ENVIRONMENTAL MONITORING AND COMPLIANCE REPORT

VULINDLELA BULK WATER SUPPLY SYSTEM PROJECT

CONTRACT NO : 2020/037

REFERENCE: 14/12/16/3/3/1/1910

REPORT NO: 04

DATE: JANUARY 2024

UMNGENI-UTHUKELA WATER - AMANZI	**VULINDLELA BULK WATER SUPPLY SYSTEM**		
Date	**January 2024**		
Report status	**Environmental Compliance Report**		
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Contractor's Representatives	**Kruby Appanna**	**Environmental Officer**	

1. INTRODUCTION

1.1 Background

uMngeni - uThukela Water (UUW) is a state-owned business enterprise that operates within the South African legislative parameters of the Water Services Act (Act No. 108 of 1997), Public Finance Management Act (Act No. 1 of 1999) and Public Audit Act (Act No. 25 of 2004). The primary function of UUW is to supply bulk potable water to its customers, comprising of seven municipalities in KwaZulu-Natal, namely: eThekwini Metropolitan Municipality, iLembe District Municipality, Sisonke District Municipality uMgungundlovu District Municipality, Ugu District Municipality, Msunduzi Local Municipality, and King Cetshwayo District Municipality

UUW implemented the Vulindlela Water Scheme Supply (VWSS) to meet the increasing demand for water in the area. The VWSS covers approximately 280 square kilometres of area on land belonging predominantly to the Ingonyama Trust in the Msunduzi municipal area. The scheme was one of 12 National Presidential Lead Projects prioritised in 1994 under the Reconstruction and Development Program. The scheme was commissioned on 21 March 1998 by then State President, Nelson Mandela. uMngeni - uThukela Water has identified the need for increased water supply to ensure that demand does not exceed supply, and so, is proposing to implement the Vulindlela Bulk Water Supply (BWS) upgrade. The purpose of the proposed upgrade to the Vulindlela Bulk Water Supply is to increase supply to meet increasing water demand in the Vulindlela system and to significantly improve pumping efficiencies with minimal impact on the environment. The proposed upgrade project will be an addition to an existing system and infrastructure currently supplying the Vulindlela area.

In anticipation to address the water supply challenges within the Vulindlela Township which falls under two local municipalities; Msunduzi (local) and uMngeni (local) Municipalities- Umgungundlovu District Municipality, Phase 1 of Vulindlela Bulk Water Supply Scheme which is approximately 17km in length that will be positioned next to the current existing pipeline.

The proposed project involves the following:

- Reservoir 2 to Reservoir 5.
- Construct of a new 15ML reservoir at Reservoir 2.
- Installation of a new 400mm diameter (being amended to 600mm) steel Rising Main between Reservoir 4 and Reservoir 5 to replace the existing 300m rising main.
- Conversion of existing 300mm rising main to gravity main between Reservoir 5 and Reservoir 4.
- Installation of 200mm or 160mm uPVC Gravity Main from Reservoir 4 to Reservoir 3.
- Construction of new pump station at Reservoir 2 to pump 18.5MLD to Reservoir 5.
- Installation of adequate new power supply to the Reservoir 2 pump station.
- Modification of inlet pipework at Reservoir 3 and Reservoir 4

1.2 Scope of This Audit:

To assess compliance against the EMP, Environmental Authorization, GA and other relevant documents during construction

2. Findings for the month of January 2024

- Drip trays utilized by the contractor are inappropriate to contain hydrocarbon substances. The contractor was advised to change them and obtain suitable trays.
- No drip tray was placed under petrol container. All containers with hydrocarbon substance should be placed on the drip tray.
- No labels on the drinking water containers. For hygiene and health purposes, all drinking water containers should be labelled accordingly.

3. Summary of Previous Findings and Recommendations

- Hydrocarbon spillage was identified at the site camp and the reservoir area. The contractor was advised to use the absorbent to clean the hydrocarbon spillage and dispose it accordingly. Associated hazardous disposal certificates are to be filled on the environmental file.

4. Progress on Close out of Previous Issues

- The hydrocarbon spillage was cleaned and disposed accordingly.

PHOTOGRAPHIC EVIDENCE

Figure 1: Damaged drip tray placed under petrol tanker

Figure 2: Drip tray needs to be replaced

Figure 3: No drip tray under the petrol container

Figure 4: No labelling on drinking water container

COMPLIANCE CHECKLIST

	PRE-CONSTRUCTION PHASE - DESIGN AND PLANNING				
ASPECT	**MANAGEMENT ACTION**	**SOURCE/ REF**	**COMPLIANCE Y/N**	**COMMENTS**	**RESPONSIBLE PERSON**
Identification of the development footprint and associated construction sit	Clearly demarcate the workable corridor and ensure that the demarcated area is only that which is necessary for construction.	EMP	Y		Contractor
Training and conduct	A training session to be conducted by the appointed ECO to highlight the sensitivity of the receiving environment as contained within the EMPr.	EMP	y		ECO /EO and SHEQ
Compliance with the EMPr, EA, WUL and other applicable legislation	Ensure that the contractor has a copy of the EMPr and EA onsite at all times.	EMP	Y	All compliance documents are filled in the environmental file	EO
Setting up construction camp	The footprint of the construction site camp must be kept to a minimum. The contractor must submit the proposed location of the site camp to the ECO for approval, prior to site camp establishment. Vegetation clearance must be limited and any protected plant species to be relocated only after the relevant permits have been obtained from Ezemvelo KZN Wildlife, where applicable. The applicant is required to demarcate the pipeline and 25m working corridor during the construction phase, and the 9m servitude during the operational phase as a	EMP	Y	The camp site is well fenced The proposed camp site was submitted and the lease agreement was provided vegetation clearance is only confined to the approved area and no vegetation identified that requires permit The laying of the pipe has not commenced therefore the working area has not been demarcated. Only grabbing and clearing is taking place on site	Contractor

	PRE-CONSTRUCTION PHASE - DESIGN AND PLANNING				
ASPECT	**MANAGEMENT ACTION**	**SOURCE/ REF**	**COMPLIANCE Y/N**	**COMMENTS**	**RESPONSIBLE PERSON**
	no- go area to prevent future informal settlement along the pipeline route. Chemical toilets must be emptied by a registered service provider and proof of safe disposal must be kept in the environmental file on site. **Long drop toilets** and usage of surrounding environment for ablution facilities are strictly forbidden.		Y N/A	Service provider to service the chemical toilets was appointed No Long drop toilets on site	
Management of sourcing materials	Contractor must prepare a source statement indicating sources of all materials and this must be submitted to the Engineers and ECO for approval prior to commencement of construction.	EMP	Y	During the refurbishment of the campsite offices, the raw material was obtained from nearby hardware.	Contractor
Existing services	During the site establishment and preliminary activity phase, all existing drainage systems (streams, channels) are to be maintained by the developer in accordance with normal agricultural soil conservation practices and local authority guidelines. Existing access routes to the construction site must follow the existing access roads as far as possible.	EMP	Y Y	There is an existing drainage system was on the camp site No new access roads were constructed	

	CONSTRUCTION PHASE				
ASPECT	**MANAGEMENT ACTION**	**SOURCE/ REF**	**COMPLIANCE Y/N**	**COMMENTS**	**RESPONSIBLE PERSON**
General - Construction Camp	The contractor must monitor and manage drainage of the site camp. Chemical toilets are to be maintained and kept in a clean state. Proof of this must be kept in the environmental file. Bins and / or skips must be present on-site for both general and hazardous waste to be placed into.	EMP	Y Y Y	The site has an existing storm water because the structures were utilized before Chemical toilets are on site however they have not been serviced as yet Adequate wheel bins are available on campsite	Contractor
Soil Erosion	The contractor must stabilise cleared areas to prevent and control erosion and/or sedimentation of the downstream watercourses. Stockpiles must not exceed 2m in height and must not be located within 50 metres of any rivers, wetlands and/or riparian channels or within the 1:100 year flood lines. Topsoil piles must be separated from sub soils.	EMP	Y Y Y	Only grubbing and clearing activities are taking place on site Stockpiles are within the required limits Soil profile is not clearly defined in some areas because of the rocks.	EO/ECO

	CONSTRUCTION PHASE				
ASPECT	**MANAGEMENT ACTION**	**SOURCE/ REF**	**COMPLIANCE Y/N**	**COMMENTS**	**RESPONSIBLE PERSON**
	Concrete mixing will need to take place on a hard surface or concrete mixing trays.		N/A	No concrete is mixed on site	
Slopes and soil	Stockpiles are to be maintained as flat as possible and not exceed 6m in height or as directed by the SWMP.	EMP	Y	The stockpiles are within the required limits	Contractor
Soil stability and integrity	Trenches deeper than 1.5m must be shored, particularly if left open.	EMP	Y		Contractor
Flora	Vegetation clearance must be limited to proposed pipeline construction buffer to limit habitat destruction.	EMP	Y	Only natural grass has been cleared on site	
Faunal species of importance	The sensitive floral species confirmed to occur in and around the alternative route option must be translocated prior to construction.	EMP	N/A		
Dust / Air Pollution	Dust suppression methods must be implemented on site on a daily basis The dust levels must be kept below the required SANS Standards to ensure minimal impact on the surrounding community and environment.	EMP	Y	Dust was observed from the hauling roads. Dust suppression was advised by the Environmental Compliance Officer (ECO)	Contractor
Stormwater management	Stormwater drains must have capacity to accommodate new anticipated flows	EMP	N/A		

	CONSTRUCTION PHASE				
ASPECT	**MANAGEMENT ACTION**	**SOURCE/ REF**	**COMPLIANCE Y/N**	**COMMENTS**	**RESPONSIBLE PERSON**
	Stormwater must be directed onto vegetated areas to allow for seepage and to reduce flows feeding into				
Wetlands	The footprint of the pipeline construction activities must be kept to a minimum, to ensure there is no unnecessary intrusion into any water resource.	EMP	Y	No activities started at the water courses	
Water Quality	Mixing and / or decanting of chemical and hazardous substances must take place on an impermeable surface within the bunded areas within the construction site camp. The filler point and dispensing (i.e. offloading) area must be hard surfaced to prevent infiltration.	EMP	Y	Environmental awareness was undertaken to address this aspect. Evidence of drip trays were observed on site A bunded area has been created on site for the dispensation of fuel. No disposal of hazardous waste has been done as yet.	Contractor
Waste	Hazardous waste must be stored on a hard surface within a bunded area and must not be allowed to enter	EMP	Y	Waste Away has been appointed to undertake waste management on site. There are various	

	CONSTRUCTION PHASE				
ASPECT	**MANAGEMENT ACTION**	**SOURCE/ REF**	**COMPLIANCE Y/N**	**COMMENTS**	**RESPONSIBLE PERSON**
	storm water drains and the surrounding environment. Waste must be disposed of regularly by a reputable contractor. Hazardous waste such as oils, contaminated rags etc. must be disposed of at a hazardous class landfill/ waste disposal facility. Safe disposal certificates must be provided.			waste bins to ensure waste according to type (i.e. hazardous, paper and general waste) separation on site. Bins storage area is yet to be built.	
General Waste	A waste management plan is recommended	EMP	Y	A plan was provided for approval	
Drip trays	Drip trays are to be cleaned out daily and material collected disposed of as hazardous waste		Y	Drip trays are available at point of use on site.	
Noise	All precautions must be taken to ensure that noise generation is kept to a minimum. If excessive noise is expected during certain stages of the construction, residents must be notified prior to the event.	EMP	Y	No excess noise	
Traffic	Points men in attendance to control traffic where road disruption is most likely	EMP	Y		
Cultural	If any graves or archaeological artefacts be found on site during the construction phase, all construction work must	EMP	N/A	No Historical artifacts have been identified. Environmental awareness has been	EO/Contractor

	CONSTRUCTION PHASE				
ASPECT	**MANAGEMENT ACTION**	**SOURCE/ REF**	**COMPLIANCE Y/N**	**COMMENTS**	**RESPONSIBLE PERSON**
	cease and AMAFA must be contacted immediately. The contact details for AMAFA are as follows: Tel: (033) 394 6543 The Heritage specialist recommended that the applicant maintain a buffer of at least 8 metres from the border of the cemetery. This buffer zone must be clearly demarcated as a no-go area			undertaken to address this	
Spillages	A spills contingency or response plan must be drawn up. A spill kit is to be present on site at all times.	EMP	Y Y	A plan was submitted Spill kit is available onsite.	
Materials Management	Stockpiles must not exceed 2m in height. Stockpiles must be protected from erosion by wind and rain. The contractor must provide a method statement for dealing with spillages of hazardous materials.	EMP	Y	Top soil is stockpiled and in a designated area and its less than 2m in height. The stockpile is clear of weeds. No weeds were observed on the stock piles Method statement is in the environmental file	

	CONSTRUCTION PHASE				
ASPECT	**MANAGEMENT ACTION**	**SOURCE/ REF**	**COMPLIANCE Y/N**	**COMMENTS**	**RESPONSIBLE PERSON**
				A bunded area was developed for the storage of petrol.	
Waste Management	All construction waste must be placed in designated waste skips and / or bins within the site camp, which must be emptied regularly.	EMP	Y	There is a designated waste area on site with bins to separate waste. Disposal certificates were provided.	Contractor
	Littering on site is forbidden and the site must be cleaned at the end of each working day.		Y		
	Proof of safe disposal of waste must be kept in the environmental file which is to be kept on site at all times. Spoil sites must be approved by the engineer and ECO prior to construction.		Y	Waste disposal certificates were provided and are filed in the environmental file.	

COMPLIANCE LEGEND

Y	**YES Compliant**
N	**Not Compliant**
P	**Partial compliant**