

MINUTES: Forum Meeting
18 August 2005
Erwat Head Office, Hartbeesfontein



No	Item	Action
1	<p>Welcome</p> <p>The chairperson, Marc de Fontaine welcomed everyone to the meeting and extended a special welcome to all new people attending the meeting for the first time.</p>	M de Fontaine
2	<p>Introduction of Attendees</p> <p>The attendees introduced themselves. An attendance register was circulated.</p>	All
3	<p>Apologies</p> <p>Apologies were received from:</p> <ul style="list-style-type: none"> • I. Lea (Petrex) • Stan Madden • Steve Walker (Sappi) • Freddie Viljoen (Sappi) • Piet Muller (GDACE) 	
4	<p>Minutes of the Previous Meeting</p> <ul style="list-style-type: none"> • The minutes of the previous meeting were checked for correctness. • Steven Lurie did not receive Minutes or Agenda. 	All M de Fontaine
5	<p>Matters Arising from the Previous Minutes</p> <ul style="list-style-type: none"> • Taken to be discussed in the minutes of the meeting. 	
6	<p>Additions to the Agenda</p> <p>6.1 Proposed coal mining at Heidelberg</p> <p>6.2 Gold Mine explorations in Balfour</p> <p>6.3 Fuel Spill</p> <p>6.4 Water Research Commission</p>	
7	<p>Items for Presentation</p> <p>7.1 Dissolved Oxygen (DO) concentrations of the Blesbokspruit</p> <ul style="list-style-type: none"> • Heidi Pretorius presented Rand Water's investigations of the impact of low Dissolved Oxygen (DO) levels in the Blesbokspruit. • DO levels were shown to be as low as 1.4 at some points in the catchment. • A DO decrease was noted at B7 and B17. • It was shown that DO is inversely related to Chlorophyll-a. A decrease in DO would mean an increase in Chlorophyll-a, which is associated with algal growth. • It was discussed that Temperature and DO are also correlated. • Pictures of algal blooms in the river were also shown. • It was asked what DWAF and Rand Water are doing about the algal bloom problem. • Riana Munnik responded that the problem of algae is a result of other activities which cause nutrient loading in the system. • There are eleven sewerage works in the catchment which contribute to nutrient loading in the system. Erwat should therefore play an active role in solving the problem. • Standing water in the system also contributes to decreases in DO and hence increases in algal blooms. • Industrial discharges and storm water from informal settlements are also 	H Pretorius



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	<p>contributors of salinity in the system.</p> <ul style="list-style-type: none"> It was stated that Erwat works, which are under performing, should be taken to task and that DWAF should take up this issue with Erwat's senior management. 	DWAF
7.2	<p>Resources on New Kleinfontein Goldmine</p> <ul style="list-style-type: none"> A presentation was made on the proposed underground mining operation at the Cloverfield farm. The original EMPR was approved in 2004 and the current application is for a conversion of the mining rights in accordance with new mining legislation. The application is in the scoping phase and information gathering is in progress. Ground and surface water, air pollution, soil pollution and agricultural potential studies are to be done. It is proposed that a plant will be located at the mineshaft area so as to minimise the footprint of impact on the environment. 	Prime Resources
8	<p>Items for Discussion</p>	
8.1	<p>Water Quality Monitoring and Reporting</p>	
8.1.1	<p>Blesbokspruit Water Quality Quarterly Report</p> <p><u>Variables that increased</u></p> <ul style="list-style-type: none"> NH₄ – B2 Conductivity – B10, S2 Fe – B7 Mg – S2 Mn – B14 NO₃ – B12 pH still high @ B7 (acidic) PO₄ - @ B12 Na – B5, B15, B14, B10 SO₄ – S2 <p><u>Variables that decreased</u></p> <ul style="list-style-type: none"> Conductivity – B7 FC – B9, B13, S1, S2 Fe – S1 Mg – B7 Mn – B2, B9, B16, B15, B17, B11 SS – B10, S2 PO₄ – B13, B16, B15, B17, B11, B8, B14 <ul style="list-style-type: none"> At B7 – Al & Mn are much lower, but still unacceptable. DO – A once off experiment was done to determine the chlorophyll-a concentrations. The reason for these analyses was to see if there is a correlation between DO and Chlorophyll-a. Results presented in presentation. In spite of problems with low DO in the catchment, there is a general water quality improvement. 	H Pretorius
8.1.2	<p>DWAF</p> <p>Wastewater treatment works in the upper Blesbokspruit catchment</p> <ul style="list-style-type: none"> Thya Pather gave a presentation on the water quality in the catchment 	T Pather



indicating that river water quality also shows an increase in Phosphates and Nitrates.

- COD high @ Homestead Lake.
- Ammonium Nitrogen high @ R555 during 19 & 20/11/2004
- Ortho Phosphates high @ R29, R555
- Faecal Coliform high @ Homestead Lake during 19 & 20/11/2004

Wastewater treatment works in the lower Blesbokspruit catchment

- Louis Makuhlbele gave a presentation on sewerage works water quality as compared with the in-stream water quality guidelines.
- The results highlighted the problem of high Phosphates, high Nitrates and high Ammonia concentrations discharged from the sewerage works in the lower Blesbokspruit and Suikerbosrand catchments.
- Faecal coliforms counts are very high in the sewerage effluents.
- Dries Louw added that the problem with nitrates in sewerage works effluent, specifically with the Balfour sewerage works, is due to a poor denitrification process in the works.
- Conductivity - High @ Grundling, Ancor & Balfour works the salt concentration was high.
- Faecal Coliform - High @ Grundling, Balfour, Heidelberg & ANCOR (June 2005 outliers).
- E. Coli - Similar than @ Faecal Coliform. Balfour outlier during March 2005.
- Nitrates (NO₃) - High @ Herbert Bickley.
- Phosphates (PO₄) - High @ Balfour (June, May, March & Jan). High @ Grundling during February.
- Ammonia (NH₄) - High @ Grundling during June 2005 & during March @ Balfour.
- Suspended Solids (SS) - High @ Heidelberg during March.

L Makuhlbele

8.1.3 ERWAT

- No representative from Erwat present at the meeting to give feedback.
- The forum has requested that Erwat attend forum meetings to provide regular feedback on the water quality discharge from wastewater treatments under its control.

Erwat

8.1.4 Ekurhuleni Metropolitan Council

- Ekurhuleni presented results of analyses done in their area of control.
- No flow from Nigel Dam, thus no impact on the river.
- Annemarie focused on the problem areas discussing what the Municipality is doing to resolve the problems.
- Nigel dam inflow showed high Sodium, Nitrogen and Manganese, however there was no outflow from the dam, therefore no impact to the river.
- The R51 showed pH of 4 at a very low flow.
- Duduza is one of the problematic areas, mainly due to sewerage blockages.
- Grootvlei road also showed high elevations of Nitrates. An illegal industrial discharge was discovered close to this point.
- In the Kwa-Thema area Ammonia elevations are attributed to sewerage blockages in the low cost housing areas.
- High Nitrates were also noted at Vlakfontein road bridge, this could be due to an old waste site close to the sample point.

A Maurizie

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- General problem of poor water quality at Jan Smuts dam due to sewerage pollution from storm water discharging into the dam.
- Leeupan is also a problem point from time to time due to informal settlements and an old waste site.

8.1.5 Grootvlei Mine

- Irene Lea not present to give feedback.

8.1.6 Biomonitoring and Toxicity Monitoring

- Piet Muller not present to give any feedback.

8.2 Catchment Activities

8.2.1 Balfour Sewage Works

- Steve Lurie (SL) indicated that he is happy with the improvements that have been made at the sewerage works as far as the quality of effluent is concerned.
- Steve Lurie also mentioned that he didn't receive any copies of the minutes or water quality reports for the meeting.
- Steve Lurie also didn't receive any feedback from DWAF regarding the progress of the Balfour incident. He indicated that he is concerned that he has not been receiving water quality data from DWAF and Erwat and has requested that data be sent to him.
- Steve Lurie also added that he feels that DWAF is not doing enough to address the problems within the Balfour Municipality.
- Steve Lurie asked if environmental NGOs and forums could request the DWAF DG to do something about problems in the catchment especially with regards to poor performance of Municipalities.
- From Karan Beef's side the water discharged is clearer and no fat is present.
- Regarding Steve Lurie's dams: 1st Dam looks much better, 2nd Dam still a problem.
- Karan Beef has built a new effluent treatment plant (COD discharges at present are 3000 mg/l and the Balfour works is 800 mg/l). Once this plant is finished the water quality will improve.
- Dr Johann van Niekerk added that with these improvements in their plant, it would be interesting to see what the water quality results will be coming from the sewage works. Considering that the high faecal counts and high phosphates are not from Karan Beef.
- Riana Munnik indicated that the DWAF regional office is also as frustrated as far as trying to get some of the Municipalities to do their work. It was added that the forum is welcome to write to the DWAF DG to voice concerns. Minutes of the forum meetings must be to the DWAF Regional Director.
- Dries Louw also said that the second phase of the work at Balfour was to address the problem of the dams. It was also mentioned that the dams are not clear with all of the solids settling out into the bottom of the dams.

DWAF

8.2.2 Ekurhuleni Metropolitan Council

- No meetings were held since the last forum.
- Annemarie Maurizie reported that the Water Resource Management Plan champion has resigned and progress on this is not known.
- Feedback will be given at the next meeting.

- 8.2.3 Ergo**
- Malcolm Sutton reported that Ergo is still removing more slimes. The current actions being carried out are in line with their EMP.
 - Ergo have 55 different tailings dams and they are busy producing a closure document which includes details of work on all slimes dams.
 - A presentation will be done at the next forum to inform all stakeholders as to Ergo's progress.
- 8.2.4 Erwat**
- Dries Louw stated that the forum needs people from Erwat Operations to be present at the meeting to report back on issues of concern
 - Dries Louw invited all stakeholders to visit the new Erwat labs.
- 8.2.5 GDACE**
- Umesh Bahadur gave his apology for not attending the last 2 forums and reported that the initial plan for the Ramsar site was to build up a business plan for conservation of the wetland.
 - One area of concern at present relates to structures that are damming the Blesbokspruit and preventing flow of water through the wetland.
 - In association with Working for Wetlands, servitudes are corrected to improve river flow.
 - A second EMF is being commissioned and an environment management plan will be produced.
- 8.2.6 Grootvlei Blesbokspruit Trust**
- The trust operates from the northern side of the Ramsar site and the major problem relates to reed encroachment.
 - Mike Hood reported that reed spraying is continuing in order to create areas of open water and that Bird life SA is involved in the problem as well.
 - Other issue include (i) the outbreak of bugs (ii), hunting dogs, (iii) financial resources, and (iv) quad bikes. Discussions with Ekurhuleni and GDACE are being held to discuss these issues.
 - Fund raising during 2005 went very well.
 - Future plans include the development of (i) a business information centre, (ii) creating a 100-hectare game area, and (iii) developing a foot trail.
 - Usage of the site included 10,000 visitors the past year.
- 8.2.7 Grootvlei Mine/Petrex**
- Irene Lea not present at the meeting to give feedback.
 - Riana Munnik reported that Grootvlei has received their license from DWAF for the river diversion.
 - Riana Munnik also mentioned that Grootvlei's license to discharge water into the Blesbokspruit expires in September 2005 and that they have re-applied for a new license.
 - One of the conditions in the license was that the Biosure process must be in operation by September 2005, to treat 10 ML of the mine's effluent.
 - The Biosure process is not a sustainable solution and the mine must present to DWAF a plan to treat the rest of the 65 ML of mine water by 1 September 2005.
 - Grootvlei is looking at options of treating the rest of the water, one of which is to treat water to potable standards.

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	<ul style="list-style-type: none"> Grootvlei will present their proposal to DWAF management in September 2005. 	
8.2.8	<p>Impala Platinum</p> <ul style="list-style-type: none"> No one was present at the forum to give any feedback. Impala Platinum to be invited to the next forum meeting to give a presentation on progress to date regarding water management on their site. 	
8.2.9	<p>Sappi Enstra</p> <ul style="list-style-type: none"> Apology was given. Feedback will be given at the next forum meeting. 	
8.2.10	<p>Seton SA</p> <ul style="list-style-type: none"> No one at the forum to give any feedback. 	
8.2.11	<p>Western Platinum Refinery</p> <ul style="list-style-type: none"> There are 6 acid dams on the site. Riana Munnik reported that a ground water pollution plume modelling exercise has been done. Western platinum still needs to present a solution to DWAF on how this ground water issue will be resolved. 	
8.2.12	<p>Zincor</p> <ul style="list-style-type: none"> Charl van der Merwe reported that Zincor have appointed a consultant to assist with the development of an integrated water use license. 	
8.2.13	<p>ITC</p> <ul style="list-style-type: none"> Roelof Barnard reported that Sappi stopped ITC from mining due to discovery of dioxins in the sediment and that currently the project has been put on hold. There are no guidelines at present to measure the impact of dioxins in sediment if they are to be removed from Cowles Dam. No scheduled date can be given as to when the project are will start. Feedback to the forum will only be given if new developments are forthcoming. 	
8.3	<p>Water Use License Status</p> <ul style="list-style-type: none"> FMC to update the Water Use License list. 	DWAF
8.4	<p>CMA Process</p>	
8.4.1	<p>Vaal Barrage Catchment Executive Committee (VBCEC)</p> <ul style="list-style-type: none"> Marc de Fontaine reported that the CMA process, including VBCEC, has been stalled. DWAF gave assurance that the Upper Vaal Reference Group will be reinstated again. DWAF is currently trying to develop the Crocodile Marico CMA so as to learn from this process before starting with the Upper Vaal Water Management Area. Marc de Fontaine added that Rand Water and DWAF are still continuing with discussions in this regard. 	M de Fontaine



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8.4.2	Upper Vaal Reference Group <ul style="list-style-type: none"> As for 8.4.1. 	
9 6.1	Discussion of Additions to the Agenda Proposed Coal Mining at Heidelberg	
	<ul style="list-style-type: none"> Louis Makhulbele reported that there was another mine application that was received by DWAF for mining of coal reserves in the Suikerbosrand just upstream of Karan Beef. No formal submission was received from Anglo Coal for the proposed coal mining operations in the Suikerbosrand. 	
6.2	Gold Mine explorations in Balfour	
	<ul style="list-style-type: none"> Steve Lurie reported that he was made aware of a gold mining application in the Balfour and Greylingstad area. DWAF would follow-up and give feedback at the next meeting. 	
6.3	Fuel Spillage	
	<ul style="list-style-type: none"> 1000 L of fuel was spilled. Thya Pather to report back in next meeting about this issue. 	T Pather
6.4	Water Research Commission	
	<ul style="list-style-type: none"> It was reported that the WRC is looking at a revision of strategies for water resource management. Participation from stakeholders requested. 	
10	Next Meeting The next Blesbokspruit Forum meeting is scheduled for Thursday 10 November 2005 at 09:00 at the Suikerbosrant Nature Reserve.	All
11	Closure Marc de Fontaine thanked everyone for attending the meeting. The meeting was adjourned at 12h20.	M de Fontaine