APPLICATION FOR ENVIRONMENTAL AUTHORISATION AND WATER USE LICENCE

PROPOSED REMEDIAL WORKS TO PROTECT A CONCRETE PIPE BRIDGE SUPPORTING A SEWAGE PIPELINE IN KOSMOSDAL IN CENTURION IN THE RIETSPRUIT, AND THE REINSTATEMENT OF THE WATER COURSE

BACKGROUND INFORMATION DOCUMENT

CITY OF TSHWANE
IGNITING EXCELLENCE

PURPOSE OF THIS DOCUMENT

The City of Tshwane (CoT) intends to undertake urgent remedial works to protect a concrete pipe bridge supporting a sewage pipeline and reinstate the Rietspruit downstream of the bridge.

The purpose of this Background Information Document (BID) is to provide:

- Stakeholders with an opportunity to register as an Interested and Affected Party (IAP),
- Background information on the proposed project,
- Information on the Environmental Authorisations that will be applied for and the process that will be followed,

BACKGROUND

The City of Tshwane is responsible for maintaining sewer networks and distribution lines. Due to the nature of sewage lines sewage infrastructure tend to follow the topography and flow along the lowest points. Rivers also tends to follow the same topography and sometimes it is necessary for sewage lines to cross drainage lines. Infrastructure is then constructed of reinforced concrete or structural steel bridges or support structures. Foundations positioned inside the watercourses have to be designed and constructed in such a way that they are adequately protected against erosion.

In Kosmosdal, in Centurion, a reinforced concrete bridge supporting a 750 mm diameter concrete sewage pipeline crosses the Rietspruit downstream of a manmade dam. The sewage collected from the area is transported to the Sunderland Ridge Waste Water Treatment Works. The overall length of the bridge is approximately 80 m.

Figure 1: Pipe bridge supporting the sewage pipeline to Sunderland Ridge

WATERCOURSES

Legend

- Project Area
- Dams
- Rivers
- Streets

ILISO consulting

CITY OF TSHWANE
IGNITING EXCELLENCE

Date: 6 June 2013

System: Hartebeeshoek94

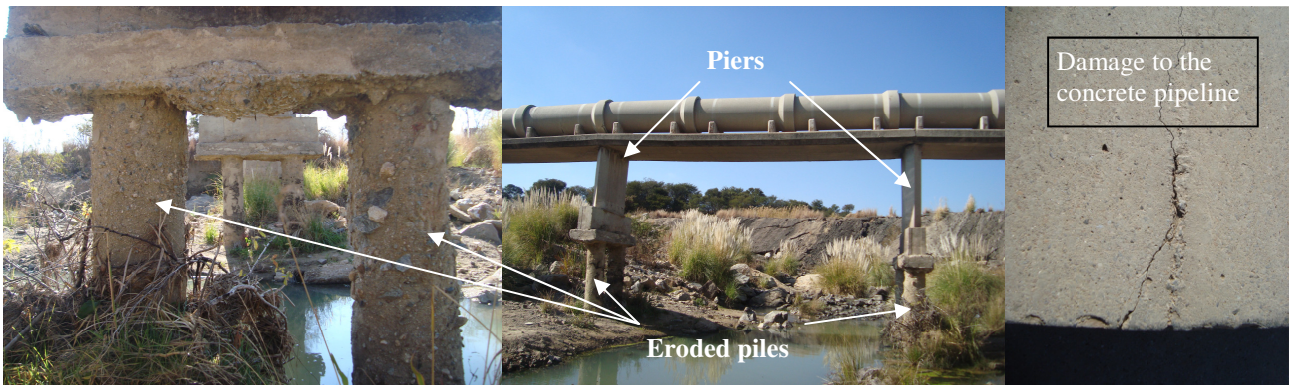

Figure 3 Eroded piers of the pipe bridge supporting the sewage pipeline and signs of stress on the pipeline

ILISO Consulting and Zhitolele Consulting Engineers were appointed to investigate the erosion and potential risks of failure of the existing piers. An investigation of the bridge revealed that excessive deflection of the deck between supports has taken place, which has resulted in damage to some of the concrete pipes supported on the deck as depicted in **Figure 3**. The piles supporting the bridge piers under the bridge deck are located within the river course and the soil and material around some of these the piers has been eroded. This compromises the structural integrity of the bridge and poses a risk that the bridge may eventually fail, resulting in a significant impact on the downstream users.

To avoid the risk of the bridge failing the exposed piles supporting the bridge foundations must be protected and strengthened by encasing them in reinforced concrete to create a shaped pier. Additional measures that may be implemented include:

- Strengthening of the foundations by means of mass concrete filling under the foundation,
- Construction of additional or new bridge piers and foundations where required,
- Repair and reconstruction of the bridge deck,
- Replacement of sections the sewer line where necessary,
- Construction of coffer dams during construction,
- Reinstatement of the eroded water course in the vicinity of the pipe bridge, and
- Implementation and/or placement of erosion measures.

ENVIRONMENTAL AUTHORISATION AND WATER USE LICENCE

The construction of the proposed remedial actions in the Rietspruit requires an Environmental Authorisation from the Gauteng Department of Agriculture and Rural Development (GDARD) and a Water Use Licence from the Department of Water Affairs .

The proposed project triggers the following listed activities in terms of the EIA Regulations 2010:

- Section 11 of Regulation 544: The construction of infrastructure covering 50 square meters or more where such construction occurs within a watercourse or within 32 m of a watercourse
- Section 18 of Regulation 544: The infilling or depositing of any material of more than 5 cubic meters into a watercourse.
- Section 16 of Regulation 546 The construction of infrastructure covering 10 square meters or more where such construction occurs within a water course or within 32 m of a water course measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line in Sites identified as irreplaceable or important in the Gauteng Conservation Plan.

The construction of the proposed remedial actions will also require a Water Use Licence in terms of Section 21 of the National Water Act 1998, (Act 36 of 1998).

THE BASIC ASSESSMENT APPROACH

In terms of the EIA Regulations 2010, the Basic Assessment Process needs to be followed and this will include:

- Motivation for the construction of the proposed river crossing,
- An Environmental Impact Assessment
- A draft Environmental Management Programme, and
- A Public Participation Process.

A Basic Assessment Report (BAR) will be drafted in terms of the Environmental Impact Assessment Regulations (GN 543 of 2010) promulgated in terms of Section 24 (5) of NEMA and will include:

- Activity information,
- Description of the site and surrounding area,
- Public Participation,
- Quantification of impacts associated with the activity, and
- An Environmental Management Programme

THE WATER USE LICENCE APPLICATION

The proposed activity also requires a Water Use Licence in terms of Section 21 of the National Water Act 1998 (Act 36 of 1998) for the following water uses:

- S 21 (c) impeding or diverting of the flow of water in a water course, and
- S 21 (i) the altering of beds, banks course or characteristics of a water course.

The technical report will address but will not be limited to the following:

- The project description
- Status of the environment
- Impact on the water environment
- Mitigation measures to prevent, minimise or rehabilitate the impact on the surrounding environment.

THE PUBLIC PARTICIPATION PROCESS

The Public Participation Process (PPP) will be conducted by ILISO Consulting in accordance with Chapter 6 of the EIA Regulations, 2010. This process will be undertaken to fulfil the requirements of both Acts.

In order to ensure that your concerns are considered during the Basic Assessment process you are invited to register as an Interested and Affected Party (IAP) by completing the attached registration form and submitting it to Ms Carol Hooghiemstra (details provided below) within **14 days** of receipt of this Background Information Document on or before the **30 September 2013**

All issues and comments received during the public PPP will be captured in an Issues and Response Report. This report will be updated as the application process progress and will form an appendix to the BAR and will be submitted to GDARD for authorisation.

The PPP will entail the following :

- The Draft Basic Assessment Report will be made available for review to all stakeholders who have registered as an IAP for a period of 40 days,
- Written comments received within the 40 days will be included in an Issues and Response Register and the BAR will be amended where necessary,
- The final BAR will then be redistributed for a further 21 days to provide the IAP with a second opportunity to ensure that all their concerns raised during the process have been addressed,
- Once a decision is taken by GDARD the outcome of the decision will be distributed to the IAP, and
- If an IAP is not happy with the decision made by GDARD the IAP will be allowed to appeal the decision made by the Authority.

For further information please contact:

ILISO Consulting (Pty) Ltd
Carol Hooghiemstra

ILISO consulting

Tel: 086 124 5476
Fax: 012 665 1886
Email: carol@iliso.com

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BACKGROUND INFORMATION DOCUMENT

Please complete and return to Carol Hooghiemstra at ILISO Consulting (Pty) Ltd by **XXXXX**

PO Box 6873
Highveld
0169

Tel: 086 124 5476
Fax: 012 665 1886
E-mail: carol@iliso.com

Title		First Name	
Initials		Surname	
Organisation			
Postal Address		Postal Code	
Street Address			
Tel Number		Fax Number	
Cell Number			
E-mail			

Comments: (You may use a separate sheet if necessary)

The following issues must be considered during this variation application.

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Please add the following individual(s) to your mailing list.

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We thank you for you participation!