

**Public Participation Process**  
**Stakeholder Meeting 28.01.2013**  
**Agenda**



**BASIC ASSESSMENT  
MONDI MILL UPGRADE  
PUBLIC PARTICIPATION PROCESS**



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**STAKEHOLDER MEETING**

**DATE: 28.01.2013**

**TIME: 10:30 – 12:00**

**VENUE: uMhlatuze Civic Centre**

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**PURPOSE OF THE MEETING**

- To provide further information containing all relevant facts regarding the project;
  - To provide an opportunity to submit comments / concerns regarding the project; and
  - To clarify the roles of each stakeholder.
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**AGENDA**

1.	<b>WELCOME &amp; INTRODUCTION</b>	RHDHV
2.	<b>PURPOSE OF THE MEETING</b>	RHDHV
3.	<b>CONDUCT OF MEETING</b>	RHDHV
4.	<b>BACKGROUND &amp; NEED</b>	RHDHV
5.	<b>LOCALITY MAP</b>	RHDHV
6.	<b>TECHNICAL DETAILS</b>	RHDHV
7.	<b>ENVIRONMENTAL LEGAL REQUIREMENTS</b>	RHDHV
8.	<b>BA PROCESS</b>	RHDHV
9.	<b>AIMS OF THE BA STUDY</b>	RHDHV
10.	<b>POTENTIAL ENVIRONMENTAL IMPACTS</b>	RHDHV
	<b>SPECIALIST INPUT</b>	RHDHV
11.	11.1. Traffic Impact Assessment 11.2. Air Quality Assessment	
12.	<b>PUBLIC PARTICIPATION PROCESS</b>	RHDHV
13.	<b>TIMELINES</b>	RHDHV
14.	<b>QUESTION AND ANSWER SESSION</b>	All

**Public Participation Process**  
**Stakeholder Meeting 28.01.2013**  
**Presentation**

Proposed Mondi Richards Bay Mill  
Upgrade  
DC28/0015/2012,KZN/EIA/0000757/2012

*STAKEHOLDER MEETING*

*DATE: 28.01.2013*

# PURPOSE OF THE MEETING

- To provide further information containing all relevant facts regarding the project;
- To provide an opportunity to submit comments / concerns regarding the project; and
- To clarify the roles of each stakeholder.

# CONDUCT OF MEETING

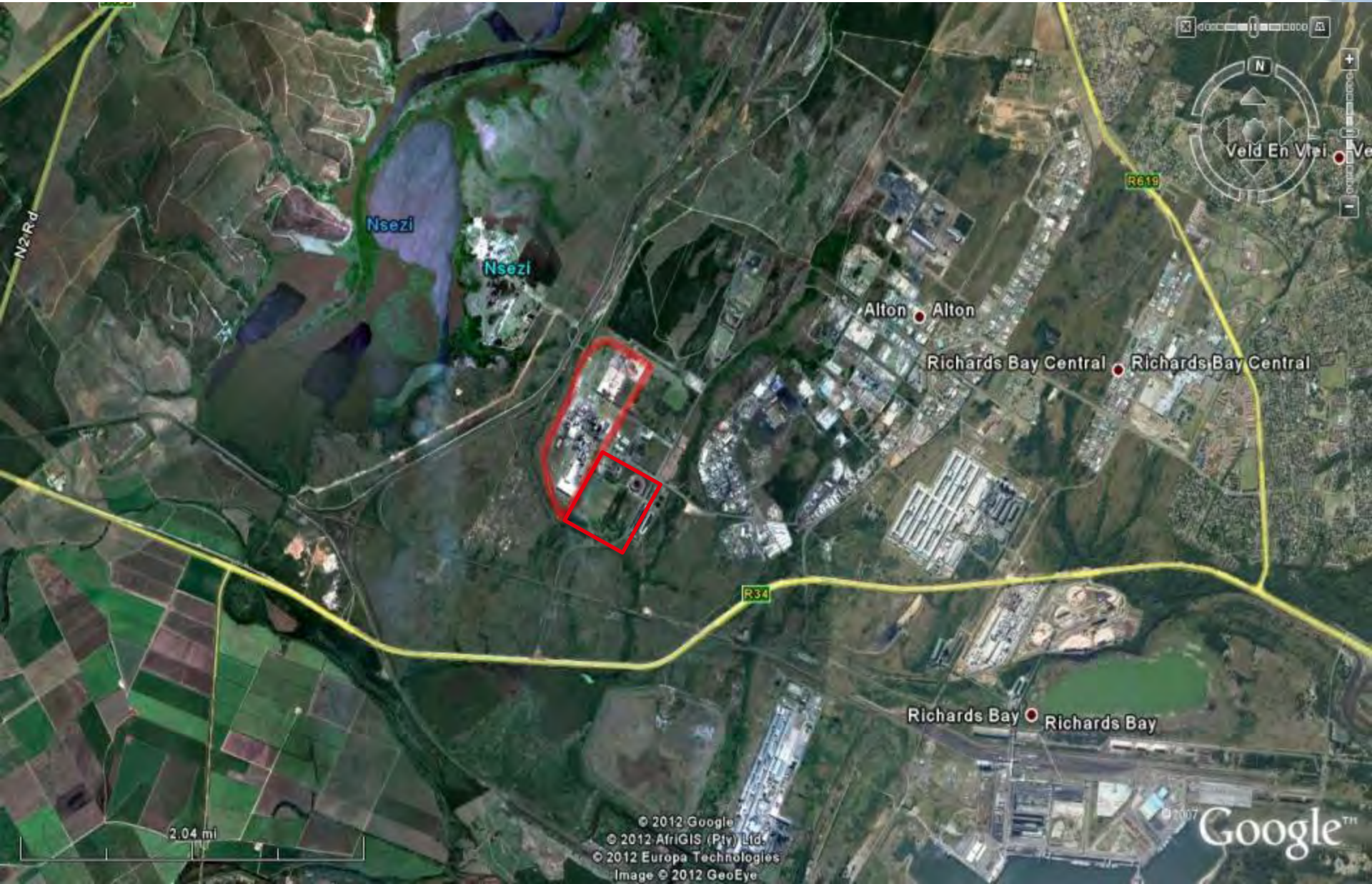
- Focus on issues of this project;
- Equal participation from all parties;
- Identify yourselves prior to question – for minute taking purposes – Discussions at end of presentation.

# BACKGROUND AND NEED

- All works are on the existing site with no new sites to be developed;
- This is an optimisation or de-bottle-necking exercise; there will be an increase in efficiency throughout the plant.

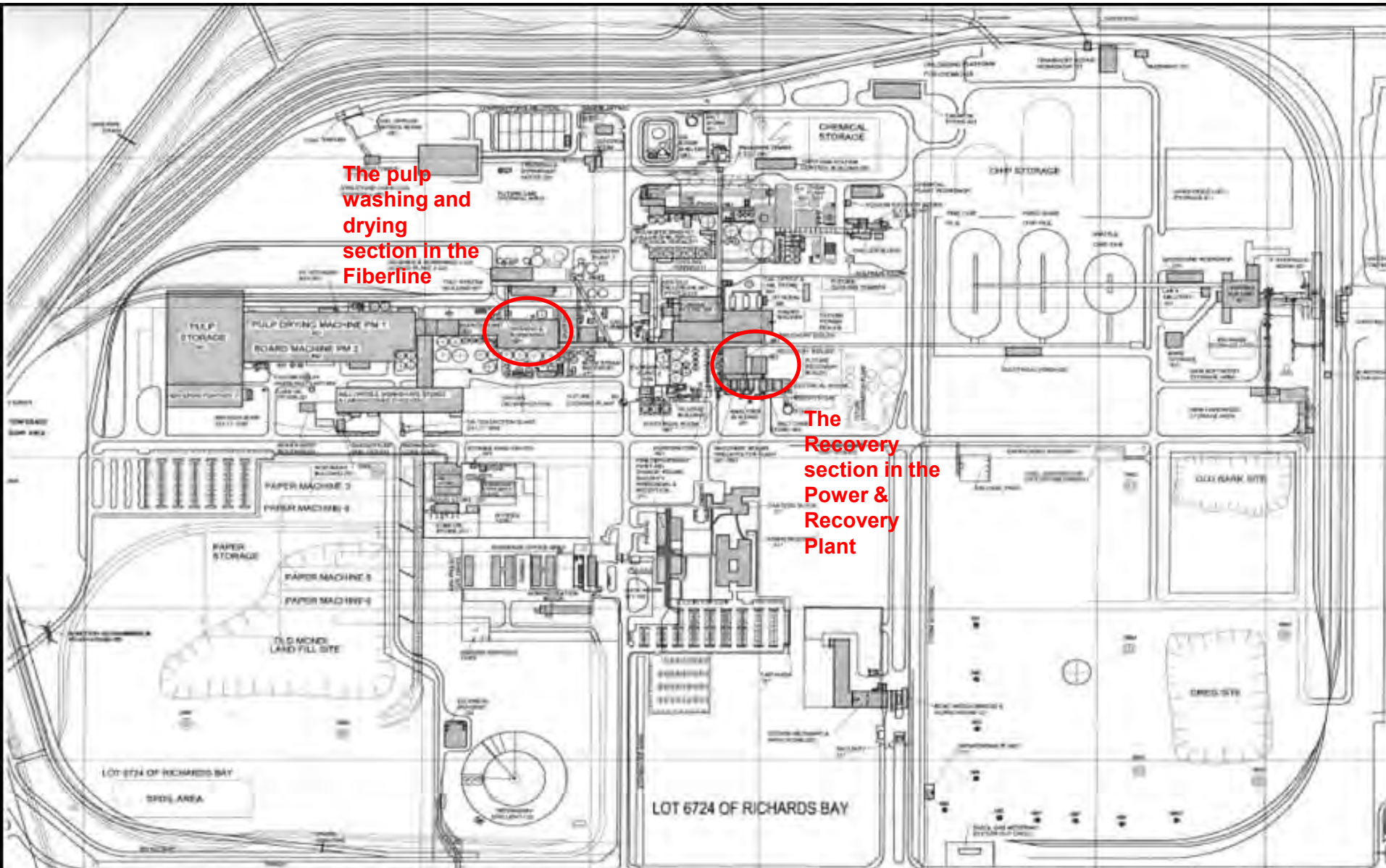


# LOCALITY MAP





# LOCALITY IN RICHARDS BAY MILL



# TECHNICAL DETAILS

- Increase the output to approximately 820 000 tons/annum.
- Expand the output incrementally and not via a major re-build.
- Approximately a 7-8% production increase.

*Upgrading/retrofitting of the current operations will result in the following:*

- Upgrading of recovery boiler 1.
- Increased output from pulp drying machines

# TECHNICAL DETAILS Continued

- New knot separators and washers installed at the hardwood screening and brown stock washing.
- Minor modifications to the wash process.
- Replacement of heat exchangers.
- Upgrading of the vacuum system, screening system and felt cleaning equipment.
- New washing system installed at the unbleached pulp to allow for an increase in black liquor solids.
- Modifications of the air system, super heaters, precipitators and cooling systems at the recovery boilers which will increase the burning capacity of black liquor.

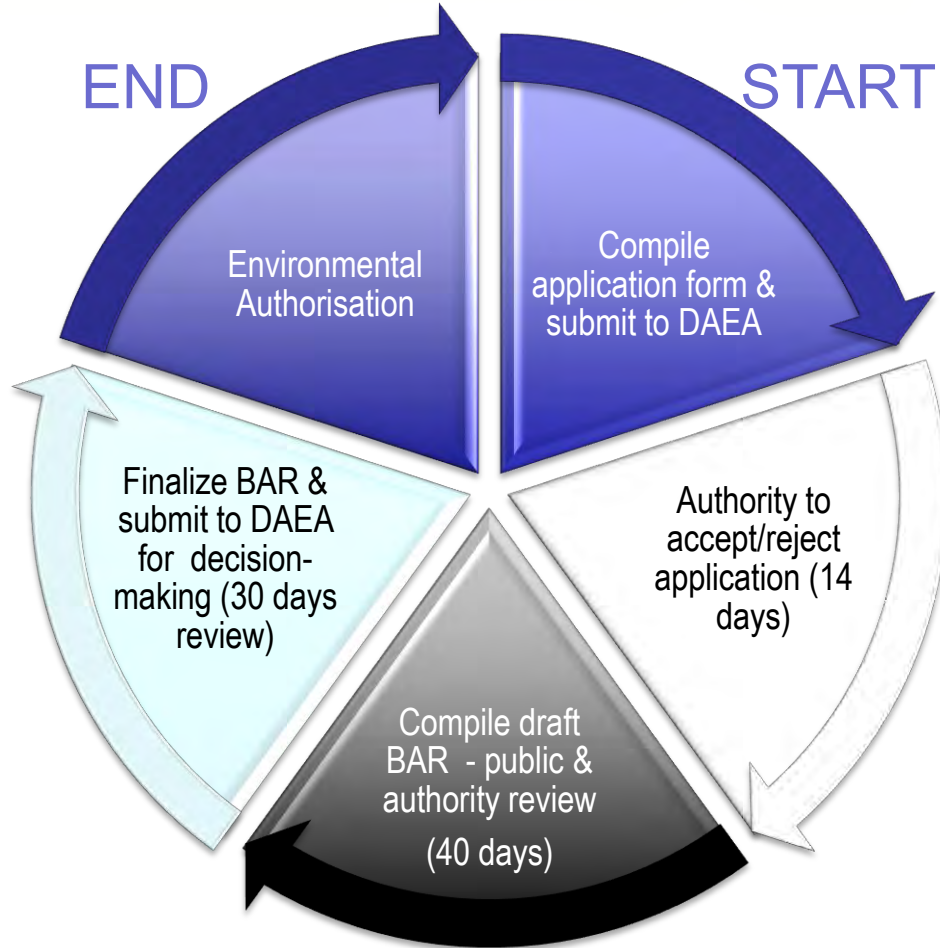
# ENVIRONMENTAL LEGAL REQUIREMENTS

- EIA Regulations Government Notice R. 543 to Notice R. 546 of 2010
- Mondi Ltd requires authorisation from DAEA for the undertaking of the proposed project as it includes the following activities listed under GNR. 544:
  - **13:** Storage and handling of dangerous goods with a combined capacity of greater than 80 m<sup>3</sup>.
  - **28:** Expansion to facilities, where this results in a need for a permit/ licence.
  - **42:** Expansion of facilities for the storage and handling of dangerous goods, where expansion is 80 m<sup>3</sup> or more.

# ENVIRONMENTAL LEGAL REQUIREMENTS

- Activities under these listings may have an effect on the environment, hence a BA process, as prescribed in Regulations 21 to 25 of the Environmental Impact Assessment Regulations (Regulation 543), is undertaken.

# BASIC ASSESSMENT PROCESS



Competent authority:  
DAEA  
Commenting authority:  
DWA and DoT.



# AIMS OF THE BASIC ASSESSMENT

The assessment of the social and biophysical environments

To assess impacts on the study area in terms of environmental criteria

To identify and recommend appropriate mitigation measures for potentially significant environmental impacts

To compile an Environmental Management Programme (EMPr)

To undertake a fully inclusive public participation process

# POTENTIAL ENVIRONMENTAL IMPACTS

- Air emissions;
- Traffic impacts;
- Construction phase impacts;
- Water consumption; and
- Liquid effluent.

# SPECIALIST INPUT - TIA

## ▪ CONCLUSIONS AND RECOMMENDATIONS

The following conclusions were drawn from the Traffic Impact Assessment:

- The existing road network around the Mondi Mill operates well within capacity.
- The traffic generation potential (analysed quantifiably) of the proposed project is minimal.
- The above analysis has been found to be acceptable and therefore no improvements on these intersections are required.
- It is therefore recommended that, in traffic engineering terms, the development be permitted.

# SPECIALIST INPUT - AQA

- Introduction:
  - The land use surrounding the area is predominantly industrial, with commercial, mining and forestry processes as well as surrounding residential communities.
  - An Air Quality Impact assessment was carried out by Airshed Planning Professionals.
  - The modifications to the existing processes at Mondi Richards Bay Mill will enable them to utilize the full design capacity of the equipment thereby increasing throughput.

# OBJECTIVE OF THE ASSESSMENT

- To assess the impact of the increase in emissions on ambient air quality in the Richards Bay area

## Key Elements of Air Quality Assessment:

- Emissions
- Meteorology
- Modelling
- Ambient air quality
- Assessment
- Mitigation

# DATA SOURCES

Airshed sourced data from:

- Mondi Richards Bay, RBCAA and SGS.
- Most current data was used from SGS (2011)



# METEOROLOGICAL CONDITIONS

- Meteorological parameters assessed were
  - wind speed and wind direction,
  - temperature, humidity and precipitation
- Meteorological data were obtained from the RBCAA five monitoring stations
  - Bayside
  - Harbour West
  - Brackenham
  - Arboretum
  - Scorpio
- The Richards Bay Mill has a predominant wind direction in the north-northeast and south-west direction.

# LOCATION OF RESIDENTIAL AREAS AND SENSITIVE RECEPTORS IN THE VICINITY OF THE MONDI



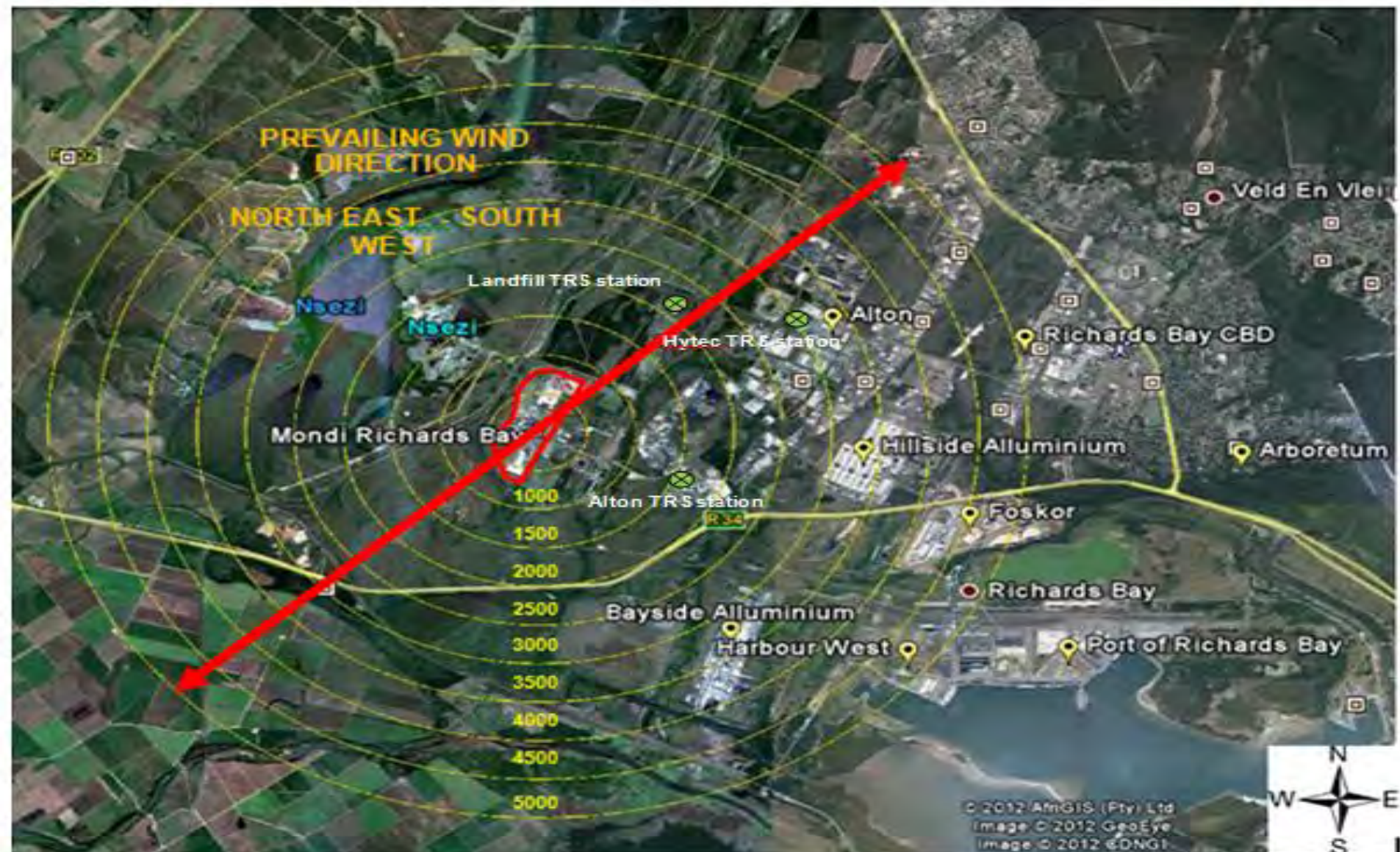


# LOCATION OF THE RBCAA MONITORING NETWORK





# PREVAILING WIND DIRECTION



# THE POLLUTANTS OF CONCERN

- Particulate matter (PM),
- Sulphur dioxide (SO<sub>2</sub>),
- Oxides of Nitrogen (NO<sub>x</sub>) and
- Total Reduced Sulphur (TRS).

# NATIONAL AMBIENT AIR QUALITY STANDARDS FOR PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub> AND SO<sub>2</sub>

Pollutant	Averaging Period	Limit Value (µg/m <sup>3</sup> )	Frequency of Exceedance	Compliance Date
PM <sub>10</sub>	24 hours	120	4	Immediate – 31 Dec 2014
		75	4	1 Jan 2015
	1 year	50	0	Immediate – 31 Dec 2014
		40	0	1 Jan 2015
PM <sub>2.5</sub>	24 hours	65	4	Immediate – 31 Dec 2015
		40	4	1 Jan 2016 – 31 Dec 2029
		25	4	1 Jan 2030
	1 year	25	0	Immediate – 31 Dec 2015
		20	0	1 Jan 2016 – 31 Dec 2029
		15	0	1 Jan 2030
NO <sub>2</sub>	1 hour	200	88	Immediate
	1 year	40	0	Immediate
SO <sub>2</sub>	1 hour	350	88	Immediate
	24 hours	125	4	Immediate
	1 year	50	0	Immediate



# CURRENT AIR QUALITY SITUATION: PM<sub>10</sub>

<b>Monitoring station</b>	<b>PM<sub>10</sub> Measured annual average concentration (µg/m<sup>3</sup>)</b>	<b>Annual Standard for PM<sub>10</sub> (2015) (µg/m<sup>3</sup>)</b>
CBD	23	40
Brackenham	27	40

# CURRENT AIR QUALITY SITUATION : SO<sub>2</sub>

Monitoring station	Annual Average (Limit 19ppb)	Highest Daily average (Limit 48ppb)	Highest Hourly average (Limit 134ppb)	No of hourly exceedances
Arboretum	3	14	95	
Brackenham	3	13	61	
CBD	4	27	61	
Scorpio	8	45	151	6
Harbor West	8	40	134	

- There were no exceedances of the annual and daily limit for SO<sub>2</sub>. However the Scorpio exceeded the hourly average limit.

# EMISSIONS INVENTORY: PM

Sources	Current PM tpa	Future PM tpa
Mondi Richards Bay Mill current sources	1547	1680
All RBCAA sources (excluding Mondi)	5938	5938
<b>Total</b>	<b>7485</b>	<b>7619</b>
% of Mondi contribution	20.7%	22.1%

# EMISSIONS INVENTORY: SO<sub>2</sub>

Sources	Current SO <sub>2</sub> tpa	Future SO <sub>2</sub> tpa
Mondi Richards Bay Mill current sources	4609	4772
All RBCAA sources (excluding Mondi)	39055	39055
<b>Total</b>	<b>43664</b>	<b>43827</b>
% of Mondi contribution	10.6%	10.9 %

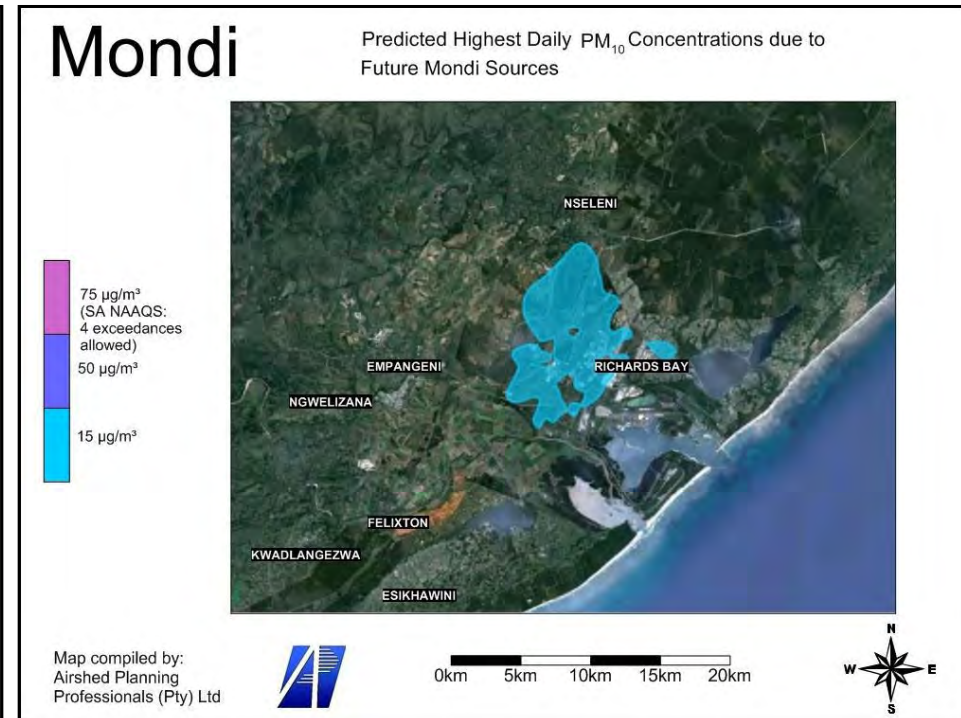
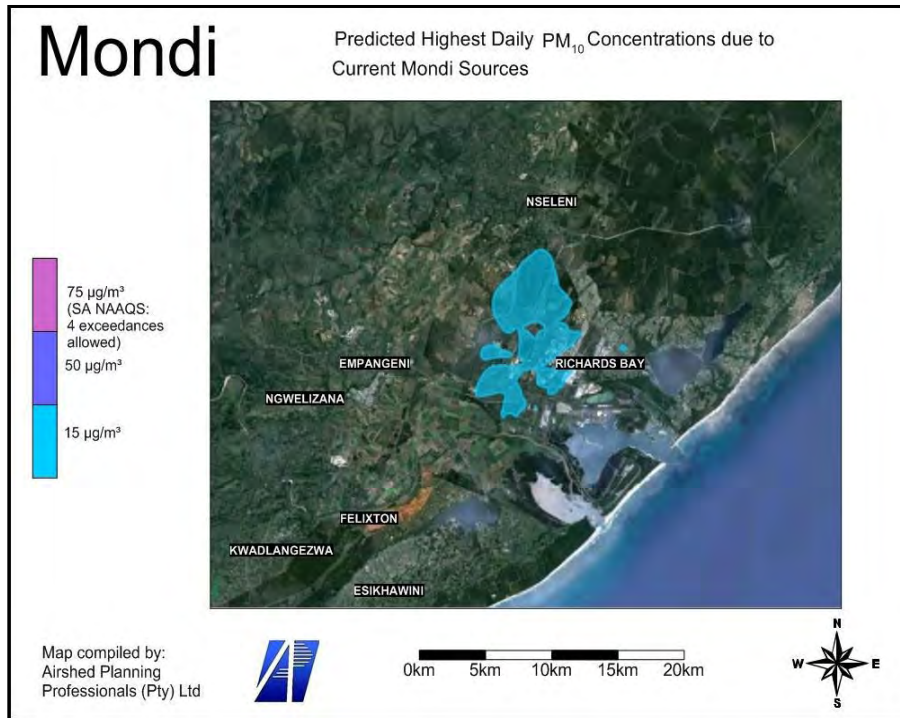
# EMISSIONS INVENTORY: NO<sub>x</sub>

Sources	Current NO <sub>x</sub> tpa	Future NO <sub>x</sub> tpa
Mondi Richards Bay Mill current sources	7076	7911
All RBCAA sources (excluding Mondri)	** Not reported due to incomplete NO <sub>x</sub> emissions inventory for the study area. ** N/A ** N/A	
Total		
% of Mondri contribution		



# IMPACT ASSESSMENT – PM<sub>10</sub> (Highest Daily)

The Isopleths plots depicted below, illustrate the predicted highest daily concentration ( $\mu\text{g}/\text{m}^3$ ) of PM<sub>10</sub>. There were no exceedances of the daily limit for PM<sub>10</sub> attributed to the proposed upgrades.



## CURRENT

Mondi Richards Bay Mill Upgrade

## FUTURE

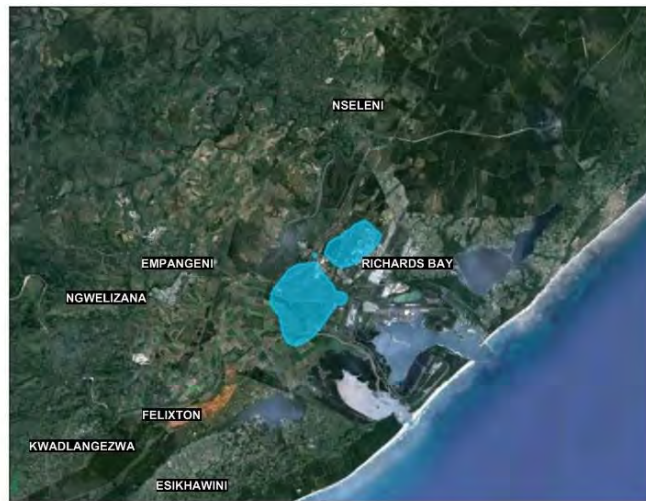
Page 29

# IMPACT ASSESSMENT – PM<sub>10</sub> (Annual Average)

- The isopleths plots depicted below, illustrate the predicted annual average concentration ( $\mu\text{g}/\text{m}^3$ ) of PM<sub>10</sub>. There were no exceedances of the annual limit for PM<sub>10</sub> attributed to the proposed upgrades.

## Mondi

Predicted Annual Average PM<sub>10</sub> Concentrations due to Current Mondi Sources



Map compiled by:  
Airshed Planning  
Professionals (Pty) Ltd

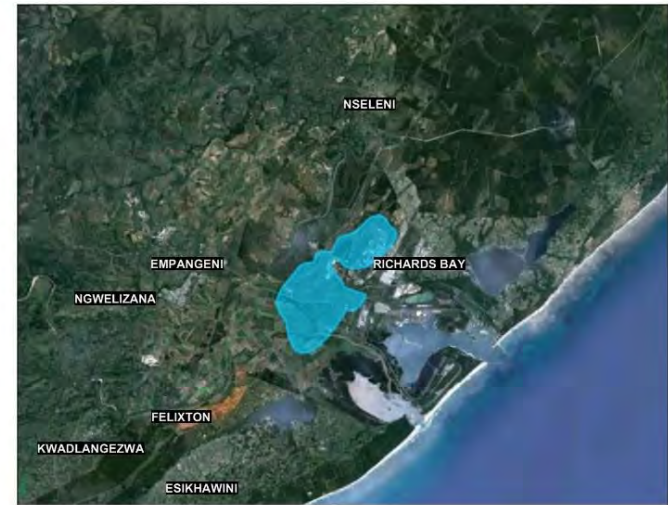


0km 5km 10km 15km 20km



## Mondi

Predicted Annual Average PM<sub>10</sub> Concentrations due to Future Mondi Sources



Map compiled by:  
Airshed Planning  
Professionals (Pty) Ltd



0km 5km 10km 15km 20km



### CURRENT

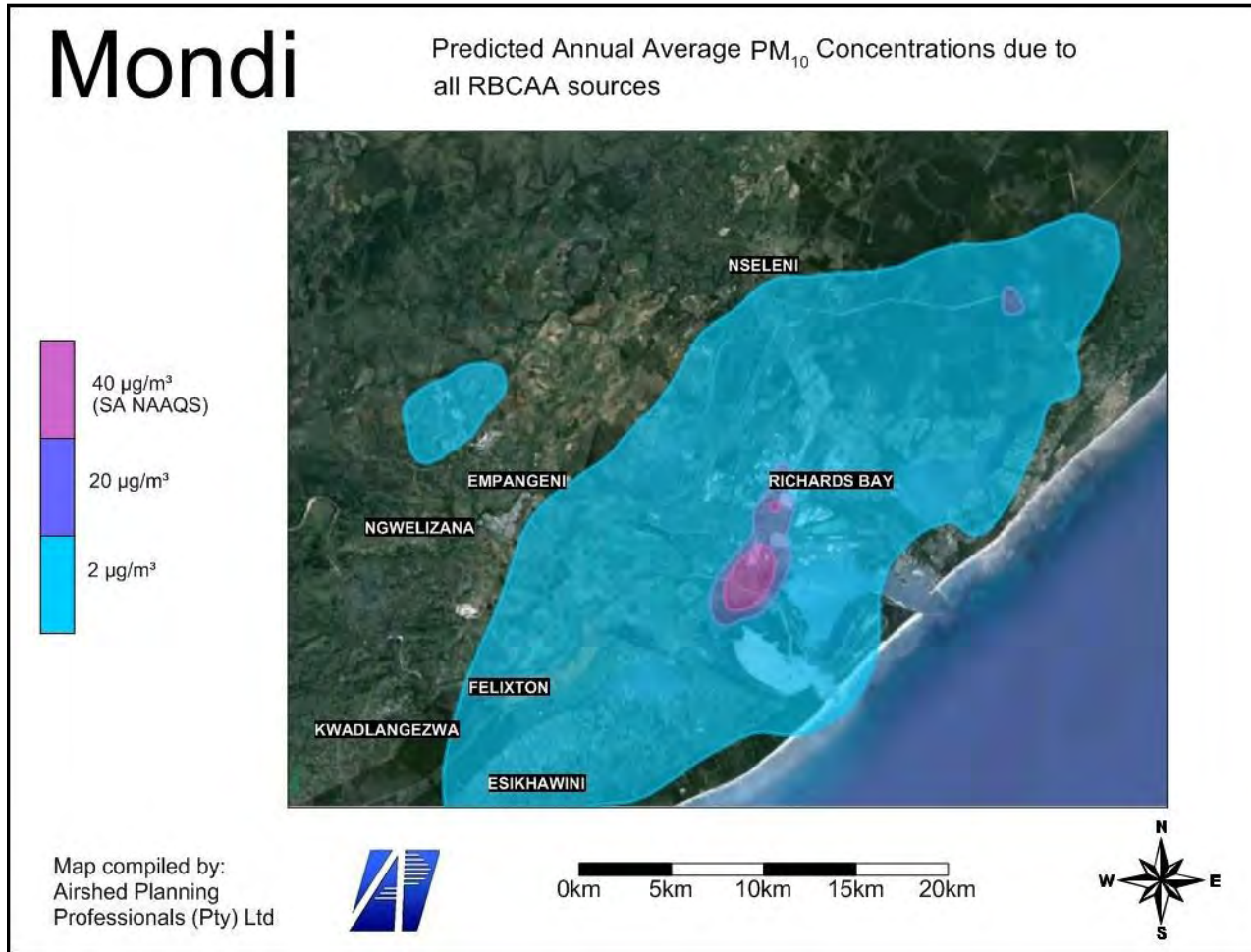
Mondi Richards Bay Mill Upgrade

### FUTURE

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# IMPACT ASSESSMENT – PM<sub>10</sub> (Annual Average)



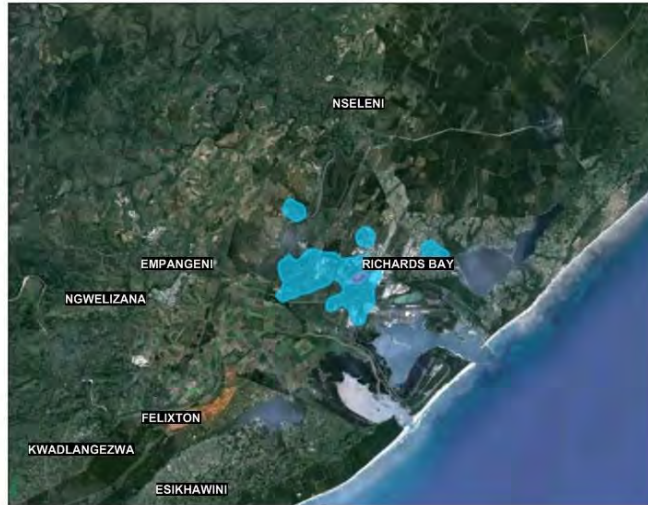
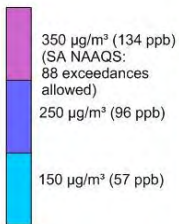
## FUTURE

# IMPACT ASSESSMENT – SO<sub>2</sub> (Highest Hourly)

The hourly, daily and annual concentration of SO<sub>2</sub> is largely unchanged due to the proposed upgrades.

## Mondi

Predicted Highest Hourly SO<sub>2</sub> Concentrations due to Current Mondi Sources



Map compiled by:  
Airshed Planning  
Professionals (Pty) Ltd

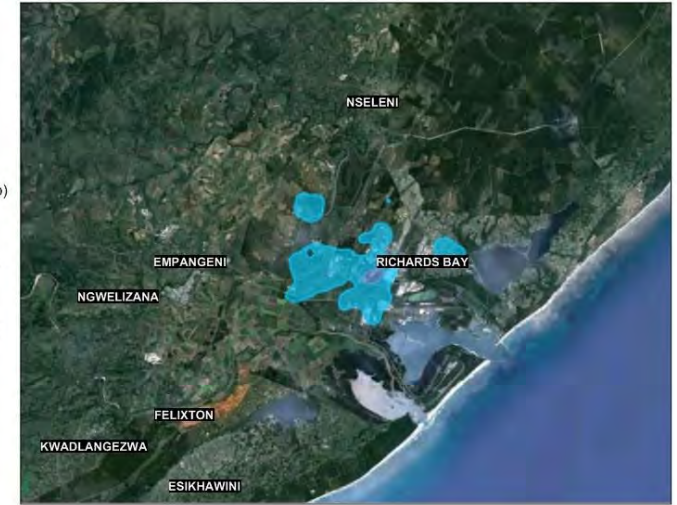
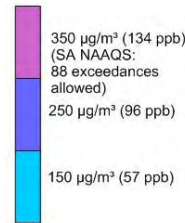


0km 5km 10km 15km 20km



## Mondi

Predicted Highest Hourly SO<sub>2</sub> Concentrations due to Future Mondi Sources



Map compiled by:  
Airshed Planning  
Professionals (Pty) Ltd



0km 5km 10km 15km 20km



### CURRENT

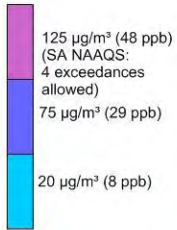
### FUTURE



# IMPACT ASSESSMENT – SO<sub>2</sub> (Highest Daily)

## Mondi

Predicted Highest Daily SO<sub>2</sub> Concentrations due to Current Mondi Sources



Map compiled by:  
Airshed Planning  
Professionals (Pty) Ltd

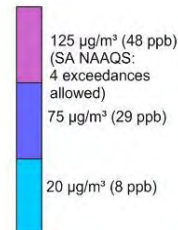
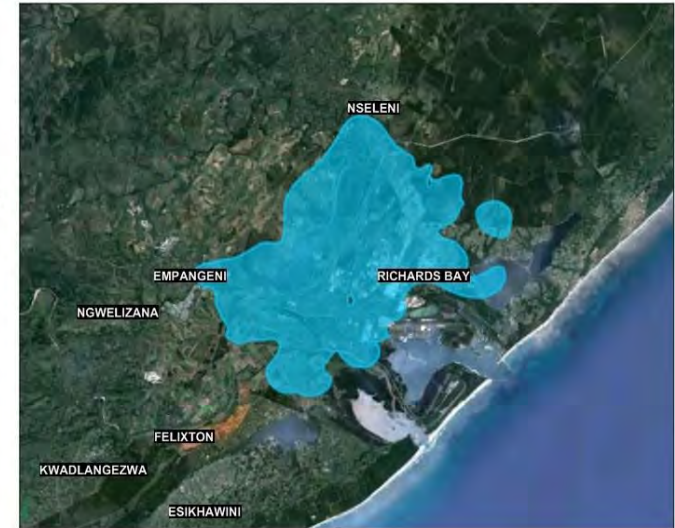


0km 5km 10km 15km 20km



## Mondi

Predicted Highest Daily SO<sub>2</sub> Concentrations due to Future Mondi Sources



Map compiled by:  
Airshed Planning  
Professionals (Pty) Ltd



0km 5km 10km 15km 20km

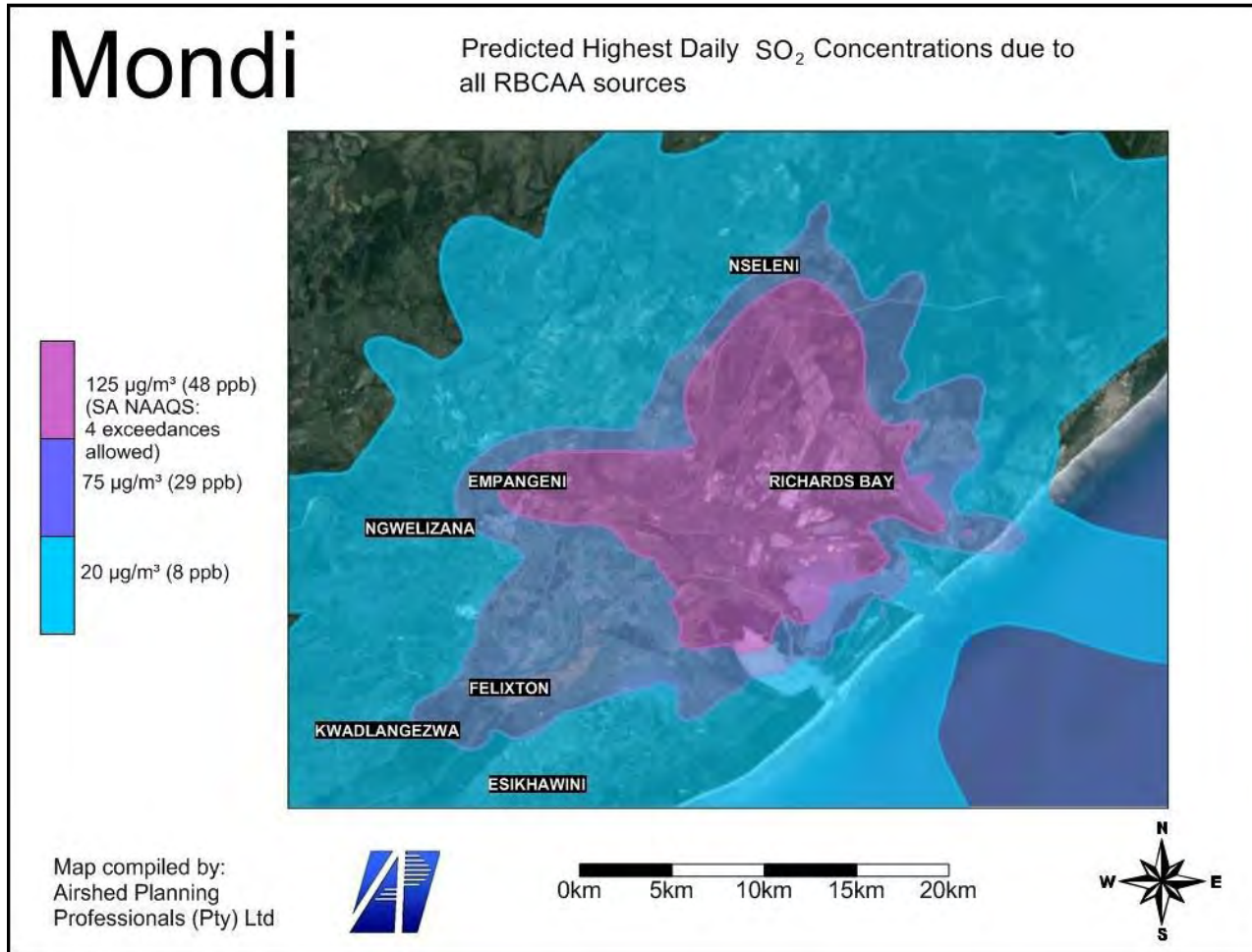


CURRENT

FUTURE



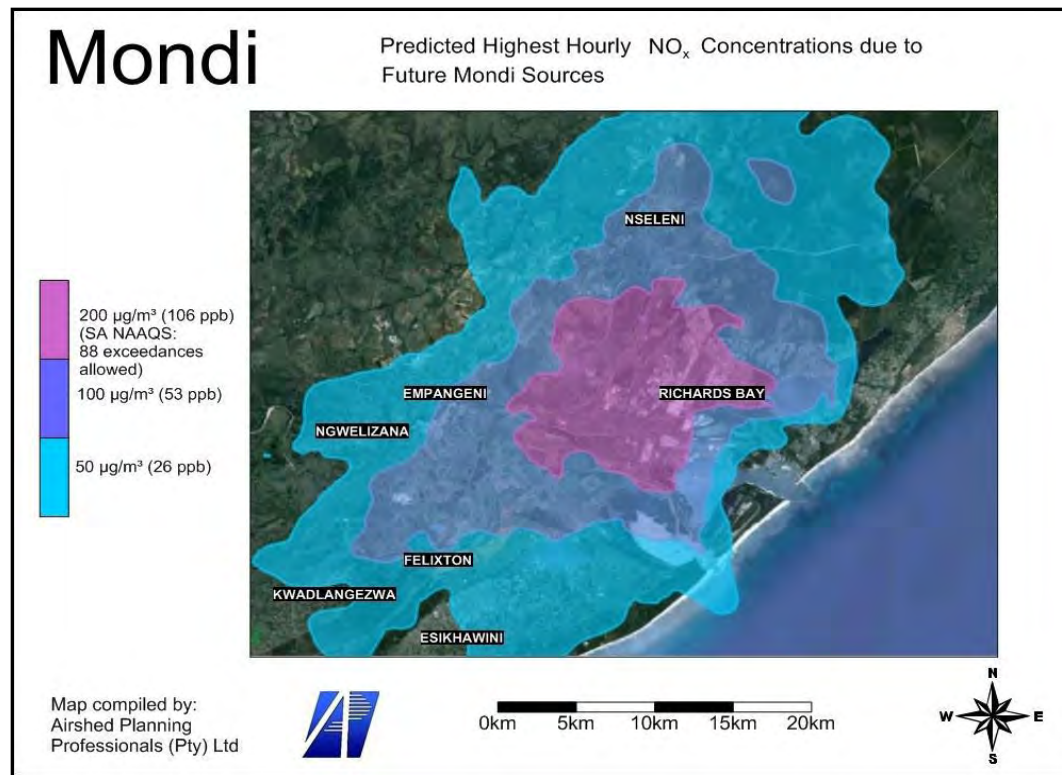
# IMPACT ASSESSMENT – SO<sub>2</sub> (Highest Daily)



## FUTURE

# IMPACT ASSESSMENT – NO<sub>x</sub> (Annual Average)

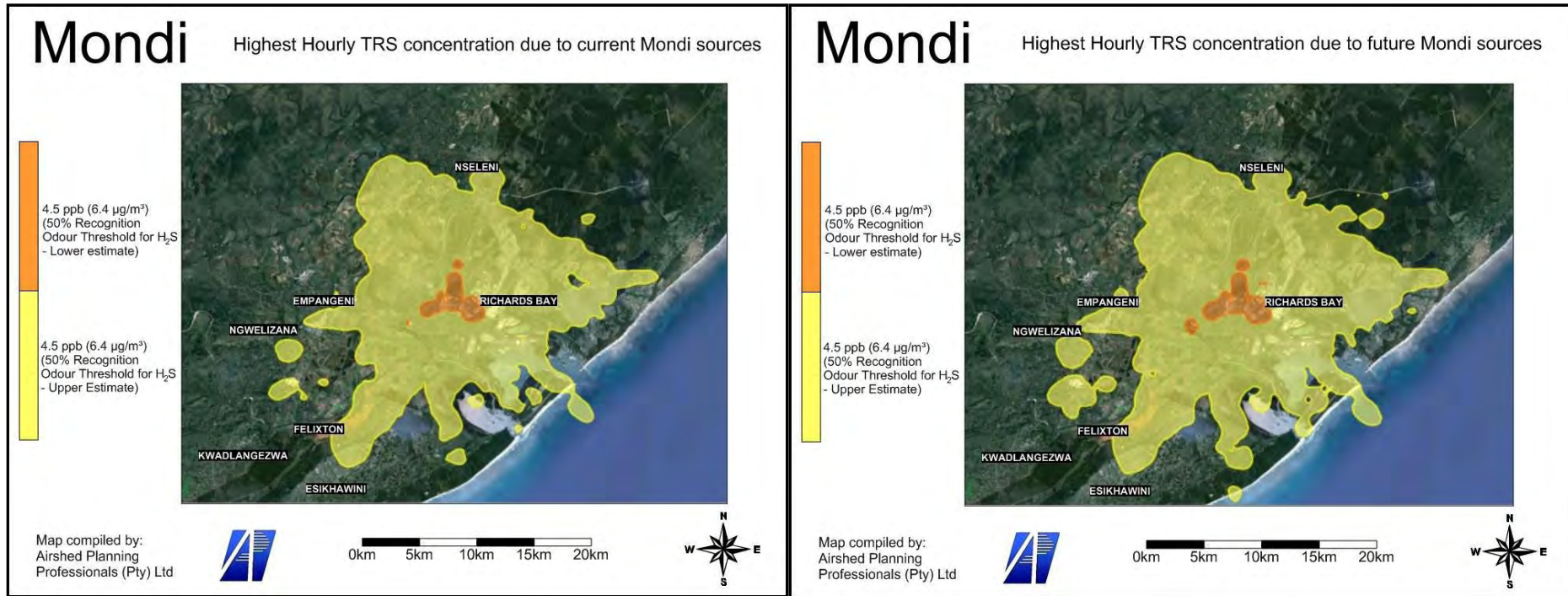
- NO<sub>x</sub> concentrations ( $\mu\text{g}/\text{m}^3$ ) in both the current and future scenarios did not exceed the annual standards.



**FUTURE**

# HIGHEST HOURLY TRS CONCENTRATIONS: CURRENT AND FUTURE

- Ground level TRS concentrations were predicted to be slightly higher after the upgrade using both the *Lower and Upper TRS Emission scenarios (3.5 and 0.6 % respectively)*.



CURRENT

Mondi Richards Bay Mill Upgrade

FUTURE

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# INCREASE IN EMISSIONS DUE TO UPGRADE

Description	SO <sub>2</sub> %	PM %	NOx %	TRS
Increase in emissions relative to Mondi: current	3.5	8.6	11.8	3.5 % Lower emission scenario 0.6 % Upper emission scenario
Increase in emissions relative to all current RBCAA sources.	0.4	1.8	**	**

\*\* Not reported due to incomplete NOx and TRS emissions inventory for the study area.



# ODOUR IMPACT SPECIAL FOCUS

- Mondi Ltd is committed to addressing the impact of odour.
- Separate budget for odour reduction.
- The Mondi Ltd Odour Abatement Programme commenced in 2009 and is currently in its second phase, with the third phase already committed.
- Ongoing monitoring and reporting.



# Odour abatement Project Phase 1

**Start-up** April 2010  
**Investment** R 67 Million

- Carbon Filters
- Upgrade Secondary Condensate System
- Mondi Software Logic for Softwood Digester Blow Sequence
- Emission Inventory and Modeling
- Ambient Monitoring system

# Odour abatement Project Phase 2

**Start-up** March 2012  
**Investment** R 21 Million

- Chip Bin Reboiler

# Odour abatement Project Phase 3

**Start-up** Q4 2013  
**Investment** R 28 Million

- Recovery Boilers dissolving tank scrubber upgrades: Installation  
October 2013



# CONCLUSION: EXCEEDANCES

	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>
Hourly exceedances	N/A	Nil	Nil
Daily exceedances	Nil	Nil	N/A
Annual exceedances	Nil	Nil	Nil

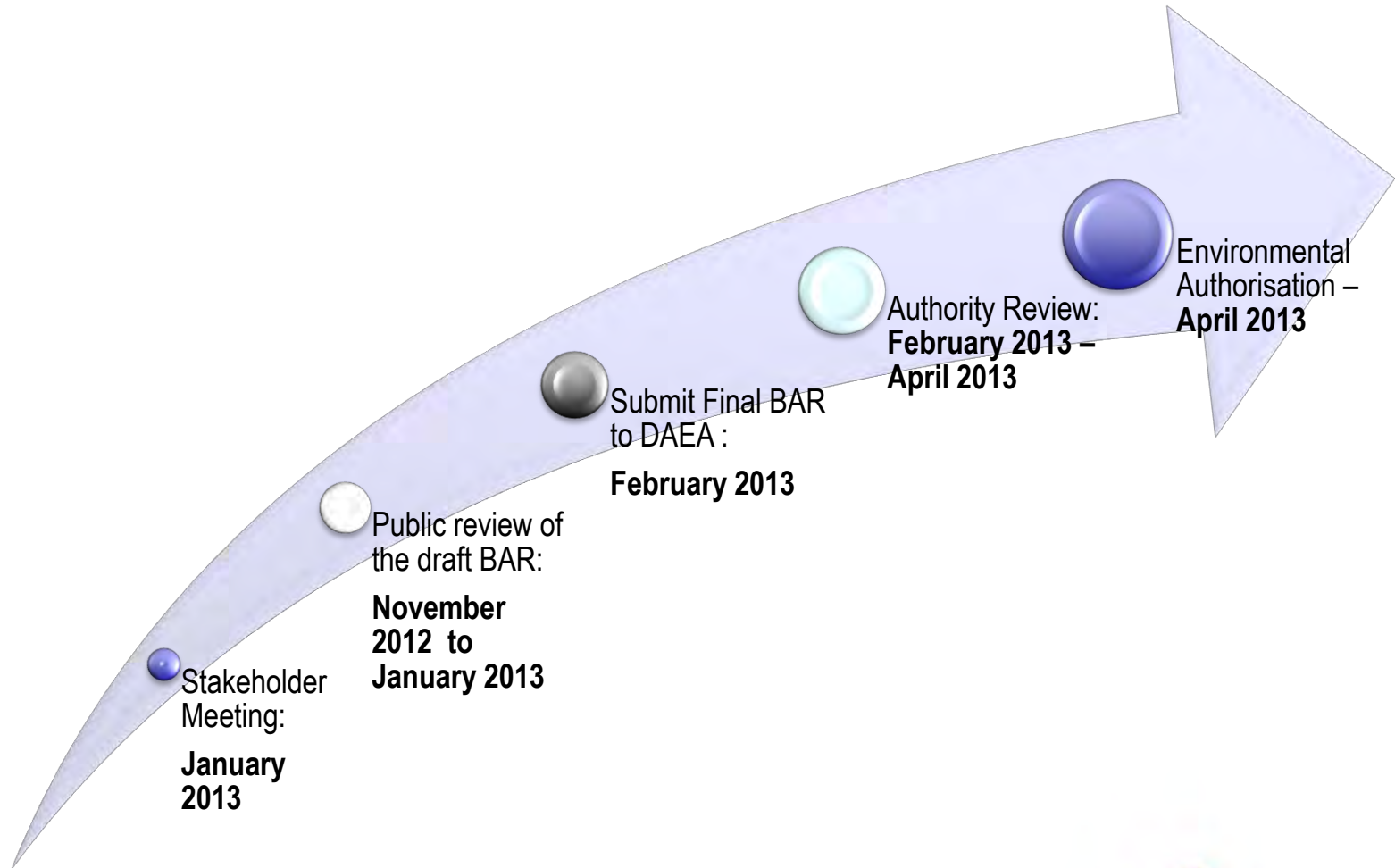
The modelling exercise has shown that there is no significant change to the ground level concentrations for SO<sub>2</sub> and PM as a result of the proposed upgrade.

# PUBLIC PARTICIPATION PROCESS



- Role of I&APs during the BA process
  - Raise issues and/or concerns as well as provide input on the proposed project
  - Review of the draft BAR
  - Provide the above inputs within the specified timeframes
- All comments received are highly appreciated.

# TIMELINES



- Comments and questions on the draft BAR and EMPr can be forwarded to:

Novashni Sharleen Moodley

 031 719 5535

 031 719 5505

 [Novashni.Moodley@rhdhv.com](mailto:Novashni.Moodley@rhdhv.com)

- QUESTIONS AND ANSWERS / DISCUSSIONS



**Public Participation Process**  
**Stakeholder Meeting 28.01.2013**  
**Minutes**



**Minutes of Stakeholder and I&AP Meeting**  
**Mondi Richards Bay Mill Upgrade Basic Assessment**

Date: 28.01.2013

Venue: uMlatuze Civic Centre

**Attendees**

NAME	ORGANISATION	CONTACT NUMBERS
Jay Oomadhram (JO)	Mondi	035 902 2216
Candice Webb (CW)	Mondi	082 405 1688
Gladys Naylor (GN)	Mondi	082 801 1950
Riaan Swart (RS)	Mondi	082 892 0058
Hanif Mahommed (HM)	Mondi	035 902 2217
Siva Chetty (SC)	Royal HaskoningDHV	031 719 5582
Sharleen Moodley (SM)	Royal HaskoningDHV	031 719 5532
Sandy Camminga (SCa)	Richards Bay Clean Air Association, WESSA and Coastwatch.	035 786 0076
Hendrik Louw (HL)	Interested and Affected Party	082 963 5287
Dave Savides (DS)	Zululand Observer	035 7990500

**1. Welcome**

- HM opened the meeting and handed over to SC for introductions.
- Apologies received:
  1. Debbie Smith (Zululand Environmental Alliance);
  2. Sihle Shezi (Richards Bay Coal Terminals).

**2. Presentation**

- SC handed over to SM who presented the Basic Assessment process covering items 2 – 13 of the agenda, with assistance from SC on the AQA.

### 3. Discussions

- SCa expressed her concerns over separate meetings held with authorities and then stakeholders or NGO's. Mondi noted this for future public participation.
- HL expressed his concern over the lack of a public meeting. It was explained that the Background Information Document circulated had a check box to request a public meeting, of which only one positive response was received, thereby not warranting a public meeting. Given the history of such projects, it was more logical to conduct a stakeholder meeting. SCa recognised the fact that a public meeting would most likely result in the same people being present as were present at the stakeholder meeting and would therefore not have a different outcome.
- Regarding air quality, SCa requested that the presentation read 'no measured exceedances' rather than 'no exceedances.'
- SCa queried how the timeframes were concluded. HM explained that only once environmental authorisation is received will the proposed project be taken to the Mondi management committee, therefore no timeframes are definitive. It was however noted that the timeframes in the presentation referred to the BA process and not to the project approval and commissioning phase.
- SCa stated that the timing of the distribution of the report was inconvenient and requested an extension till February 4<sup>th</sup> 2013.
- Concern was expressed over the absence of Airshed (the author of the AQA) – to which SC responded stating that he has critiqued the report and is able to respond on their behalf.
- SCa stated that the dose maps in the AQA need to be redone to conform to the norm of the RBCAA reports.
- SCa further stated that annual averages are not indicative of health nuisance. Short term exposure is the problem and that is when exceedances are high.
- It was confirmed that water consumption and liquid effluent will increase by 7-8% – which is catered for by Mhlathuze Water. This is within licensed limits.
- SCa expressed dissatisfaction on the presentation stating that many aspects of the dBAR were not presented. Furthermore Mondi Felixton should be corrected to Mpact in the Air Quality Specialist Study.
- SCa questioned whether the plumes would not extend further considering the high annual amounts stated in the tables,. SCa noted that most complaints are associated with health impacts. SC responded stating that having looked at the proposed upgrades and the dispersion model of the emissions from the proposed upgrade, the upgrade would not have a significant impact.
- SCa further stated that the maps must not reflect a bird's eye view and must conform to the format of the RBCAA maps and be superimposed onto aerial photography.
- HL stated that his evaluation within the Zululand area highlights the following issued in this area: traffic, coal terminals, energy issues, biodiversity issues ad water quality.
- HL stated that the use of the term 'Best Available Technology' must be defined if used throughout the dBAR.
- HL raised the concern of increased water demand, stating that this should be examined but is not major. It was confirmed that the increase in water consumption would be in line with the increased production, i.e. 7 – 8 %..
- With regard to air quality, HL stated that Mondi is not the only contributor but all industries in the region

collectively contribute. With regard to odour, he is aware that there is a lot of work being done by Mondi and that this is not easy to manage.

- HL's prime concern was with regard to SO<sub>2</sub> and the associated health issues. Stating that the statements in the Airshed report are contradictory to those of previous reports. It was explained that the previous air quality specialist study done by Mondi, and referred to by HL, was for the installation of a steam turbine. This project will be commissioned late in 2013 and the air quality specialist study done for the upgrade therefore took the base case scenario including the emissions which will arise out of the already authorised steam turbine project. HL acknowledged that this would account for the difference in the emissions he noted.
- HL went on to query why it is stated in the dBAR that Mondi is going back to previous technology (R3) which was discontinued in the ClO<sub>2</sub> production process. RS, in response, gave a brief history, stating that the bleaching process was changed in 1994 to Chlorine Dioxide and the chlorine dioxide production was also changed (R8) to allow for additional chlorine dioxide to be produced. Then in 1999 when the O<sub>2</sub> identification was installed (pulp from the digester decreased lignin by 40%), Mondi reverted to the previous technology for producing chlorine dioxide (R3) since less chlorine dioxide was required after oxygen delignification. Now with the upgrade of the mill and the consequent requirement for additional chlorine dioxide Mondi will revert to the R8 process once again. It was noted that this change relates to the production process for chlorine dioxide will not impact on air emissions.
- A lengthy discussion was held on the modelling of SO<sub>2</sub>, with reference to the 4000 – 4150 figures given, as HL identified these as the RBCAA permitted limits. HL stated that Airshed cannot model licensed emissions. GN confirmed that the modelling was not based on permit values but actual values obtained from SGS data modelled on existing and future emissions. While HL was of the initial opinion that the actual impact of the project is larger than depicted, it was concluded that the figures do include the increases of the turbine project (previous authorisation obtained) and that the actual impact of 2010-2015 is what is depicted as the correct picture.
- The source of the figure of 43664 (total SO<sub>2</sub> emissions of all RBCAA sources) is to be clarified by Airshed.

#### 4. Way forward and Closure

- SC closed the meeting.