

Tongaat-Hulett Sugar Refinery Ltd Stakeholder Forum

Meeting held at 17:30 on Wednesday 10 February 2010
at Mowat Park School

Present:

(as per attendance register)

Ms Greta Butcher (GB)	Mowat Park Library
Mr Tim Campbell (TC)	Tongaat-Hulett Sugar Ltd
Mr Grant Cockburn (GC)	Tongaat-Hulett Sugar Ltd
Mr Rammy Govender (RG)	Tongaat-Hulett Sugar Ltd
Ms Bongie Khambule (BK)	CPF Treasurer
Ms Lillian Leeu (LL)	eThekwini Health
Mr Sizwe Makhunga (SM)	eThekwini Health
Mr Ronnie Naicker (RN)	eThekwini Water & Sanitation
Mr Bonga Ngema (BN)	CPF Chairperson
Ms Phumulani Ngema(PN)	eThekwini Health
Ms Pholohlwana Nolulamo (PN)	Ward Committee member
Ms Mashabalala Nwabisa (MN)	Local Youth Forum
Ms Natisha Padayachee (NP)	Tongaat-Hulett Sugar Ltd
Ms Billie Prinsloo (BP)	Ward Councillor Montclair
Mr Navin Ramjuan (NR)	Tongaat-Hulett Sugar Ltd
Mr BE Xulu (BX)	Councillor
Mr Ebrahim Yusuf (EY)	Tongaat-Hulett Sugar Ltd

Secretariat:

Mr Rod Bulman (RB)	Phelamanga Projects
Ms Claudia McKenzie (CM)	Phelamanga Projects

Apologies:

Mrs Beryl Gets (BG)	Resident
Ms Siva Chetty (SC)	eThekwini Municipality

ACTION

1. WELCOME, INTRODUCTION & APOLOGIES

RB welcomed everyone to the meeting.

2. APOLOGIES

Noted above.

3. ACCEPTANCE OF AGENDA

The agenda was accepted.

4. MINUTES OF THE PREVIOUS MEETING HELD ON 09 NOVEMBER 2009 AND CONFIRMATION THEREOF

The minutes of the meeting held on 09 November 2009 were accepted as a true reflection of the meeting and duly signed.

5. MATTERS ARISING FROM THE MINUTES

5.1. THS Review of Permit Conditions – Update

eThekwini was generally happy with the Open Day. There was not a large turn out of people however overall it was satisfactory. TH was still within the limits of their permits. It may have been good to hear what community members had to say. BP commented that this would be negligible, as most issues had been resolved and they had not received any further complaints.

5.1.1. Pollutants Report from eThekwini

A report on pollutants in the uMhlatuzane River had been requested from the Waste Water section,

ACTION

following complaints about oil in the water. A survey of the catchment area had been done, which was not a simple exercise especially with the large amount of illegal dumping in the river. Further upstream of the river was clear.

It was noted that it was difficult to pinpoint the culprits as the area was notorious for illegal dumping. eThekweni officials were trying to be very visible in the area. The LAF requested updates on any investigations of pollution in the river.

RN to update re: investigations

5.2. Registration of Dam

It seemed that the Tongaat-Hulett dam did not qualify for registration, however THS were busy finalising legal requirements.

5.3. Signage at Benson Site

BP reported that there had been an on-site inspection of the area from which it appeared that people were just using the road for illegal dumping. eThekweni undertook to put a control boom across the road entrance, but this had not been done and dumping had continued.

The registration number of a vehicle suspected of illegal dumping had been obtained, but the problem was the lengthy prosecution process. Unfortunately Municipal courts were not up and running to deal with pollution issues, they were not sure of way forward.

Signage would be erected at some point but this was not Tongaat-Hulett's issue. NP added that they had investigated this matter and what had been made clear was that TH was not allowed to put up signage on properties that do not belong to them. BP said the residents would approach DSW to put up signs.

Phelamanga to remove from agenda

6. REPORTS**6.1. THS Update****Agenda**

- Business KPI
- Steam & Power
- Energy Efficiency
- Emission Reduction
- Dust, Odour ,Noise
- Water & Effluent
- Waste
- Performance Trends
- General

6.1.1. Business KPA

KPA	Target	Progress –Jan 10
Environment	5 external complaints 315 000 kl/annum – effluent Reduction filter cake -landfill – 20%	5 complaint 490733 tons
Quality	HACCP certification – Packing – Dec 09 Export quality sugar >45% (40ton/hr)	43 tph
Safety	2LTIs ; 100%- medical ; 83% VCT.	4 LTI
Profit/loss	Major focus – Cost reduction & cash flow.	
Human Resource	EE : Recruitment – greater focus on African & Coloured (females). Skill upliftment program – Supervisory level	
Manufacturing & Packing	Production : 707089 Yield : 98.3	615006 tons 98.57%

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	Conditioned sugar target: 270 000 tpa Coal/melt : 15 Energy consumption : 3800-4000MJ/ton melt	15.32 4201
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6.1.2. Steam & Power

- Continuous improvement program.
 - One boiler overhaul per year.
 - Boiler 5 – first half completed, second half to be completed Q1.
 - Boiler 4 – planned to start in Q3.
- Currently developing a proposal on Boiler and PowerStation replacement using the best available technology and environmentally acceptable practices.
- Focus will remain on optimising the installed automation and monitoring systems and reinforcing the systemic approaches to operations.

6.1.3. Coal Update

- **Coal Procurement**
 - Local market now obtaining better focus.
 - Looking for better coal that has higher ash fusion temperatures, lower sulphur and better grading.
 - Achieved 91% Coal delivered by rail against a budget of 75/25.
- **Coal- "Attention to Detail"**
 - Single biggest operations cost: R75 million.
 - Drive down coal consumption – get it down to 14.6 % coal/melt ratio.

6.1.3.1. Discussion of coal update

1. RG explained how TH had begun implementing the rail transport of the coal. In response to a question from BP, RG explained that TH had become very organised around this particular task which also involved senior members. The biggest constraint was the performance of Transnet, and TH had worked very hard with them to find solutions, investigate capital options. TH had purchased new rail wagons (they had an ageing fleet with outdated custom purpose) and had developed a network of decision makers in Transnet.
2. The question was raised of forming a coalition of coal users. RG said they had tried having talks with Sappi, however it had been very difficult to co-ordinate coal users. If there was only one supplier they would have a better chance, but there were many suppliers. Capital investment on the project had been nearly R3 million.
3. One of the main issues was that the quality of coal was not getting any better; the coalfields of South Africa were not going to provide. The assumptions in the SDP targets were that coal quality would remain the same, but THS needed work with their technology as coal quality would decline in the medium to long term.
4. Coal is TH's biggest cost so it was an important issue that TH was constantly investigating.

6.1.4. Energy Efficiency

- **Project EnerSmart Launched**
- Focus
 - Reduce water consumption.
 - Reduce compressed air consumption.
 - Drive down electricity consumption – internal load shedding.
 - Exporting surplus power – embedded generation.
 - Energy-(MJ/ton melt – bench mark internationally.) < 3900 MJ/ton melt.
 - Energy audit completed Dec 2009.

ACTION**6.1.5. Emission Reduction**

- STP
 - Report submitted to eThekweni.
 - Stakeholder presentation held on 25/11/09.
 - Feedback received – meeting requirements and no comments from stakeholders.
- Clear stack
 - Still experiencing problems with maintaining mechanical efficiency of plant.
 - Plant was evaluated by the Technical Engineering Group.
 - This audit had highlighted a number of items that required attention.
 - These would be attended to over the next month.

6.1.5.1. Discussion of emission reduction

1. It was noted that TH had been audited by the Technical Engineering Group, who had come up with recommendations to improve performance. The results would be seen the following month. The main aim was to get mechanical efficiency up to speed.

6.1.6. Dust and Odour

- No complaints over the past year.
- Had visited the Mosque.
- Feedback – no concerns.

6.1.6.1. Discussion of dust and odour

1. The community had put a lot of pressure on dust issues.
2. TH had induced their suppliers to reduce dust on the sugar at source.
3. Dust was one of the top 5 risk factors to sugar companies in terms of explosions.
4. Sugar dust was a nuisance, environmental and health and safety factor.

6.1.7. Noise Monitoring

- Rail offloading area- sugar, there was a marginal exceedance.
 - Results still indicated noise levels were marginally above the limits.
 - Alternative options would need to be investigated.
 - No further progress to report.
 - There were no complaints reported.

6.1.7.1. Discussion of noise monitoring

1. Engineers still needed to find a better solution.
2. Dampeners on the vibrators had led to marginal improvements, but it was necessary to look at other solutions to reduce noise.
3. The noise levels were slightly above limit.

6.1.8. Water & Effluent

- Water
 - Minimal progress.
 - Restricted use – permitted river water volume.
 - Cost of municipal supply.
 - Pending cost of river water.
 - Plan 2010
 - Invested in measurements systems.
 - Gather info – Mid Feb 2010.
 - Move towards - Area base responsibility – to manage reduction and effective use.
 - Generate a daily report.
 - Manage against targets.

ACTION**6.1.8.1. Discussion of water**

1. The use of river water was restricted, therefore there was a need to look at it could be used optimally.
2. Municipal water was expensive so optimising water use was very important.
3. There was a possibility that there would be a charge for river water in future.
4. For these reasons it was important to get a system in place now with which the engineers could work.
5. BP suggested consideration be given to rainwater harvesting with a filtration system at the tap which was quite inexpensive.

6.1.9. Effluent Quality

- Effluent quality
 - Significant progress – COD – Factory stability.
 - Area of concern – Sulphate & pH compliance – linked with effective dam management.
- Effluent volume
 - Very slow progress to-date.
 - Tied into water management plan.
 - Move towards area base responsibility.
- Stormwater contamination risk
 - Comprehensive plan in place to deal with all outstanding risks.
 - Project in progress of being finalised.
 - Completion expected in March 2010.

6.1.9.1. Discussion on stormwater contamination risk

1. Most factory areas are captured by the stormwater dam.
2. The intention was to capture all outstanding areas to minimise the risks if there was an incident.
3. The dam acted as a safety net.
4. The project was almost finalised and would be completed by March 2010.

6.1.10. Effluent Dam

- Conceptual plan 2010
 - “Convert effluent system to JIT to allow for clean-up of the dam. To develop and install a long term solution to manage effluent holding and solids management.”
- Plan
 - Complete JIT system by end Jan 2010.
 - Investigate Geo-tube concept – for clean-up – end Feb 2010.
 - Revert to traditional clean-up method if necessary.
 - Re-construct dam system to manage solids removal on continual basis.

6.1.10.1. Discussion on the effluent dam

1. It was explained that JIT (Just In Time) would allow effluent to flow directly into the sewer so the system could be worked on during normal time. In the past work could only be done during shut down. Could now be worked on consistently throughout year to get sludge removed.
2. The geo tube concept is sludge removal technology being used overseas. Sludge is pumped into a bag, which holds the solids while allowing the water fraction to pass through, drying the sludge for easier removal. This is not a high pressure system.
3. It was noted that THS hope to have the sludge reclassified or find other uses for it.
4. RG explained that the short term solution is to de-sludge the dam, accompanied by intervention inside the factory to prevent the sludge from going into the dam. Lime was the same price as coal, so there was a need to try and trap lime rather than send it to the dam, otherwise find other uses for lime.

6.1.11. Waste

- Site waste management – needed to be aligned with the new Waste Act.

ACTION

- Filter cake Agriculture
 - Final clearance from DWAF was received in Dec 09.
 - Will be proceeding with full-scale agricultural spread during 2010.
 - Contract to start in March 2010.
 - Will still continue proceed with other options in parallel.

6.1.11.1. Discussion on waste

1. The function was well under control.
2. The new Waste Act was now in place, and the company was learning the implications and what could be improved on.
3. In December approval was received for a full time agriculture project with Veolia Environmental Services to assess the value of the waste as a fertiliser.
4. This was largely an environmental project, turning waste into a recycled product.
5. The commercial prospects would have to be explored.

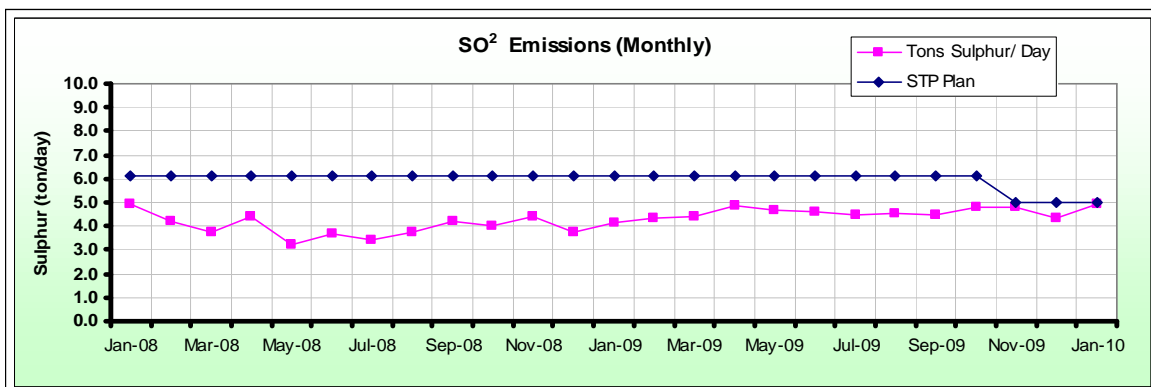
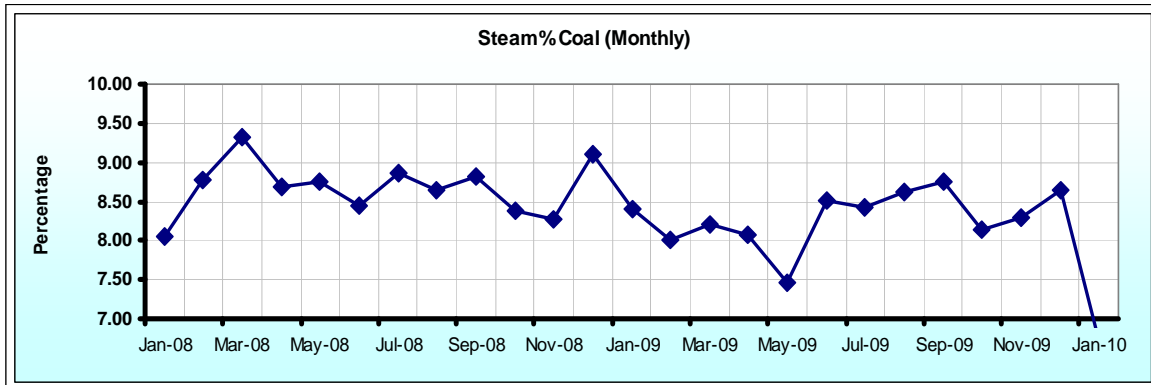
6.1.12.TH Initiative

- Tongaat Hulett - establishing carbon foot print
- Emission inventory is being compiled at present.
- Feedback will be provided at later stage.

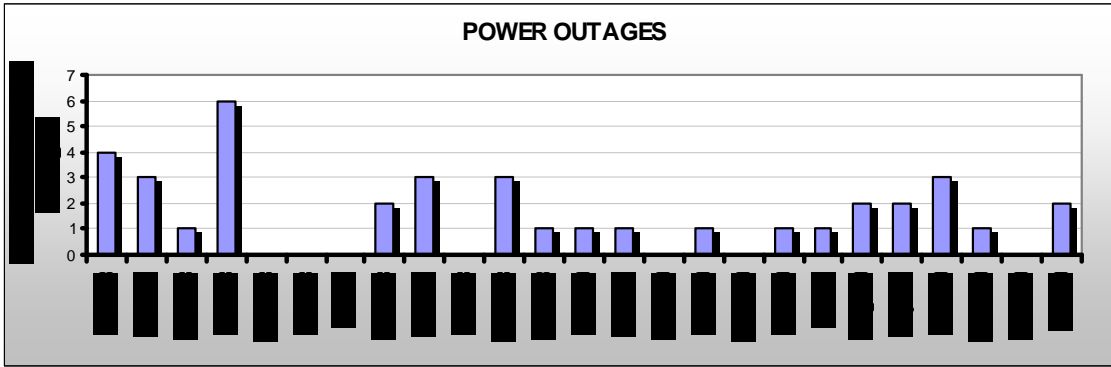
6.1.12.1. Discussion of Initiative

1. This was a response to climate change.
2. The carbon footprint of every section of the company was being established, sugar agriculture, starch etc.
3. The intention was to reduce baseline emissions.
4. There was commitment to a transformed company profile.

6.2. Performance Trends



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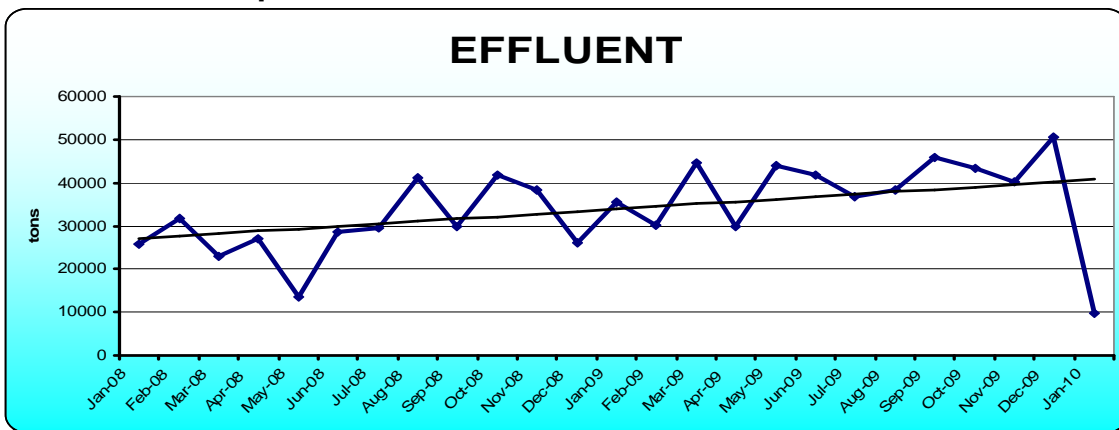


Reasons for Power Outages – 2009													
	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10
Start-up problems													
Turbine tripped				1				1	1	3			2
Power failure -Municipality	1	1				1		1			1		
General boiler problems							1		1				

6.2.1. Discussion of Performance Trends

1. It was noted that the plant was shut for 3 weeks during January.
2. The steam/coal % was mostly above 8 for the period under review.
3. The SO₂ limit was changed from Nov 2009, and is now at approximately 5.
4. Number of power outages had improved since 2008. Although still occasional, many were caused by the turbines which had a protection system that turned them off if a fault was detected.

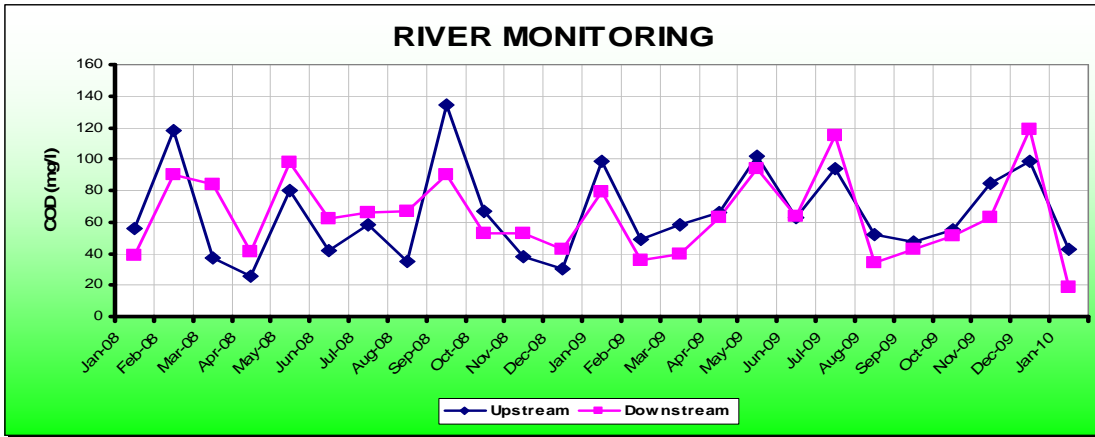
6.2.2. Effluent Graphs



6.2.2.1. Discussion on effluent monitoring

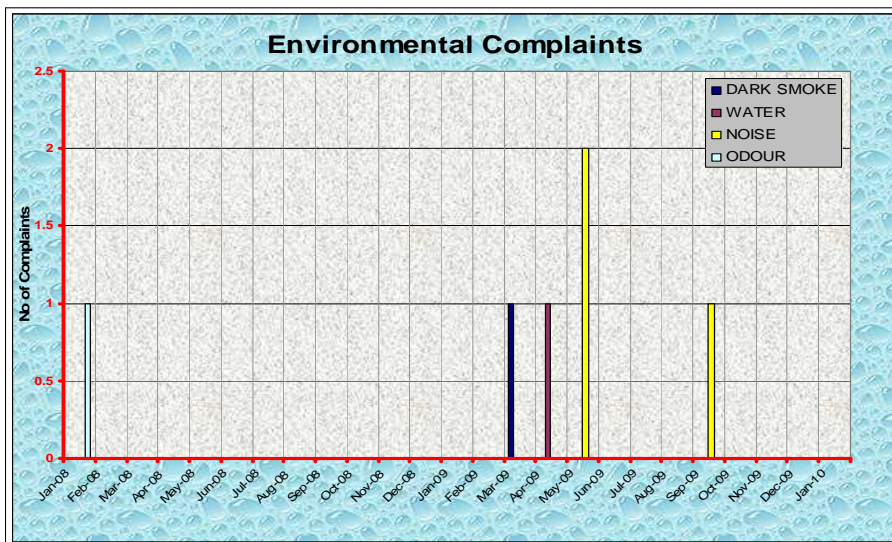
1. The new Waste Act would require close monitoring and reporting of all waste generated.

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6.2.2.2. Discussion on river monitoring and effluent monitoring

1. It was noted that the COD was stable, both upstream and downstream, indicating a minimal impact on the river.



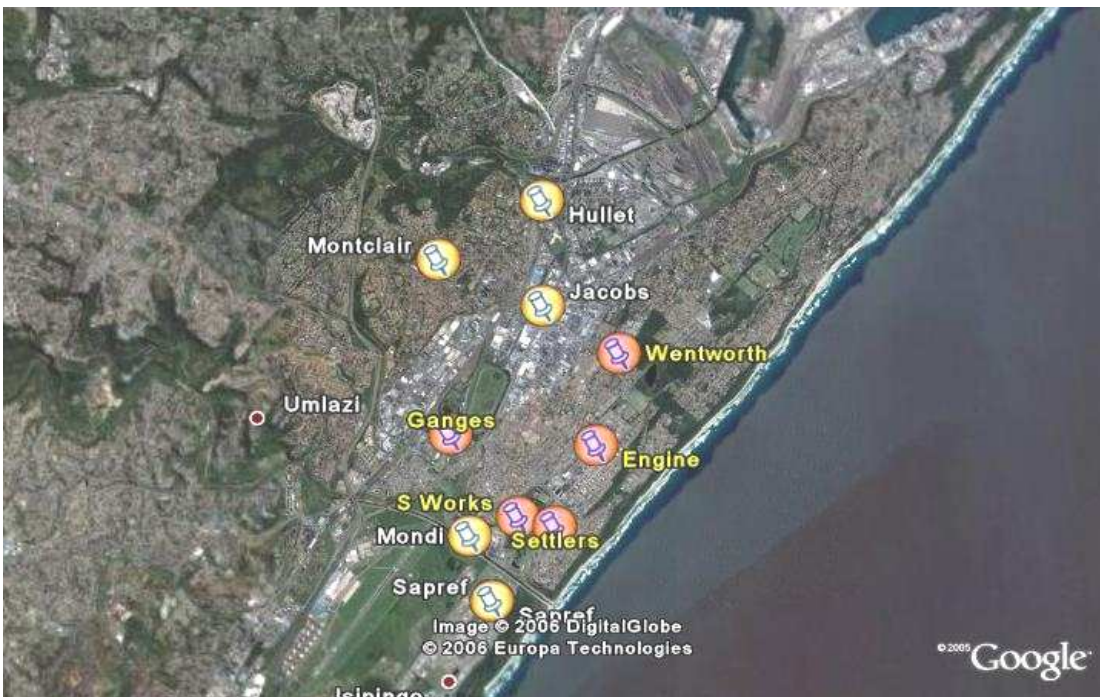
6.2.2.3. Discussion on environmental complaints

It was noted that complaints received around September were in respect of noise; since then no further complaints had been received.

ACTION**6.3. River Management Scope**

THS reported that

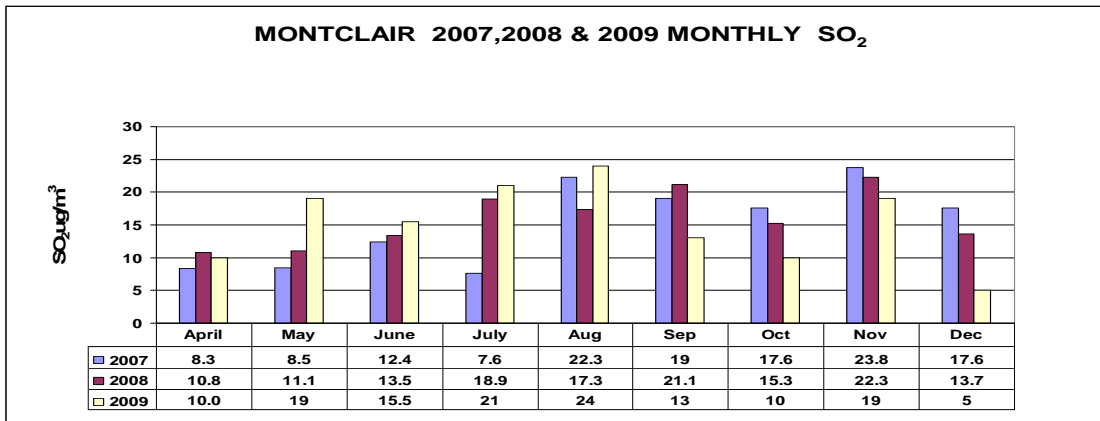
1. Any deviations to the river quality were reported to eThekwini.
2. The Company had taken responsibility for an area of the uMhlatuzane River, and would help with rehabilitation where possible.
3. GC reported that Fish eagle had been sighted and that mongoose, yellow bill kites, and large snakes had also been sighted. This part of the river was lovely and they were trying to promote appreciation of it. Apparently SDCEA brings in visitors.
4. Much of the alien vegetation had been removed by a Coast Care project with eThekwini supplying indigenous plants.
5. Not much oil had been seen in the river recently. Monitoring of the river by eThekwini begins at Rob Roy Hotel.
6. The quality of the water was monitored from two designated points.
7. Any deviations were reported to eThekwini Metro Waste Water.
8. Good river management practice to ensure that we created a much needed green belt.
9. Stop erosion which would ensure the protection of valuable soil, sedimentation and reed beds, which would improve water quality.
10. Remove all alien vegetation, debris and rubbish on a regular basis.
11. Plant suitable trees along the river bank which will encourage wild life.
12. Keep the waterway free from obstructions.
13. Monitor the land on either side of the river to ensure that no illegal practices occur.

7. SO₂ MONITORING REPORT**7.1. Montclair Bubbler Station Data For Sulphur Dioxide****7.2. Background**

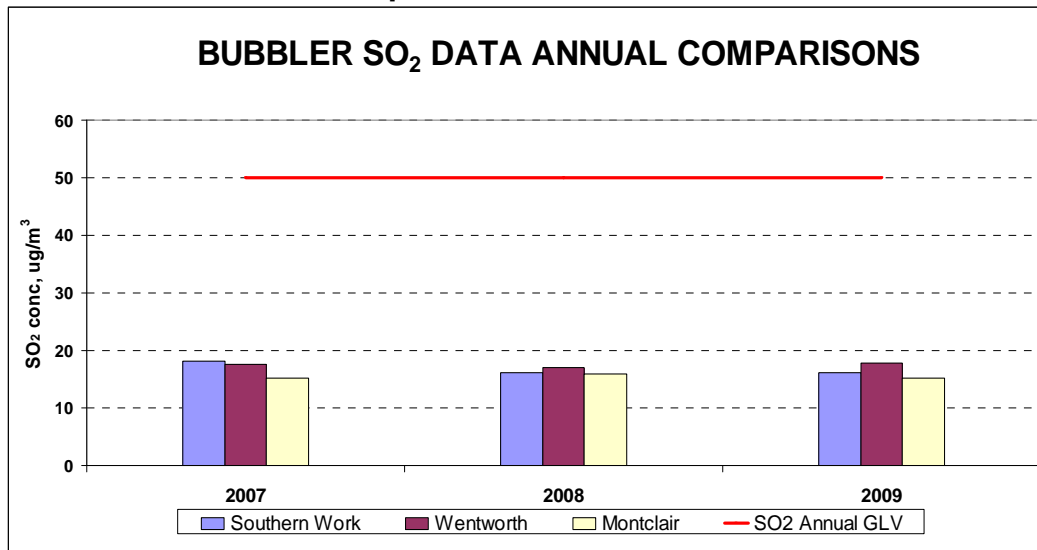
1. The method used for quantifying SO₂ was adopted by the Council of Scientific and Industrial Research.
2. Sampling was done on Tuesday and Friday 3 & 4 day sampling period.
3. Chemical analyses of samples were performed internally by the eThekwini Water and Sanitation Laboratory, and the results were submitted on a monthly basis, data was quality controlled and reported.

ACTION**7.3. Objective**

1. To determine the level of impact of Tongaat-Hulett's sulphur dioxide (SO₂) emissions from their boilers in the Montclair area (Mowat High School).
2. To use the data collected from the Montclair bubbler station to assess the efficiency of the abatement strategy implemented by Hulett's.
3. To make recommendation when required on further improvements to prevent human exposure to elevated SO₂ concentrations.

7.4. SO₂ Data Monthly Averages**7.4.1. Discussion on the SO₂ Data 2009 Monthly Averages**

1. Montclair station showed an increase in SO₂ concentration in May, June, July, and August 2009 compared to previous years of the same months. A significant decrease was noted for the last four months in 2009 compared to last years of the same months.
2. This method did not record real time SO₂ averages, hence, the exceedances associated with Hulett's facility that may have occurred could not be reported.
3. The new Continuous Monitoring Mobile Station would be used to view real time data recorded at Montclair Station.
4. 3 year comparison 2008 –2009
5. April to August – high values, significant values from previous years, TH included but other sources as well.
6. Wind vectors from all over, impact from diff areas.
7. Drop, in summer not very high value. In winter had higher values because of inversion. Limitation with our system, real-time data not possible because of our averaging factor.
8. Would be able to pinpoint sources responsible.
9. Annual overview of wind roses.

7.5. Bubbler Data SO₂ Comparisons**7.5.1. Discussion on the Bubbler SO₂ Data Annual Comparisons**

1. In the event of pollution from areas, you could see the impact from other sources.
2. Generally, people were not exposed to high levels and TH did not exceed the legislated value. By placing the mobile station, we would see more specific results.
3. An improvement had been noticed since we started, especially based on what Tongaat Hulett had done to date. Other problems from other pollutants such as trucks had been detected.
4. RG: obtain clarity, perception of time, illness of children, general physical problems from dust etc.
5. GB: no one had complained about illness being due to area.
6. With the opening of the bridge on the N4, needed to check levels of truck pollution being reduced.
7. Have 2 stations in the area, King Edward, monitoring in King Edward. Congella had been opened showing an improvement, although not sure whether everyone was aware. Extra traffic would start using the new road which could lead to a change in the SO₂ levels.
8. When could mobile unit be deployed? Calibrating it, much instrumentation, very sophisticated, currently commissioning it, check with managers as to where? Would love to check levels.

7.6. Conclusions & Discussion

1. Montclair station results showed that people in the Montclair surrounding area were not exposed on an annual basis to SO₂ concentration that close or above the annual guideline value of 50ug/m³ in 2009 and the years prior.
2. This method did not record real time SO₂ averages, hence, the exceedances that may have occurred could not be reported.

8. ANY OTHER BUSINESS

Nil

9. DATES OF NEXT MEETINGS 2010

After discussion of the proposed dates for quarterly meetings in 2010 it was agreed that in future there would be only 3 meetings per annum, with meetings for the remainder of this year scheduled as follows:

9 June 2010
13 October 2010

