



MOOI MGENI TRANSFER SCHEME PHASE 2 (MMTS-2)

Construction of the Spring Grove Dam & Appurtenant Works

[DEA Reference Number: 12/12/20/220]



MONTHLY ECO REPORT : September 2012



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TITLE AND APPROVAL PAGE

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LIST OF ACRONYMS & ABBREVIATIONS

DEA	Department of Environmental Affairs
ECO	Environmental Control Officer
EO	Environmental Officer
EMP	Environmental Management Plan
EM	Environmental Monitor
EMC	Environmental Monitoring Committee
MMTS-2	Mooi Mgeni Transfer Scheme Phase 2
TCTA	Trans-Caledon Tunnel Authority
RoD	Record of Decision

DEFINITIONS

Auditing

An 'environmental' audit is a methodical examination (including tests, checks, and confirmation) of environmental procedures and practices with the view of verifying whether they comply with internal policies, accepted practices and legal requirements

Environment

The surroundings in which humans exist and which comprise:

- The land, water and atmosphere of the earth.
- Micro-organisms, plant and animal life.
- Any part or combination of a) and b) and the interrelationships among and between them.
- The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that can influence human health and well-being.

Environmental Aspect

Those components of the company's activities, products and services that are likely to interact with the environment.

Record of Decision

The written statement from the relevant environmental authority in terms of the Environment Conservation Act (Act 73 of 1989), with or without conditions, that records its approval of a planned activity and the implementation thereof and the mitigating measures required to prevent or reduce the effects of environmental impacts during the life of a contract.

Environmental Feature

Elements and attributes of the biophysical, economic and social environment.

Environmental Impact

The change to the environment resulting from an environmental aspect (an activity) on the environment, whether desirable or undesirable. An impact may be the direct or indirect consequence of an activity.

Environmental Management Plan (EMP)

A detailed plan of action prepared to ensure that recommendations for enhancing positive impacts and/or limiting or preventing negative environmental impacts are implemented during the life-cycle of a project.

Environmental Objective

Overall environmental goal pertaining to the management of environmental features.

Environmental Target

Performance requirement that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.

Hazardous Waste

Any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment

Monitoring

'Compliance' monitoring is a continuous and systematic process to ensure that the conditions in the Record of Decision (RoD) Environmental Management Plan (EMP) are being adhered to.

Pollution

Any change in the environment caused by substances, radioactive or other waves, or noise, odours, dust or heat, emitted from any activity, including the storage or treatment of waste or substances, construction and the provision of services, whether engaged in by any person or an organ of state, where that change has an adverse effect on human health or well-being or on the composition, resilience and productivity of natural or managed ecosystems, or on materials useful to people, or will have such an effect in the future.

1 INTRODUCTION

Nemai Consulting was appointed as the independent Environmental Control Officer (ECO) for the Trans-Caledon Tunnel Authority (TCTA) for the Mooi-Mgeni Transfer Scheme Phase 2 (MMTS-2) project.

The ECO's functions in terms of environmental compliance monitoring are to systematically monitor the processes and activities required for the implementation of each Environmental Management Plan (EMP) and the conditions in the Record of Decision (RoD) (refer to environmental governance arrangements in **Figure 1**).

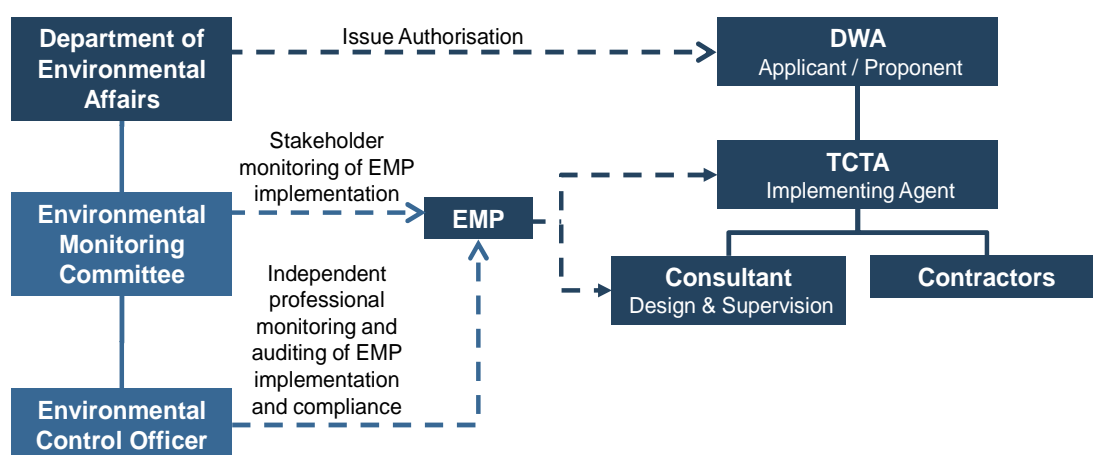


Figure 1: Environmental Governance Arrangements: Lines of Accountability

The RoD requires that a suite of EMPs be prepared for the project. Each EMP comprises two sections, namely a project description and the Environmental Management Philosophy as well as the EMP for a specific activity/phase of construction. To date, the following EMPs have been approved by the Department of Environmental Affairs (DEA):

- Construction of the Spring Grove Dam Wall – approved on 03 May 2011;
- Traffic Management and Mitigation Plan – approved on 16 August 2011 (amendment application approved on 21 February 2012);
- Search, Rescue and Relocation – approved on 07 September 2011;
- Mooi River Gauging Weir – approved on 08 October 2011;
- Mooi River Fish Barrier – approved on 06 February 2012;
- Mpofana River Gauging Weir – approved on 07 March 2012;
- Transplantation of red data species found at Inchbrakie Falls to the Reekie Lynn Falls – approved on 13 April 2012;

- Roads realignment and flood protection of affected sections of the Lower Loteni Road – approved on 07 May 2012;
- Relocation of people living in the dam basin – approved on 09 May 2012;
- Refurbishment;
- Service Relocation & Decommissioning – approved on 24 July 2012;
- Rehabilitation of off-site wetlands – approved on 12 July 2012; and
- Establishment of biodiversity offsets – approved on 12 July 2012.

This document serves as the monthly ECO Report for September 2012. The monitoring event was undertaken on 27 September 2012, and the monitoring period commenced on 16 August 2012.

2 ECO MONITORING APPROACH

2.1 Weekly Monitoring

Weekly ECO monitoring sessions are conducted where a full day is spent on site to inspect the overall construction domain on a weekly basis. The weekly ECO monitoring reports, which are submitted to TCTA, serve as an overview of the following:

- New or improved areas of good environmental practices and compliance;
- Areas of poor practices or where concerns have been noted;
- Status of previous issues; and
- Conclusions.

The weekly ECO monitoring events are more focused on best environmental practices, rather than regulatory compliance.

2.2 Monthly Monitoring

Monthly ECO monitoring serves to check compliance against the following:

- Conditions of the RoD for the construction of the Spring Grove Dam and Appurtenant Works; and
- EMPs and associated conditions of approval.

The Monthly ECO monitoring reports are submitted to TCTA, the Environmental Monitoring Committee (EMC), and ultimately DEA. The monthly ECO monitoring includes once a month full day site inspections, checking environmental administrative provisions (e.g. documentation, files, registers), analysing monitoring data, checking complaints, interviewing the Environmental Manager, Environmental Monitor (EM) and Environmental Officer (EO) (as required) and completing a detailed ECO Monitoring Checklist.

The ECO Monitoring Checklist consists of monitoring items extracted from the EMP and RoD, and are categorised as follows:

- Environmental Authorisation;
- Administration;
- Environmental Education and Awareness;
- Construction;
- Materials;
- Water Quality;
- Air Quality;
- Noise;
- Community Engagement;
- Archaeology and Cultural Sites;
- Vegetation;
- Fauna;
- Traffic;
- Safety and Security;
- Waste;
- Rehabilitation; and
- Search, Rescue and Relocation.

The following Conformance Scores, based on the level of compliance for the overall site, is allocated to each monitoring item in the checklist:

CONFORMANCE SCORES	DESCRIPTION
1	Task not achieved
2	Task 20% complete
3	Task 50% complete
4	Task 80 % complete
5	Task 100% completed in accordance with the EMP

Where non-conformance to the RoD conditions and EMP mitigation measures is encountered (i.e. COMFORMANCE SCORE < 5), the significance of the associated Impact is recorded based on the following guidelines):

IMPACT SCORES	IMPACT
1	Low – mitigation not needed/ mitigation measures to be maintained
2	Medium – mitigation should be considered
3	High – mitigation compulsory

The identified non-conformances and related impacts are also rated based on the following **Penalty Scores**:

PENALTY SCORES	DESCRIPTION
0	Not Applicable / Impact or Non-Conformance occurred in area of low Environmental Significance
1	Moderate – Impact/Non-Conformance occurred in area of moderate Environmental Significance (<i>1% Deduction from total conformance score</i>)
2	High – Impact/Non-Conformance occurred in area of high Environmental Significance (<i>3% Deduction from total conformance score</i>)
3	Very High – Impact/Non-Conformance Occurred in area of very high Environmental Significance (<i>5% Deduction from total conformance score</i>)

The overall compliance score is based on:

- No of items scored for the monitoring event;
- The highest conformance score for the monitoring event;
- The actual conformance score for the monitoring event;
- The conformance percentage for the monitoring event (%);
- Total Penalty Deductions (%); and
- Total Conformance Score Including Penalty Deductions (%).

2.3 Surprise Inspections

It was requested by the EMC that surprise inspections of the site be undertaken on a monthly basis. Such an inspection includes revisiting selected issues identified as part of the previous weekly monitoring event, as well as spot-checks of certain areas within the construction domain.

The findings of the surprise inspection for September 2012 are included in **Appendix A**.

3 CONSTRUCTION ACTIVITIES FOR THE MONITORING PERIOD

Amongst others, the following main construction activities took place during the monthly monitoring period, as identified during the monitoring sessions and from the EO's daily site diary:

- Installation of shutters for the dam base at the dam foundation is ongoing (see **Figure 2**);
- Backfilling of the earth embankment (see **Figure 3**);
- Pipe installation at the earth embankment is ongoing;
- Construction of the Spring Grove Weir is ongoing downstream from the dam wall (see **Figure 4**);
- Construction of Route 2 culvert is ongoing below the dam foundation (see **Figure 5**);
- Construction of a concrete drainage channel adjacent to the permanent access road into the dam basin is ongoing;
- Borrow pit excavation and usage;
- Occupation of offices on the left bank;
- Construction of D146 Road /R103 intersection is completed, minor works still in progress;
- Truck watering haul roads on site;
- Tree removal operations within the dam basin are on-going;
- Search and rescue crew active on site;
- Construction of the road embankment on Route 13 and use of associated site camp is ongoing (see **Figure 6**);
- Hauling of aggregate and fill;
- Upgrading of Route 9 is ongoing (currently includes installation of culverts);
- Creation of a stock pile area on Route 11;
- Excavation of borrow pit adjacent to river and Route 13 road embankment;
- River diversion at fish barrier site is ongoing (see **Figure 7**);
- Clearing of dam basin (see **Figure 8**).



Figure 2: Installation of shutters for the dam base at the dam foundation



Figure 3: Earth embankment



Figure 4: Construction of weir downstream from the dam wall



Figure 5: Construction of Route 2 culvert below the dam foundation



Figure 6: Construction of the road embankment on Route 13



Figure 7: River diversion at fish barrier site



Figure 8: Clearing of dam basin

The following key areas were inspected during the monitoring session:

- Site offices;
- Spoil sites;
- Dam foundation;
- River diversion (fish barrier);
- Workshop;
- Route 2 culvert;
- Borrow areas;
- Temporary river crossing;
- Stream crossings;
- Spring Grove weir;
- Area designated for waste storage;
- Stores area;
- Batch plant area;
- Route 13;
- Route 11;
- Fish barrier construction site.

* **COMMENTS:**

TCTA

4 ENVIRONMENTAL ACTIVITIES FOR THE MONITORING PERIOD

Some of the **key environmental activities** on site, which also include areas of good practices and compliance, were as follows:

- On-going activities –
 - Regular dust suppression (see **Figure 9**);
 - Safe storage and use of hazardous substances;
 - Use of mobile toilets;
 - Vehicle maintenance in dedicated area;
 - Management of siltation (see **Figure 10 - 11**);
 - Mixing cement on impermeable surfaces;
 - Appropriate signage displayed and barricading;
 - Waste management;
 - Housekeeping;
 - Trucks abiding by speed limit, displaying chevrons, covered loads and numbered;
 - Use of personal protection equipment;
 - Washing of trucks in dedicated areas;
 - Environmental awareness (see **Figure 12**);
 - Flagmen deployed on new routes;
 - Fire risk management;
- Activities identified during the monitoring event –
 - Search and rescue activities (see **Figure 13**);
 - Environmental toolbox talks are presented by individual foremen on a weekly/biweekly basis.



Figure 9: Dust suppression



Figure 10: Management of siltation



Figure 11: Deepening of sedimentation pond

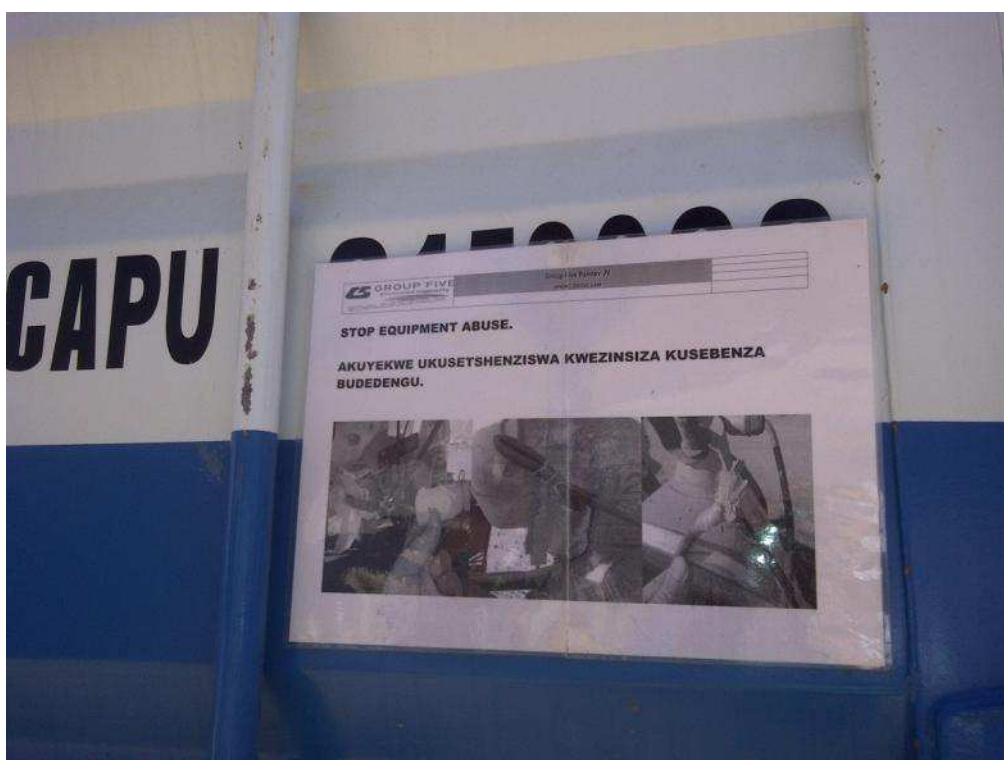


Figure 12: Awareness creation



Figure 13: Search and rescue activities

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COMMENTS:

TCTA

5 WATER, AIR AND NOISE MONITORING

Amongst others, the functions of the ECO include the following:

- Conduct third-party monitoring and auditing;
- Regularly monitor and review the progress towards achieving the specific strategies, objectives and performance targets of the EMP; and
- Review monitoring data and evaluate against performance targets.

5.1 Contractor's Monitoring Results

The Contractor has appointed Blue Sands to conduct monthly water, air and noise monitoring (refer to monitoring sites, as shown in **Appendix B**). The last set of reports received was for monitoring conducted in July 2012, which is elaborated on in the sub-sections to follow. Raw data has been received for Water Quality Monitoring for August 2012, which also receives further attention below.

5.1.1 Air Quality

Dust Fallout

- Dust fallout samples collected on 31 July 2012 - sampling period = 32 days. Results follow.



Figure 14: Dust fallout rates for July 2012 (Blue Sands, 2012a)

- Dust fallout rates continue to remain within the Residential Band of 600 mg/m²/day.
- Noted that climatic conditions remained typical of winter in the KZN Midlands, with cold, dry weather prevailing.
- Highest fallout rate measured at site D04 (Construction Site, North Fence) – associated with activities around the stockpile and batch plant.
- Blue Sands (2012a) suggested that the roadways at the batching plant be watered down.

Continuous Particulate Monitoring (PM₁₀) with Wind Speed and Direction

- The sample period was from 01 - 14 July 2012. Results follow.

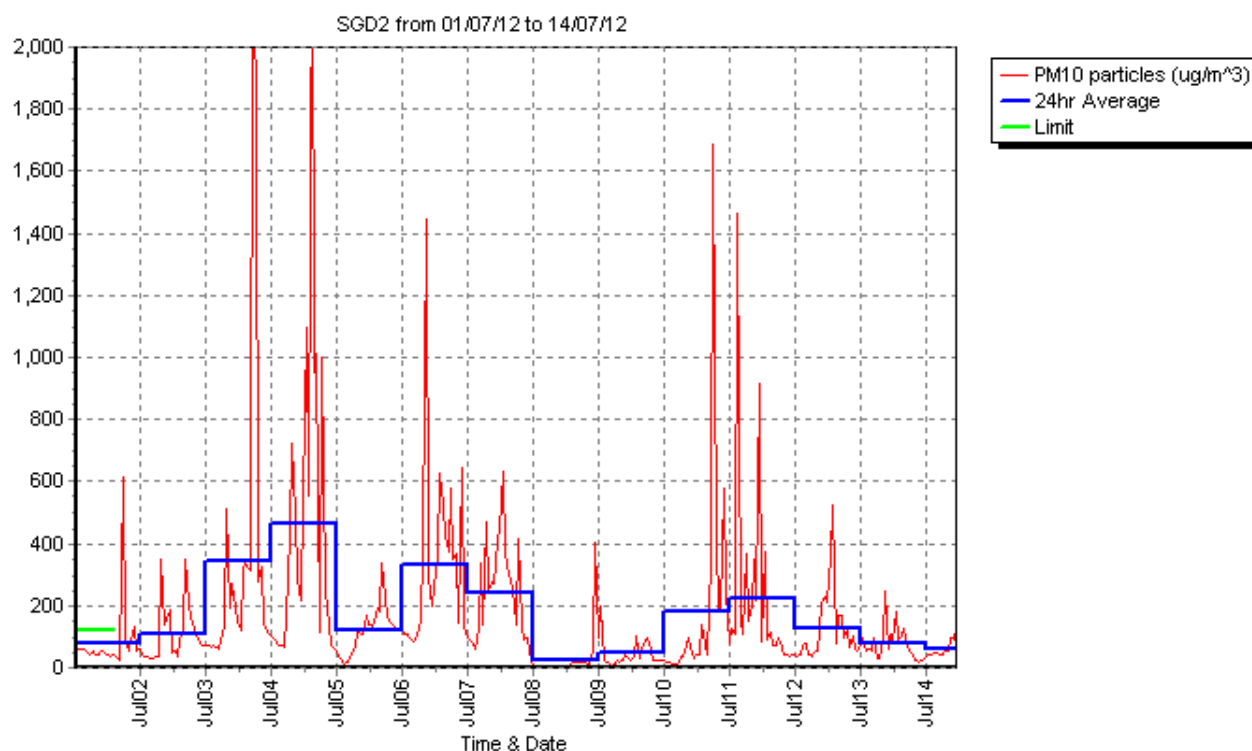


Figure 15: PM₁₀ concentrations for July 2012 (Blue Sands, 2012a)

- During July 2012, the PM₁₀ concentrations exceeded the 24-hour limit of 120 µg/m³ for 7 of the 14 days measured. The top ranked exceedences are examined in the table to follow.

Table 1: Analysis of highest PM₁₀ exceedences for July 2012 (Blue Sands, 2012a)

Date	24-hour Concentration	Peak Hourly Conditions	Suggested Source
3 July	341 µg/m ³	08h00 & 17h00-18h00; low wind speeds; northerly	Stockpiles, batch plant & unpaved car park
4 July	461 µg/m ³	08h00-19h00; wind speeds increasing through day; northerly	Stockpiles, batch plant & unpaved car park
6 July	334 µg/m ³	09h00-18h00; moderate wind speeds; northerly	Stockpiles, batch plant & unpaved car park

- The pollution rose (see **Figure 16**) shows that the major contribution to the dust levels recorded came from the north-westerly sector – caused by the Berg winds. There are two sources in this area; one being the aggregate stockpile and the other being the parking area for the office block. Another source emanates from the south-west, which relates to hauling and activities at the dam wall.

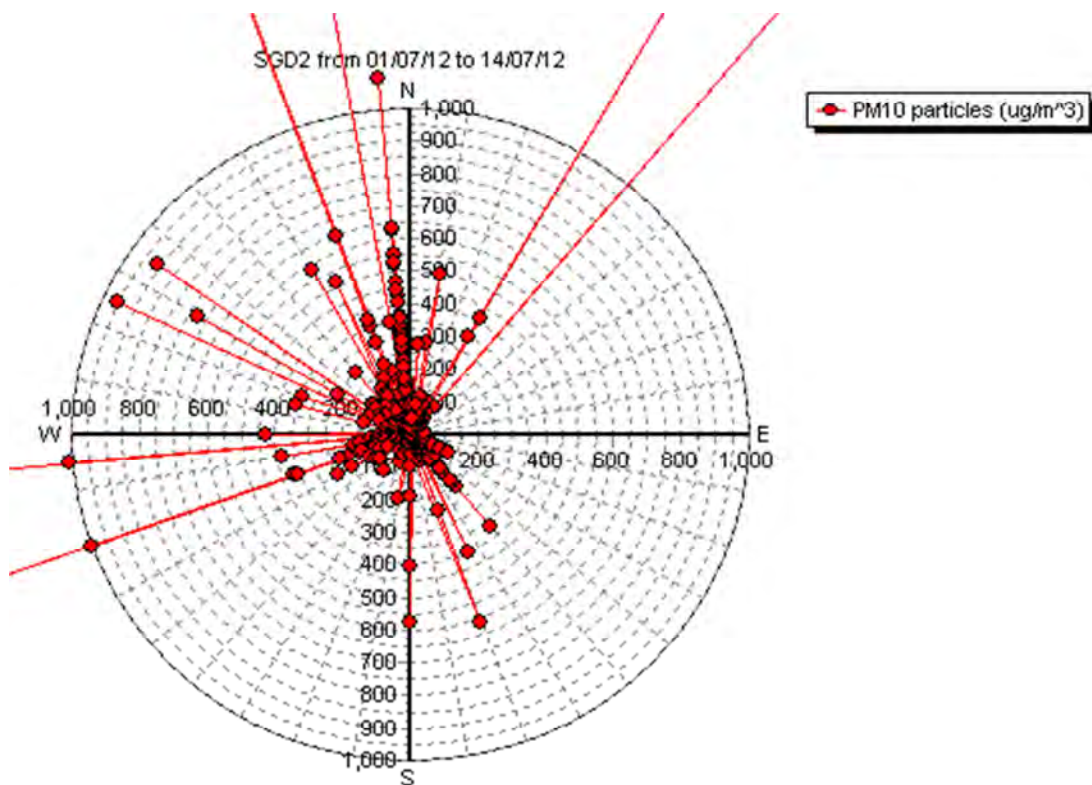


Figure 16: 1-hour PM₁₀ pollution rose for July 2012 at site SG01 (Blue Sands, 2012a)

- Blue Sands (2012a) recommended that Afrisam needs to control emissions from the aggregate piles over the next few months, during which time Berg Winds from the north to northwest will tend to exacerbate this particular source.

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COMMENTS:

TCTA

5.1.2 Environmental Noise

- Four surveys were undertaken for July. Two daytime surveys were conducted. These ran from 12h00 to 16h00 on 16/07/2012 and 11h00 to 13h00 on 31/07/2012. Two night-time surveys ran from 22h00 to 02h00 on both 16&17/07/2012 and 30&31/07/2012.

- The following exceedences of the L_{Aeq} (i.e. the equivalent continuous sound level, normally measured on an A-weighted decibel scale) were measured, which related to construction activities:

Table 2: Summary of exceedence of L_{Aeq} levels – construction related (adapted from Blue Sands, 2012b)

Site	Date	Time	SANS District	L_{Aeq}	Source of dominant noise
EN02	16/07/2012 (daytime)	12H05	Rural/Sub-urban	62.1	Reverse hooters, plant noise, vehicles driving past, birds
EN03	16/07/2012 (daytime)	12H28	Rural/Sub-urban	51.9	Train hooter, construction, dogs, workers on nearby roof
EN02	16/07/2012 (night-time)	22h07	Rural/Sub-urban	46.1	Trucks, reverse hooters, R103, car alarm
EN03	16/07/2012 (night-time)	22h41	Rural/Sub-urban	47.7	Train, R103, reverse hooters
EN12	16/07/2012 (night-time)	22h24	Rural/Sub-urban	47.9	Construction noise, reverse hooters
EN02	31/07/2012 (daytime)	12:15	Rural/Sub-urban	62.1	Birds, district road, construction site and trucks, wind, R103, dogs
EN10	31/07/2012 (daytime)	15:46	Rural/Sub-urban	63.9	Traffic medium, pedestrians, parking lot noise, birds
EN06	30/07/2012 (night-time)	23:38	Rural/Sub-urban	64.4	Dog barking, vehicles, faint construction site hum, train
EN10	31/07/2012 (night-time)	00:45	Rural/Sub-urban	59.0	Sign board across road squeaking, birds, pedestrian on parking lot

- Blue Sands (2012b) noted the following:
 - The largest contributor to noise at the majority of sites continues to be road traffic. This applies to both district and regional roads;
 - Construction activities are intermittently audible at varying distances from the dam site due to prevailing wind conditions; and
 - It is apparent from the surveys that the relative impact of the sirens and plant reverse hooters has a marked effect on the sound levels recorded around the construction site; particularly at night. This being said, limited noise complaints have been received thus far.

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COMMENTS:

TCTA

5.1.3 Water Quality

Mooi River Sampling

- Samples were taken on 18 and 30 July 2012.
- Variables at sampling sites associated with construction activities were below thresholds.

Separator Sampling

- Thresholds exceeded – (1) chemical oxygen demand, (2) phosphate, (3) soap oil and grease, and (4) suspended solids.
- Noted that the raw borehole water is already contaminated beyond certain thresholds.

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COMMENTS:

TCTA	
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5.1.4 Raw Data

No raw data available following the July 2012 water, air and noise monitoring.

6 ENVIRONMENTAL PERFORMANCE

An overview of the environmental performance during the monthly monitoring period is provided in the sub-sections to follow.

6.1 Weekly ECO Monitoring – Status of Issues

Note that only significant environmental aspects and impacts are listed in this section, based on the following qualitative criteria that were used to screen the weekly ECO monitoring Reports:

1. **Hazardous** nature of the environmental aspect or impact;
2. **Extent** of impact (within / beyond the boundaries of the construction domain);
3. **Sensitivity** of receiving environment;
4. **Probability** of aspect resulting in significant impact;
5. **Regulatory** context;
6. **Liability / cost** related to corrective actions;
7. Potential to lead to legitimate **concerns** by interested and affected parties; and
8. **Cumulative** impacts.

6.1.1 23 August 2012

Issue Ref.	Category	Summary of poor practice / area of concern	Status
178	Pollution Prevention	1. No drip trays under diesel generators in left bank storage container.	Unattended to
179	Pollution Prevention	1. Unlabelled hazardous materials containers without drip trays on the river diversion walkway.	Attended to
181	Fire Risk Management	1. Open fire pit observed in the Mpofana gauging weir site camp.	Attended to
182	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment at the river diversion (fish barrier site). 2. Lack of drip tray under diesel-powered equipment at Route 2 construction site. 3. Oil spill at workshop area.	Attended to
		4. Lack of drip tray under diesel-powered equipment at the left bank storage container. 5. Oil spill under equipment at the dam foundation. 6. High water levels in settlement ponds 1 and 2 at the batch plant. 7. Lack of drip tray under diesel-powered equipment in container at workshop area.	Unattended to

6.1.2 30 August 2012

Issue Ref.	Category	Summary of poor practice / area of concern	Status
178	Pollution Prevention	1. No drip trays under diesel generators in left bank storage container.	Unattended to
182	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment at the left bank storage container. 2. Oil spill under equipment at the dam foundation. 3. High water levels in settlement ponds at the batch plant. 4. Lack of drip tray under diesel-powered equipment in container at workshop area.	Unattended to
184	Hazardous Material & Siltation Management	1. Hazardous materials storage signage absent from the hazardous stores building at the river diversion (fish barrier). 2. Culvert on hair pin turn leading to the river diversion (fish barrier) filled with sediment. 3. Stacking of diesel-powered equipment in storage containers (left bank and work shop) creates an unsafe working environment.	Unattended to Attended to
185	Pollution Prevention	1. Open bag of cement on ground adjacent the Rodio on the left bank. 2. Lack of drip tray under diesel-powered equipment below the dam foundation. 3. Oil rag on ground at the conveyor area. 4. Hazardous materials containers without a drip tray in the storage container at the workshop. 5. Lack of drip tray under diesel-powered equipment in the storage container above the Spring Grove weir.	Attended to Unattended to

6.1.3 10 September 2012

Issue Ref.	Category	Summary of poor practice / area of concern	Status
178	Pollution Prevention	1. No drip trays under diesel generators in left bank storage container.	Unattended to
182	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment at the left bank storage container. 2. Lack of drip tray under diesel-powered equipment in container at workshop area. 3. Oil spill under equipment at the dam foundation. 4. High water levels in settlement ponds 1 and 2 at the batch plant.	Unattended to Attended to
184	Hazardous Material	1. Hazardous materials storage signage absent from the hazardous stores at the river diversion (fish barrier).	Attended to
185	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment in the storage container above the Spring Grove weir.	Unattended to
187	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment at the river diversion (fish barrier). 2. Hazardous materials storage shed at the river diversion site camp lacks bunding on 3 sides. 3. Lack of drip tray under diesel-powered equipment at the dam foundation. 4. (Potentially) inadequate concrete containment measures taken at the river diversion.	Attended to Unattended to

6.1.4 13 September 2012

Issue Ref.	Category	Summary of poor practice / area of concern	Status
178	Pollution Prevention	1. No drip trays under diesel generators in left bank storage container.	Unattended to
182	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment at the left bank storage container.	Attended to
		2. Lack of drip tray under diesel-powered equipment in container at workshop area.	Unattended to
185	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment in the storage container above the Spring Grove weir.	Unattended to
187	Pollution Prevention	1. Inadequate concrete containment measures taken at the river diversion.	Unattended to
189	Siltation Management	1. Dewatering operations at the river diversion (fish barrier) construction site releasing large amounts of sediment into the river. 2. During the last rain event, water breached the settlement pond at the river diversion washing sediment into the river.	Unattended to
190	Siltation Management	1. Previously, construction equipment crossing the river caused large amounts of sediment to be released at the river diversion (fish barrier). This river crossing has been destroyed by recent heavy rains. 2. Recent rains disturbed sediment barriers at Streams 2. 3. Recent rains/debris have disturbed sediment barriers erected at the water extraction point.	Attended to
		4. Recent rains have disturbed sediment barriers erected at Streams 3.	Unattended to
		5. Temporary river crossing has been damaged by recent rains.	
191	Pollution Prevention	1. Containers of Rockdrill Oil present outside at the river diversion site camp. 2. Hazardous storage container (cage) at left bank does not have adequate bunding. 3. High fluid levels in the used oil storage container at the workshop	Unattended to
		4. Bags of rejected RCC concrete present on the ground at the left bank. 5. Oil rag on ground on river diversion walkway. 6. Diesel-powered equipment in river below the dam foundation. 7. Hazardous materials found in general waste drum at workshop area.	Attended to

6.1.5 20 September 2012

Issue Ref.	Category	Summary of poor practice / area of concern	Status
178	Pollution Prevention	1. No drip trays under diesel generators in left bank storage container.	Unattended to
182	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment in container at workshop area.	Attended to
185	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment in the storage container above the Spring Grove weir.	Unattended to
187	Pollution	1. Inadequate concrete containment measures taken at the	Attended to

Issue Ref.	Category	Summary of poor practice / area of concern	Status
	Prevention	river diversion.	
189	Siltation Management	1. Dewatering operations at the river diversion (fish barrier) construction site releasing large amounts of sediment into the river. 2. During last rain event, water breached the settlement pond at river diversion washing sediment into the river.	Unattended to
190	Siltation Management	1. Recent rains disturbed sediment barriers at Streams 3. 2. Temporary river crossing has been damaged by recent rains.	Unattended to
191	Hazardous Material	1. Hazardous storage container (cage) at left bank does not have adequate bunding. 2. High fluid levels in the used oil storage container at the workshop.	Unattended to
		3. Containers of Rockdrill Oil present outside at the river diversion site camp.	Attended to
195	Pollution Prevention	1. Unlabelled, unbunded bucket of hazardous material at Route 2.	Attended to

6.1.6 27 September 2012

Issue Ref.	Category	Summary of poor practice / area of concern	Status
178	Pollution Prevention	1. No drip trays under diesel generators in left bank storage container.	Attended to
185	Pollution Prevention	1. Lack of drip tray under diesel-powered equipment in the storage container above the Spring Grove weir.	Attended to
189	Siltation Management	1. Dewatering operations at the river diversion (fish barrier) construction site releasing large amounts of sediment into the river.	Unattended to
		2. During the last rain event, water breached the settlement pond at the river diversion washing sediment into the river.	Attended to
190	Siltation Management	1. Recent rains have disturbed sediment barriers erected at Streams 3. 2. Temporary river crossing damaged by recent rains.	Attended to
191	Pollution Prevention	1. Hazardous storage container (cage) at left bank does not have adequate bunding.	Unattended to
		2. High fluid levels in the used oil storage container at the workshop.	Attended to
198	Siltation Management	1. Large amounts of sediment being released into the river as a result of construction activities at the river diversion (fish barrier).	Unattended to
		2. Large amount of siltation being released into stream on Route 11 due to construction activities.	Attended to
		3. At the Spring Grove weir/Route 2, a geotextile sock has been removed and what appears to have been its contents remain adjacent to the river.	
200	Pollution Prevention	1. Tore bag of cement at left bank spilling onto bare ground. 2. Diesel bowser being stored at the left bank requires adequate bunding. 3. Diesel spill on right bank (near crane).	Attended to
201	Hazardous Material	1. A work area has been placed inside a storage container on the left bank that also houses diesel powered equipment and hazardous storage containers. As this	Unattended to

Issue Ref.	Category	Summary of poor practice / area of concern	Status
		container is inadequately ventilated, it contains high levels of toxic fumes creating an unacceptable work environment.	

6.1.7 Conclusions

Issues related to the inadequate management of siltation frequently recorded. Hazardous material needs to be stored in accordance with the regulatory requirements and the MSDSs.

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COMMENTS:

TCTA

6.2 Monthly ECO Monitoring Checklist

The results of the monthly ECO Monitoring Checklist are summarised in the sub-sections to follow.

6.2.1 Monitoring Categories

The results of the monitoring categories are summarised in **Table 3**.

Table 3: Summary of Monthly ECO Monitoring Checklist categories: Sept 2012

Monitoring Category	Conformance Score (%)
Environmental Authorisation	95.79
Administration	100.00
Environmental Education and Awareness	100.00
Construction	100.00
Materials	89.80
Water Quality	88.75
Air Quality	88.00
Noise	100.00
Community Engagement	100.00
Archaeology and Cultural Sites	100.00
Vegetation	100.00
Fauna	100.00
Safety & Security	100.00
Waste	92.00
Traffic	95.86
Search, Rescue and Relocation	97.04

6.2.2 Areas of Non-Compliance

Selected areas of significant non-compliance for September 2012, which (amongst others) influenced the conformance and penalty scores contained in Table 3, are captured in the table to follow.

Table 4: Selected areas of non-compliance: Sept 2012

Monitoring Category	Condition / Mitigation Measure	Comments
Environmental Authorisation	Hazardous and flammable substances must be stored and used in compliance with the applicable regulations and safety instructions	<ul style="list-style-type: none"> Comply with conditions stipulated in MSDSs. Containers to be adequately labelled. Ventilation of containers where hazardous material is being stored - complaint received from labourer at container on left bank at dam wall (Figure 17). Targets not achieved– <ul style="list-style-type: none"> 100% compliance with the Hazardous Substances Act; Health complaints or injuries as a result of poor management of hazardous substances = 0. Coordinate requirements with OHS Management System and requirements under the OHS Act and relevant regulations (e.g. General Safety Regulations – “No employer shall require or permit any person to work in a place where the vapour of any flammable liquid is generated to such an extent that it constitutes an actual or potential fire or explosion hazard or endangers the safety of any person”).
	Provisions of the Hazardous Substances Act (Act 15 of 1973) to be adhered to	
Materials	Spill reporting procedures to be posted at all storage facilities so that the appropriate emergency response can be mobilised in the event of a spill	Additional signage required for all relevant storage areas.
	In the case of a spill, immediate action must be taken to stop and contain the spill. Any observed spills / leakages must be removed and the cause remedied.	Improved turn-around period required for remediating spills. Leaking secondary container at Rodio equipment (Figure 18).
	A record of all types and quantities of hazardous materials on site to be kept	Hazardous material register available, which records fuel. Needs to include hazardous material in containers.
	Flammable liquid stores to be well ventilated and free of explosive vapours	Strong odour detected at container on left bank - complaint received from labourer regarding fumes (Figure 17).
	Smoking is prohibited in fire hazard areas (i.e. workshops, fuel storage areas)	Sigarette butts found immediately adjacent to hazardous storage containers.
Water Quality	Provide treatment and/or disposal method for the wastewater	Vehicle maintenance outside designated area (Figure 19).
	Silt laden water shall not be directly discharged over land or directly into watercourses and shall be	<ul style="list-style-type: none"> No provision for management of siltation at fish barrier instream works (Figure 20).

Monitoring Category	Condition / Mitigation Measure	Comments
	contained in settlement ponds and managed before release	<ul style="list-style-type: none"> Stockpiling of soil on stream bank (Figure 21). Daily <i>in situ</i> water quality monitoring results required. Target not achieved – <ul style="list-style-type: none"> Downstream water quality < 10% of upstream water quality per parameter.
Air Quality	Special dust suppression measures to be implemented for batch plants	Aggregate stockpiles and activities at batch plant are contributing to the high PM10 levels.
Traffic	All delivery trucks travelling on the N3, R102 and D146 must be properly covered	Recorded number of trucks that were not covered.



Figure 17: No ventilation of container used for storage of hazardous material



Figure 18: Leaking secondary container



Figure 19: Vehicle maintenance outside designated area



Figure 20: No provision for management of siltation at fish barrier instream works



Figure 21: Stockpiling of soil on stream bank

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COMMENTS:

TCTA

6.2.3 Overall Monitoring Results

A summary of the results of the ECO monitoring checklist follows.

Table 5: Summary of results of Monthly ECO Monitoring Checklist: Sept 2012

Description	Total	Percentage
Number of Items Scored for this Audit	224	
Highest Possible Conformance Score for this Audit	1120	100
Actual Conformance Score	1058	94.46

6.2.4 Sequential ECO Monitoring Results

A graph indicating the sequential ECO Monitoring Results from May 2011 until present follows.

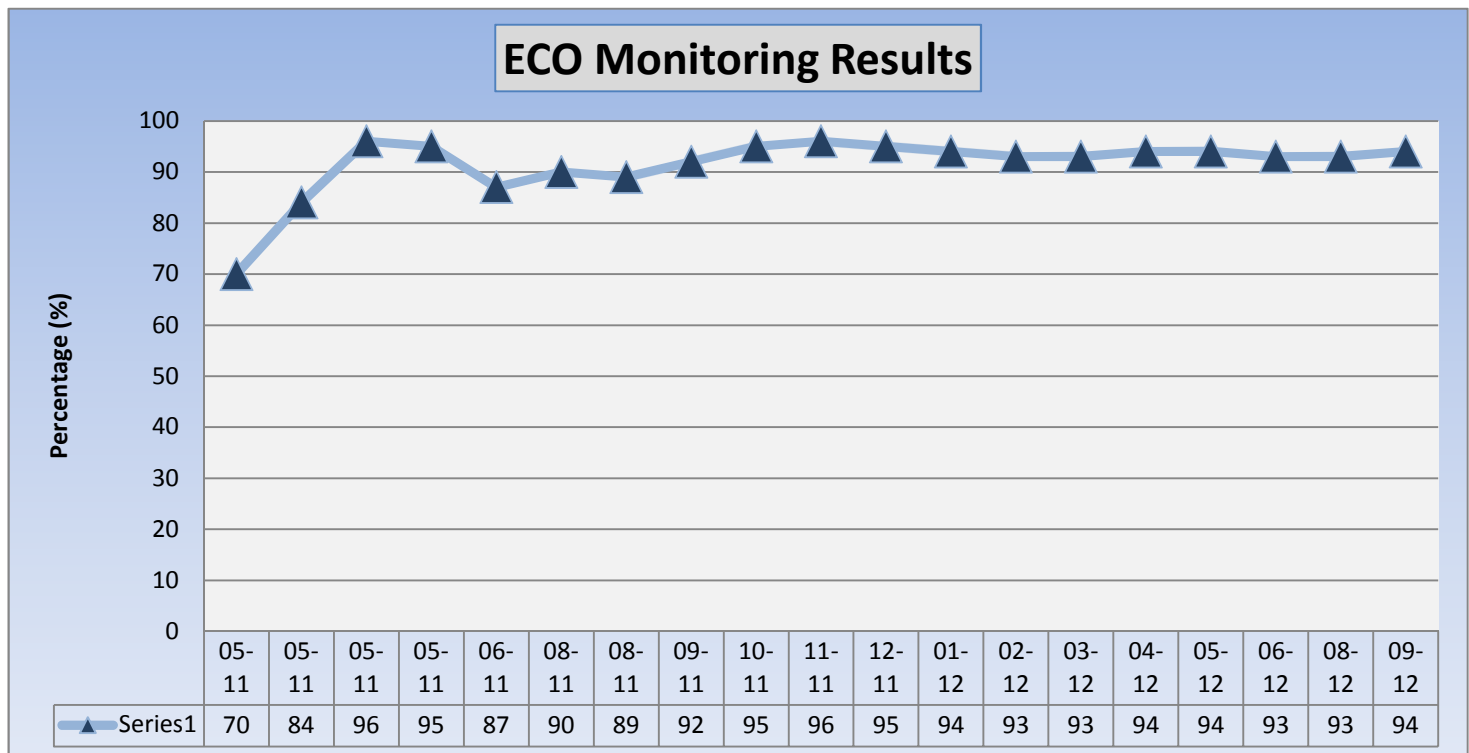


Figure 20: Graph – summary of results of Monthly ECO Monitoring Checklists

Although a high conformance score was achieved, those areas where non-compliance was noted need to be attended to as they are regarded as significant. Without the weighting of the scoring items, a full appreciation of the significance of the non-compliance is not conveyed.

A more pro-active approach is required to environmental management on the site. This is particularly relevant to sediment management at instream works, where the sediment caused by construction activities should not be left to be assimilated by the watercourse without appropriate mitigation.

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COMMENTS:

TCTA

7 NON-CONFORMANCE / INCIDENT REPORTING

The following non-conformances / incidents previously recorded remain unattended to:

- NCR/Incident No. J00846-NCR027 (issued on 12-07-12) – Use of defective geotextile socks when dewatering; and
- NCR/Incident No. J00846-NCR030 (issued on 15-08-12) – The current storage, handling and management of hazardous and flammable materials onsite is in contravention of Section 3.2.1.5 of the RoD. This includes the storage/parking off of Diesel bowsers overnight onsite without any spill prevention in place.

New environmental non-conformances / incidents recorded by the EM during the monthly ECO monitoring period are tabulated below.

Table 6: Environmental Non-Conformance / Incident Register entries for Aug – Sept 2012

Date of NCR / Incident	Description	Suggested Corrective Action	EM Suggested Deadline	Actual Date Corrected
04/09/2012	1. No daily water monitoring was submitted last week (27-30 of August). 2. Daily water monitoring results were shows 10% exceedence of variables (mostly turbidity) tested downstream as compared to upstream for the whole month of August	The contractor must implement silt prevention measure below the dam working area and ensure that in the absence of the EO someone undertakes daily water monitoring.	04/09/2012	
12/09/2012	Inadequate waste management: defective geotextile socks left on the river banks were washed away during floods. The contractor was told to remove socks on various occasions but failed to attend to the concern in due course.	The contractor needs to be proactive in their environmental management approach and ensure that waste and materials no longer in use are not left lying onsite.	12/09/2012	
12/09/2012	1. Monday 10 September 2012: unauthorised (project team alerted to fire by the landowner, and not by the contractor), and potentially dangerous, burning of large piles of brush and tree debris on the expropriation line/fence line on Derek Greene's property; this necessitated the mobilisation of the G5 Fire Contractor. 2. Tuesday 11 September 2012: section of Baden Smythe's existing fence line cut and left open overnight: Smythe's cows escaped onto the Lower Loteni road, which was a traffic	The correct supervisory measures must be put in place to prevent future occurrence of negligent or impulsive behaviour. The contractor must provide feedback on measures they are planning to put forward.	19/09/2012	

Date of NCR / Incident	Description	Suggested Corrective Action	EM Suggested Deadline	Actual Date Corrected
	safety risk, and also meant a serious inconvenience for Smythe and his family as they located cows through the night.			
20/09/2012	Release of Silt laden water into the river course from the excavation on the right bank of the fish barrier was raised as a concern. A Site Communication letter was issued prior to the scheduled blasting event instructing the contractor to ensure that adequate silt prevention measures are implemented. The contractors failed to carry out this instruction adequately. The blast further increased the volume of silt laden water directly entering the river.	Silt prevention measures must be in place to achieve compliance to section 8.2.2 of the Dam Wall EMP. It is suggested that this trench be dewatered using suitable silt filtration measures.	26/09/2012	

Note: Wording directly extracted from Environmental Non-Conformance / Incident Register

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COMMENTS:

TCTA

8 ISSUES AND COMPLAINTS

Table 7 contains the issues and complaints (52 entries) that were recorded by the Social Monitor during the monthly ECO monitoring period (up to 27 September 2012). The following issues (apart from matters pertaining to expropriation) remain open, based on the Issues and Complaints Register, which require feedback / action from the project team:

- Open issues from current monitoring event –
(Note: recurrent issues highlighted)
 - a) Issue no. 340 (23-08-12) – new Eskom power line;
 - b) Issue no. 345 (27-08-12) – date for felling of trees;
 - c) Issue no. 350 (29-08-12) – cattle grids;
 - d) Issue no. 355 (05-09-12) – soak pit;
 - e) Issue no. 357 (06-09-12) – Route 13;
 - f) Issue no. 359 (07-09-12) – new Eskom power line;
 - g) Issue no. 364 (07-09-12) – road surfacing;
 - h) Issue no. 365 (10-09-12) – fencing;
 - i) Issue no. 371 (12-09-12) – illegal use of haul roads;
 - j) Issue no. 373 (13 & 17-09-12) – cattle grid;
 - k) Issue no. 377 (19-09-12) – new road created;
 - l) Issue no. 379 (21-09-12) – speeding, use of private roads, road surfacing, damaged bridge, replacement shale pit;
 - m) Issue no. 380 (23-09-12) – construction activities on a Sunday;
 - n) Issue no. 381 (25-09-12) – loss of recreational rights;
 - o) Issue no. 383 (27-09-12) – public accessing construction site.

The following issues are of particular concern due to their potentially high risk factors:

- Speeding;
- Road conditions; and
- Public access to the construction site.

Table 7: Issues and Complaints Register: Aug – Sept 2012

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
335	17-Aug-12	Dave Marriner	Dear Sir/Madam, I would like your response to my observation that the last set of EMC minutes available on the Spring Grove Dam web site are for the 15th meeting on 1st February 2012 and that while these minutes indicate at future date for March 2012 no further minutes are available. Secondly I would like to point out that at the 15th meeting no representatives for the Rosetta community were present. This is of concern to me as during the build phase Rosetta carries the majority of any immediate burden of inconvenience. Could you please make the latest minutes available on the site or if possible directly to my e mail address. Yours faithfully, Dave Marriner, Overdale Road, Rosetta	Dear Dave, The website is maintained by TCTA and the project's environmental manager, Kogi Govender, has indicated that she will attend to this issue as soon as possible. Minutes must be loaded onto the website, and will also be sent to you. The representative from Rosetta who attends most meetings, and gets the minutes sent to him each month to distribute to his constituents, is John Wetton. You may want to give him a call on 083 281 9513 to catch up on any project matters. Kind regards, Katie. Response from Kogi: Dear Mr Marriner, My sincere apologies for not uploading the EMC minutes on the website. I have downloaded all the minutes up to the July 2012 meeting. We only held the August meeting only last week so those minutes are not yet available. With regards to your second comment – the onus is on the representative to attend the meeting and if he/she is unable to do so then he/she should send a deputy member. You will have to take up the matter of non-attendance with your representative. The main member of the EMC is John Whetton and his deputy is John Zelenka. Regards, Kogi Govender	20-Aug-12
336	20-Aug-12	Douglas Affleck	Residents are speeding on the D146. The limit was set, at the request of the residents, at 40kph. Two people were caught this morning going well over 80kph, and when they were stopped by the traffic monitoring team they were not cooperative.	sms sent out to all site neighbours: Dear D146 residents; the D146 is being treated by the project as an extension of the site (with aggregate trucks, flatbeds, ADTs, graders, water carts, contractors using the road). At the request of the residents a speed restriction of 40kph has been imposed on the D146, and overtaking is strictly forbidden. These rules are in place for your safety. A G5 man is trapping and issuing project vehicles with fines. We cannot issue residents with fines, but please respect the process and observe the rules in order to prevent accident or injury. Thank you.	20-Aug-12
337	21-Aug-12	Peter Warren	Dusty today	Water truck sent out immediately.	21-Aug-12

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
338	21-Aug-12	Ryan Phelan	Topsoil has disappeared from the Mpofana Weir site.	Dear Tiff and Pete, The mound of topsoil on your property, to be used for rehabilitation of the site, was made rather drastically smaller over the weekend. We're not sure where it has disappeared to, but must ask you whether you have had occasion to use it perhaps? Kind regards, Katie. Response: Hi Tiff, I am told Webster took 2 trailer loads for the garden. Cheers, Pete Whitehouse	21-Aug-12
339	22-Aug-12	Ryan Phelan	Piet Pelser has impounded Niel Veenstra's tree felling equipment, and there has been damage to his bakkie. This is unacceptable, and Pelser was trespassing on TCTA land.	The BKS SM had been aware of the possibility of this kind of action, and had warned Piet Pelser not to go ahead with threat. Niel Veenstra will lay a charge against Pelser. No action will be taken against Pelser in terms of trespassing.	23-Aug-12
340	23-Aug-02	Carl de Heer	Hello Katie, We had a meeting with Eskom on site and they were also in the opinion that the wires should run down the side of the property, this decision was made on site and everyone agreed to this. Understand from landowners prospective we have bought this site because of the potential views and land value going forward, your suggestion of putting line in front of our property has a huge negative impact on our investment, and this I am not happy with and need it reversed. Let's face it the decision to go down the side or cut between Allan and our property or the front of our property all has disadvantages to views ect. On saying that we have never delayed any process, attended any meeting that has been called, met Eskom on site to discuss solutions or TCMA. Further to this I state that we are not accepting the lines in front of our property, you have to go back to the drawing board, it is now a simple case of running the lines down the side of the property, and realise we will be,as in the past available for any discussions regarding this! Regards CARL AND MEREWYN DE HEER	e-mail one: Dear Carl and Merewyn, We have been corresponding with you on and off since February this year about the need to relocate the existing Eskom power supply that is in the construction footprint. A number of options were presented to all concerned, and rejected by either all parties or some parties. These options included the offer for the line to run down the boundary between Derek Green and you/Allan Charmichael, or between you and the Charmichael's property. Consensus was not reached on any one of the options which meant that the Project had to make a decision and start the process rolling with Eskom in order to meet both safety and impoundment requirements. After further discussions this morning the decision is as follows: The power line will continue to be located on the Project's land, but will be moved out of the construction footprint to above the full supply level, and will run parallel to your boundary with the Spring Grove Dam. I understand that this has been communicated to you already, and that Eskom has indicated that they will minimise any visual impact. Kind regards, Katie. e-mail two: Dear Merewyn and Carl, TCTA is prepared to explain the decision making process to you early next week. I'll be in touch with you on Monday about a get-together on site to chat through the issue. TCTA must first establish their availability. How are you placed next week? Kind regards, Katie	

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
341	24-Aug-12	Patrick Johnson	<p>Hi Katie, I've been in contact with Ivor at DWAF in Durban trying to sort this out as well and he is working on it. From the first site visit when Pieter Wessels and Mark Kempin came to our farm to scout out a possible position for a gauging wear, I explained to them that I was in the process of designing a hydro scheme, which I was going to build in the location they want for the gauging wear. They said that they could incorporate out let pipes into their gauging wear for my use for the hydro scheme I am going to set up. So therefore I had no objection to them building the gauging wear on our farm, on condition they built in out let pipes which I could have full use of for my hydro scheme. This in turn meant we could both benefit from the gauging wear. Pieter Wessels has put it into the design for us, but now reading his latest letter that you have sent us, it seems there is an additional problem in that our existing pump house is up stream of the gauging wear and we maynot take water from the pool created from the gauging wear, this means we can't farm our land as we can't use our irrigation system which all feeds from that pump house. Quote "Dr Pieter Wessels from DWA sent an e-mail in this regard to Mr Johnson : The Little Mooi Gauging Structure was designed to assist the operators at Springgrove Dam, once completed, to plan environmental releases. In order to gauge discharge accurately at the gauging structure, no water may be abstracted directly from the pool created by the weir structure." When we got the paper work to sign, to give our consent to them building the gauging wear on our farm, we said we wouldn't sign until we had it in writing that we could have use of the wear for our hydro scheme as originally discussed with DWAF. Nothing ever came through, therefore we refuse to sign the land owners consent forms. Especially now that we can't even irrigate from our pump house. We have great objections to this, we will discuss this further with our lawyers. Regards, Patrick, 0828310129</p>	<p>Meeting and site visit held on Tuesday 18 September, with the landowners, DWA, TCTA and BKS, on the property in question. Issues were resolved amicably, and to the landowners' satisfaction.</p>	18-Sep-12

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
342	25-Aug-12	Mary Lund	Cows coming across the river and into her garden.	Andrew Smith's herdsman guided the cows back across the river, and Andrew Smith is in the process of putting up an electric fence. Eventually the contractor was obliged to erect fencing and a gate on Saturday 15 September 2012	15-Sep-12
343	26-Aug-12	Stuart Winckworth	Hi Katie, We have just been down to walk the dogs and chatted to the guard at our old house. It would seem that they have no water or toilet facilities at all there so the guards are defecating wherever suits them. Also there is a lot of recent rubbish lying around. Might I suggest that the water tanker, which regularly comes down our road, fills the tank and that they fit a tap. In that way they will be able to flush the toilets if they use buckets to fill the cisterns. Also a few black bags would make a difference. Yours, Stuart	Security guards provided with a toilet, and given shelter in ex-staff quarters at the properties.	30-Aug-12
344	26-Aug-02	Masango Family, via Lucky Sanust	The Masango Family are worried that the works on the left bank of the main dam wall are getting too close to their graves.	Turns out that the family has been misinformed by an alarmist friend.	27-Aug-12
345	27-Aug-12	Sue Marshall	Please can we make a definite date for removal of our trees? Sue suggests first week of October 2012.	Trees will probably only be felled towards December 2012, so no time set for Sue to witness the removal.	

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
346	27-Aug-12	The Contractor	A number of people were spotted on site over the weekend, at both the Fish Barrier construction site and the main dam construction site. These people were on bikes/quads. All construction areas are absolutely out of bounds. In fact, the whole of the purchased area is out of bounds.	e-mail sent to all landowners who surround the entire dam site, including the Fish Barrier: Dear residents and neighbours, The Contractor has raised a huge concern with me, once again, about children using the dam basin (haul roads mainly) as a playground. Over the weekend young quad bikers and scrambler riders were seen on the haul roads near the stock piles close to the main dam wall construction site, riding at great speeds. And, this morning two young boys were chased off the roads on site near the dam wall. We have extremely dangerous, heavy, and fast-travelling vehicles on our internal haul roads; these vehicles work 7 days a week. We also have borrow pits into which it could be easy to fall. Please make your children aware of the dangers that they face if they don't respect the restrictions that are in place. Any entry to the construction domain is considered as trespassing. The area below the purchase line/fence line is absolutely out of bounds at all times, as are all internal haul roads. Please also make your neighbours or constituents aware of this reminder. If your families would like tours of the dam basin please just give me a call and we'll arrange a suitable time for a trip(s) around site. I'm sure that everyone is curious to see what's happening. Kind regards, Katie	27-Aug-12

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
347	27-Aug-12	Mary Lund	Night guards at the fish barrier seen wandering back along private road towards Route 11. Agreement was that they would be confined to construction site.	Dear Douglas (cc Gavin), The night watchman/men at the fish barrier have been seen wandering off along the road as far as Inchbrakie Falls. This is contrary to the agreement that was made with residents along that road, and, I suspect, contrary to what he should be doing in terms of looking after your site. Please could you find out what is going on? Also, what is the plan with shelter for the fish barrier guard? He's been using the toilet to take shelter in and sit in apparently, which is not ideal. We're getting into the rainy season too so guards at all sites will need proper shelter. Kind regards, Katie. Response: Afternoon Katie, The gent does start walking at 0630 from his post if the bakkie is not there already. From time to time (seems quite regular) the guard pick up is running late and the guards on duty have been told to start walking already to meet the transport "halfway" sort of thing. So he may be walking during the first and last 30 minutes of his duty, being from or towards a late dropoff / pickup. In terms of shelters these guard do not have any. They are supplies with freezer suits/ rain suits to help them from the elements. It is a unfortunate job.	28-Aug-12
348	28-Aug-12	Sheryl Pote	HI KATY, DONALD ROBERTSON HAS INDICATED HE WANTS TO BURN BELOW THE FENCE LINE I JUST WANTED TO KNOW WHAT IS GOING TO HAPPEN TO THE REID BUCK WHO HAVE BABIES ON THE OX BOUGH LAKE ISLAND. THE BABIES DONOT RUN AWAY AS THEY ARE TOO YOUNG BUT HIDE IN THE GRASS AM VERY CONCERNED. SHERYL	None of the specialists have ever heard of, or seen, baby buck being burnt. They walk within hours of being born and will jump out of the way of the fire. However, the oxbow lake area will be burnt in stages, and the break-burning team will keep a look out for the buck and will move them out of the way.	04-Sep-12
349	28-Aug-12	Colleen Norman	Query re pipeline inspection: what is the current inspection team doing, for what purpose? Colleen is the Chairman of the Gowrie Homeowners' Association and would appreciate it if she was briefed about any activities in Gowrie.	Apologised to Colleen for lack of information. Explained that current inspection relates to cathodic protection and depth of cover. The inspection is part of the survey that is being undertaken for the refurbishment of the current pipeline. Noted that refurbishment activities must be communicated to Colleen in good time.	29-Aug-12

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
350	29-Aug-02	Charles Jonsson	Dear Katie, Please let me know when the cattle grids on either side of my property will be replaced as we are only able now to graze half our land. This has cost me a lot as I have had to supplement my cows food over winter and now I have no access to my green grass at the top of my property. If they are not replaced soon, please send me a claim form for my feeding costs. Thanks, Charles Jonsson. Communication 2: Please let me know when the staff member will be available to man the missing cattle grates and I will let my cattle onto the top field on those days.	e-mail one: Dear Charles, I can't respond with anything useful until we know where the grids are. Their whereabouts are being followed-up by G5 at the moment. Gavin and I have both noted that the lack of grids is a serious inconvenience and cost for you. I'll be in touch tomorrow. Kind regards, Katie. Communication two: The cattle grids have not arrived on site yet; they had to be specially ordered. The plan was to replace your wooden grids with the new ones only towards the end of construction when the heavy loads have finished in order to prevent damage to the new grids. What was offered instead of the grids was a gate and someone to man the gate so that you can move cattle back and forth and into different camps without them straying. Will this solve the problem for you?	
351	29-Aug-12	Richard Robinson	Query re new pipeline: technical question about overflow. Richard said he'd meant to ask Claire and Pat (BKS) about it when he'd seen them.	Passed on Richard's question and contact details to Claire for her action. Pat van Heerden responded via e-mail, which was passed on to Richard.	30-Aug-12
352	29-Aug-12	Dee Tallents	via sms: Hi Katy cd u pse put out a reminder 2 those vehicles with the light on their roof about the speedlimit on Overdale. Our houses sometimes look like Table Mountain with the cloud of dust over us! Dee	Reminder sent to everyone re speed limits. From Ryan: Hi Guys, I have just had a request from Katie, which was generated via Overdale residents, complaining about dust. Please can all of you that use Overdale Road keep your speed to the limit agreed, as we do not water the whole road it gets dusty when guys are exceeding the speed limits. If I have missed some guys from the mailing list please inform them too. Kind Regards	04-Sep-12
353	31-Aug-12	Sven Turner	Makhosi Mabuyakhulu, who works for Sven, and lives on Clive's land, says that she doesn't know what's happening regarding her relocation.	Lonwabo Mapolisa called Makhosi in early September, and BKS and TCTA held a meeting on 20 September with all of the people who live on Lintrose, in order to bring them up-to-date with plans.	20-Sep-12

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
354	01-Sep-12	Mary Lund	Cows have crossed the river crossing at the Fish Barrier site again this morning, and are in Mary's garden. They've wandered right up through the construction site and into the garden, so can also wander further along the road.	Andrew arranged for Nsele Security Guard to guide cows back across river and to keep watch for the weekend. The fence near the entrance to the construction domain had been taken down, which allowed cows into Mary's property. This fence is to be fixed on 04 or 05 September 2012. Also, DOnald Davies arranged for a fence and gate to be erected on Tuesday 04 September at the river crossing to prevent cows accessing the site. Gate and fence erected Saturday 15 September 2012.	15-Sep-12
355	05-Sep-12	Tiff Whitehouse	Soak pit, has it been re-dug?	To be done when the earthworks equipment is on site, in the next couple of weeks.	
356	05-Sep-12	Alan Venables	1. Heavy vehicles using Overdale Road. Is this because of rain? The D146 needs to be regraded if this is the case. Just one light rain and the trucks can't use the road! 2. Another two trucks. 3. Another truck. 4. Blue Rock and Puma transport. 5. a freight vehicle.	The use of Overdale Rd is due to rain. The Contractor has been asked to stop all other loads today. Apologies for this.	05-Sep-12
357	06-Sep-12	Sven Turner	Will an emergency spillway be built at Route 13? The culverts don't seem to be big enough, it looks as though any big rain would cause Route 13 to flood?		
358	07-Sep-12	Chris Beith	There's a problem with the drainage on the road. A puddle has formed in the road and all drainage points towards my house!	Peet and the SM visited Chris on site on the 7th, and the Fynn and James team was tasked with addressing the drainage issue. The drainage will all be guided into an existing channel on Chris's verge. Chris suggested this and is happy with the solution.	21-Sep-12
359	07-Sep-12	Allan Charmichael	Hi Katie, I have made it clear from day one that I was in favour of underground cables!! If this is not an option due to costs then what is the point of asking my opinion?? If they go ahead with normal lines and they obstruct my views in any way, i want it on record that i will remove these poles/lines by any means. I am currently overseas and back in my office Monday next week. Regards, Allan	Boundary line to be pegged, and Eskom to advise re clearing needed.	


No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
360	07-Sep-12	Piet Pelser	1) Access Road: until such time as his new access road is ready he will use his existing road, and The Contractor should give him right of way. 2) Niel Veenstra has left trees in the river; pumps will be damaged. 3) The pumps will go underwater if the river rises by another meter; what will we do about it?	1) The Contractor will not give any other road user right of way on a road that is within the expropriated land. However, everyone will be made aware of the need to share the road amicably until Route 9 is constructed. 2) The trees are being cleared as the team goes along, and the risk of damage is minimal. 3) As long as the pumps are being used by the landowner they remain the landowner's responsibility.	07-Sep-12
361	07-Sep-12	Clive Garlick	Derek's pumps have been flooded. If Clive Garlick and Piet Pelser had not removed their own pumps they would also have been flooded and damaged. Not acceptable.	As long as the pumps are being used by the landowner they remain the landowner's responsibility. This was a very serious rain, and the impact could not have been foreseen.	07-Sep-12
362	07-Sep-12	Mary Lund	Will anyone come to look at the road today, with all this rain? There are two sink holes forming! Amd. We had two pipes under the road and the engineers insisted on replacing the two pipes with one pipe, and have caused a huge problem. We need two pipes!	Site has closed due to the rain, so nobody will look at the road today. Response is that the road is in a better condition than it was, but that the team will fix problems as they go along. The one pipe that has replaced the two pipes is much bigger than the dimensions of the two, and therefore works very well. Some soil may be blocking the new pipe and this will be removed.	11-Sep-12
363	07-Sep-12	Derek Greene	Pumps have been flooded by the back-up of water. Culvert at river crossing is blocked-up with trees and is not allowing water through.	Bennie Beukes and Peet Viljoen met with Derek Green on the afternoon of the 7th. G5 to remove pumps and assist with repairs and reinstallation. Pumps repaired and installed on 18 September 2012	18-Sep-12

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
364	07-Sep-12	Pippa Huggins	<p>Hi Katie, Hope the week has treated you well. In July both Greg and Charles indicated via email that our road surface would need to be re-done before the rains begin in earnest. The response to them both was that a hard gravel surface would be laid before the spring rains arrive. There was also a note made in the response to Greg that our road had been upgraded using the same material previously quarried out of the Inchbrakie Pit, and that the road would have become slippery and muddy regardless. I feel I must clarify this point – the material from the Inchbrakie borrow pit is used primarily for our road maintenance such as re-shaping, filling holes and light re-surfacing. It is not suitable for a full re-surface as the bulk of it is mudstone which when wet is extremely slippery. In 2005, the Road Committee, acting on behalf of the landowners, commissioned a major overhaul of the road from the old bridge (adjacent to the Inchbrakie quarry) up to the concrete strips. A private contractor carried out the work and hard blue shale was imported in to the site to surface the road. It was an expensive exercise costing in the region of R 280 000,00. However the quality of the surface was good as the correct hard shale had been used. It appears that the spring rains have arrived – or will do so soon. The road is very slippery and has deep muddy indentations. Regular use by the heavies will make it quite treacherous. The contractor also cannot realistically be expected to wait for the rains to cease before resuming work and using the road – this will lead to considerable delays in completing the Fish Barrier. Is there any possibility that the promised gravel surface can be applied – sooner rather than later? We will of course need to wait till the road dries out before any further work can be done on it , but I do think it is going to be necessary. Kind regards, Pippa</p>	<p>Dear Pippa, I need to chat with Andrew before providing a final response, but after communication from Donald the following can be reported: A meeting took place between BKS and G5 PANDEV during which material type, material source and extent/section of road that needs surfacing was discussed. BKS issued a site letter/instruction to G5 about material type and source(s) this week. I'll get back to you on Monday with timeframes and further information. Thank you for communicating with us again about the condition of the road, and for your patience so far. Kind regards. Road needed to dry out, and a new surface was laid during the week of 17 Septmebr 2012. The material is reject aggregate and concrete and is a superior surface. The final surfacin and regrading of the road will take place at the end of construction. Await response on borrow pit.</p>	

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
365	10-Sep-12	Peter Kidd	Hi Katie, I still believe that plain wire (not barbed wire) should be used for the fencing. Barbed wire has no function except for slowing down an invading armed force! It just causes injury to young animals jumping over or creeping under it. In South America (where there are millions more cattle and horses) barbed wire is virtually extinct. The fact that bonnox fencing (I know they arn't using it), and barbed wire fencing was recomended by the EIS, is astounding. This is a conservancy. Game cannot get through bonnox. regards, Peter Kidd	We await feedback from DWA, and then must consult with all landowners.	
366	10-Sep-12	Derek Greene	The fencing team is putting a few gates in the wrong places and says that he doesn't know about the fencing agreement that has been made.	Meeting held with fencing team, and site instruction re-issued to team. Derek Greene personally met with team to ensure understanding of needs.	10-Sep-12
367	10-Sep-12	Derek Greene	14h45: There is a fire near the pine plantation. It looks as though someone has set fire to the piles of brush along the fenceline!	Don and Ryan immediately rushed to the fire, and got the blaze under controll. NCR sent to G5 about the negligent behaviour of the fencing team.	10-Sep-12
368	10-Sep-12	Charmaine Vos	Above Fish Barrier, new pegs: concerned that her horses will impale themselves on plastic pegs that have been placed to mark the expropriation line!	Pegs can be replaced with stones, or taken out, once valuation team have visited. Has never known horses to impale themselves on plastic pegs.	10-Sep-12
369	10-Sep-12	Baden Smythe	20h10: cows all over the Loteni Rd! Fencing team has left gate open! Baden spent hours rounding up the cows that had walked off his property and onto the Loteni Rd (could have been nasty accident), and as far and Dwaleni poperty.	NCR issued to Contractor re fencing team's behaviour. Fences closed on the 11th. Meeting held with Baden at 07h30 on the 11th to finalise fencing contractor's terms of engagement.	11-Sep-12
370	12-Sep-12	Pippa Huggins	Near miss with dump truck driver (DVN816 MP), directed by flag lady to stop as it is landowners' right of way, at Route 13 intersection with private road. Very close call, could have been a very serious/fatal accident if Pippa had not taken evasive action! He was going at break neck speed!	Driver given warning; toolbox talk with team again about use of private road and speed limits being set to 30kph on all private sections of the road.	13-Sep-12
371	12-Sep-02	Ryan Phelan	Formal complaint about Piet Pelser: he has been using the on site haulage road, on his quad bike, with his dogs in tow. Piet flagged Ryan down and, in abusive language, complained about dust on these haul roads.	SM called Piet Pelser to warn him about use of the site roads, and to remind him that he no longer has access to the expropriated land. Mr Pelser was not happy to be told this, and the converstaion did not end well. He noted that he needs to use roads to access his pumps.	

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
372	12-Sep-12	John Wetton	Tow truck sped along Overdale Road, through stop street, without even stopping, and picked up its speed as it went. Sped up D146 at huge speed! So dangerous.	Douglas noted that is was a tow truck destined for site, and that the driver has been reremanded.	12-Sep-12
373	13 and 17 Sep 2012	Bev McKenzie	One: Hi Katie, Trust all is well your side. Our cattle grid at the Xaba staff house is beginning to collapse. We replaced the poles a year ago, but with all the additional traffic the grid is now in need of urgent attention. Can you mention it to the powers that be? Kind regards Bev. Two: Hi Katie, sorry to harp on about our cattle grid, but drivers now using gate next to grid but not closing it again. We spoke to one of them but they're hard to catch!	e-mail to Ryan and Andrew: 1. Cattle Grid: Rob and Bev McKenzie (Vaalekop) have been in contact a number of times recently about the state of a cattle grid on their property. Please see picture attached showing location of cattle grid. The grid has been slowly deteriorating since they replaced the poles a year ago, and they attribute this to the heavy traffic (soil lab guys, water tanker, tree fellers, fencing team) that has been using the grid. The road users are now bypassing the grid through a gate, and forgetting to close the gate. Please advise about condition of cattle grid. Await response from Contractor re this issue. Cattle grid and road in question are both above purchase line, so must be fixed if broken.	
374	13 and 18 Sep 2012	Piet Pelser	Cattle have no access to water due to expropriation. They must be provided with a secure fenced off area in order to survive.	Temporary 4 strand fence provided for cattle; the fence runs from expropriation fence, into the basin, around one of Piet's old dams, and back to the expropriation fence. This week need to be taken down once Piet Pelser has solved his water supply issues with TCTA.	20-Sep-12
375	18-Sep-12	Erica Millican	Call: please could you give me a programme of the RCC work. It is impossible to book guests in, and I'm losing a lot of income as a result. Guests cannot be expected to endure the night work, which one cannot sleep through. When will the breaks be? When will the site close? Can you give me advanced warning of when the breaks will be so that I know when I can take bookings?	Dear Andrew, I had a call from Erica Millican asking about the RCC programme. She's receiving a lot of booking enquiries for her B&B and says she's had to turn guests away because of the night work noise. She's asked for an indication of the dates during which there will be breaks in the RCC pours, and also wanted me to confirm whether or not the pay weekends will definitely be off, and whether the Christmas break dates stand. Could you please send me information when you get a chance? Kind regards. Response: RCC and general work - we have teams working every day, there however is no night shift on the pay weekends. December shutdown dates are not final as it will depend on the progress. 27 Sep 2012: Dec Shutdown date is the 21st. Impossible to give programme re breaks, since	27-Sep-12

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
				they are weather and spec dependent.	
376	19-Sep-12	Mary Lund	Change of blast time is an issue; there won't be anyone on site to look after the horses. Request made to SM to obtain carrots to feed horses during blast.	Blast time returned to original blast time in order to lessen social impact.	19-Sep-12
377	19-Sep-12	Charles Jonsson	It looks as though an excavator has carved a new route through some of Chris King's land, in order to avoid a muddy area where it has already broken a culvert. Please investigate.	The excavator has been asked to stop using this route, and any damage will be repaired.	
378	19-Sep-12	Graham Lister	In response to block burn: Hi Katie, we have cleared over exposed water pipe but there may be areas that have re-grown. Please warn contractor to avoid these pipes!	Don has been warned.	19-Sep-12

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
379	21-Sep-12	Charles Jonsson	<p>e-mail: Dear Katie, As Chairman of the Incrbraekie Road Fund, I need to bring to your attention the following issues. 1. The contractors are still not observing the 20kmph speed restriction through our properties. I stopped and yelled at a tractor driver racing through my property on Wednesday who told me he hadn't been told the speed limit. I then followed him coming back through my property on his return, again driving at 45kmph. It is only a matter of time before there is a serious or even fatal accident. You have been warned, yet again. 2. The contractors are taking a short cut between your 2 sites and are using our private road and not the road up the dam basin, as predicted. As I pointed out to you on Wednesday, it was clear to see where the excavators had driven as they leave very distinct tank tracks. This has lead to them breaking a concrete pipe under the road on this section on Mrs Kings farm which is pretty hazardous and will need to be repaired by them ASAP. The issue of the use of this road was raised by me previously as in terms of our agreement of use of our private roads, they were to be upgraded prior to you use and rehabilitated after. I trust this section will now be included in this agreement. 3. I understood your commitment to gravel our roads as exactly that. Instead, spill concrete has been used, arguably acceptable on the road surface, but leaving totally unsightly and unacceptable large concrete boulders at the road edge. These will need to be removed. 4. Peter Kidd always had reservations regarding the heavy vehicles traversing his bridge. It seems to me that this bridge has already started to collapse on the downhill side. This needs to addressed immediately and suitable repairs done. 5. TCTA undertook to facilitate the drafting of a new Servitude Agreement with all parties concerned and Mike Forsythe was the preferred legal expert to do this. Please let me know where we are with this process as it was supposed to have been agreed to and signed prior to construction commencing but we have heard absolutely nothing. 6. On the section though our farms, designated pull over areas were to have been made. This has not happened and vehicles simply drive off road, their tracks clearly visible through my land. I am happy to show you where they have driven repeatedly, more than 10 meters off the road. This is completely unacceptable and contra to our agreement. 7. Also still unresolved is the matter of a replacement shale pit. Refer to previous correspondence on this where Gavin had done an about turn on the issue after our discussion and various alternative sites visit. I trust that these issues will receive your attention and action, failing which we will need to meet as far too many of our terms and conditions of use of our private road are being blatantly disregarded. Remember, for you and your contractors it is a building site and off road raceway, for us it is home and our driveway. Regards, Charles Jonsson</p>	<p>Dear Charles, I am so sorry that it's taken an age to get back to you. We have lots of brains on site that needed to help me respond, and not all the brains are always available. I'll respond point by point. 1. Douglas Affleck, who is G5's safety officer, has done a toolbox talk with all the drivers who use your road. In the talk he reminded them about the speed limits, and also about behaviour. You will all have noticed Thulani our speed cop on your road. He works for G5, and has been tasked with patrolling all roads in the basin, and well as your road and the D146 in Rosetta. He gives us tickets (3 ticket warning system, with the last ticket being a driving suspension), but obviously cannot penalise you! His primary function is to ensure that we are observing the limits that have been set by the site-safety guys, and the limits that you have set on your road. I know he may have flagged a few of you down, so apologies if this has been offensive; he takes his job very seriously. Please can I remind you that the limits, for all of us including residents, are 40kph on the majority of the road, and 20kph on the Huggins and Jonsson properties. Please could you also be aware that not all of our site staff have 4x4s, and so cannot get out of the way onto verges easily; apologies if this causes an inconvenience. 2. Thank you for raising this as a serious concern. The terms of use of your road do need to be amended, and the section between Route 13 and Route 11 will need to be rehabilitated post-use, and as you have pointed out will also need to be fixed immediately. This has been communicated by our engineers to the contractor. 3. Our engineers agree that the boulders and lumps of concrete need to be removed; they are unsightly and are to be brought back up onto the road and compacted and re-graded. The aggregate that has been placed on your road is of very high quality, is well graded, and will provide a good long term surface on your road. The colour will wear with time. 4. This query has, again, been passed on to our engineers who will investigate. 5. Mike Forsyth has, just this week, provided us with a draft servitude agreement. Mike says that the original servitude agreements and notarial deeds were complicated, and that he has had to go right back to basics. He's spent days at the Surveyor General's Office obtaining individual diagrams, as well as compilation diagrams. He's gone back to the three original servitudes as well as the court case to ensure that the information is correct. He has also made sure all along the way that the Registrar of Deeds is happy with the process that he is proposing. Mike has noted that if he had had a registered servitude diagram quite a few of the problems would have been ironed out. We can only work as fast as this process will allow us to. It has not been ideal for us either. Thank you for being so patient so far. 6. The engineers have responded that it is impossible to plan enough passing areas. They apologise for any damage caused, and the nuisance factor, and will rehabilitate post-use. 7. We need to get a machine for a day in order to explore quarry options, and as you know, according to last week's Mercury, we're in a "dam big hurry" around here and can't take vital machines off the work that they're currently doing. This is not to say that your quarry is not important; it is foremost in the engineer's mind and he's putting a lot of pressure on the subbies to make a machine available. He has a few questions: must the quarry lie within your road servitude? Are there any areas that you do not want us to explore? Are there any areas that you'd particularly like us to explore? There is some reject aggregate on site that you could access; you could dump it in the old quarry near the hairpin bend as a stockpile. Please don't hesitate to be in contact if you have any worries or questions. Kind regards, Katie</p>	
					

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
380	23-Sep-12	Mary Lund	07h30: Why is there work going on on a Sunday? It is unacceptable that we were not consulted. We have set days and times that work can occur and these boundaries have been pushed. The inconvenience payout is insufficient! We need a meeting this week with the expropriation team to renegotiate. Our initial agreement was 3-4 months of construction. While the team is on site our kids cannot go down to the river.	A machine has been hired to move the rock from the blast. It could not work yesterday due to rain, and cannot work tomorrow because it is a public holiday. In order to progress with the construction as quickly as possible the contractor made an executive decision to work today (Sunday). There is strictly no access to site anyway; trespassing is forbidden.	
381	25-Sep-12	Mary Lund	This project has taken away our recreational rights for much longer than agreed to. We're not being paid market value for the property; the value of the land is only a third of what one would get if fully expropriated. The construction site operates until so late that dogs cannot be walked along the river after work. Mary has been told by the concrete team on site that work will continue until the end of Feb 2013, which has not been communicated to her by either BKS or TCTA!	We await final programme.	
382	26-Sep-12	Sonia Byrne	Dear Katie, Please see the email below regarding the water supply to Ntaba. It is imperative that the pipe is replaced as Ntaba cannot be without water. Surely some provisions should have been put in place to protect our water supply? Please could you attend to this by having the burnt section replaced as a matter of urgency. Many thanks and kind regards Sonia Byrne. Hi Sonia, We had a visit from Petros this am to ask us to contact you. Recently Don Robertson burnt the dam basin area belonging to TCTA below your and adjacent properties. Unfortunately he did not warn Petros nor did he protect the piping near your pump. This has now been burnt through and obviously you can't pump water out of the river at the moment. I don't know who will take responsibility for this error but I suggest that you get hold of Katie immediately and ask her to organise for a water tanker to provide water in the short term and then she should get someone in to replace the short section of pipe. They have a water tanker which travels down our road regularly so this should not be an issue. Her address is: "K. Maasdorp"	Don Robertson and his team replaced the burnt section of the pipe. Solution communicated to landowner.	27-Sep-12

No	Date	Submitted by	Description of Issue	Response to Issue	Date Resolved
			<katie@nomadconsulting.co.za, Yours Stuart		
383	27-Sep-12	Contractor	Formal complaint about trespassing on the Fish Barrier site. People were caught biking on the stockpiles this week. The site boundaries are in place for safety reasons; it is for residents' safety and protection that they are not allowed onto site. There is a deep excavation! We're doing the best that we can, and know that work is affecting lifestyles of neighbours. However, site is strictly off limits.	Indemnity form to be sent to all affected landowners re access to site. Strictly no access to site is allowed.	
384	27-Sep-12	Baden Smythe	Situation with staff and payment is terrible. Request immediate meeting due to miscommunication (or perceived miscommunication) with staff members.	Meeting cancelled by landowners, but his lawyer spoke with TCTA and payment of one months worth of living allowance has been made to staff.	28-Sep-12
385	27-Sep-12	Brad Cartwright	Hi Katie, Can you please give me an update on our alternative water supply at Vaalekop. We were advised around a month ago that engineers would be visiting the properties affected, however to my knowledge this has not happened? Please advise URGENTLY on the current status. Thanks, Brad Cartwright, Hilltop Farm	Dear Brad, I understand your concern; it must seem as though nothing's been done for a month! We've been getting the consultant's appointment in order, and ensuring that the correct support services will be available when the consultant is ready to start the site visits. We've been given an indication that the engineers will visit the affected properties between mid and late October. You are very much part of the process and an appointment will be made with you closer to the time. Please don't hesitate to be in touch if you have any queries. You're also welcome to visit our site offices if you're interested. Kind regards, Katie	27-Sep-12
386	27-Sep-12	Archer Letley	Very worried about drainage on the D146 near his driveway. Will culverts be put in?	Fynn and James team have been tasked with sorting out the drainage on the road over the next couple of weeks, and this will be one of the points that is addressed.	27-Sep-12

Note: Wording directly extracted from Issues and Complaints Register

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COMMENTS:

TCTA

9 PROPOSED AMENDMENTS TO THE ROD AND EMP

9.1 Proposed Amendments to RoD

An application for an amendment to the RoD was submitted by DWA to DEA on 15 August 2011.

Proposed amendments or matters for clarification related to the RoD are contained in **Table 8**.

Table 8: Proposed amendments / matters for clarification related to the RoD

Condition No.	Description	Comments / Amendment
Amendments Previously Recorded		
3.2.1.22	Indigenous vegetation removed from the dam basin must be kept in a temporary nursery to be used for rehabilitation	Addressed in EMP for Search, Rescue and Relocation, which was approved on 07 September 2011.
3.2.1.23	The wood from exotic and/or invasive species removed from the dam basin must be made available to the local community free of charge	Decision pending from Contractor regarding the way forward for the disposal of the cleared vegetation. RoD condition may prove to be costly.
3.2.3.1	Daily monitoring by ECO	ECO was not appointed as a daily monitor. Daily monitoring is undertaken by the EO on behalf of the Contractor and by the EM on behalf of the Engineer. Weekly ECO monitoring conducted.
3.2.3.3	ECO's quarterly environmental performance audits	Environmental performance audits undertaken by the ECO every six months.
3.2.3.4	Submission of environmental compliance report every two months by the ECO.	Environmental compliance report submitted monthly.
3.2.3.5	ECO to maintain – a) Daily site diary b) Non-conformance register c) Public complaints register d) Register of audits e) Copies of method statements f) Material Safety Data Sheets (MSDS) g) Monitoring reports of the contractor/s h) Compliance and audit reports i) Training registers j) Copies of the RoD and EMPs k) Waste disposal certificates l) Copies of all permits required during construction	ECO to ensure that these documents, registers, reports and permits are maintained.
3.2.3.6	ECO to remain employed until the end of rehabilitation	ECO to remain employed until the end of defects liability period
3.2.6.1(d)	Provisions of the National Water Act, 1998 (Act 36 of 1998). Silting, demarcation and management of material storage and vehicle servicing areas used by the contractor to be outside of the 1:50 year flood line or at least 100 meters from any watercourses.	Mobile toilets to be situated at least 50m away from a watercourse.
New Recommended Amendments		
N/A		

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COMMENTS:

TCTA

9.2 Proposed Amendments to EMP

In accordance with the RoD condition no. 3.2.4.4, EMPs will be regarded as dynamic documents and any changes to the EMPs must be submitted to DEA for acceptance, which is to be accompanied by recommendations of the EMC.

An EMP Amendments Register was submitted by TCTA to DEA on 21 September 2011, which records the proposed amendments to the EMP for management measures that are deemed to be ineffective or redundant. These amendments were discussed with the EMC on 03 August 2011.

Proposed amendments or matters for clarification related to the EMP are contained in **Table 9**.

Table 9: Proposed amendments / matters for clarification related to the EMP

No.	Description	Comments
Mitigation Measures identified during previous ECO monitoring events		
Existing Mitigation Measures contained in EMPs		
1.	EMPs to provide rehabilitation measures for areas to be disturbed during the construction phase [RoD condition no. 3.2.4.3(b)].	EMP for the Construction of the Spring Grove Dam Wall to make provision for rehabilitation of areas affected by construction work outside of dam basin (e.g. access roads).
2.	EMPs to include implementation measures aimed at controlling invasive plant species and weeds [RoD condition no. 3.2.4.3(f)].	Addressed in EMP Register.
3.	Cover vehicles transporting spoil, topsoil or other dust generating materials.	Addressed in EMP Register.
4.	Dust suppression measures must be implemented on dry weather days.	The spoil area opposite Erika Millican's property is considered a working area and will not be watered down for dust suppression. Instead, visual inspections will be undertaken and if dust is a nuisance the area will be watered down.
5.	For each waste type create a MSDS that is always available to accompany the waste.	Addressed in EMP Register.
6.	All waste containers designated for off site transport to be secured and labelled with the contents and associated hazards, be properly loaded and be accompanied by a shipping paper (i.e. manifest) describing the load and its associated hazards	Impractical for all waste containers. Suitable for hazardous waste.
7.	Transporters of hazardous materials to ensure	Bulk fuel transporters comply with this

No.	Description	Comments
	that: vehicles transporting hazardous materials are registered for this purpose; clearly display in English the nature of materials being transported; what to do in the event of an emergency and an emergency telephone number (24 hour) of a responsible person who can provide advice in an emergency	measure. However, requirements are too onerous for sub-contractors (e.g. mechanics). EMP deviation to be discussed.
8.	The quantity of hazardous material used each month is to be documented	Requirement is more feasible in terms of fuel usage. Necessity of measure to be explored further in terms of other hazardous material used on site, such as material used for the maintenance of vehicles, material used at the laboratory, etc.
9.	Monitor the number of project related vehicles travelling off site per day	Trucks are being monitored through GPS tracking system. Monitoring of other construction-related vehicles is an onerous task, and the practicality thereof needs to be investigated further.
10.	Phase 2 of social monitoring is monthly local area monitoring where in-depth research will be done in all the local 'communities' identified in the MEP as constituting local social environment. These areas will be covered over 12 months and comprehensive narrative reports will be compiled. The first round of longitudinal survey will be conducted. A sample of households will be interviewed every four months until the project completion to determine how they experience social impacts related to MMTS2	Need to consider how current social monitoring conforms to original intentions of the associated mitigation measure.
11.	Phase 3 of social monitoring is in-depth investigation and participation appraisal where the focus shifts from area monitoring to specialist investigation of themes and participatory appraisal and planning with project communities to determine whether social changes claimed by respondents have significance in the project social environment, the level of significance, what they involve and what responses are required	Need to consider how current social monitoring conforms to original intentions of the associated mitigation measure.
12.	Specify targets for minimum numbers of each species to be relocated; the selected destination and the party responsible for post-relocation care	Specialist feedback: Impossible to set target numbers because we don't know population sizes or even if the species occur or not. Preference is to relocate within the basin and post-relocation care of animals is impossible - we can only manage their habitat.EMP amendment.
Additional Mitigation Measures to supplement EMPs		
13.	Working within watercourses and safeguarding the characteristics of the watercourse, including flow, water quality, habitat (morphology) and aquatic biota	
14.	Borrow pits (e.g. stormwater management). It is noted that certain of the existing categories of the EMP for the Construction of the Spring Grove Dam Wall make provision for managing the environmental aspects and impacts associated with the borrow pits	
15.	Mobile toilets to be situated at least 50m away from a watercourse.	

No.	Description	Comments
Mitigation Measures identified during last ECO monitoring event		
N/A		

*

COMMENTS:

TCTA

10 REFERENCES

Blue Sands, 2012a. Air Quality Monitoring. July 2012. Spring Grove Dam Construction. Prepared for Group Five (Pty) Ltd.

Blue Sands, 2012b. Environmental Noise Surveys. July 2012. Spring Grove Dam Construction. Prepared for Group Five (Pty) Ltd.

Blue Sands, 2012c. Water Quality Monitoring. July 2012. Spring Grove Dam Construction. Prepared for Group Five (Pty) Ltd.

APPENDIX A

SURPRISE ECO INSPECTION REPORT

MOOI MGENI TRANSFER SCHEME PHASE 2 (MMTS-2)**ENVIRONMENTAL CONTROL OFFICER****MONTHLY UNSCHEDULED INSPECTION REPORT**

DATE:	15 September 2012
REPORT NUMBER:	02. Note: Last inspection took place on 20 September 2012. Site was closed on Monday, 24 September (public holiday).
TARGET LOCATION(S):	River diversion (fish barrier); Route 11; Left bank; Spring Grove Gauging Weir; workshop.
DURATION:	Two hour inspection
PURPOSE:	Unscheduled ECO inspection
ATTENDANCE:	ECO (Nema Consulting – A. Burke); Environmental Monitor (BKS – S. J. Nersini; T. Molodt)





Fig. 7: On 20 September 2012 (date of last weekly inspection), a work area has been placed inside a storage container on the left bank that also houses diesel powered equipment and hazardous storage containers.



Fig. 8: During this inspection, this storage container was locked and not inspected.



Fig. 9: On 20 September 2012 (date of last weekly inspection), a geotextile sock at the Spring Grove Weir has been removed and what appears to have been its contents remain adjacent to the river.



Fig. 10: During this inspection, sediment removed from a geotextile sock remain (background), alongside a discarded geotextile sock at the Spring Grove Weir construction site.



Fig. 11: On 20 September 2012 (date of last weekly inspection), a large amount of used oil wax present in outdoor storage container at the workshop.



Fig. 12: During this inspection, the amount of used oil in this container at the workshop remained unchanged.

PHOTOGRAPHIC RECORD – GOOD PRACTICES



Fig. 1: Use of drip trays under diesel generators at left bank.



Fig. 2: Use of drip tray under label petrol container at the Right 2 construction site.

PHOTOGRAPHIC RECORD – POOR PRACTICES



Fig. 3: Equipment crossing the Most River causing sediment to be discharged at the river diversion (fish barrier).



Fig. 4: Close-to-overflowing drip trays under diesel-powered equipment and hazardous storage container at the river diversion (fish barrier).



Fig. 5: Lack of drip trays under diesel powered equipment and hazardous storage container. Also, poor housekeeping in container at the Spring Grove weir.



Fig. 6: Lack of proper bunding under parked diesel bowser at left bank.

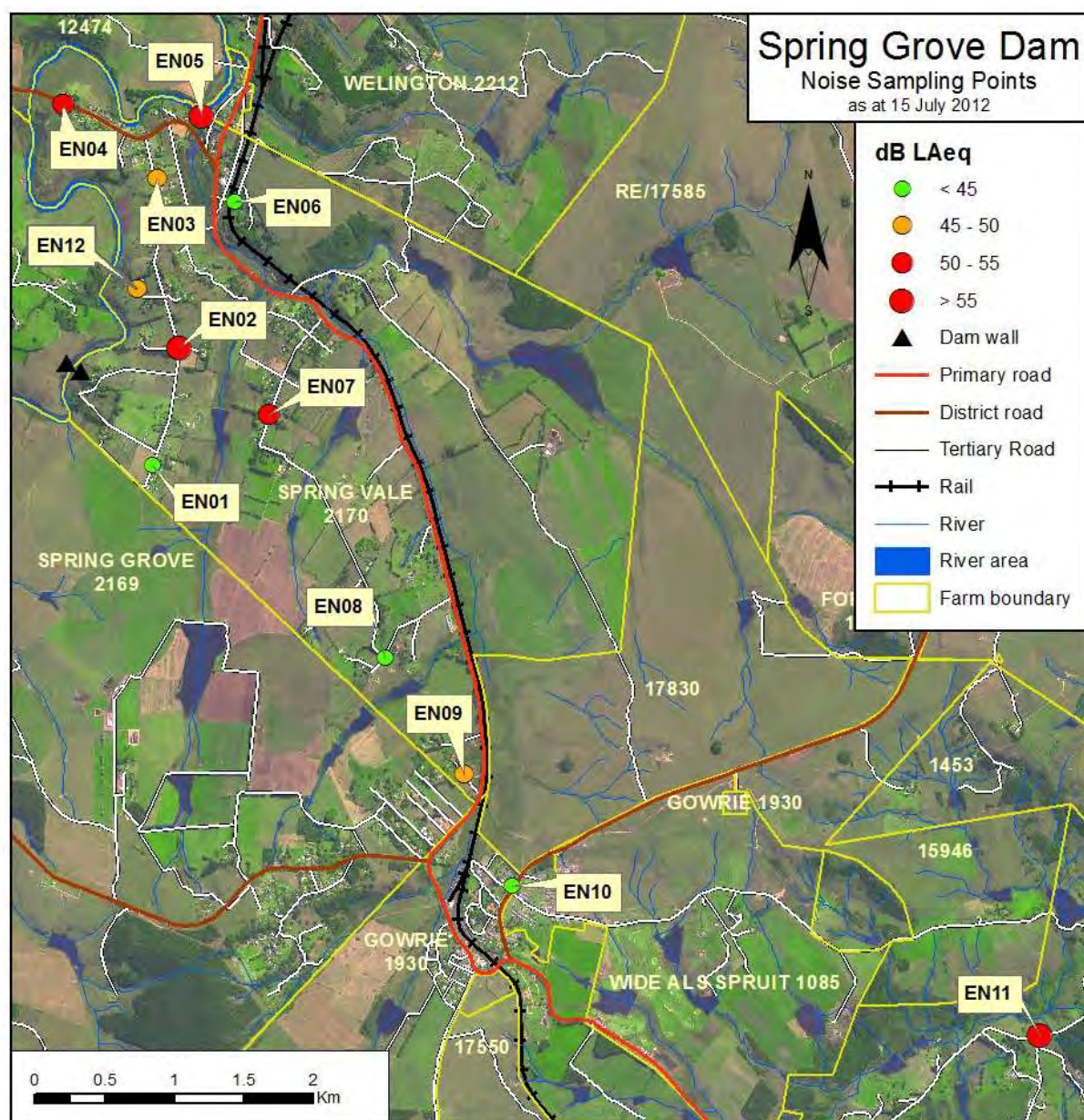
APPENDIX B

MONITORING SITES

Dust Sampling Points



Noise Sampling Points



Water Quality Sampling Points

