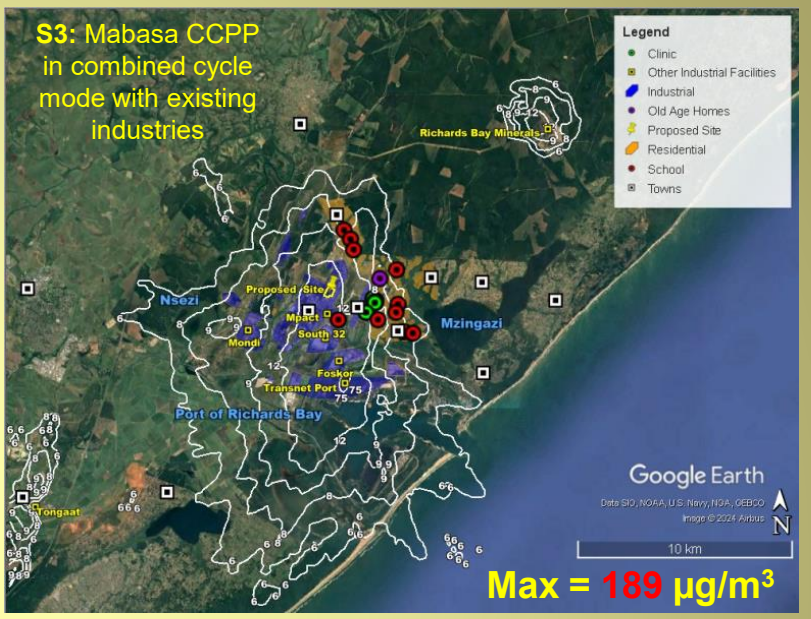


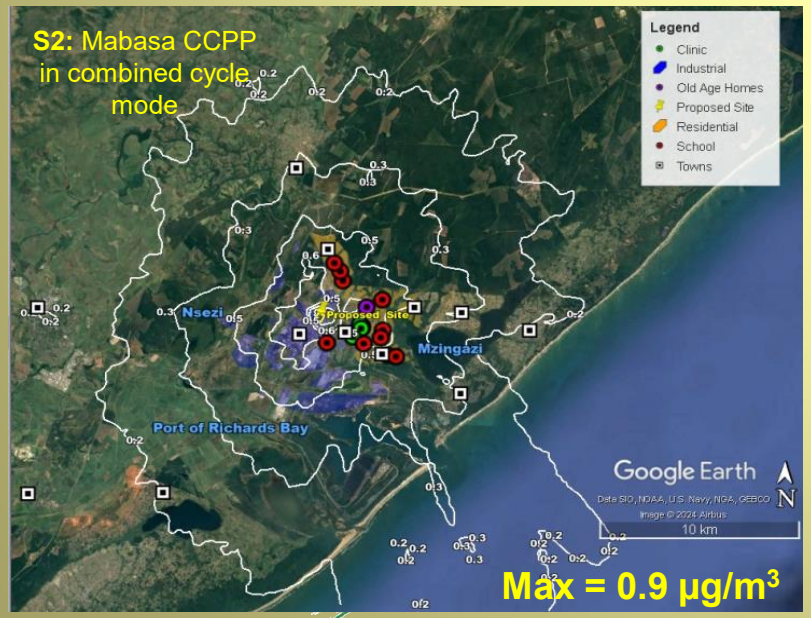


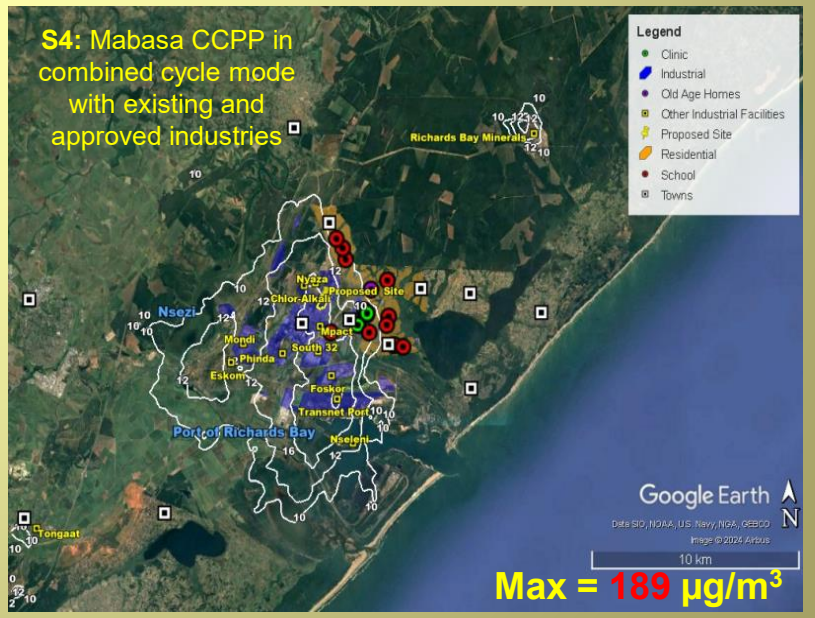
PM_{10} 24-hour maximum



NAAQS
75 µg/m³







SUMMARY OF IMPACTS

- **Scenarios 1 & 2:**
  - Predicted SO_2, NO_2 and PM_{10} concentrations are low, with low overall impacts. Combined Cycle produces slightly higher concentrations than Simple Cycle.
- **Scenario 3:**
  - Cumulative SO_2, NO_2 and PM_{10} concentrations exceed the NAAQS, resulting in a medium cumulative impact. However, the Mabasa CCPP's contribution is low.
- **Scenario 4:**
  - Cumulative SO_2, NO_2 and PM_{10} concentrations also exceed the NAAQS and are slightly higher than Scenario 3, resulting in a medium cumulative impact. The approved projects add only a small incremental effect, while the Mabasa CCPP's contribution remains low.
- **Overall**: The Mabasa CCPP has a low individual contribution to ambient air quality impacts, while the medium cumulative impacts in Scenarios 3 and 4 are primarily driven by existing and approved developments.

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CONCLUSIONS

- Air-quality impacts are low
  - Mabasa alone is predicted to have a low impact, with no NAAQS exceedances attributable to the project
- Small contribution to cumulative impacts
  - Where cumulative exceedances occur, Mabasa's contribution is generally low, and negligible for PM_{10}
- Robust modelling approach
  - The assessment was based on sound input data, appropriate emission scenarios and the CALPUFF dispersion model, which is well suited to complex terrain and regional-scale dispersion assessments
- Independent assessment
  - The assessment was undertaken by uMoya-NILU Consulting, an independent air-quality consultancy with an experienced atmospheric modelling team
- Overall Conclusion
  - Based on the robust modelling assessment, the low contribution of Mabasa to ambient concentrations, and the absence of project-related NAAQS exceedances, the air-quality assessment supports authorisation of the proposed Mabasa CCPP.

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