NEWSLETTER
AUGUST 2012

ADDITIONAL CAPACITY FOR THE MORELETASPRUIT OUTFALL SEWER

PHASE 2B:
FAERIE GLEN NATURE RESERVE TO MORELETAPARK

CITY OF TSHWANE
IGNITING EXCELLENCE

Prepared by

aurecon

Aurecon
PO Box 74381
LYNNWOOD RIDGE
0040

VF MUNISI
Civils (Pty) Ltd
Civil and Building Contractors

Updated versions of this newsletter will be distributed to adjacent residents regularly to ensure that they are fully informed of construction activities in their respective areas

1 INTRODUCTION

The eastern suburbs of Pretoria, under the control of the City of Tshwane (CoT), have experienced significant growth over the past two decades resulting in the capacity of bulk infrastructure being put under severe strain, something that is visibly evident in the bulk sewer network in the region. The catchment that has been severely affected is the Moreletaspruit catchment. This catchment serves the eastern suburbs of Pretoria from Moreletapark in the south to Derdepoort in the north, where the augmented system connects to the Rooiwal and Zeekoegat major outfall sewers and waste water treatment works.

To provide for this expansion and densification in urban development in the east of Pretoria, it is of paramount importance that the current services be upgraded and / or supplemented by an outfall sewer of adequate capacity to meet current needs and future expansion requirements. The Moreletaspruit Outfall Sewer (MOS) project is aimed at achieving the CoT goal of improved services delivery. This newsletter provides residents affected by the MOS project with an insight into its complexity and aims to keep them updated on its progress.

2 CONSTRUCTION PROGRESS AND PROGRAMME

Phases 1A, 1B and 2A of the MOS have already been constructed and completed over the past 5 years, totalling approximately 13 km from the tie-in point north of Zambesi Drive upstream along the Moreletaspruit to January Masilela Drive (General Louis Botha Ave). This 13 km of the new outfall sewer has already been commissioned and is in full operation, also enabling the CoT to now plan and perform any maintenance required on the existing outfall sewer.

The basic programme details for the currently ongoing Phase 2B (5 km) are as follows:

Contractor appointed	V F Munisi Civils
Construction commencement	September 2011
Contract duration	30 months
% Work completed	35%
Projected completion date	February 2014

3 CONSTRUCTION-RELATED ACTIVITIES

The construction and rehabilitation actions include the following:

1. Topsoil is removed from construction areas and stockpiled separately for later reinstatement.
2. Pipe trenches are excavated (including controlled blasting of rock where necessary) and the pipe laid on special bedding, followed by backfilling and compaction of the trenches.
3. In difficult locations, special equipment is used to install pipe lengths in order to minimise the impact of construction activities (including pipe jacking under all roads traversed)
4. The impacted area will be reshaped to its original topography and the original topsoil will be replaced.
5. Flow dividing structures (at junctions with the existing outfall sewer), manholes and access chambers will be constructed.
6. River crossings and erosion control works will be constructed.

7. Rehabilitation will be carried out as soon as all construction work in a particular area has been completed.

The route and available construction footprint of the new outfall sewer are in many places severely restricted by adjacent development, major existing services, the adjacent stream etc. The pipe is also mostly below the level of the adjacent stream and the groundwater, all affecting the rate of construction. The trench depth has in places reached 10,5 m and the length of a single pipe jack 275 m.

4 ENVIRONMENTAL IMPACT AND REHABILITATION

The environmental management and rehabilitation of impacted areas form an important part of the MOS project. Environmental approval for the project was obtained with the Record of Decision issued on 20 February 2007. The Water Use Licence for the project was granted on 24 February 2010. The detailed Environmental Management Plan conforms to both authorisations and is applied and monitored strictly to mitigate the environmental impact of the works.

Open spaces in the eastern suburbs of Pretoria have become a scarce commodity and one of the aims of the project is to, as far as possible, leave an even “cleaner / greener” landscape behind once construction and rehabilitation has been completed. The Phase 2B pipeline route has been locally adapted in places to avoid existing trees. More suitably indigenous trees are planted afterwards than have to be removed during construction.

The Phase 2B Contractor has relocated all his additional resources to the Fearie Glen Nature Reserve to increase the production in the reserve. Rehabilitation works, including grassing, hydroseeding and planting of trees are a priority and will commence as soon as all the construction activities in an area have been completed. The rehabilitation will be environmentally closely monitored, especially in the Faerie Glen Nature Reserve. This activity, including the control of alien vegetation, continues into the one year maintenance period following completion of the construction work.

Experience has shown that rehabilitation on pipeline projects can normally only be assessed properly over a period of 2 to 3 rainy seasons. On virtually the whole length of Phase 1 of the MOS, the pipeline route can (after 2 - 3 years) no longer be differentiated from the surrounding veld. Monitoring and corrective actions on Phase 2A are still in progress.

5 SCOPE OF CONSTRUCTION

5.1 OPEN TRENCH SECTIONS

Phase 2B entails the construction of the next 5km section of outfall sewer (open trench and pipe jacked sections at road crossings) of varying diameter (600 - 825 mm) and ancillary works along the more upstream section of the Moreletaspruit. This section starts immediately east of January Masilela Drive (General Louis Botha Drive) in the Faerie Glen Nature Reserve, passing through Garsfontein and crossing underneath all roadways such as Atterbury, Jacqueline, Serene and Solomon Mahlangu Drive (Hans Strijdom Drive), before connecting to the existing sewer system just north of Garstfontein Road in Moreleta Park.

Four construction fronts and three pipe jack teams are currently working along the pipeline route to ensure that the proposed programme and expenditure as planned are met.

5.2 PIPE JACKS AT ROAD AND SERVICE CROSSINGS

A subcontractor is carrying out the pipe jack sections located along the route. All the road crossings will be crossed by means of pipe jacking, which limits traffic interference. The table below illustrates the pipe jack progress on Phase 2B:

Pipe Jack	% Completed
FG Nature Reserve (existing outfall sewer crossing)	100%
Manitoba Drive	100%
Jacqueline Drive	95%
Serene Street	15%
Godfrey Road	5%
Solomon Mahlangu Drive	5%

As additional information, a layout plan that shows the pipeline route for Phase 2B is attached to this newsletter.

6 CONCLUSION

A Community Liaison Officer (CLO) was recommended by the Ward Councillors in the area and was subsequently appointed by the Contractor. As key role players, both the Contractor's Manager as well as the CLO can be contacted at the details provided below should the need arise.

The project team would like to thank the public for its continued support, patience and understanding during the construction of the new Moreletaspruit Outfall Sewer.

7 CONTACT DETAILS

Any construction related enquiries regarding Phase 2B construction related activities can be directed to the following individuals representing the Contractor:

Community Liaison Officer - Mr. Christo van den Heever
Tel - 074 102 7350
E-mail - cmvdh@webmail.co.za

Contract Manager - Mr. Flavio de Luca
Tel - 083 650 0142
E-mail - flavio@vfcivils.co.za

Any technical related enquiries regarding the greater MOS project can be directed to the consultant:

Consultant - Mr. Walter Aust of Aurecon (SA) Pty Ltd
Tel - 012 427 3100
E-mail - walter.aust@aurecongroup.com