

Appendix K1. EAP Terms of Reference

Scope of Works

The activity involves obtaining environmental authorisation for the client's stormwater maintenance activities in accordance with the Environmental Impact Assessment Regulations published on 18 June 2010 in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998). Previous authorisation was obtained under the Environmental Conservation Act, Act 73 of 1989; however this authorisation is now invalid due to the National Environmental Management Act and 2010 EIA Regulations having come into effect. The project has the following objectives:

"To comprehensively identify and evaluate management interventions undertaken by the City in its stormwater system which do not require authorization from DEA&DP in terms of the various NEMA listed activities (Listing Notices 1 – 3 GN No. R. 544 - 546) and, for those that do, which require either an EIA application with an Environmental Management Plan (EMP) or a Maintenance Management Plan (MMP).

To identify activities undertaken by the City in its stormwater system which require authorization (water use license) from the DWA in terms of Section 21 (and any other applicable sections) of the National Water Act.

To request permission from DEA&DP to submit a combined application in terms of Regulation 14 of GN No. R. 543 for authorization of all the various maintenance and management interventions undertaken on the City's stormwater systems.

To manage the application for authorization from DEA&DP and DWA, including public participation and taking cognisance of and satisfying any requirements of the aforementioned authorities.

To review and update information in the existing "maintenance" documentation (method manuals etc.) to ensure alignment with the current legislative requirements and any other conditions which may be imposed by the authorities, and that the City and its appointed contractors use best practice methods in the management of its stormwater system. This material is to be repackaged in the form of comprehensive MMP and EMP documentation (both of which must be submitted to DEA&DP and DWA for approval).

To define and document in a user-friendly format any Standard Operating Procedures (SOPs) which must be implemented in the City's District offices in order to ensure compliance with the authorization of the MMP and EMP.

Once authorisation has been obtained, to undertake capacity building workshops for relevant City staff explaining the newly approved Standard Operating Procedures and requirements for different categories of maintenance and management interventions."

Some of the activities would trigger the listed activities included in the EIA Regulations and some would not.

If, as part of the maintenance work, new or additional construction (i.e. expansion) is identified as being required, then this could trigger listed activities 11, 12, 16, 18, 39, 41, 45 of Government Notice No. R 544, or listed activities 12, 13, 14 (unlikely), 16, 24 of Government Notice No. R 546 and require the application for environmental authorisation for the construction activities. In this instance, a Basic Assessment (including an Environmental Management Plan (EMP)) would have to be undertaken. The EMP would need to cover the maintenance activities that may need to be undertaken periodically in the future.

The reconstruction of structures is not covered in the Listing Notices 1 – 3 as the definition of construction in the listing notices specifically excludes the reconstruction of *"the same facility in the same location, with the same capacity and footprint"*. However, most reconstruction activities would also involve the movement of material in a watercourse and would therefore trigger Activity 18 of GN No. R 544. Activity 18 however states that a basic assessment would not be required for such activities which are ***"for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority"***. It is therefore understood that listed activities associated with the ongoing maintenance, repair or reconstruction of pre-existing constructed facilities (e.g. gabions, weirs, stabilized river banks, concrete canals, litter traps) could be permitted in terms of a "Maintenance Management Plan" (MMP). It is understood that this has been confirmed by DEA&DP. Following on from this, it is also considered reasonable that an MMP may suffice for maintenance functions of the activities listed in Activity 16 *"construction or earth moving activities in the sea, an estuary or within the littoral active zone or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever is greater, in respect of (i) fixed or floating jetties and slipways, (ii) tidal pools, (iii) embankments, (iv) rock revetments or stabilising structures including stabilising walls, (v) buildings of 50 square metres or more or (vi) infrastructure covering 50 square metres or more but excluding where such construction of earth moving activities is undertaken for purposes of maintenance of the facilities mentioned in (i) – (vi) above"*.

It is therefore understood that the environmental authorisation required for the various maintenance activities would vary between potentially requiring nothing to requiring an MMP to requiring a Basic Assessment and EMP.

Regulation 14 of GN No. R 543 of 2010, allows for the combination of applications if the same applicant intends undertaking more than one activity of the same type at different locations. It is understood that DEA&DP have indicated to the City of Cape Town that a single application would be acceptable in this instance. Written confirmation of this has not been received.

The proposed Scope of Works excludes for obtaining environmental authorisation for the construction of new facilities and obtaining Water Use Licence(s) / General Authorisation(s) for the proposed maintenance activities.

The project requires the following specialist input:

Aquatic Ecology;

Terrestrial Ecology; and

Stormwater Engineering.

An authorisation for this application was issued by DEADP on 13 February 2015, however work in estuaries was excluded from the authorisation. The CCT has since extended GIBB's appointment to include the submission of an amendment application to include work in estuaries.

Appendix K2. Specialist Terms of Reference

The following services are to be provided:

- Delineation of estuary extent; summary of available information on conservation importance, health status, and sensitivity
- Technical specialist assessment of the impact associated with the undertaking of nine maintenance measures in estuary systems.
- Breaching estuary mouths and manipulation of alignments will be the main maintenance measures considered, however all of 9 measures are to be evaluated.

A total of seven systems are to be evaluated:

1. Diep (Milnerton Lagoon)
2. Hout Bay River / Disa
3. Silvermine River
4. Zandvlei
5. Eerste River
6. Lourens
7. Sir Lowry's

Maintenance measures to be evaluated:

1. Vegetation Management:

Aquatic (submerged and floating) vegetation management.
Reedbed and indigenous emergent vegetation management.
Riparian/ marginal vegetation management.

2. Erosion Control:

River channel profile enhancement.
Construction, maintenance and expansion of erosion control structures.

3. Sediment Management :

Construction, maintenance and expansion of sediment traps/ retention areas.
Manual/ mechanical sediment removal from sediment traps/ retention areas.
Manual/ mechanical sediment removal from canals, channels and waterbodies.

4. Channel Enclosure: *(this activity is not applicable to any of the estuaries, this activity has been included in this application to ensure consistency in the numbering of interventions with the original application for environmental authorisation)*

Conversion of an open stormwater channel to an enclosed pipe/ culvert system.

5. Litter and Debris Removal:

Litter and debris removal using either mechanical or manual methods.
Removal of structures to reduce water obstruction.
Construction, maintenance and expansion of litter management infrastructure.

6. Construction, Maintenance and Expansion of Minor Stormwater Infrastructure:

Stormwater outlets, dam scour valves, headwalls and culverts.

7. Maintenance of Attenuation Infrastructure:

Weirs
Retention/ detention ponds and dams registered in terms of the National Water Act as dams with a safety risk
Floods protection embankments/ berms
SUDS facility
Other dams/ ponds

8. Recreational Access:

Construction, maintenance and expansion of footbridges, boardwalks or bird hides.

9. Management of River/ Estuary Mouth:

Breaching, removal of sediment or sand bars deposited in the mouth.
Straightening and redirecting the meandering mouth across the shortest route directly towards the sea.