

10 December 2018

ATT: Mr Schalk Viljoen  
P.O. Box 21  
Riviersonderend  
7250  
DEADP Ref: 16/3/3/2/E3/10/1003/17

Dear Mr. Viljoen

Please refer to the compliance rating score card which should be read in conjunction with the ECO construction site environmental inspection report. The ECO construction site environmental report is a consolidated report, combining the last four bi-weekly site visits conducted by the ECO.

Please find attached:

- Appendix A: Four ECO Environmental Bi-Weekly reports & photo records dated 12 October 2018, 31 October 2018, 16 November 2018 and 4 December 2014 as well as associated incident reports 2 & 3.
- Appendix B: Photo record summary indicating the progress of the dam development. Please note that photos are also stored electronically and is available on request.

Yours sincerely,



Inge Erasmus  
EnviroAfrica

## 2018 ENVIRONMENTAL COMPLIANCE RATING SCORECARD: Dasberg Dam\_10 Dec 2018

Compliance Rating 0/3/4/5/6

0 = Poor / 3 = Average / 4 = Good / 5 = Very Good / 6 = Excellent (bonus point)

Item No.	Description	Environmental Audit Findings & Comments	Score	Environmental Rating
1.	Demarcation	Appropriate methods of site demarcation and ongoing maintenance of construction site demarcation remains good.	4	Good
2.	No-go areas	No-go areas are being maintained.	4	Good
3.	Vegetation and Topsoil Removal	Topsoil managed as per method statement.	3	Average
4.	Construction camp and site office	Very neat and clean. No littering or cigarette buds.	6	Excellent
5.	Personnel living in quarters	Very neat and clean. No littering or cigarette buds. Trench drains are being maintained with lime for odour as per the method statement.	6	Excellent
6.	Plant machinery/ refueling yard	Greasing equipment left on site after use and not used on impermeable surface	3	Average
7.	Construction vehicle maintenance	Various construction vehicles/ machines need to be serviced as they are leaking oil.	0	Poor
8.	Access roads	Access roads have been scraped and are being maintained.	5	Very good
9.	Toilets	Toilets are clean and served regularly as per the method statement. A third toilet was placed on site when new workers arrived.	5	Very good
10.	Drip Trays	During the site visit on 16 Nov 2018 there very few to no drip trays visible on site and under stationary machines and mobile Diesel refueler. Various spills were observed.  During the site visit on 5 Dec 2018, drip trays were on site but not placed under stationary machines that have the potential to leak oil. No drip tray placed under Diesel refueler and a Diesel spill was observed.  Corrective measures were taken, and spills were cleaned up  Please refer to ECO Bi-weekly site checklists & Incident reports (2) & (3) attached.	0	Poor
11.	General waste	Dust bins were emptied. No littering on site.	5	Very good
12.	Hazardous waste and spills	Various oil spills from stationary machines on site due to drip trays not in place and machines not being maintained and serviced.  Spills were cleaned up immediately.	3	Average
13.	Top up oil storage area	Reasonable condition. Could be neater.	3	Average
14.	Construction waste	Construction waste used as filling under surface beds for the Dasberg pumphouse as per the agreed upon method statement.	4	Good

15.	Concrete works	Concrete and cement work at the Dasberg pump house as per the agreed upon method statement.	4	Good
16.	Erosion control	No erosion control measures necessary to date	N/A	
17.	Heritage resources	No heritage resources observed to date	N/A	
18.	Dust control	Dust is not an issue on site as the site is kept quite wet for the construction of the dam wall	4	Good
19.	Method statements	Most method statements in place to date.	4	Good
20.	Environmental Site file up to date	In order	5	Very good
			<b>Total Score</b>	<b>68/90 75,5%</b>

# ECO CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT

**Project Name:** Dasberg Dam

**Report no** 2 (Consolidated  
report of last 4  
site visits)

**Main Contractor:** Moresongrondverskuiwings

**Date** 7 December  
2018

**ECO:** Inge Erasmus

**EnviroAfrica Ref. no.** 0438

ENVIRONMENTAL ASPECT	RATING	FINDINGS & RECOMMENDATIONS
RATING: 1 = EXTREMELY POOR 2 = POOR 3 = AVERAGE 4 = GOOD 5 = EXCELLENT		
<b>1. DEMARCATION</b> Boundaries of “no go” areas, construction sites, -offices, temporary storage areas as well as labourer’s facilities must be demarcated (EMP and ECO requirements) and maintained for the length of the construction period.	4	Construction site was demarcated as per the method statement.
<b>2. NO-GO AREAS</b> Identified “No-Go Areas”, must be demarcated for protection from construction damage (including secondary impact). <ul style="list-style-type: none"> <li>• All areas outside of the demarcated construction site(s) and access road(s) to be regarded as NO-GO areas, including remaining natural veld identified trees.</li> <li>• Special attention to identified areas with significant vegetation.</li> </ul>	4	No-go areas are maintained as no-go areas. No incidents in this regard.
<b>3. SEARCH &amp; RESCUE</b> All flora identified for search & rescue must be removed before any construction take place and re-used in pre-approved way.	5	Search and rescue was conducted by VULA Environmental 15 & 16 August 2018 before excavations commenced. Rescued plants were replanted in the No-go area.
<b>4. VEGETATION &amp; TOPSOIL REMOVAL</b> Before any construction or earthworks, topsoil must be stripped (>150mm) and stockpiled for rehabilitation/ landscaping. Stockpiles: <ul style="list-style-type: none"> <li>• must be protected (erosion) and stored separately.</li> <li>• may not be moved further than 50m or mixed with any other soil.</li> <li>• must be convex and should not exceed 2m in height.</li> </ul> In addition: <ul style="list-style-type: none"> <li>• Cleared areas must be stabilized.</li> </ul>	3	During the first site visit, 22 August 2018, it was clear that the entire dam footprint has been ripped. Plant material in the stream was stripped and stockpiled by means of bulldozing and dumped outside west of the dam wall footprint in heaps and rows of 1-2 metres high. During the second site visit, 28 August 2018, it was agreed upon that this plant material and topsoil should be used for rehabilitation where necessary and the rest to be disposed of as instructed by the engineer and ECO. It was agreed upon on the second site visit, 28 August 2018, that due to the high clay content in the topsoil and plant material to be stripped from the dam basin is

ENVIRONMENTAL ASPECT	RATING	FINDINGS & RECOMMENDATIONS
<b>RATING: 1 = EXTREMELY POOR 2 = POOR 3 = AVERAGE 4 = GOOD 5 = EXCELLENT</b>		
<ul style="list-style-type: none"> <li>Burning or burying of cleared vegetation is prohibited (may be used for mulch or slope stabilisation on site).</li> </ul>		to be used in the construction of the dam wall. No stockpiling to be done. It should be kept in mind that the site is also considered previously ploughed, thus no natural vegetation is present on the site.
<b>5. CONSTRUCTION CAMP &amp; SITE OFFICES</b> Must be organised and free of day-to-day litter (good housekeeping standards).	5	Construction camp and site office was very tidy. No litter or cigarette buds were observed on site.
<b>6. LABOURER'S FACILITIES</b> Facilities must be of acceptable standards suitably demarcated, well maintained, neat and tidy and with adequate ablution facilities.	5	The labourers camp was very tidy. No litter or cigarette buds observed. Dust bins were emptied. Ablution facilities were clean. Trench drains are being maintained with lime for odour as per the method statement.
<b>7. ENTRANCE AND HAUL ROADS</b> Only approved entrance and haul roads may be used. No new roads or parking areas may be developed without written approval from the ECO.	4	Two entrance points to the site is being used. Roads are being maintained. No haul roads needed as per the method statement.
<b>8. MANDATORY SITE EQUIPMENT</b> Mandatory site equipment must be in place, well maintained and in accordance with EMP and ECO requirements. <ul style="list-style-type: none"> <li>Sufficient refuse bins, well placed and cleaned regularly.</li> <li>Sufficient fire extinguishers, readily available, maintained and functional.</li> <li>Drip trays must be used at all fuel and oil storage and refuelling sites.</li> <li>Toilets and sanitation facilities must be kept clean neat and hygienic.</li> </ul>	4	All in order
<b>9. FUEL AND OIL STORAGE HANDLING</b> Fuel storage areas must be situated within the demarcated construction camp site (or an area approved by the ECO). <ul style="list-style-type: none"> <li>Larger containers must be banded (containment of accidental spillages).</li> <li>Drip trays must be used during refuelling or under stationary refuelling vehicles.</li> <li>Fuel and oil storage and refuelling sites must be maintained.</li> </ul>	1	It was agreed that all machinery will be refuelled on site at the machine refuelling by means of a mobile tanker in the refuelling area as per the method statement. Top-up oil is stored on site in marked containers in large drip trays in the store unit. No drip trays were visible under stationary machines or Diesel refueller during site visit dated 16 November 2018. Diesel spills were visible under the refueller as well as oil spills under stationary machines. Some spills were cleaned up immediately. No drip trays under some of the stationary machines which have the tendency to leak oil during the last site visit dated 4 December 2018. Oil spills were observed.

ENVIRONMENTAL ASPECT	RATING	FINDINGS & RECOMMENDATIONS
<b>RATING:      1 = EXTREMELY POOR      2 = POOR                      3 = AVERAGE                      4 = GOOD                      5 = EXCELLENT</b>		
		<p>No drip tray placed under Diesel refueller and spills were observed. Corrective measure were undertaken and spills were cleaned up.</p> <p><b>Please refer to photo records in die bi-weekly reports conducted as well as incident reports (2) &amp; (3), Appendix A</b></p>
<b>10. STOCKPILING &amp; TEMPORARY STORAGE</b> May only be placed on pre-approved sites, demarcated, stabilised or organised and neat.	N/A	The only stockpiling that will be done is the stockpiling of the plant material that was removed in the stream. No other stockpiling required.
<b>11. WASTE CONTROL</b> The contractor is expected to control all construction related waste material and general litter on actual construction sites and its immediate surroundings. <ul style="list-style-type: none"> <li>Waste management must be in accordance with the EMP, of acceptable standards, with regular removal of general waste, hazardous waste as well as construction waste (e.g. concrete waste and spoil).</li> </ul>	3	General waste and Hazardous was is being maintained as per the method statement.  Oil spills and Diesel spills observed during a site visits, 16 November and 4 December 2018. Corrective measures were taken.
<b>12. CEMENT MIXING &amp; BATCHING AREAS</b> Mixing areas must be approved by the ECO, suitably demarcated and may not result in pollution. <ul style="list-style-type: none"> <li>Polluted cement water may only be released into sedimentation ponds.</li> <li>Sedimentation ponds must be maintained and cleaned regularly (and reinstated after use).</li> </ul>	4	The use of cement as per method statement for the pumphouse as well as the dam.
<b>13. CONSTRUCTION VEHICLE MAINTENANCE</b> Construction vehicles must be in good working order and well maintained to prevent oil and fuel leakages and to reduce noise levels.	1	Some construction machines/ vehicles need to be maintained to ensure they do not leak oil.
<b>14. HEAVY EARTHMOVING EQUIPMENT</b> Construction vehicles and equipment may only operate <u>within</u> the demarcated site boundaries (and approved access roads), especially heavy earthmoving vehicles.	4	All in order
<b>15. DUST CONTROL</b> Adequate control measures must be in place to prevent dust nuisance or pollution (entrance-, haul roads and exposed surfaces). <ul style="list-style-type: none"> <li>Areas of concern must be watered regularly during construction AND periods of strong winds, BUT must take water saving into account.</li> </ul>	4	Dust is not an issue on site as the site is kept wet for the construction of the dam wall.
<b>16. EROSION CONTROL</b>	N/A	Erosion is not considered an issue on this site and should be considered when the dam was is constructed

ENVIRONMENTAL ASPECT	RATING	FINDINGS & RECOMMENDATIONS
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Erosion resulting from works must be controlled. <ul style="list-style-type: none"> <li>• Temporary and permanent drainage areas must be maintained.</li> <li>• Erosion damage and damage in drainage courses must be reinstated.</li> </ul>		
<b>17. NOISE CONTROL</b> Effective noise control measures must be in place and acceptable working hours must be kept (deviations must be approval by the ECO).	N/A	Noise control not an issue on this site.
<b>18. ARCHAEOLOGICAL &amp; HERITAGE FINDS</b> Should any archaeological or heritage remains be exposed during excavations or any activity on site, these must immediately reported to The site agent/engineer, the ECO HWC or SAHRA.	N/A	No archaeological or heritage finds to date.
<b>19. METHOD STATEMENTS</b> Method statements must be submitted and approved before commencement of the works. <b>Possibly Required:</b> <ol style="list-style-type: none"> <li>1. Demarcation &amp; No-Go Areas (Map)</li> <li>2. Personnel living-in quarters</li> <li>3. Road and Traffic Management Plan</li> <li>4. Clearing of Vegetation and Topsoil</li> <li>5. Fuel and oil storage and handling</li> <li>6. Cement mixing</li> <li>7. Domestic and Hazardous waste plan</li> <li>8. Rehabilitation</li> </ol> <b>Additional Method Statements</b> <ol style="list-style-type: none"> <li>9. Construction of Dasberg Clay source 2</li> <li>10. Water supply pond</li> <li>11. Spillway</li> <li>12. Pump House</li> </ol>	3	<ol style="list-style-type: none"> <li>1. In place</li> <li>2. In place</li> <li>3. In place</li> <li>4. In place</li> <li>5. In place</li> <li>6. In place</li> <li>7. In place</li> <li>8. Still to be conducted</li> <li>9. In Place</li> <li>10. In Place</li> <li>11. In place</li> <li>12. In place</li> </ol>
<b>20. ENVIRONMENTAL CONDUCT</b> Environmental conduct of construction personnel must be acceptable (e.g. no burning or burying of refuse; no littering and no cement bags or other construction waste material lying around).	4	During the first site visit, an environmental education meeting was held
<b>21. ENVIRONMENTAL CHECKLIST</b> The contractor must ensure that the weekly environmental checklist is completed at the end of each week and it must be available at the site offices.	4	In order

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<b>22. REHABILITATION</b> On completion of the project or phase, all areas impacted by the construction activities must be reinstated and/or rehabilitated to the satisfaction of the ECO with emphasis on the following: <ul style="list-style-type: none"> <li>• Site offices must be removed and the areas rehabilitated or reinstated to the satisfaction of the ECO.</li> <li>• Labourer's facilities must be removed and the areas rehabilitated or reinstated to the satisfaction of the ECO.</li> <li>• All construction site areas must be rehabilitated or reinstated to the satisfaction of the ECO.</li> <li>• All temporary fencing and demarcation must be removed and the areas reinstated to the satisfaction of the ECO.</li> <li>• Temporary storage areas must be rehabilitated or reinstated to the satisfaction of the ECO.</li> <li>• All remaining construction material must be removed and the areas rehabilitated or reinstated to the satisfaction of the ECO.</li> <li>• Any additional disturbed areas must be rehabilitated or reinstated to the satisfaction of the ECO.</li> </ul>	N/A	To be done when construction is completed
<b>23. SPOT FINES &amp; PENALTIES</b> Spot fines and penalties must be recorded and documented by the ECO (in accordance with the EMP).	N/A	Not necessary to date
<b>24. FIXED POINT PHOTOS</b> Photographs must be taken by the ECO, Site Engineer and or Site Manager, prior to, during and immediately after construction as visual reference. These photographs must be stored with other records relating to the EMP.	Yes	The ECO is taking site photos with every site visit. For the past 4 site visits, photo records were kept with the bi-weekly checklist. Please refer to photo records in die bi-weekly reports conducted, Appendix A Please also refer to progress photographs during construction, Appendix C Progress photos for all site visits are kept electronically and is available on request.



## ECO COMMENTS

The Dasberg Dam Pumphouse is considered associated infrastructure to the Dasberg dam. Mr. George Missing and Pieterse Builders was appointed to construct the dam. A method statement for the construction of the pump house was conducted and agreed upon and is available in the environmental file.

## End of report



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ECO  
Signat

**Appendix A:**  
**Bi-weekly checklists conducted**

# ECO: ENVIRONMENTAL WEEKLY/ BIWEEKLY CHECKLIST

SITE: Dasberg Dam Site

12 October 2018

PHASE OF WORK AND % OF COMPLETION: \_\_\_\_\_

ENVIRONMENTAL ASPECT	YES/ NO (✓ or X)	COMMENTS
How many workers are on site		
All new personnel on site are aware of the contents of the EMP and have been through the environmental awareness course.	✓	
Contractor's camp is neat and tidy and the labourers' facilities are of an acceptable standard.	✓	
Sufficient and appropriate firefighting equipment is visible and readily available.	✓	
Waste control and removal system is being maintained.	✓	
Refuse bins in place and maintained	✓	
Toilets are in place and clean	✓	
Demarcation and other fences are being maintained.	✓	Demarcation of no-go was corrected
What machinery are on site		Normal machinery as per method statement
Drip trays are being utilised where there is a risk of incidental spillage	✓	
Bunds/ drip trays are being emptied on a regular basis (especially after rain).	✓	The ECO conducted the site visit during workers' lunch - Drip trays were neatly placed under all stationary vehicles
No leakages (oil & fuel) are visible from construction vehicles	✓	
No go areas, remaining natural features and trees have not been damaged.	✓	
Dust control measures (if necessary) are in place and are effectively controlling dust.	✓	
Noise Control measures (if necessary) is in place and is working effectively.	✓	
Erosion control measures (if necessary) are in place and are effective in controlling erosion. (Access road, site areas etc.)	✓	N/A
Stockpiles are located within the boundary of the site, do not exceed 2 m in height and are protected from erosion.	✓	

Completed by: Inge Sign: [Signature] Date: 13 October 2018

To be submitted at the end of each week to the Environmental Site Officer (ESO)

Received by:

Environmental Site Officer: ..... Sign:

Date: .....

\* Note: Pump house contractor was on site to start with demarcation + pegging of the foot print. Method statement finalised on site



Figure 1: Neat and tidy labourers camp



Figure 2: No-go area demarcation correct as request



Figure 3: Demarcated No-go area standing on the dam wall



Figure 4: Clean store room



*Figure 5: Drip trays placed under stationary vehicles*



*Figure 6: Start of pump house site demarcation and pegging of out of the footprint*

# ECO: ENVIRONMENTAL WEEKLY/ BIWEEKLY CHECKLIST

SITE: Dusberg Dam Site 31 October  
 PHASE OF WORK AND % OF COMPLETION: 35%

ENVIRONMENTAL ASPECT	YES/ NO (✓ or X)	COMMENTS
How many workers are on site		26 ~ 23 sleeping on site, 25 Caravans. 3 Toilets
All new personnel on site are aware of the contents of the EMP and have been through the environmental awareness course.	✓	Yes according to contractor on site
Contractor's camp is neat and tidy and the labourers' facilities are of an acceptable standard.	✓	Very tidy
Sufficient and appropriate firefighting equipment is visible and readily available.	✓	
Waste control and removal system is being maintained.	✓	
Refuse bins in place and maintained	✓	
Toilets are in place and clean	✓	3 toilets
Demarcation and other fences are being maintained.	✓	
What machinery are on site	✓	20
Drip trays are being utilised where there is a risk of incidental spillage	✓	
Bunds/ drip trays are being emptied on a regular basis (especially after rain).	✓	
No leakages (oil & fuel) are visible from construction vehicles	X	No construction vehicles leaking but container containing waste oil can be cleaned
No go areas, remaining natural features and trees have not been damaged.	✓	
Dust control measures (if necessary) are in place and are effectively controlling dust.	✓	NA
Noise Control measures (if necessary) is in place and is working effectively.	✓	NA
Erosion control measures (if necessary) are in place and are effective in controlling erosion. (Access road, site areas etc.)	✓	NA
Stockpiles are located within the boundary of the site, do not exceed 2 m in height and are protected from erosion.	✓	

Completed by: Arge F. Sign: JB Date: 31 October

To be submitted at the end of each week to the Environmental Site Officer (ESO)

Received by:

Environmental Site Officer: ..... Sign: ..... Date: .....





Figure 1: Oil spills in site storage office



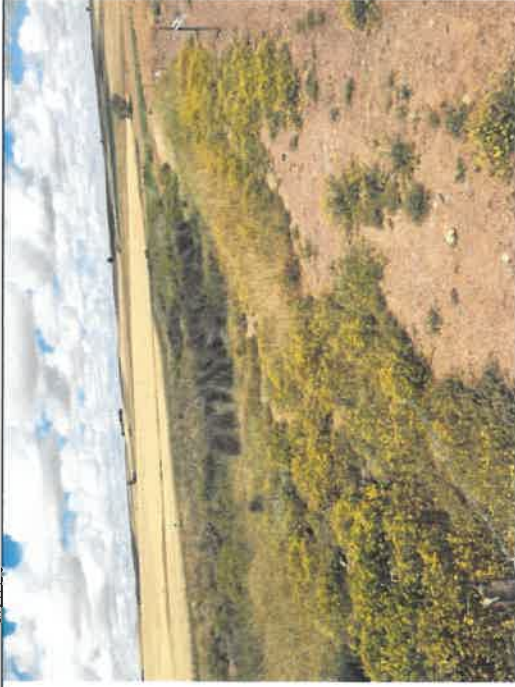
Figure 2: Extra toilet was placed on site to accommodate extra workers



Figure 3: Lime in trench drains to prevent odour



Figure 4: Tidy labourers camp



*Figure 5: No-go area correctly demarcated as requested*



*Figure 6: Drip tray under refueler*



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# ECO: ENVIRONMENTAL WEEKLY/ BIWEEKLY CHECKLIST

SITE: Dasberg Dam ~ Pump house site 31 October

PHASE OF WORK AND % OF COMPLETION: \_\_\_\_\_

ENVIRONMENTAL ASPECT	YES/ NO (✓ or X)	COMMENTS
How many workers are on site	6	
All new personnel on site are aware of the contents of the EMP and have been through the environmental awareness course.	✓	
Contractor's camp is neat and tidy and the labourers' facilities are of an acceptable standard.	✓	Neat and tidy
Sufficient and appropriate firefighting equipment is visible and readily available.	✓	
Waste control and removal system is being maintained.	✓	
Refuse bins in place and maintained	✓	
Toilets are in place and clean		To use toilets at Dasbergdam construction site
Demarcation and other fences are being maintained.	✓	
What machinery are on site		
Drip trays are being utilised where there is a risk of incidental spillage	✓	NA Not necessary yet
Bunds/ drip trays are being emptied on a regular basis (especially after rain).	✓	NA
No leakages (oil & fuel) are visible from construction vehicles	✓	NA No vehicles on site
No go areas, remaining natural features and trees have not been damaged.	✓	NA No no-go areas
Dust control measures (if necessary) are in place and are effectively controlling dust.	✓	NA
Noise Control measures (if necessary) is in place and is working effectively.	✓	NA
Erosion control measures (if necessary) are in place and are effective in controlling erosion. (Access road, site areas etc.)	✓	NA
Stockpiles are located within the boundary of the site, do not exceed 2 m in height and are protected from erosion.	✓	Stockpiles of building Sand + gravel was placed on liner as requested.

Completed by:..... Sign:..... Date:.....

To be submitted at the end of each week to the Environmental Site Officer (ESO)

Received by:

Environmental Site Officer: :..... Sign:

Date:.....



Figure 1: Pump house construction



Figure 2: Building rubble placed on micron liner as requested



Figure 3: Construction of the pump house



Figure 4: Construction of the pump house

**ECO: ENVIRONMENTAL WEEKLY/ BIWEEKLY CHECKLIST**

16 Nov 2018

SITE:

Dasberg Dam Site

PHASE OF WORK AND % OF COMPLETION:

80%

ENVIRONMENTAL ASPECT	YES/ NO (✓ or X)	COMMENTS
How many workers are on site	✓	26-23 keeping, 25 Caravan's 3 Toilets
All new personnel on site are aware of the contents of the EMP and have been through the environmental awareness course.	✓	
Contractor's camp is neat and tidy and the labourers' facilities are of an acceptable standard.	✓	
Sufficient and appropriate firefighting equipment is visible and readily available.	✓	
Waste control and removal system is being maintained.	✓	
Refuse bins in place and maintained	✓	
Toilets are in place and clean	✓	
Demarcation and other fences are being maintained.	✓	
What machinery are on site		20 as per method statement
Drip trays are being utilised where there is a risk of incidental spillage	X	No drip trays on site + under most machines Refer to incident report (2)
Bunds/ drip trays are being emptied on a regular basis (especially after rain).	X	Drip tray under 3 machine full of waste oil
No leakages (oil & fuel) are visible from construction vehicles	X	Various spills on site Refer to incident-report (2)
No go areas, remaining natural features and trees have not been damaged.	✓	
Dust control measures (if necessary) are in place and are effectively controlling dust.	✓	
Noise Control measures (if necessary) is in place and is working effectively.	✓	
Erosion control measures (if necessary) are in place and are effective in controlling erosion. (Access road, site areas etc.)	✓	
Stockpiles are located within the boundary of the site, do not exceed 2 m in height and are protected from erosion.	✓	

Completed by:

Inge E

Sign:

J.B.

Date:

16 Nov 2018

To be submitted at the end of each week to the Environmental Site Officer (ESO)

Received by:

Environmental Site Officer: :..... Sign:

Date:.....

# ENVIRONMENTAL INCIDENT REPORT

No. 2


PROJECT NAME	Dorberg Dam		
PROJECT LOCATION	Portion 5 van der Wattstraat 399		
SITE AGENT	Cobus Henning - Moreson Grondverstuwing		
DATE OF INCIDENT	16 Nov 2018	TIME	13:30
<b>BRIEF DESCRIPTION AND CAUSE OF INCIDENT:</b>			
<ul style="list-style-type: none"> <li>- No drip trays present on site and under stationary vehicle / machines</li> <li>- Several oil spills from stationary machines</li> <li>- No drip tray under refueler, diesel spills under refueler</li> <li>- Greasing equipment left on site after use (not on an impermeable surface) - causing potential spill hazard Refer to photorecord 16 Nov 2018</li> </ul>			
<b>WHAT IMMEDIATE ACTIONS / CONTROL MEASURES WERE TAKEN:</b>			
<ul style="list-style-type: none"> <li>- Oil spills under stationary machines were cleaned up</li> </ul>			
<b>WHAT CORRECTIVE ACTIONS WERE TAKEN TO ENSURE NO REPEATS OF THE INCIDENT:</b>			
<ul style="list-style-type: none"> <li>- Drip trays present at all times + placed under stationary machines</li> </ul>			
<b>ECO/ESO RESPONSE TO INCIDENT AND RECOMMENDATIONS:</b>			
<ul style="list-style-type: none"> <li>- Ensure machines are checked for leaks. Machines need to be serviced and maintained to prevent spills</li> <li>- Ensure greasing equipment is stored away</li> <li>- Clean up and dispose of Diesel spill ensure drip trays placed at all times</li> <li>- Drip trays on site at all times!</li> </ul>			
<b>IS THIS INCIDENT A:</b> <input type="checkbox"/> FIRST OFFENCE <input type="checkbox"/> SECOND OFFENCE <input type="checkbox"/> THIRD OFFENCE			
SIGNATURE OF SITE AGENT: _____		DATE _____	
SIGNATURE OF ECO/ESO 		DATE <u>16 Nov 2018</u>	
REMEMBER TO BE FACTUAL WHEN DESCRIBING THE INCIDENT			





Figure 1: Stationary Wabco machine with no drip trays



Figure 2: Oil spills from stationary Wabco machines on site. No drip trays under stationary machines



Figure 3: Stationary machine on site with no drip tray and visible oil leaks



Figure 4: Second stationary Wabco machine with no drip trays



Figure 5: Oil spills from secondary stationary Wabco machines on site. No drip trays under stationary machines



Figure 6: No drip tray under mobile refueler



Figure 7: Visible Diesel spill under mobile refueler



Figure 8: Greasing equipment left on site after use, not on impermeable surface





Figure 9: Corrective measures were taken and spills were cleaned up after machines were moved



Figure 10 Corrective measures were taken and spills were cleaned up after machines were moved

**ECO: ENVIRONMENTAL WEEKLY/ BIWEEKLY CHECKLIST**

16 Nov 2018

SITE: Dasberg Dam Pumphouse

PHASE OF WORK AND % OF COMPLETION: \_\_\_\_\_

ENVIRONMENTAL ASPECT	YES/ NO (✓ or X)	COMMENTS
How many workers are on site		7
All new personnel on site are aware of the contents of the EMP and have been through the environmental awareness course.	✓	
Contractor's camp is neat and tidy and the labourers' facilities are of an acceptable standard.	X	Some construction material outside site boundary
Sufficient and appropriate firefighting equipment is visible and readily available.	✓	
Waste control and removal system is being maintained.	✓	
Refuse bins in place and maintained	✓	
Toilets are in place and clean	✓	
Demarcation and other fences are being maintained.	✓	
What machinery are on site		Generator, angle grinder, float, water tank.
Drip trays are being utilised where there is a risk of incidental spillage	✓	
Bunds/ drip trays are being emptied on a regular basis (especially after rain).	✓	
No leakages (oil & fuel) are visible from construction vehicles	✓	NA
No go areas, remaining natural features and trees have not been damaged.	✓	NA
Dust control measures (if necessary) are in place and are effectively controlling dust.	✓	
Noise Control measures (if necessary) is in place and is working effectively.	✓	
Erosion control measures (if necessary) are in place and are effective in controlling erosion. (Access road, site areas etc.)	✓	
Stockpiles are located within the boundary of the site, do not exceed 2 m in height and are protected from erosion.	✓	

Completed by: Inge Lamm Sign: [Signature] Date: 16 Nov 2018

To be submitted at the end of each week to the Environmental Site Officer (ESO)

Received by:

Environmental Site Officer: :..... Sign: ..... Date:.....

\* Steel works outside site boundary.





Figure 1: Dasberg Dam Pump house progress. Protective sheet placed for working with cement for protection



Figure 2: Cement mixing taking place within the pumphouse footprint



Figure 3: Building material outside the construction footprint (to be removed)

# ECO: ENVIRONMENTAL WEEKLY CHECKLIST

SITE: Dasberg Dam Site 4 Dec 2018  
 PHASE OF WORK AND % OF COMPLETION: 99%

ENVIRONMENTAL ASPECT	YES/ NO (✓ or X)	COMMENTS
How many workers are on site		15 People - none sleeping on site any more
All new personnel on site are aware of the contents of the EMP and have been through the environmental awareness course.	✓	No new personnel
Contractor's camp is neat and tidy and the labourers' facilities are of an acceptable standard.	✓	
Sufficient and appropriate firefighting equipment is visible and readily available.	✓	
Waste control and removal system is being maintained.	✓	
Refuse bins in place and maintained	✓	
Toilets are in place and clean	✓	
Demarcation and other fences are being maintained.	✓	
What machinery are on site	✓	usual as per method statement
Drip trays are being utilised where there is a risk of incidental spillage	X	Various stationary vehicles did not have drip trays
Bunds/ drip trays are being emptied on a regular basis (especially after rain).	✓	Drip trays that were on site was being maintained
No leakages (oil & fuel) are visible from construction vehicles	X	Various stationary machines had oil spill + diesel spill under refueller
No go areas, remaining natural features and trees have not been damaged.	✓	
Dust control measures (if necessary) are in place and are effectively controlling dust.	✓	
Noise Control measures (if necessary) is in place and is working effectively.	✓	
Erosion control measures (if necessary) are in place and are effective in controlling erosion. (Access road, site areas etc.)	✓	
Stockpiles are located within the boundary of the site, do not exceed 2 m in height and are protected from erosion.	✓	

Completed by Inge Erasmus Sign: IS Date: 4 Dec 2018

To be submitted at the end of each week to the Environmental Site Officer (ESO)

Received by:

Environmental Site Officer: :..... Sign: ..... Date:.....

# ENVIRONMENTAL INCIDENT REPORT

No. 3



PROJECT NAME	Dasberg Dam Site		
PROJECT LOCATION	Portion 5 van der Wattstraat 399.		
SITE AGENT	Tinw Prinsloo		
DATE OF INCIDENT	4 Dec 2018	TIME	13:00
<b>BRIEF DESCRIPTION AND CAUSE OF INCIDENT:</b>			
<ul style="list-style-type: none"> <li>- Drips trays not placed under stationary machines, with high leaking potential, various oil spills observed on site</li> <li>- No drip tray under Diesel refueler, diesel spills under refueler (Repeat offence) Refer to photo record 4 Dec 2018</li> </ul>			
<b>WHAT IMMEDIATE ACTIONS / CONTROL MEASURES WERE TAKEN:</b>			
<ul style="list-style-type: none"> <li>- Oil <del>leaks</del> spills were cleaned up</li> <li>- Diesel spill was cleaned up</li> <li>- Drip trays were placed.</li> </ul>			
<b>WHAT CORRECTIVE ACTIONS WERE TAKEN TO ENSURE NO REPEATS OF THE INCIDENT:</b>			
<ul style="list-style-type: none"> <li>- Drip trays placed.</li> </ul>			
<b>ECO/ESO RESPONSE TO INCIDENT AND RECOMMENDATIONS:</b>			
<ul style="list-style-type: none"> <li>- Machines need to be serviced and maintained to prevent future spills</li> <li>- Drip trays on site at all times!</li> </ul>			
<b>IS THIS INCIDENT A:</b> <input checked="" type="checkbox"/> FIRST OFFENCE <input type="checkbox"/> SECOND OFFENCE <input type="checkbox"/> THIRD OFFENCE			
SIGNATURE OF SITE AGENT:		DATE	
SIGNATURE OF ECO/ESO		DATE	
			
REMEMBER TO BE FACTUAL WHEN DESCRIBING THE INCIDENT			



Figure 1: Stationary water tank truck with drip tray but visible spills



Figure 2: Oil spills from stationary water tank truck on site.



Figure 3: Stationary Terex machine with drip tray, although oil spills were still prominent



Figure 4: Site store room untidy





Figure 5: Previous Diesel spill under mobile refueler not cleaned up since last site visit (16 Nov) and still no drip tray placed.



Figure 6: Corrective measures were taken immediately and spill was cleaned up



Figure 7: Corrective measures were taken and a drip tray was placed at the diesel refueler



Figure 8: Corrective measures being taken and oil spill being cleaned up



Figure 9: Corrective measures were taken and drip trays were placed under stationary machines to prevent future spills



Figure 10: Corrective measures were taken and oil spills were cleaned up

# ECO: ENVIRONMENTAL WEEKLY CHECKLIST

SITE: Darberg dam Pumphouse site 4 December 2018

PHASE OF WORK AND % OF COMPLETION: 95%

ENVIRONMENTAL ASPECT	YES/ NO (✓ or X)	COMMENTS
How many workers are on site	✓	5
All new personnel on site are aware of the contents of the EMP and have been through the environmental awareness course.	✓	
Contractor's camp is neat and tidy and the labourers' facilities are of an acceptable standard.	✓	
Sufficient and appropriate firefighting equipment is visible and readily available.	✓	
Waste control and removal system is being maintained.	✓	
Refuse bins in place and maintained	✓	
Toilets are in place and clean	✓	
Demarcation and other fences are being maintained.	✓	
What machinery are on site		Generator, diesel generator, float, water tank
Drip trays are being utilised where there is a risk of incidental spillage	✓	
Bunds/ drip trays are being emptied on a regular basis (especially after rain).	✓	No construction vehicles
No leakages (oil & fuel) are visible from construction vehicles	✓	
No go areas, remaining natural features and trees have not been damaged.	✓	
Dust control measures (if necessary) are in place and are effectively controlling dust.	✓	Dust not an issue
Noise Control measures (if necessary) is in place and is working effectively.	✓	Noise not an issue
Erosion control measures (if necessary) are in place and are effective in controlling erosion. (Access road, site areas etc.)	✓	Erosion not an issue
Stockpiles are located within the boundary of the site, do not exceed 2 m in height and are protected from erosion.	✓	

Completed by: Inge Eassey Sign: IE Date: 4 Dec 2018

To be submitted at the end of each week to the Environmental Site Officer (ESO)

Received by:

Environmental Site Officer: :..... Sign:

Date:.....





Figure 1: Dasberg Dam Pumphouse



Figure 2: Dasberg Dam Pumphouse inside









Figure 3: Dasberg Dam Pumphouse site



**Appendix B:**  
**Photo record summary**

Photo Record Summary

	
<p>Figure 1: Site visit 22 August 2018, standing at the construction camp, facing SW. Site ripped</p>	<p>Figure 2: Site visit 22 August 2018, standing at the construction camp, facing S. Site ripped</p>
	
<p>Figure 3: Site visit 6 September 2018, standing at the construction camp, facing SW towards the dam wall</p>	<p>Figure 4: Site visit 6 September 2018, standing at the construction camp, facing S towards the dam wall</p>
	
<p>Figure 5: Site visit 26 September 2018, standing at the construction camp, facing SW towards the dam wall</p>	<p>Figure 6: Site visit 26 September 2018, standing at the construction camp, facing S</p>

## Photo Record Summary



*Figure 7: Site visit 12 October 2018, standing at the construction camp, facing SW towards the dam wall*



*Figure 8: Site visit 12 October 2018 standing at the construction camp, facing S*



*Figure 9: Site visit 31 October 2018, standing at the construction camp, facing SW toward the dam wall*



*Figure 10: Site visit 31 October 2018, standing at the construction camp, facing S*

Photo Record Summary



Figure 11: Site visit 31 October 2018, standing at the construction site facing SW towards the dam wall



Figure 12: Site visit 31 October 2018, standing at the construction camp, facing S



Figure 13: Site visit 4 December 2018, standing in the construction site facing SW towards the dam wall



Figure 14: Site visit 14 December 2018, completed dam wall