Project Ref: 2012/Phase 2/BAR-GP1

PHASE 2 - PLANNING REPORT
DRAFT BASIC ASSESSMENT REPORT

GAUTENG SOUTH

November 2012

Environmental Affairs
Water Affairs
Agriculture, Forestry and Fisheries

SANBI
Biodiversity for Life

EXPANDED PUBLIC WORKS PROGRAMME
CONTRIBUTING TO A NATION AT WORK

Aurecon Ref: 6671/107406

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CONTEXT OF THIS BASIC ASSESSMENT REPORT

The environmental assessment process undertaken to date has culminated in the production of a Draft Basic Assessment Report (BAR) and associated Draft Rehabilitation Plan, which provide detailed information relevant to the project in the Gauteng Province.

In order to guide and focus the reader, the Table below indicates where in the Draft Phase 2 reports (the BAR and/ or the Rehabilitation Plan) the requisite information as outlined in the National Environmental Management Act (No. 107 of 1998) (NEMA), as amended, can be found. General information detail is provided in the provincial BAR and indicated below, while project specific information required in terms of NEMA is provided in the relevant project specific Draft Rehabilitation Plan. As a result, the Table below has been included at the front of each Rehabilitation Plan to guide the reader as to where project specific information can be found as required by NEMA.

Table 1: Information requirements of the BAR as outlined in NEMA

REGULATION	CONTENT AS REQUIRED BY NEMA	SECTION / ANNEXURE[1]
23 (2) (a)	(i) Details of the EAP who prepared the report; and	***Introduction - BAR***
	(ii) Details of the expertise of the EAP to carry out basic assessment procedures;	***Introduction - BAR***
23 (2) (b)	A description of the proposed activity;	***Section B - BAR Rehab Plan***
23 (2) (c)	A description of the property on which the activity is to be undertaken and the location of the activity on the property,	***Rehab Plan***
23 (2) (d)	A description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity;	***Rehab Plan***
23 (2) (e)	An identification of all legislation and guidelines that have been considered in the preparation of the basic assessment report;	***Section B – BAR Rehab Plan***
23 (2) (f)	Details of the public participation process conducted in terms of regulation 22(a) in connection with the application, including –	***Section D - BAR***
	(i) The steps that were taken to notify potentially interested and affected parties of the proposed application;	***Section D - BAR***
	(ii) Proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the proposed application have been displayed, placed or given;	***Appendix E - BAR***
	(iii) A list of all persons, organisations and organs of state that were registered in terms of Regulation 57 as interested and affected parties in relation to the application;	***Appendix E - BAR***

[1] Note: BAR refers to the 2012Gauteng BAR.

REGULATION	CONTENT AS REQUIRED BY NEMA	SECTION / ANNEXURE[1]
	(iv) A summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues;	***Appendix E - BAR***
23 (2) (g)	A description of the need and desirability of the proposed activity and any identified alternatives to the proposed activity that are feasible and reasonable, including advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity;	***Executive summary Section B - BAR***
23 (2) (h)	A description and assessment of the significance of any environmental impacts, including cumulative impacts, that may occur as a result of the undertaking of the activity or identified alternatives or as a result of any construction, erection or decommissioning associated with the undertaking of the activity;	***Section E - BAR***
23 (2) (i)	Any environmental management and mitigation measures proposed by the EAP;	***Section E - BAR***
23 (2) (j)	Any inputs made by specialists to the extent that may be necessary; and	***Wetland assessment attached to Rehab Plan***
23 (2) (k)	Any specific information required by the competent authority.	**-**
23 (3) (a)	A BAR must take into account any relevant guidelines; and;	***Section B - BAR***
23 (3) (b)	A BAR must take into account any practices that have been developed by the competent authority in respect of the kind of activity which is the subject of the application.	**-**

Please note: This Basic Assessment Report must be read in conjunction with the following Draft Rehabilitation plan:

- Gauteng South: October 2010

EAP competency

The basic assessment process has been undertaken by the following Environmental Assessment Practitioners (EAPs):

Ms Franci Gresse

Ms Franci Gresse is an Environmental Practitioner in the Cape Town Office. She completed a Bachelor of Science Degree in Conservation Ecology at the University of Stellenbosch. Ms Gresse is a member of the Western Cape branch of the International Association for Impact Assessment (South Africa).

WORKING FOR WETLANDS REHABILITATION PROJECT IN THE GAUTENG PROVINCE: DRAFT BASIC ASSESSMENT REPORT

Summary Document

The South African National Biodiversity Institute (SANBI) appointed Aurecon South Africa (Pty) Ltd to undertake the project activities and associated reporting required for the various phases of the rehabilitation planning cycle. These include Phase 1 Reports, the wetland rehabilitation plans as well as the BARs required for each project area within four provinces. Refer to **Figure 1** below that graphically depicts the entire 24 month planning and implementation process which begins in Phase 1 and ends in Phase 3. Phase 1 and 2 are undertaken in the first twelve months and Phase 3 in the second twelve months.

Objectives of the Working for Wetlands Programme

Working for Wetlands is (WfWetlands) a government funded programme that started in 2001 with a R20 million budget that was implemented across 14 projects. The programme is managed by SANBI and is currently implemented across 35 projects countrywide with a budget of R83 million. Being part of the Expanded Public Works Programme (EPWP), more than 1 500 local people are recruited to work in projects on limited term contracts. Typical activities undertaken within the projects include:

- constructing structures (gabions, berms, weirs) in wetlands;
- removing invasive alien plants from the wetland and immediate catchment;
- plugging artificial drainage channels in the wetland;
- raising awareness of wetlands among workers, landowners and the general public;
- providing adult basic education and training, and technical skills; and
- developing management plans for the rehabilitated wetlands.

The two main objectives of the programme are **wetland conservation** in South Africa and **poverty reduction** through **job creation** and **skills development** amongst **vulnerable** and **marginalised** groups.

Environmental legislation

EIA listed activities

The proposed project(s) triggers listed activities 11 and 18 of Regulation 544 and activities 13 and 16 or Regulation 546 of 18 June 2010 of the National Environmental Management Act (No. 107 of 1998) (NEMA), as amended.

A Basic Assessment (BA) process must therefore be undertaken before the authorities, in this instance the national Department of Environmental Affairs (DEA), can make a decision

on whether the proposed activities and ultimately the proposed projects should be authorised.

Exemption from independence

The Public Participation process (PPP) was formally initiated with notifications to Interested and Affected Parties (I&APs) of the availability of this Draft BAR for comment on 28 November 2012. Adverts were also placed in *Die Burger* and *Sunday Times* on 1 and 2 December 2012, respectively. Aurecon applied for exemption from independence as its engineers are undertaking the design work for the interventions.

As part of the BA process, environmental (biophysical and socio-economic) impacts are identified and assessed to ascertain the consequences of the project on the environment and the people that live in it. Based on the findings from the impact assessment, specific mitigation measures are recommended to reduce the significance of negative impacts and enhance positive impacts (those that improve the integrity and health of an ecosystem or human health and well-being). The process also gives I&APs an opportunity to comment and to be kept informed about decisions that may impact them or the environment.

As planning continues over a 24 month period, prioritisation and planning (in terms of identifying which wetlands will be rehabilitated and how) is undertaken within the first 12 months, while the actual implementation (via the construction of the interventions) is undertaken within the second 12 months. Interventions may be postponed even if they have received environmental authorisation due to issues such as lack of budget, logistical problems in the area, and / or dramatic changes to the receiving environment (flooding etc.). In other words these structures would be 'banked' for implementation as/ when suitable or appropriate.

In terms of Section 39 of the National Water Act (No. 36 of 1998), a General Authorisation (GA) has been granted for certain activities that are listed under the NWA that usually require a Water Use Licence. Such a GA exists for wetland rehabilitation as long as the activities are for **conservation purposes**. As some of the rehabilitation activities entail '*impeding or diverting the flow of water in a watercourse*' and / or '*altering the bed, banks, course or characteristics of a watercourse,* a number of GAs have been registered with the Department of Water Affairs (DWA) for structures that would ordinarily require a Water Use Licence. For each planning cycle the proposed rehabilitation work will be submitted to DWA, the requisite approval sought and project monitoring reported as required.

Phase 1, 2, and 3 explained

The purpose of **Phase 1** and the associated reporting is to identify within a province:

1. which are the priority catchments and associated wetlands / sites within which rehabilitation work needs to be undertaken; and to
2. identify key stakeholders who would review and comment on the detailed planning (Phase 2) reports.

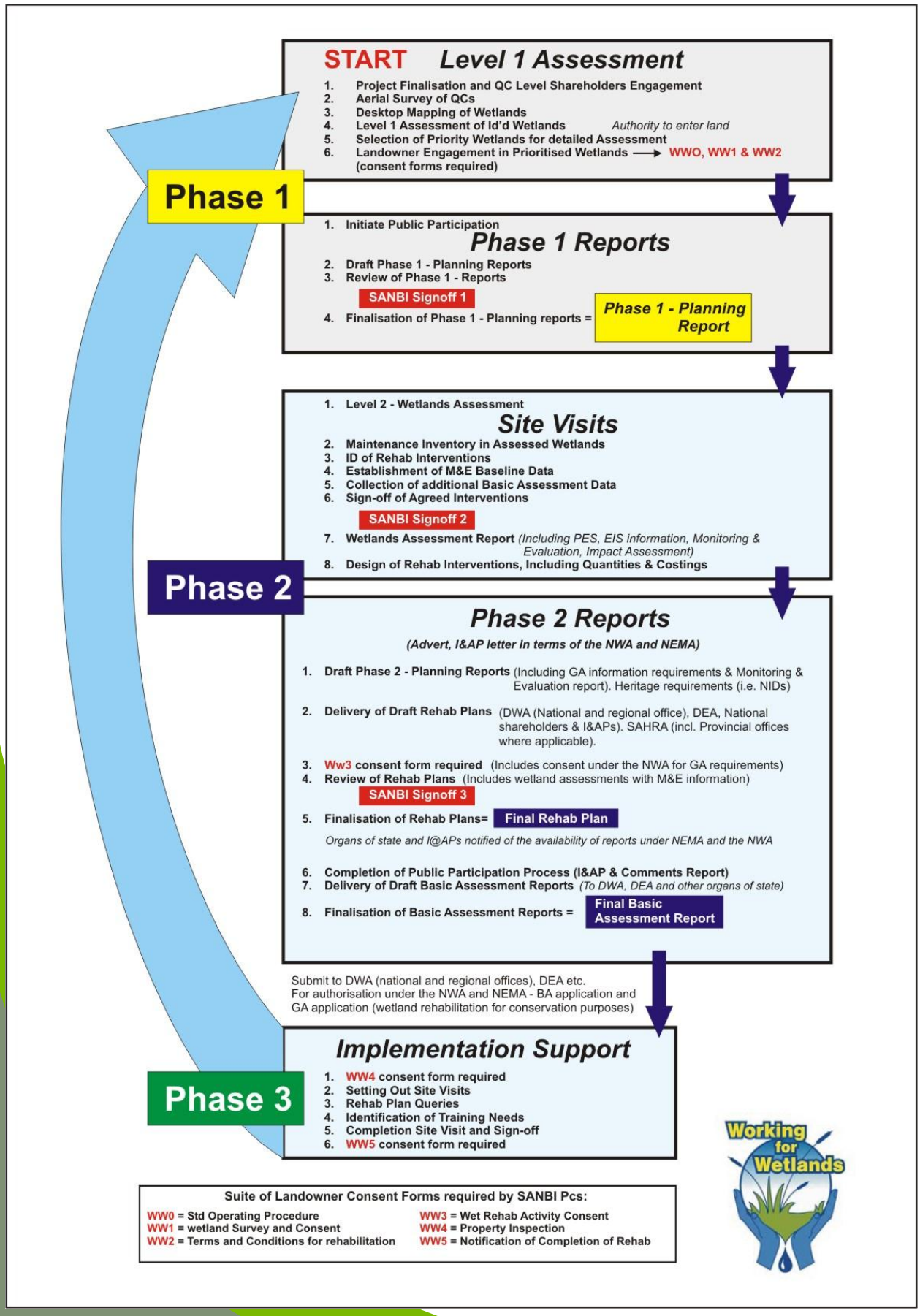

Figure 1: The Working for Wetlands planning process (Phase 1 to Phase 3)

As part of Phase 1, the Engineers peg / set-out the previous year's interventions that had been authorised by DEA. Refer to **Figure 1** below that graphically depicts the entire 24 month planning process which begins in Phase 1 and ends in Phase 3.

During **Phase 2**, the wetlands that were prioritised in Phase 1 are visited by the project team which consists of a Wetland ecologist, Engineer, Environmental Practitioner, SANBI's Provincial Coordinator (PC), and where possible and / or appropriate Implementers, Landowners, and other specialists.

The Phase 2 reports document and provide detail on the type and location of interventions that are needed to rehabilitate the prioritised wetlands within a specific catchment area. A wetland assessment is undertaken using the WET-Tools methodologies (WRC 2010) to ensure that systematic assessments are utilised and the ecosystem consequences and benefits understood. This is described in more detail below. The motivation for the rehabilitation work, and the potential impacts associated with the interventions are also detailed in these reports.

Wetland ecologist working in the Gauteng wetlands.

Regular monitoring and evaluation (M&E) of the interventions is undertaken to establish the effectiveness of the structure in rehabilitating the identified wetland. This baseline data is also included in the Phase 2 reporting. BARs are compiled as separate documents (one for each province), while the Rehabilitation Plans are compiled for each project and are attached as an Appendix to the provincial BAR and submitted to DEA for their environmental authorisation decision. Summaries of the wetland prioritisation, problems and rehabilitation objectives are included in the rehabilitation plans.

As part of Phase 2, a maintenance inventory is undertaken by the PC, in consultation with the Engineer of any existing interventions that are damaged and/ or failing and thus requires maintenance.

Upon approval of the wetland rehabilitation plan by DEA, DWA, and the directly affected landowners, the work detailed for the project will be implemented within a year with on-going monitoring being undertaken thereafter. This occurs within **Phase 3** of the project cycle.

The Rehabilitation Plans are considered to be the primary working document for the implementation of the project via the construction / undertaking of interventions[2] listed in the Plan. Fourteen implementing agents (IAs) are currently employed and are responsible for employing contractors and their teams (workers) to construct the interventions detailed in each of the Rehabilitation plans.

A buttress weir being built and a site being prepared by the Implementing agents

Wetland Assessments

Time and resources required for detailed assessments of the wetlands is limited, and thus using the WET-Tools methodology, a rapid procedure was adopted to assist the project team in systematically carrying out the assessments under constraints. The assessments entailed the following steps:

1. Assessment of the impacts and threats within each wetland system via establishing the current 'health' of the wetland;
2. Establishment of rehabilitation objectives and the selection of appropriate interventions to achieve the identified rehabilitation objectives; and finally; and
3. Assessment of the likely contribution of rehabilitation interventions to the wetland health and ecosystem delivery via determining the spatial area likely to be affected by the proposed intervention(s) and assessing the benefits to the health and / or eco-system services of the specific wetland i.e. the difference between the current health and the projected health of the wetland with and without the intervention(s).

Screening process – Alternative

While on-site during Phase 2, the project team identify and locate the interventions that would meet the rehabilitation objectives as well as the programme's overall objectives (wetland conservation in South Africa and poverty reduction through job creation). The project team discuss and evaluate the potential intervention options; and factoring in environmental, social, and economic considerations into their discussions, they agree on the most appropriate intervention that would meet the rehabilitation objectives for the wetland.

[2] This could include soft options such as alien clearing, eco-logs, gabion structures as well as hard structures for example weirs.

Increased labour requirement for the Working for Wetlands Programme

As a result of changes to the donor fund requirements, an increase in the labour percentage requirement for the WfWetlands programme has been experienced since 2010. The project team were thus required to investigate more labour intensive intervention options for wetland rehabilitation. These included soft engineering options such as berms, eco-logs, as well as alien clearing.

This resulted in the project team having to investigate other wetland areas in order to meet the requirements. Consequently, some of the wetlands prioritised during 2012 in the Phase 1 reporting would not be rehabilitated during this planning cycle (due to the large amount of hard engineering required which was less labour intensive), while new additional wetlands were identified during the Phase 2 site visits as their rehabilitation requirements contributed towards meeting the increased labour component for the programme.

Rehabilitation work within floodplain systems

Based on lessons learnt and project team discussions had during the National Prioritisation workshop in November 2010 SANBI took an in-principle decision regarding work within floodplain systems.

Recognising the ecosystem services provided by floodplain wetlands and the extent to which they have been transformed, SANBI do not intend to stop undertaking rehabilitation work in floodplains entirely. Instead, SANBI propose to adopt an approach to the rehabilitation of floodplain areas that takes into account the following guiding principles:

1. As a general rule, avoid constructing hard interventions within an active floodplain channel; and rather
2. explore rehabilitation opportunities on the floodplain surface using smaller (possibly more) softer engineering options outside of the main channel.

When rehabilitation within a floodplain setting is being contemplated, it will be necessary to allocate additional planning resources, including the necessary specialist expertise towards ensuring an adequate understanding of the system and appropriate design of interventions.

Intervention design

After appropriate interventions have been decided upon by the project team, GPS coordinates and digital photographs are taken for record purposes. Appropriate dimensions of the locations are recorded in order to design and calculate quantities for the interventions. At the end of the site visit a location layout of the agreed interventions and rehabilitation objectives is agreed upon by the project team. Based on certain criteria and data measurements (water volumes, flow rates, and soil types); the availability of materials such as rock; labour intensive targets; maintenance requirements etc., the interventions are then

designed. Bills of quantity are calculated for the designs and cost estimates made. Maintenance requirements for existing interventions in the assessed wetlands are similarly detailed and costs calculated. The engineer also reviews and, if necessary, adjusts any previously planned interventions that are included into the historical rehabilitation plans.

Maintenance and amendments to authorized interventions

Based on discussions with DEA, it was agreed that variations and deviations (in design or location) to the already authorised intervention(s) could be made via written notification to DEA which would include a motivation, supporting information, and the proposed changes clearly detailed. The DEA have formalised this approach by including a condition in the WfWetlands EA whereby any changes to, or deviations from, the project description require written approval from DEA. The proposed changes (type, design, location), motivation, as well as other project-related information (redesigns, site photographs etc.) are provided to DEA. Anticipated reasons for the changes could include modifications to the aquatic system as a result of unforeseen circumstances such as flooding, fires etc., savings to the project budget, improved rehabilitation and/ or enhanced protection from erosion etc.

As per the definition of maintenance[3], modifications would be made to existing (built) interventions as long as the changes occur within the same footprint, location etc. DEA would be informed of the changes in writing.

For a list of interventions requiring redesign, maintenance and or new structures, please refer to the summary in **Table 5** below.

Maintenance The replacement, repair or the reconstruction of an existing structure within the same footprint, in the same location, having the same capacity and performing the same function as the previous structure ('like for like').

Monitoring and Evaluation

During the Phase 2 site visits, baseline monitoring is carried out prior to the rehabilitation of the wetland to provide comparable data for monitoring at a later stage (once the intervention(s) have been constructed). Monitoring and Evaluation (M&E) is thus a vital component of the project as it allows for the evaluation of the performance of the interventions in successfully rehabilitating the affected wetland. Baseline M&E data (fixed point photography, GPS co-ordinates, water quality measurements etc.) as well as information for the BAR is collected during the Phase 2 site visits.

[3] **Maintenance:** The replacement, repair or the reconstruction of an existing structure within the same footprint, in the same location, having the same capacity and performing the same function as the previous structure ('like for like').

Based on WET-Rehab Evaluate tool, protocols for data collection for monitoring purposes have been developed, which includes compulsory collection of certain data[4], while other data collection for monitoring would be considered to be optional[5] depending on the importance of the wetland, costs of rehabilitation undertaken etc.

Upon completion of the interventions within a wetland, the Engineer would revisit the site to sign-off on the interventions based on what was detailed in the rehabilitation plan; while the Wetland ecologist would assess the effectiveness of the intervention(s) in achieving the specified objectives and contributing towards the rehabilitation strategy. Appropriate corrective action would be specified if either of the project team members were unsatisfied with the intervention's effectiveness in terms of achieving the objectives and long-term stability. Ideally an annual M&E report would be compiled by the project team; however, this process is still being established and would require additional funding.

Future planning for the project areas

Table 1: Summary of possible budget allocations per project area

Wetland name	Catchments and major rivers	Budget requirement	Period	Comments*
1. Gauteng South	Upper Vaal – Klipriver, Suikerbosrant	R 2,052,000.00	5 years	To achieve catchment objectives, which are improved water quality and quantity; safe guard biodiversity, improve ecosystem functioning and social livelihoods.
2. Gauteng North	Crocodile west and Marico – Hennops, Jukskei, Crocodile, Soutpan, and Kaalspruit rivers	R 1,864,652.87	5 years	
3. Gauteng East	Upper Olifants – Wilge Upper Vaal – Blesbokspruit, Natalspruit, Rietspruit	R 2,446,707.13	5 years	

Key project objectives include:

- Stabilisation of head-cuts
- Lift water table in degraded wetlands
- Biodiversity conservation

Summary of the Final BAR findings

Wetlands that were prioritised during Phase 1 and visited during Phase 2 are located within the following quaternary catchments- refer to **Figure 2** below.

Phase 2 site visits were undertaken for the following projects:

- Gauteng South: Klipriviersberg (October 2012)

[4] Maintenance inventory, rehabilitation effectiveness, fixed point photography/ site photographs, and wetland assessments.
[5] Sediment and erosion control, hydrology, vegetation and water quality

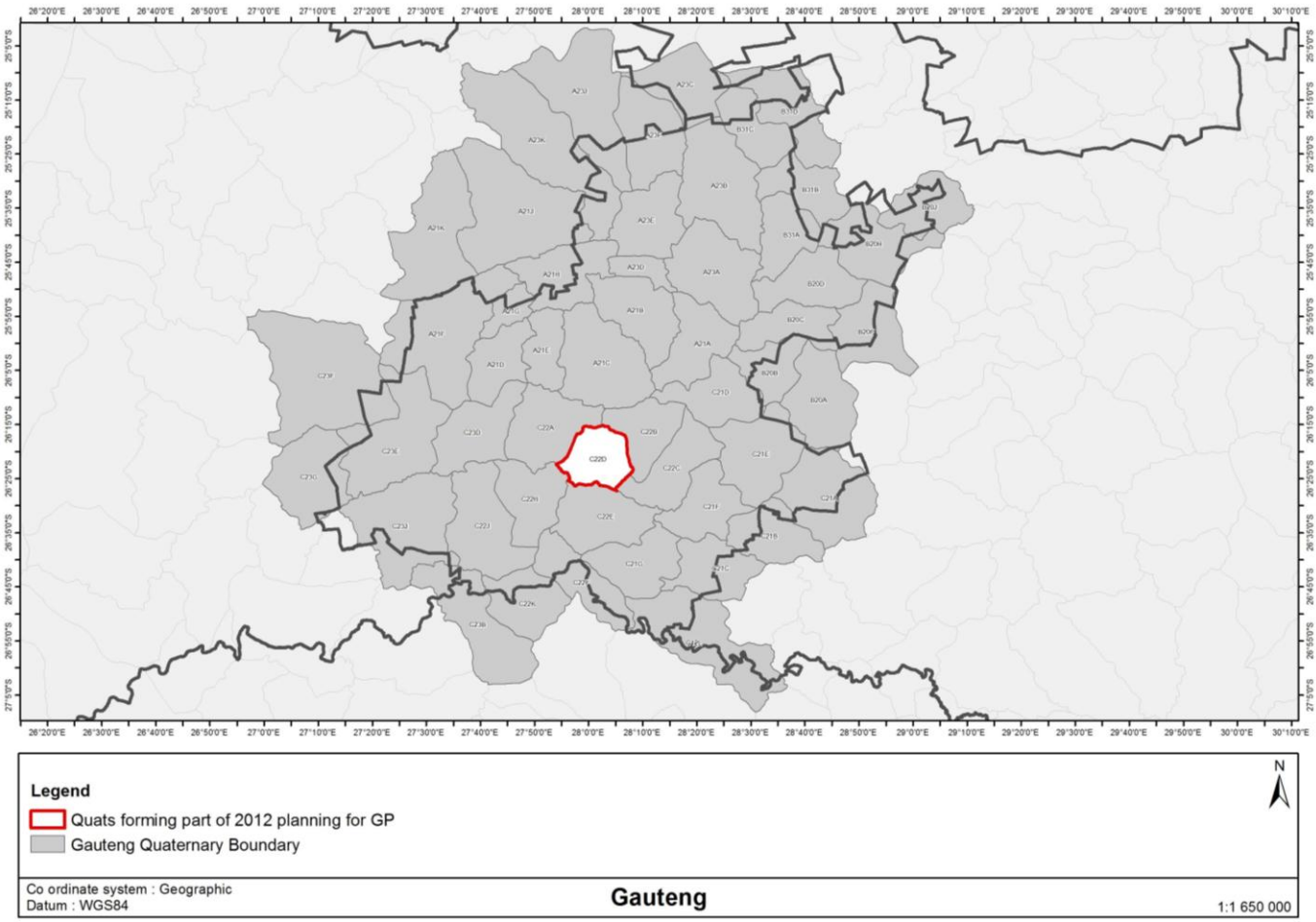

Figure 2: Quaternary catchments that were visited during the Phase 2 site visits for the Gauteng Province

Within the Gauteng Province, the following wetland areas will be rehabilitated:

Klipriviersberg (C22D-04)

Existing rehabilitation work in this quaternary catchment will be augmented with new rehabilitation initiatives identified during a site visit undertaken in October 2012. The quaternary catchment is under pressure due to agricultural (overgrazing) and development related activities and infrastructure, e.g. stormwater outflows, roads, pipeline and railway line crossings, formal and informal residential developments. Other negative factors include alien invasive plant species, illegal dumping and mining. According to the Gauteng Biodiversity Conservation Plan Version 3.3, 2011 (C-Plan 3.3), the Klipriviersberg wetland area falls within a Critical Biodiversity Area (CBA) with Orange Listed plant species and Red Listed mammal and bird species occurring within the area.

The rehabilitation of the above wetland would involve the following interventions *inter alia*:

- Constructing gabions to deactivate eroding headcuts;
- Constructing gabions with concrete capping to prevent gully erosion;
- Earth structures to spread flow across wetlands; and
- Earth works including the infilling of drainage channels

The number, type, scale and location of each of these interventions within the wetlands would vary according to the nature and magnitude of the problem and the state of the receiving environment.

The list of interventions which form part of this Basic Assessment process is summarised in **Table 5** below. The engineering designs for each of these interventions are included in the Final Rehabilitation plan which forms part of the BAR.

Summary of the potential impacts identified

Table 3: Summary of impacts

	Significance of impact		
	Preferred alternative		No go
	No mitigation	With mitigation	
Construction phase			
Aquatic ecosystems	Low (-)	Very Low (-)	Low (-)
Flora & fauna	Low (-)	Very Low (-)	Very Low (-)
Heritage	Very Low (-)	Neutral	Neutral
Nuisance	Low (-)	Very Low (-)	Neutral
Socio-economic	Medium (+)	High (+)	Medium (-)
Operational phase			
Ecosystem functioning	High (+)	High (+)	Medium (-)
Flora & fauna	Medium (+)	Medium (+)	Medium (-)
Socio-economic	High (+)	High (+)	Low (-)

Key mitigation measures recommended

A summary of the key mitigation measures recommended to reduce the significance of the potential negative impacts and enhance potential positive impacts is provided in Table 3 below.

Table 3: Key mitigation measures recommended for potential operational phase impacts

Construction phase impacts
Impacts on aquatic ecosystems
Implement and enforce the CEMP
Impacts on flora & fauna
Implement and enforce the CEMP
Impacts on heritage resources
Contact the provincial heritage resource agency should any artefact be found or cultural use of a wetland be noted
Nuisance impacts
Workers to be given environmental awareness “toolbox talks”
Implement and enforce the CEMP
Liaise with landowner

Socio-economic impacts
Draw labour from the local community
Workers to be aware of fire risks and contingency plans
Operational phase impacts
Undertake M&E of the structures to establish whether the wetland rehabilitation measures have been met. Undertake maintenance to structures where required.

Regarding the construction phase impacts, the standard Construction Phase Environmental Management Programme (CEMP) (included as **Appendix G** of the BAR) and must be on site and complied with during the construction phase.

Need and desirability

Wetlands play a critical role in improving the ecological health of an ecosystem by performing many functions that include flood control, water purification, sediment and nutrient retention and export, recharge of groundwater, as well as acting as vital habitats for diverse plant and animal species. Wetlands are thus considered to be extremely important in preserving biodiversity and are regarded as fundamental to the sustainable management of South Africa's water resources.

Wetlands also function as valuable open spaces and create recreational opportunities for people that include hiking, fishing, boating, and bird-watching. Many wetlands also have cultural and spiritual significance for the communities living nearby. Commercially, products such as reeds and peat, are also harvested from wetlands. Wetlands are thus considered to be critically important ecosystems as they provide both direct and indirect benefits to the environment and society.

Extensive damage to wetlands has occurred as a result of poor land use practices which has resulted in erosion and further degradation to aquatic ecosystems. Without the implementation of the planned rehabilitation activities (the **'no-go'** option or retaining the status quo), the programme's objectives would not be realized; and the loss of wetland habitat and its associated eco-system services would be significantly greater. The strategic importance of the WfWetlands programme is clear as evidenced by the distinct positive impacts associated with the programme which has resulted in a ***net benefit / gain*** as wetland health and integrity is improved and the associated eco-services enhanced. Overall the cumulative impact of wetland rehabilitation would thus be positive (refer to the summary of potential impacts identified above) to both human beings and the environment, now and in the future. Based on the above information, it is clear that rehabilitating wetlands is considered to be the '***best practicable environmental option***' as a result of the positive impact that the programme has on both the natural and socio-economic environment.

Commercial products made by locals from reeds harvested from wetlands

Conclusions and recommendations

The potential impacts associated with the rehabilitation of various wetlands within the Gauteng Province would result in impacts (both biophysical and social) that would positively affect the area and result in a net environmental gain for the project. These include:

- Socio economic impacts such as job creation, increased awareness of wetland importance and up-skilling;
- Restoring wetland corridors;
- Improvements in water quality and quantity;
- Improved biodiversity of the area via improvements to the wetland functioning; and
- Enhanced/ increased wetland habitat.

Based on the above, the EAP (Aurecon) is of the opinion that the proposed wetland rehabilitation activities being applied for should be authorised, as the substantial benefits (both biophysical and socio-economic) substantially outweigh the minimal localised negative impacts that have been identified. Furthermore, the proposed activities undoubtedly meet the principles prescribed in NEMA.

Public Participation Process and Way Forward

Public participation is an important part of the BA process, as it allows I&APs opportunity to obtain information about the proposed project and to provide input and raise any concerns at defined stages throughout the project.

The Public Participation process (PPP) was formally initiated with notifications to I&APs of the availability of this Draft BAR for comment on 5 December 2012. Adverts were also placed in *Die Burger* and *Sunday Times* on 1 and 2 December 2012, respectively. As part of the PPP, SANBI's Provincial Coordinators have been engaging with the directly affected landowners, while posters (in the key languages spoken in the Province) were erected at strategic locations in/ near the prioritised wetland(s).

As part of the 40 day public comment period on the draft Phase 2 reports, registered I&APs were sent copies of this Summary document, a letter notifying them of the public comment period as well as a response form. Based on the comments received, the draft reports will be updated. The final reports will then be made available for a 21 day comment period.

The Draft BAR for the proposed wetland rehabilitation activities for the Gauteng Province has been made available for review from Wednesday, 5 December 2012 for a 40 day comment period. SANBI's PC's and implementers have hard copies of the Phase 2 Reporting for their Province. Should you wish to review the report, please contact Franci Gresse to have this arranged. The Reports are also available for download from the Aurecon website (**http://www.aurecongroup.com** - follow the public participation links). I&APs have until **Monday, 4 February 2013** to submit comment on the Draft BAR.

After the 40 day public comment period, the final BAR, incorporating I&AP comments received on the Draft BAR (as well as the project team's responses to these), will be submitted to DEA for their decision. Registered I&APs will simultaneously be afforded a further 21 days to provide comment on the Final BAR. Further comments received will be collated by Aurecon and submitted to DEA. Once DEA have made their decision on the proposed project, all registered I&APs on the project database will be notified of the outcome of the decision within twelve (12) calendar days of the date of the decision. Should anyone (a member of public, registered I&AP or the Applicant) wish to appeal DEA's decision, a Notice of Intention to Appeal must be lodged with the Minister within twenty (20) calendar days after the date of the decision.

If no appeals are received and the landowner(s) have signed (i.e. approved) the proposed rehabilitation work detailed in the Final Gauteng Rehabilitation Plan, the interventions will be constructed from April 2013 until March 2014.

Should you wish to raise any issues, concerns and/or suggestions, and/ or register as an I&AP, please contact Franci Gresse at Tel: 021 526 6022, Fax: 021 526 9500, Mail: PO Box 494, Cape Town, 8000 or Email: franci.gresse@aurecongroup.com on/before **Monday, 4 February 2013.**

Lst of Acronyms

BAR	Basic Assessment Report
CEMP	Construction phase Environmental Management Programme
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DWA	Department of Water Affairs
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EPWP	Expanded Public Works Programme
GA	General authorisation in terms of the NWA
IA	Implementing Agent
I&APs	Interested and Affected Parties
M&E	Monitoring and evaluation
NEMA	National Environmental Management Act (Act 107 of 1998)
NWA	National Water Act (Act 36 of 1998)
PC	Provincial Coordinator
SANBI	South African National Biodiversity Institute

Table 5: Summary of the interventions included as part of this Basic Assessment process

Descriptive name	Old intervention number (if applicable)	New Intervention number	Proposed action	Reference document
NEW				
MacMat-R	-	C22D-04-201-00	MacMat-R with earthworks and rock packing; site rehabilitation with indigenous plant species	Gauteng South Draft Rehab Plan: November 2012
Gabion weir	-	C22D-04-202-00	Gabion weir with MacMat-R, earthworks and rock packing; site rehabilitation with indigenous vegetation	
MacMat-R	-	C22D-04-203-00	MacMat-R with earthworks and rock packing; site rehabilitation with indigenous plant species	
MacMat-R	-	C22D-04-204-00	MacMat-R with earthworks and rock packing; site rehabilitation with indigenous plant species	
Gabion weir	-	C22D-04-205-00	Gabion weir with earth berm; site rehabilitation with indigenous vegetation	
MacMat-R	-	C22D-04-206-00	MacMat-R with earthworks and rock packing; site rehabilitation with indigenous plant species	
Gabion weir	-	C22D-04-207-00	Gabion weir; site rehabilitation with indigenous vegetation	
Stone Masonry weir	-	C22D-04-208-00	Stone masonry weir; site rehabilitation with indigenous vegetation	
Rock fill	-	C22D-04-209-00	Rock packing	
Gabion weir	-	C22D-04-210-00	Gabion weir with MacMat-R and earthworks; site rehabilitation with indigenous vegetation	
Gabion weir	-	C22D-04-211-00	Gabion weir; site rehabilitation with indigenous vegetation	
Gabion weir	-	C22D-04-212-00	Gabion weir; site rehabilitation with indigenous vegetation	
Gabion weir	-	C22D-04-213-00	Gabion weir; site rehabilitation with indigenous vegetation	

Descriptive name	Old intervention number (if applicable)	New Intervention number	Proposed action	Reference document
Earth works	-	C22D-04-214-00	Cut and fill drainage channel; site rehabilitation with indigenous vegetation	
Earth works	-	C22D-04-215-00	Cut and fill drainage channel; site rehabilitation with indigenous vegetation	
MAINTENANCE				
Gabion weir	C22D-04-001	C22D-04-216-00	Concrete capping with earth works to fill cavities	Gauteng South Rehabilitation Plan: October 2009
Gabion weir	C22D-04-002	C22D-04-217-00	Concrete capping with earth works to fill cavities; cut and slope downstream embankment	
Gabion weir	C22D-04-006	C22D-04-218-00	Raise spillway, key walls and splash wall; concrete capping	
Gabion weir	C22D-04-007	C22D-04-219-00	Raise spillway, key walls and splash wall; concrete capping	
Gabion weir	C22D-04-010	C22D-04-220-00	Reduce spillway height; concrete capping; raise key walls and splash walls	
Gabion weir	C22D-05-002	C22D-05-201-00	Raise left bank key wall; lengthen right bank key wall	
Gabion weir	C22D-05-003	C22D-05-202-00	Add berm to left bank key wall	
Gabion weir	C22D-05-004	C22D-05-203-00	Raise key walls and splash walls; concrete capping; earth works to fill cavities	
Gabion weir	C22D-05-006	C22D-05-204-00	Raise key walls and splash walls; extend left bank key wall; concrete capping; cut and slope downstream embankments; earth works to fill cavities	
Gabion weir	C22D-05-009	C22D-05-205-00	Cut and slope downstream left embankment	
Gabion weir	C22D-05-010	C22D-05-206-00	Cut and slope approach to bridge on both banks	
Gabion weir	C22D-05-013	C22D-05-207-00	Remove excess excavated soil; revegetation	
Gabion weir	C22D-05-014	C22D-05-208-00	Remove and redo left bank key wall and splash wall; raise left bank key wall and splash wall; revegetation	
Gabion weir	C22D-05-016	C22D-05-209-00	Fill cavities; raise key walls and splash walls	
Gabion weir	C22D-05-017	C22D-05-210-00	Raise spillway, key walls and splash walls	
Gabion weir	C22D-05-018	C22D-05-211-00	Raise left bank splash wall; raise key walls and right bank splash wall; earth works to fill cavities	
Gabion weir	C22D-05-019	C22D-05-212-00	Remove excess soil	
Gabion weir	C22D-05-020	C22D-05-213-00	Earth works to fill / re-compact area upstream of structure; redo upstream geo-fabric	

Descriptive name	Old intervention number (if applicable)	New Intervention number	Proposed action	Reference document
Gabion weir	Unknown	A21C-10-201-00	Raise key walls and splash walls; earth works to fill cavities; MacMat-R with revegetation	Pre 2007; no records could be found
Gabion weir	Unknown	A21C-10-202-00	Concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-203-00	Concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-204-00	Concrete capping; raise key walls; reduce spillway height; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-205-00	Concrete capping	
Gabion weir	Unknown	A21C-10-206-00	Redo upstream geo-fabric; concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-207-00	Redo upstream geo-fabric; concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-208-00	Redo upstream geo-fabric; concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-209-00	Concrete capping	
Gabion weir	Unknown	A21C-10-210-00	Concrete capping	
INTERVENTION REDESIGNS				
N/A				

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

(For official use only)

File Reference Number:	
Application Number:	
Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **1 September 2012**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	YES	NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

The Gauteng South Project replaced the 2008/9 financial year City of Johannesburg project which in turn replaced the Klip River project from the 2007/8 financial year and previously. The project was originally based around tributaries of the Klip River within Soweto and was expanded to include the City of Johannesburg for the 2008/9 financial year. Planning for the 2009/10 financial year looked at wetlands south of the Metro due to the limited opportunities for the type of wetland rehabilitation that the WfWetlands programme handles in the urban areas and this is the reason that the naming and scope of the project was changed.

For planning for the 2011/12 financial year it was decided to rationalise the Gauteng Province WfWetlands projects into the Gauteng North Project[6] and the Gauteng South project[7]. The boundary currently separating the Gauteng North and South project areas is formed by a continental catchment divide that divides the entire province into two main drainage basins:

- The Gauteng North project area: Encompasses watercourses draining towards the Indian Ocean (catchment areas are associated with the Pienaars, Crocodile, Wilge and Olifants Rivers);and
- The Gauteng South project area: Encompasses watercourses draining towards the Atlantic Ocean (the catchment area is associated with the Vaal River and include tributaries such as the Klip, Blesbokspruit and Suikerbosrand Rivers).

Wetland impacts within the project area are primarily related to urbanization within the relevant quaternary catchments. Common wetland habitat modifiers and their associated impacts include:

- Stormwater outflows,
- Road and pipeline crossings,
  - Wetland channel initiation and incision with desiccation effects,
  - Wetland erosion,
- Encroachment of alien plant species,
  - Loss of indigenous wetland biodiversity,
- Dumping and infrastructure encroachment (in formal and informal residential areas),

[6] Include all wetlands falling within the A21A, A23A, B20H and A23J tertiary catchments draining towards the north.

[7] Include all wetlands falling within the C21A, C21C, C21E, C21F, C21G, C22A, C22C, C22D, C22E, C22F, C22H, and C22J tertiary catchments draining to the south.

- Wetland habitat destruction,
- Released return water from sewage treatment works,
  - Decrease in water quality and modification of wetland biota, and
  - Historic Cultivation.

A. Wetland Problems

The surveyed wetland areas have been subjected to a number of impacts such as channel incision, banks collapsing and erosion due to overgrazing, which have led to the modification of the systems' hydrology. The primary concern is that a rapidly incising channel has formed in the wetland. The erosion, causing the channel, has been exacerbated by poor vegetation cover in the wetland as a result of overgrazing and generally poor management of the area. This degradation has resulted in the lowering of the water table causing some sections of the wetland to be 'wetter' and/or drier than others. This is especially evident in the middle section of the drainage line and within the incised channel on site.

The combination of channel incision, erosion and bank instability has resulted in the uneven distribution of water across the wetland area and thus had a considerable impact on the integrity of the wetland. Without the implementation of rehabilitation interventions it is likely that the integrity of the system's hydrology and geomorphology will deteriorate further, especially with further incision and erosion.

However, restoring the wetland to its natural extent without the implementation ofa proper livestock management and grazing plan would also have implications. The wetter areas would attract more livestock and thereby increase trampling, erosion and channel incisions which would further reduce the quality of water in the system. In addition, the increase in livestock, heavy grazing and hoof action would most likely result in higher sediment, nutrient and pathogen concentrations (UCCE Rangeland Watershed Fact Sheets No. 3, 2009). Therefore it is recommended that the City of Johannesburg, implement a livestock management and grazing plan. Furthermore, the area may also need to be fenced off and strict control of the number and timing of livestock grazing would need to be implemented.

B. Wetland Rehabilitation Objectives

Due to the nature and extent of the changes and impacts at this site, rehabilitation to conditions similar to the natural or reference conditions are not possible. Remediation and rehabilitation activities can, however, be undertaken to ameliorate the impacts at the site and improve some of the ecological and other functioning of the system. Several alternative approaches which could be adopted for this site are proposed below, and are discussed based on the primary objective behind each option. The following objectives are proposed to address the problems on site:

- Prevent sedimentation of the downstream areas by deactivating and trapping sediments from the active gullies and head cuttings on site and

reduce channel incision;
- Restoration of natural flow patterns and flooding in the wetland areas by distributing water through the entire wetland area to improve natural wetland vegetation and;
- Improve species richness and attract local wetland dependent biodiversity.

In order to achieve the above mentioned objectives, a number of interventions are being proposed, including weirs, rock masonary and earthworks. During the site visit, the project team discussed and evaluated potential intervention options while taking into account environmental, social and economic considerations, as well as the rehabilitation objectives identified for the wetland. This screening process was undertaken to ensure that the most suitable intervention was identified, developed and assessed for each rehabilitation site and the outcomes are reflected in the 2012 Gauteng South Rehabilitation Plan.

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.544, 545 and 546	Description of project activity
GN R.544, Item 11: *The construction of: (i) canals; (ii) channels; (iii) bridges; (iv) dams; (v) weirs; (vi) bulk storm water outlet structures; (vii) marinas; (viii) jetties exceeding 50m^2; (ix) slipways exceeding 50m^2 in size; (x) buildings exceeding 50m^2 in size; or (xi) infrastructure or structures covering 50m^2 or more where such construction occurs within a watercourse or within 32m of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.*	The construction of weirs (concrete or gabions) within a watercourse (wetland).
GN R.544, Item 18: *The infilling or depositing of any material of more than 5m^3 into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5m^3 from: (i) a watercourse; (ii) the sea; (iii) the seashore; (iv) the littoral active zone, an estuary or a distance of 100m inland of the high-water mark of the sea or an estuary, whichever distance is the greater - but excluding where such infilling, depositing, dredging, excavation, removal or moving; (a) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or (b) occurs behind the development setback line.*	The potential wetland rehabilitation work could involve excavating and / or infilling of material in a wetland.
GN R.546, Item 13: *The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation…* *(a) Critical biodiversity areas and ecological support areas as identified in systematic biodiversity plans adopted by the competent authority.* *(b) National Protected Area Expansion Strategy Focus areas.*	The proposed rehabilitation work could potentially involve the cumulative clearance of an area of 1 hectare or more of indigenous vegetation within a critical biodiversity area to allow the establishment of gabions

In Gauteng: *(i) A protected area identified in terms of NEMPAA, excluding conservancies; (ii) National Protected Area Expansion Strategy Focus areas; (iii) Any declared protected area including Municipal or Provincial Nature Reserves as contemplated by the Environment Conservation Act, 1989 (Act No. 73 of 1989), the Nature Conservation Ordinance (Ordinance 12 of 1983); (v) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (iv) Sites or areas identified in terms of an International Convention or (v) Sites identified as irreplaceable or important in the Gauteng Conservation Plan.*	and earthen diversion berms.
GN R.546, Item 16: *The construction of: (i) jetties exceeding 10m^2 in size; (ii) slipways exceeding 10 m^2 in size; (iii) buildings with a footprint exceeding 10 m^2 in size; or (iv) infrastructure covering 10 m^2 or more where such construction occurs within a watercourse or within 32m of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.* ***In Gauteng****: (i) A protected area identified in terms of NEMPAA, excluding conservancies; (ii) National Protected Area Expansion Strategy Focus areas; (iii) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (iv) Sites or areas identified in terms of an International Convention; (v) Sites identified as irreplaceable or important in the Gauteng Conservation Plan; (vi) Any declared protected area including Municipal or Provincial Nature Reserves as contemplated by the Environment Conservation Act, 1989 (Act No. 73 of 1989) and the Nature Conservation Ordinance (Ordinance 12 of 1983) or (vii) Areas zoned for a conservation purpose.*	The construction of weirs (concrete or gabions) within a watercourse/wetland within a critical biodiversity area.

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

Describe alternatives that are considered in this application as required by Regulation 22(2)(h) of GN R.543. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking

account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)		
As a result of the Phase 1 planning and Phase 2 screening process undertaken on site with the project team (consisting of the wetland ecologist, EAP, engineer and SANBI's Provincial Coordinator), coupled with the requirement of meeting the wetland rehabilitation and the overall the programme's objectives[8], possible site alternatives were considered and screened out during in-field discussions. For a detailed discussion whereby the various alternatives are discussed and screened out, refer to the relevant wetland in the 2012 Gauteng South Rehabilitation Plan. Each of the interventions and their associated location are therefore based on expert opinion from both the wetland specialist and engineer and are thus considered to be the most suitable and effective locations to achieve the rehabilitation objectives for the wetland.		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
Alternative S1 (preferred)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

[8] Wetland conservation and poverty reduction through job creation and skills development amongst vulnerable and marginalised groups.

Alternative S2 (if any)

• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

Alternative S3 (if any)

• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Please refer to the alternative section for the relevant wetland in the 2012 Gauteng South Rehabilitation Plan for more information on alternatives.		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

c) Technology alternatives

Alternative 1 (preferred alternative)
Please refer Section A(2)(a) of this document, as well as the 2012 Gauteng South Rehabilitation Plan for more information on alternatives.
Alternative 2
Alternative 3

No-go alternative

If the no-go alternative is pursued, the wetland would continue to deteriorate, resulting in an overall negative impact on the aquatic and terrestrial ecosystems. These impacts will especially be visible in the long-term as rehabilitation activities will not take place and the existing problems (such as erosion) in the wetland will continue. Over time these existing problems are likely to have a greater negative impact than the short-term and fairly minor construction related impacts. Please also refer to Section D for the impact assessment of the no-go alternative.

Paragraphs 3 – 13 below should be completed for each alternative.

3. PHYSICAL SIZE OF THE ACTIVITY

a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Alternative A1[9] (preferred activity alternative)	Please refer to the Gauteng South Rehabilitation Plan.
Alternative A2 (if any)	
Alternative A3 (if any)	

or, for linear activities:

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	Please refer to the Gauteng South Rehabilitation Plan.
Alternative A2 (if any)	
Alternative A3 (if any)	

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**
Alternative A1 (preferred activity alternative)	Please refer to the Gauteng South Rehabilitation Plan.
Alternative A2 (if any)	
Alternative A3 (if any)	

4. SITE ACCESS

Does ready access to the site exist?	**YES**	~~NO~~
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

Please note that although easy access to a point of all of the wetlands exists, some sections of the various wetlands will require that temporary access routes be created. These routes would be "created" simply by driving a small utility vehicle (i.e. bakkie) over the grass and will not be permanent nor require the removal of any vegetation. The location of these routes will depend on a number of factors including landowner requirements and the time of year and recent weather conditions (i.e. how wet or dry the area is). For this reason it is not possible to specify exactly where routes are needed or where they will be located, however they will be temporary and seldom more than a few hundred metres long. They are noted here for the sake of completeness.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

[9] "Alternative A.." refer to activity, process, technology or other alternatives.

5. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s;)
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).

6. LAYOUT/ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

8. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

10. ACTIVITY MOTIVATION

Motivate and explain the need and desirability of the activity (including demand for the activity):

1. Is the activity permitted in terms of the property's existing land use rights?	**YES**	~~NO~~	Please explain
The property is zoned for agricultural purposes and the proposed wetland rehabilitation project will assist with the protection of agricultural and water resources.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	**YES**	~~NO~~	Please explain
One of the long-term spatial visions identified in the Gauteng Employment Growth and Development Strategy (GEGDS)[10], is the need to protect and enhance the natural environment to ensure sustainable, natural systems and biodiversity upon which urban and infrastructural development can be based. The proposed project will rehabilitate degraded wetlands and would this assist the Gauteng provincial government in achieving this long-term spatial vision.			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
N/A – The properties fall outside the urban edge.			

[10] The GEGDS is in line with the Gauteng PSDF. Unfortunately a copy of the PSDF was unobtainable at the time the Draft BAR was compiled.

(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	**YES**	~~NO~~	Please explain
One of the strategic objectives identified in the planning documents for the City of Johannesburg is the need to improve the integrity of water resources, as well as protect biodiversity. According to the documentation this objective can be achieved by: o Reducing bacteriological and chemical contamination through projects such as the rehabilitation of priority rivers and streams and implementing enhancement measures; o Promoting water resource conservation by protecting the source and resource; and o Management of wetlands by undertaking rehabilitation work and development in the wetlands, as well as implementing wetland maintenance guidelines. In addition, the Municipality aims to rehabilitate 20 wetlands within the 2011– 2016 period. Since the aim of the WfWetland programme is to rehabilitate degraded wetlands, the proposed rehabilitation plan would assist the municipality in achieving this strategic objective.			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
N/A – Only structures for rehabilitation purposes will be implemented.			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	**YES**	~~NO~~	Please explain
The proposed project aims to rehabilitate degraded and eroded wetland systems to improve and protect aquatic ecosystems and biodiversity. In other words, the project would enhance existing environmental management priorities for the area.			
(f) Any other Plans (e.g. Guide Plan)	**YES**	~~NO~~	Please explain
According to the Gauteng Biodiversity Conservation Plan Version 3.3, 2011 (C-Plan 3.3), the Klipriviersberg project area falls within a Critical Biodiversity Area (CBA) with Orange Listed plant species and Red Listed mammal and bird species occurring within the area. The proposed project would enhance and protect the CBA within which the site is located and is thus in line with the C-Plan.			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	**YES**	~~NO~~	Please explain
According the municipal planning documents 20 wetlands should be rehabilitated between 2011 and 2016. The proposed rehabilitation project would assist the City of Johannesburg in achieving this goal.			

4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	**YES**	~~NO~~	Please explain
The WfWetlands project is part of the Expanded Public Works Programme (EPWP) and more than 1 500 local people are recruited to work in projects on limited term contracts across the country.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
N/A – No services will be required to undertake the rehabilitation work.			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
N/A – The proposed rehabilitation project does not have any infrastructure requirements.			
7. Is this project part of a national programme to address an issue of national concern or importance?	**YES**	~~NO~~	Please explain
WfWetlands is a government programme (similar to Working for Water, Working on Fire and LandCare) managed by the South African National Biodiversity Institute (SANBI) on behalf of the national government departments of Environmental Affairs (DEA), Water Affairs (DWA), and Agriculture, Forestry and Fisheries (DAFF), and forms part of the Expanded Public Works Programme (EPWP).			
8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	**YES**	~~NO~~	Please explain
The activities applied for are for the rehabilitation of degraded and threatened wetland systems.			
9. Is the development the best practicable environmental option for this land/site?	**YES**	~~NO~~	Please explain
Without the implementation of the planned rehabilitation activities, the programme's objectives[11] would not be realized; and the loss of wetland habitat and its associated eco-system services would be significantly greater. The strategic importance of the WfWetlands programme is clear as evidenced by the distinct positive impacts associated with the programme which has resulted in a ***net benefit/ gain*** as wetland			

[11] Wetland conservation and poverty reduction through job creation and skills development amongst vulnerable and marginalised groups.

health and integrity is improved and the associated eco-services enhanced. Overall the cumulative impact of wetland rehabilitation would thus be positive to both human beings and the environment, now and in the future. Based on the above information, it is clear that rehabilitating wetlands is considered to be the '***best practicable environmental option***' as a result of the positive impact that the programme has on both the natural and socio-economic environment.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	**YES**	~~NO~~	Please explain
The proposed interventions aim to improve the ecological and hydrological functioning and state of the wetland within which rehabilitation is undertaken. Also see the above response.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain
N/A – The WfWetlands programme is implemented in a phased approach. Wetland rehabilitation work in a new area will set a precedent for future rehabilitation work in that area. In instances where rehabilitation work has already been undertaken in the area, a precedent has already been set.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	~~YES~~	**NO**	Please explain
Rehabilitation work will improve the ecological and hydrological functioning and state of the wetland.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	~~YES~~	**NO**	Please explain
The proposed rehabilitation work will be undertaken outside the urban edge on agricultural land.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	~~YES~~	**NO**	Please explain
Wetland rehabilitation work is not included in any of the 17 SIPS.			
15. What will the benefits be to society in general and to the local communities?			Please explain
The two main objectives of the programme are wetland conservation in South Africa and poverty reduction through job creation and skills development amongst vulnerable and marginalised groups.			
16. Any other need and desirability considerations related to the proposed activity?			Please explain
Given this approach of linking wetland conservation to sustainable economic development, the programme forms part of the EPWP, which seeks to draw significant numbers of unemployed into the productive sector of the economy. These individuals gain skills while they work thus increasing their capacity to earn an income. Projects are thus focused on rehabilitation, conservation and the appropriate use of wetlands in a way that attempts to maximize employment creation, support for small business and the transfer of skills to the unemployed and poor.			

17. How does the project fit into the National Development Plan for 2030?	Please explain
Yes. Given the programme's linked wetland conservation to sustainable economic development approach, WfWetlands forms part of the EPWP, which seeks to draw significant numbers of unemployed into the productive sector of the economy. These individuals gain skills while they work thus increasing their capacity to earn an income.	
18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.	
The vision of WfWetlands is to facilitate the protection, conservation, rehabilitation and sustainable use of wetlands in South Africa, in accordance with national policies and commitment to international conventions and regional relationships, including Section 23 of NEMA. Please refer to the relevant Rehabilitation Plan for more information on the WfWetlands programme and its objectives.	
19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.	
WfWetlands aim to facilitate the protection, conservation, rehabilitation and sustainable use of wetlands in South Africa in accordance with national policies and commitment to international conventions and regional relationships. More specifically the WfWetlands programme is in line with Principle 4(r) of Section 2 which notes the requirement of specific management and planning procedures to deal with sensitive and vulnerable ecosystems such as wetlands.	

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
The Constitution of South Africa (Act 108)	WfWetlands is a rehabilitation programme that aims to protect and conserve South Africa's wetland ecosystems. As such the listed legislation, policies and guidelines are of relevance to the project.	National Government	1996
National Environmental Management Act (107)		Department of Environmental Affairs	1998
National Environmental Management Act (Act 107), Amendment Act		Department of Environmental Affairs	1998
The National Water Act (Act 36)		Department of Water Affairs	1998
Conservation of Agricultural Resources Act (Act 43)		Department of Agriculture, Forestry & Fisheries	1983
Natural Heritage Resources Act (Act 25)		National Heritage Resources Agency	1999
World Heritage Conventions Act (Act 49)		Department of Environmental Affairs	1999

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
The National Environmental Management: Biodiversity Act (Act 10)		Department of Environmental Affairs	2004
National Environmental Management: Protected Areas Act (Act 57)		Department of Environmental Affairs	2003
The Mountain Catchments Areas Act (Act 63)		Department of Water Affairs	1970
EIA Guideline Series, in particular: o Guideline 3 – General Guide to the Environmental Impact Assessment Regulations, 2006 (DEAT 2006) o Guideline 4 – Public Participation in support of the EIA regulations, 2006 (DEAT 2006) o Guideline 5 – Assessment of Alternatives and Impacts, 2006 (DEAT 2006)		Department of Environmental Affairs	
Gauteng Biodiversity Conservation Plan Version 3.3		Department of Environmental Affairs and City of Johannesburg	2011
International Conventions, in particular: o The Ramsar Convention o Convention on Biological Diversity o United Nations Conventions to Combat Desertification o New Partnership for Africa's Development (NEPAD) o The World Summit on Sustainable Development (WSSD)			

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	~~YES~~	**NO**
If YES, what estimated quantity will be produced per month?	m^3	

How will the construction solid waste be disposed of (describe)?

Where will the construction solid waste be disposed of (describe)?

Limited quantities of construction waste such as empty cement bags and litter may be generated. These wastes are typically collected on site and would be disposed of as per the WfWetlands Construction Environmental Management Programme (CEMP) (**Annexure D** of the BAR).

Material that is excavated during construction or which results from the breaking down of old structures is typically re-used on site in the construction and long-term stabilization of other interventions on site. For example, rubble from an old structure is typically used to provide backfill.

Ablution waste is usually handled through the provision of chemical toilet facilities or pit latrines (where no chemical toilet hire facilities exist). Chemical toilet waste is regularly removed by the toilet hire company and disposed of at a waste water treatment works. Toilet facilities are located out of wet areas and in line with the WfWetlands best management practices.

Please note that strict audits are carried out to ensure that the project Implementers do not generate unnecessary waste.

Will the activity produce solid waste during its operational phase?	~~YES~~	**NO**
If YES, what estimated quantity will be produced per month?	m^3	

How will the solid waste be disposed of (describe)?

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?	~~YES~~	**NO**

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?	~~YES~~	**NO**

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	~~YES~~	**NO**
If YES, what estimated quantity will be produced per month?	m^3	
Will the activity produce any effluent that will be treated and/or disposed of on site?	~~YES~~	**NO**

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	**NO**

If YES, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		**Cell:**	
E-mail:		**Fax:**	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?	YES	**NO**
If YES, is it controlled by any legislation of any sphere of government?	YES	NO

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the emissions in terms of type and concentration:

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	YES	**NO**

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	YES	**NO**
If YES, is it controlled by any legislation of any sphere of government?	YES	NO

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the noise in terms of type and level:

Noise generation would be limited to the workers interactions and activities; limited noise may result from concrete mixers or pumps if utilized.

13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal	Water board	Groundwater	River, stream, dam or lake	Other	The activity will not use water
Water use would mainly consist of drinking water for the construction team and would					

be brought in daily. Concrete structures would however require minimal water during the construction phase for batching.

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	13728 litres
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	~~YES~~ **NO**

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

In terms of Section 39 of the National Water Act (No. 36 of 1998) (NWA), a General Authorisation (GA) has been granted for certain activities that are listed under the NWA that usually require a Water Use License. Such a GA exists for wetland rehabilitation as long as the activities are for conservation purposes. As some of the rehabilitation activities entail 'impeding or diverting the flow of water in a watercourse' and/ or 'altering the bed, banks, course or characteristics of a watercourse, a number of GAs have been registered with the Department of Water Affairs (DWA) for structures that would ordinarily require a Water Use License. For each planning cycle the proposed rehabilitation work will be submitted to DWA, the requisite approval sought and project monitoring reported as required.

14. ENERGY EFFICIENCY

Describe the design measures, if any, which have been taken to ensure that the activity is energy efficient:

Manual labour would be used during the construction phase, with material and labourers being brought to site each day. Energy would thus only be required in the form of vehicle/machine (limited) fuel.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

N/A

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Please refer to the relevant section in the Draft Upper Mzintlava Rehabilitation Plan.

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A):

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section? YES NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	
District Municipality	
Local Municipality	
Ward Number(s)	
Farm name and number	
Portion number	
SG Code	

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required? YES NO

1. GRADIENT OF THE SITE

Please refer to the relevant section in the Gauteng South Rehabilitation Plan.

2. LOCATION IN LANDSCAPE

Please refer to the relevant section in the Gauteng South Rehabilitation Plan.

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Please refer to the relevant section in the Gauteng South Rehabilitation Plan.

4. GROUNDCOVER

Please refer to the relevant section in the Gauteng South Rehabilitation Plan.

5. SURFACE WATER

Please refer to the relevant section in the Gauteng South Rehabilitation Plan.

6. LAND USE CHARACTER OF SURROUNDING AREA

Please refer to the relevant section in the Gauteng South Rehabilitation Plan.

7. CULTURAL/HISTORICAL FEATURES

Please refer to the relevant section in the Gauteng South Rehabilitation Plan.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

City of Johannesburg: 21.8%

Economic profile of local municipality:

Approximately 90% of the working population is employed in the formal sector and the remainder in the informal sector. However, 21.8% of the population is unemployed

with youth unemployment identified as a major problem. However, the EPWP has provided 153 000 jobs during its first phase and the City has undertaken to continue the implementation of projects through the EPWP that would great jobs and develop skills among the unemployed. Also, HIV/AIDS has made a serious impact on the social and economic development of the area and the City of Johannesburg has implemented various programmes to ensure that the prevalence rates continue to decrease.

Level of education:

No Schooling: 4.8%; Primary education: 25.1%; Secondary Education: 58.5%; Tertiary Education: 11.6%

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	~ R2 million	
What is the expected yearly income that will be generated by or as a result of the activity?	None	
Will the activity contribute to service infrastructure?	~~YES~~	**NO**
Is the activity a public amenity?	~~YES~~	**NO**
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	~ 40*	
What is the expected value of the employment opportunities during the development and construction phase?	TBC	
What percentage of this will accrue to previously disadvantaged individuals?	~70%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	None	
What is the expected current value of the employment opportunities during the first 10 years?	None	
What percentage of this will accrue to previously disadvantaged individuals?	N/A	

*** Employment opportunities are only created during the construction phase and for many of the projects there are already teams (team size averages around 20-35 individuals) working on them and therefore there aren't new work opportunities as such. However, WfWetlands principles ensure that a very large percentage of those employed are from local communities.**

9. BIODIVERSITY

Please refer to the relevant section in the Gauteng South Rehabilitation Plan.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Adverts were placed in *The Sunday Times* (in English) and in *Die Rapport* (in Afrikaans).	
Date published	1 and 2 December 2012	
Site notice position	**Latitude**	**Longitude**
	To be provided in Final BAR	
Date placed	5 December 2012	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 54(2)(e) and 54(7) of GN R.543.

I&APs were registered when they responded to the advertisements and site notice boards during the 2010/11 and 2011/12 public participation processes for the WfWetlands programme. New I&APs responding to advertisements and site notices for the 2012/13 cycle will also be registered on the project's database. Furthermore, proactive identification of I&APs was done via scrutiny of previous BAR processes and identifying potentially interested and/or affected parties based on previous experience with BAR processes. An Issues Register will be maintained to record any comments received from I&APs and the responses given to these comments. The Issues Register, along with copies of written submissions, will be included in Appendix E3.

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2)(b) of GN R.543:

TITLE	INITIAL /NAME	SURNAME	ORGANISATION	Telephone	Fax	EMAIL
	Nhlanhla	Makhathini	GDACE	(011) 355 1345		eia.admin@gauteng.gov.za
	Florah	Mamabolo	DWA Regional Representative WMA 8	(012) 392-1361		mamabolof@dwa.gov.za
	Rens	Botha	Department of Water Affairs - Gauteng	(012) 392 1308		BothaR@dwa.gov.za
Mr	Grant	Botha	Gauteng Provincial Heritage Resources Agency	(011) 355 2570	(011) 355 2513	-
Mr	Siyabonga	Buthelezi	GDARD	(011) 355 1557		Siyabonga.Buthelezi@gauteng.gov.za
Mr	Harmen	den Dulk	GDARD	(011) 355 1266	(086) 692 2915	harmen.denbulk@gauteng.gov.za
Mr	Ian	Engelbrecht	GDACE	(012) 748 2836		Ian.Engelbrecht@gauteng.gov.za
Mr	Marius	Keet	Department of Water Affairs - Gauteng	(012) 392 1306	(012) 392 1359	KeetM@dwa.gov.za
Mr	Kelvin	Legge	Department of Water Affairs	(012) 336 8677	(012) 336 8561	LeggeK@dwa.gov.za
Mr	Justice	Maluleke	DWA: Gauteng	(012) 392 1409	(012) 392 1486	MalulekeJ@dwa.gov.za
Mr	Mike	Mokgwabone	DWA: Gauteng	(054) 338 5800		MokgwaboneM@dwa.gov.za

TITLE	INITIAL /NAME	SURNAME	ORGANISATION	Telephone	Fax	EMAIL
Mr	Christopher	Nemalili	Department of Water Affairs	(012) 389 1412		nemalilic@dwa.gov.za
Ms	Maphata	Ramphele	Gauteng Provincial Heritage Resources Agency	(011) 355 2572	(011) 355 2513	maphata.ramphele@gauteng.gov.za
Mr	Ernst	Seamark	GDACE	(011) 748 2836		eia.admin@gauteng.gov.za
Mr	Ramogale	Sekwale	Department of Water Affairs	(012) 808 9614	(012) 808 0338	SekweleR@dwaf.gov.za
Mr	H. A.	Smit	DWA: Chief Director: Gauteng	(012) 392 1301	(012) 392 1304	qbe@dwa.gov.za

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

Proof of I&AP and key stakeholder notifications will be provided in Appendix E2 of the Final BAR.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
To date no comments have been received from I&APs. However, an Issues Register will be maintained to record any comments received from I&APs and the responses given to these comments. The Issues Register, along with copies of written submissions, will be included in Appendix E3.	

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

Please refer to the response under Section C(3).

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

TITLE	INITIAL/ NAME	SURNAME	ORGANISATION	Address 1	City / Town	Postal Code	Telephone	Cellphone	Fax	EMAIL
Ms	Jackie	Jay	Department of Water Affairs	Private Bag X313	Pretoria	0001	(012) 336 7443		(012) 336 7575	jayj@dwa.gov.za
Mr	David	Kleyn	Department of Agriculture Forestry & Fisheries	Private bag X120	Pretoria	0001		082 789 6915		DavidKl@nda.agric.za
Mr	Christo	Marais	Department of Water Affairs	14 Loop Street	Cape Town	8000	(021) 441 2727			chris@dwa.gov.za
Ms	Kerryn	Morrison	Endangered Wildlife Trust	Private Bag X11	Parkview	2122				kerryn@ewt.org.za
Ms	Naomi	Fourie	Department of Water Affairs	Private Bag X313	Pretoria	0001	(012) 336 7443			FourieNaomi@dwa.gov.za
Ms	Valerie	du Plessis	Department of Water Affairs	Private Bag X313	Pretoria	0001	(013) 336 7443			DuPlessisV@dwa.gov.za
Mr	Guy	Preston	Department of Water Affairs	14 Loop Street	Cape Town	8000		083 325 8700		GPreston@dwa.gov.za
Ms	Fulufhelo	Mafelatshuma	Department of Water Affairs : RQS	Private Bag X313	Pretoria	0001				MafelatshumaF@dwa.gov.za
Ms	Wilma	Lutsch	Department of Environmental Affairs	Private Bag X 447	Pretoria	0001	(012) 310 3694		(012) 320 7026	wlutsch@environment.gov.za
Mr	Bonani	Madikizela	Water Research Commission	Private Bag X03	Gezina	0031				bonanim@wrc.org.za
Mr	Tambubzani	Mulaudzi	Department of Environmental Affairs: Directorate: Sensitive Environments	Private Bag x 447	Pretoria	0001	(012) 310 3144		(012) 320 7539	tambum@environment.gov.za
Ms	Linda	Poll-Jonker	Department of Environmental Affairs	Private Bag x 447	Pretoria	0001	(012) 395 1767		(012) 320 7539	LPoll-Jonker@environment.gov.za

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Please Note: Alternative sites were screened out during the planning and prioritisation process and will therefore not be assessed in further detail. Refer to the alternatives discussion in the Gauteng South Rehabilitation Plans.

A) Construction Phase

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
GN R.544, Item 11 & 18 GN R.546, Item 13 & 16	***Direct impacts:***		
	JOB CREATION One of the primary objectives of the WfWetlands programme is to create jobs and to teach transferrable skills to unemployed members of the local community so that they can be drawn into the permanent job market. The potential impact of this is significant and has a number of indirect positive impacts such as improvement in quality of life of the workers, increased spending in the local economy and the support	***Without mitigation:*** Medium (+) ***With mitigation:*** High (+)	• Encourage landowners to become more aware of, and educated in, the ecological values and sensitivity of the wetland environments. • Consider the erection of a SANBI/WfWetlands information signs to describe, and increase awareness of, the activities and the 'ecological' investment taking place in the Project areas • Ensure that the required Project workers are sourced from local communities and that maximum employment numbers are maintained

Activity	Impact summary	Significance	Proposed mitigation
	of small business in the local area. Cumulatively, the impact of the WfWetlands projects is judged to be of high positive significance. The programme has a budget of over R83 million, has created in the region of 1500 jobs and transferred skills to numerous previously unskilled persons.		throughout the Project duration. • Project implementers to support local businesses (e.g. local quarry owners to obtain rock for gabions) where possible
	FIRE RISK There is a possibility that construction workers could light a fire on site that could become out of control. The risk of this happening is assessed to be low, although the significance in terms of the economic damage that could be caused (especially in a commercial forestry area) is high. Adequate site supervision would considerably mitigate this impact.	***Without mitigation:*** Medium (+) ***With mitigation:*** High (+)	• Ensure that workers are aware of the potential for fires and the damage that could be caused. • Ensure that a fire response procedure is in place and that all dry season work is organized in liaison with the landowners so that it fits into their firebreak/fire protection programme.
	NUISANCE IMPACTS Construction can result in nuisance impacts, particularly for landowners. These impacts include: • Noise from construction activities, personnel and vehicles. • An increase in the amount of litter being generated. • Dust. • Security concerns such as theft or leaving gates open. • Non-use of sanitation facilities. • Temporary loss of access to areas due to construction activities. As many wetlands in Gauteng are located within close proximity to urban areas, on-site	***Without mitigation:*** Low (-) ***With mitigation:*** Very Low (-)	• All site workers to undergo environmental induction training ("toolbox talks") before undertaking work so that they are aware of the various environmental requirements. • Landowners should be consulted regarding the placement of stockpile sites and toilets as well as access routes. • Ensure that gates are kept closed. When in doubt, the landowner should be consulted. • Follow CEMP with regards to sanitation facilities, waste management, noise and site management • Utilise local labour wherever possible to reduce potential friction within the community caused by bringing outside personnel in. • Ensure that all workers wear the yellow/blue attire indicative of WfWetlands personnel so

Activity	Impact summary	Significance	Proposed mitigation
	supervision and compliance with the CEMP is critical.		that they are not mistaken for trespassers.
	HERITAGE IMPACTS No significant heritage resources within the wetlands were identified during the desktop research, I&AP interactions or site visit for the project. Given the low likelihood of heritage sites being disturbed and provided that construction is immediately stopped should a heritage resource be encountered then the magnitude of this impact should be zero.	***Without mitigation:*** Very Low (-) ***With mitigation:*** Neutral (-)	• Should any artefact or suspected artefact (including fossils and grave sites), or any site of cultural significance be encountered during construction, then the Contractor must immediately stop work in the vicinity of the artefact and alert the relevant authorities. The area around the discovery shall be cordoned off until such time that work is authorised to proceed.
	FLORA & FAUNA **Habitat disturbance** Habitat disturbance during the construction stage is typically temporary. In addition most species are relatively tolerant of disturbance and will be able to utilise the similar alternative habitat available in the study area. The area of habitat loss is also likely to be small and limited to the immediate surroundings of the intervention being constructed. **Alien species invasion** A potential construction-related impact on vegetation is the possibility of an increase in alien invasive species due to disturbance and weed seeds being brought in with borrow and construction material. **Poaching** Poaching by the construction teams is possible,	***Without mitigation:*** Low (-) ***With mitigation:*** Very Low (-)	• All site workers to undergo environmental induction training ("toolbox talks") before undertaking work so that they are aware of the various environmental requirements with reference to fauna and flora

Activity	Impact summary	Significance	Proposed mitigation
	but can be mitigated by the fact that the teams are not resident on site and are closely supervised.		
	AQUATIC ECO-SYSTEM IMPACTS **Temporary alteration to stream flow patterns** Construction must often take place in areas that are permanently wet. This requires that water be diverted away from working areas, leading to temporary alterations in the current drainage characteristics. Water diversion is typically done using sand bags to slow/block flow and then a pump to remove water and discharge it further downstream. This can result in a slight drying in the working areas and may affect aquatic organisms. This will however be of a temporary nature and is unlikely to significantly alter flow patterns. **Sedimentation** Construction activities can result in additional sediment ending up in the water course (e.g. due to earthworks or breakage of sandbags used to divert water away from working areas). Sediment can result in silt build-up downstream, increase the turbidity of the water and result in habitat changes. However, as wetlands are typically low-energy systems, much of the excess sediment is likely to be trapped before it is washed far downstream. Also, given the limited nature of the earthworks, sedimentation is not anticipated to occur to a significant degree.	***Without mitigation:*** Low (-) ***With mitigation:*** Very Low (-)	• Implement the provisions of the CEMP regarding stockpile location and site management. • If sandbags are used to temporarily divert water then these bags should be in good condition. • Sand/earth to fill the bags should come from and be returned to existing excavation points. • Soil used in interventions must be stabilised as per the engineer's recommendations to counteract the dispersive tendencies. • Water abstracted above the General Authorization limits must be authorized by DWAF prior to such abstraction taking place.

Activity	Impact summary	Significance	Proposed mitigation
	Pollution of water-courses Construction activities close to a water-course/wetland carry the attendant risk that construction-related pollutants could end up in the wetland system. Typical pollutants include hydrocarbons (e.g. from fuel leaks, shutter oil and lubricating fluid spills), litter, cement and contaminated wash-down water. **Disturbance of wetland vegetation and stream banks** Some disturbance to stream banks and wetland vegetation will be inevitable in order to construct the proposed interventions. This impact generally occurs on a small scale and can be mitigated via good management practices		
No-go option			
	Direct, Indirect and Cumulative impacts:		
	Aquatic ecosystem If the no-go alternative is pursued, then the construction-related impacts will not be realised. However, the overall impact of the no go option on the aquatic ecosystem is likely to be negative, especially in the long-term as rehabilitation activities will not take place and the existing problems (such as erosion and biodiversity loss) in the wetland will continue. Over time these existing problems are likely to have a greater negative impact than the short-term and fairly minor construction related impacts. Although the no-go option is likely to have significant long-term negative consequences, only the expected impact of the	**Low (-)**	***Note:*** If the no go alternative is pursued, then the operational-related impacts will not be realised. However, the overall impact of the no go option on the aquatic ecosystem is likely to be negative, especially in the long-term as rehabilitation activities will not take place and the existing problems (such as erosion) in the wetland will continue. Over time these existing problems are likely to have a greater negative impact than the short-term and fairly minor construction related impacts.

Activity	Impact summary	Significance	Proposed mitigation
	no-go in the short term (i.e. construction-related time frame) has been assessed in this section so as to facilitate comparison between the no-go and preferred alternative during the construction period. The longer term impact of the no-go is assessed in the operational phase.		
	Fauna and Flora If the no-go alternative is pursued, then the construction-related impacts will not be realised. However, the overall impact of the no-go option on the flora and fauna is likely to be negative, especially in the long-term as rehabilitation activities will not take place and there is thus unlikely to be an expansion in wetland habitat or biodiversity. The non-expansion in habitat would be particularly detrimental to wetland dependent species. Although the no-go option is likely to have significant long-term negative consequences, only the expected impact of the no-go in the short term (i.e. construction-related time frame) has been assessed here so as to facilitate comparison between the no-go and preferred alternative during the construction period. The longer term impact of the no-go is assessed in the operational phase.	**Low (-)**	
	Heritage The no-go alternative is unlikely to have a significant impact – either positive or negative – due to the low likelihood of disturbance to heritage resources	**Neutral**	

Activity	Impact summary	Significance	Proposed mitigation
	Nuisance impacts Pursuing the no-go alternative will mean that the nuisance impacts associated with construction will not be realised.	**Neutral**	
	Socio-economic Pursuing the no-go alternative in this case will mean that the positive socio-economic benefits of job creation, skills transfer and support of the local economy will not be realised.	**Medium (-)**	

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 must be included as Appendix F.

B) Operational Phase

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
GN R.544, Item 11 & 18 GN R.546, Item 13 & 16	***Direct & Indirect impacts:***		
	ECOSYSTEM FUNCTIONING **Restoring wetland corridors** In areas where wetlands have been artificially drained, restoration can result in the re-wetting of areas and link up previously wet areas, thus creating and extending a network of wetland areas. These wetland corridors can provide valuable refuges for wetland species and allow for greater ecosystem connectivity. **Changes in water quality and quantity** More natural stream flow patterns within the wetland, as well as an improvement in water quality and quantity (due to improved	***Without mitigation:*** High (+) ***With mitigation:*** High (+)	***Note:*** The interventions identified for the proposed rehabilitation project were identified during a screening process that was undertaken to ensure that the most suitable intervention was identified, developed and assessed for each rehabilitation site. During this screening process the project team also took into account environmental, social and economic considerations, as well as the rehabilitation objectives identified for the wetland. Should these interventions not be implemented, the current rate of degradation at the assessed wetlands would continue and in some cases even result in the permanent loss of the integrity and

Activity	Impact summary	Significance	Proposed mitigation
	ecosystem services) can be expected after rehabilitation. This improvement in water quality and a more reliable supply of water is particularly important given the water scarcity that faces and that most of the wetland are situated near human settlements that use the water for domestic and agricultural purposes. The Gauteng South Wetlands are especially important as most drain into important catchments in South Africa. These catchments provide Gauteng with its drinking water.		functioning of these systems. It would also not be possible to achieve the rehabilitation objectives identified for the wetlands. Without the implementation of wetland rehabilitation as part of the WfWetlands project, the overall programme objectives[12] and the EPWP requirements would not be realised.
	FLORA & FAUNA **Increased habitat** Increasing the wetland area through rehabilitation will result in an increase in habitat for wetland-dependent species. This will result in a positive impact. **Increased biodiversity** A large proportion of the natural vegetation in the greater area has already been lost to urbanisation and agriculture. Restoring wetland habitat will help to increase the species richness of the overall area by encouraging the re-establishment of wetland species. **Change in species composition** In wetlands that have been subject to desiccation, plants that are tolerant of drier conditions are likely to have become	***Without mitigation:*** Medium (+) ***With mitigation:*** Medium (+)	

[12] Wetland conservation and poverty reduction through job creation and skills

Activity	Impact summary	Significance	Proposed mitigation
	established. With the restoration of the wetland, these species are likely to be replaced with wetland-adapted vegetation. This change in composition reflects a shift back to historical species composition and is thus considered positive.		
	SOCIO-ECONOMIC IMPACTS **Changes in land use** The increase in wetland area may have both positive and negative impacts for landowners. Wetlands are often utilised for winter grazing and an increase in wetland area will thus improve grazing conditions for the farmer. However the increase in wet areas may also make previously accessible areas inaccessible for farming purposes. The extent and magnitude of this impact will depend to a large degree on how much value each individual landowner places on wetland conservation. It is however assumed that if the landowner is willing to allow wetland rehabilitation to take place on their property that they see the value in the WfWetlands programme and are willing to accept the increase in wetland area. **Reduced water storage and treatment costs** Wetlands can offer valuable stream flow regulation and filtration services. By restoring wetland area it is likely that downstream users will benefit by having a more reliable and possibly cleaner source of water. In addition, by addressing erosion, wetland rehabilitation can	***Without mitigation:*** High (+) ***With mitigation:*** High (+)	

Activity	Impact summary	Significance	Proposed mitigation
	decrease the amount of sediment downstream. This can help to reduce water treatment costs for downstream users and will also reduce the sedimentation of downstream water storage facilities such as dams.		
	Employment Ideally, the skills learned by the project team during the construction phase – such as how to work with concrete, build gabions etc – can be used to assist them to find permanent employment.	***Without mitigation:*** High (+) ***With mitigation:*** High (+)	
No-go option			
	Direct, Indirect and Cumulative impacts:		
	Ecosystem functioning Pursuing the no-go option would result in the current negative ecosystem impacts continuing. These impacts include desiccation, erosion, channel incision etc.	**Medium (-)**	***Note:*** If the no go alternative is pursued, then the operational-related impacts will not be realised. However, the overall impact of the no go option on the aquatic ecosystem is likely to be negative, especially in the long-term as rehabilitation activities will not take place and the existing problems (such as erosion) in the wetland will continue. Over time these existing problems are likely to have a greater negative impact than the short-term and fairly minor construction related impacts.
	Fauna & Flora The no go alternative would mean that the positive impacts identified above would not be realised. Continued wetland degradation and habitat loss is likely to result in exponential increase in the significance of the no go alternative, leading to an eventual loss of biodiversity and disruption of floral and faunal ecosystems. In addition, it would also negatively affect the achievement of conservation objectives for the area.	**Medium (-)**	

Activity	Impact summary	Significance	Proposed mitigation
	Socio-economic The no go alternative would mean that the positive impacts identified above would not be realised.	**Low (-)**	

C) Decommissioning and Closure Phase

There were no anticipated situations were any decommissioning would be required.

2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred alternative)

IMPACT SUMMARY TABLE

High negative	**Red**
Medium negative	**Green**
Low negative	**Blue**
Very Low	**Light Blue**
Neutral	
Positive impact	**Yellow**

	Significance of impact		
	Preferred alternative		**No go**
	No mitigation	**With mitigation**	
Construction phase			
Aquatic ecosystems	Low (-)	Very Low (-)	Low (-)
Flora & fauna	Low (-)	Very Low (-)	Very Low (-)
Heritage	Very Low (-)	Neutral	Neutral
Nuisance	Low (-)	Very Low (-)	Neutral
Socio-economic	Medium (+)	High (+)	Medium (-)
Operational phase			
Ecosystem functioning	High (+)	High (+)	Medium (-)
Flora & fauna	Medium (+)	Medium (+)	Medium (-)
Socio-economic	High (+)	High (+)	Low (-)

Based on the above, it is the opinion of the EAP that the positive long-term bio-physical and socio-economic aspects of the project as a whole greatly outweigh the minor negative construction related impacts, particularly since effective mitigation measures to reduce the negative impacts exist. There are no indications to suggest that the preferred alternative will have a significant detrimental impact on the environment. Instead, a long-term positive impact is anticipated. This is discussed in further detail below:

CONSTRUCTION PHASE:

It is most likely that all identified construction related impacts would be limited to the duration of this phase. Impacts on the bio-physical environment are generally considered to be of **Low (-)** significance, which can be reduced to **Very Low (-)** with the implementation of appropriate mitigation measures. Construction related impacts can generally be very effectively managed through the implementation and regular auditing of a CEMP. The impact on the socio-economic environment is expected to be **Medium** to **High (+)** due largely to the creation of jobs and upskilling of local workers.

OPERATIONAL PHASE:

Potential Operational Phase related impacts for both the bio-physical and socio-economic environments are generally considered to be of **Medium to High (+)** significance. These positive impacts are expected to arise due to the following:

- Increase in habitat for red data species
- Improved wetland services (which has benefits for downstream as well as local users)
- Reduction in fire risk

NO GO ALTERNATIVE

As noted earlier, the interventions identified for the proposed rehabilitation project were identified during a screening process that was undertaken to ensure that the most suitable intervention was identified, developed and assessed for each rehabilitation site. During this screening process the project team also took into account environmental, social and economic considerations, as well as the rehabilitation objectives identified for the wetland.

Should these interventions not be implemented, the current rate of degradation at the assessed wetlands would continue and in some cases even result in the permanent loss of the integrity and functioning of these systems. It would also not be possible to achieve the rehabilitation objectives identified for the wetlands. Without the implementation of wetland rehabilitation as part of the WfWetlands project, the overall programme objectives[13] and the EPWP requirements would not be realised. These impacts range in significance from **Very Low** to **Medium (-)**.

If the no go alternative is pursued, then the operational-related impacts will not be realised. However, the overall impact of the no go option on the aquatic ecosystem is likely to be negative, especially in the long-term as rehabilitation activities will not take place and the existing problems (such as erosion) in the wetland will continue. Over time these existing problems are likely to have a greater negative impact than the short-term and fairly minor construction related impacts.

[13] Wtland conservation and poverty reduction through job creation and skills.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES ✓	NO

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

Based on the information provided in this report, the outcome of the impact assessment and the supporting documentation it is the recommendation of the EAP that authorization be granted for the following reasons:

- The proposed rehabilitation activities are likely to have significant positive bio-physical and socio-economic benefits, not just for the local community for the country as a whole.
- Effective mitigation measures exist to manage the limited negative impacts that were identified.
- The proposed rehabilitation activities are in line with the principles of NEMA (in particular: people and their needs – particularly women and children – are placed at the forefront of development via the EPWP; the development can be considered to be socially, environmentally and economically sustainable; the environmental impacts of the activity are not unfairly distributed and the potential environmental impacts have been assessed and evaluated).
- The WfWetlands programme is an important part of the government's EPWP and given that the impacts of the proposed activities are not likely to be detrimental to the environment, this programme should be supported in the spirit of co-operative governance.

It is recommended that the following conditions should be included by the Department of Environmental Affairs in the Environmental Authorisation (should a positive decision be reached):

a) Mitigation measures listed in this BAR, as well as those indicated in the 2010 Gauteng Rehabilitation Plans, should be referenced as conditions of approval.
b) Construction activities must take place in accordance to the requirements of the attached CEMP, which also includes general requirements from the WfWetlands Best Management Practices Plan.
c) Regular auditing of the CEMP must take place as per the audit checklist in the 2010 Gauteng Rehabilitation Plans.

With regards to the auditing and associated reporting to the authorities during the construction phase, since the programme includes comprehensive project management and monthly sites visits by the SANBI Provincial Co-ordinator (PC) the requirements for the CEMP have been worked into the Programme's Project Inspection Report which is completed monthly by the SANBI PC. The WfWetlands Programme is responsible for ensuring the compliance of it by the contracted implementers and therefore any non-compliance identified is dealt with on site by the SANBI PC directly. It is therefore recommended that a consolidated Environmental Project Inspection Report be submitted to DEA for each project on a bi-annual basis. This report would document any environmental non-compliance and corrective actions so that consideration can be given to these aspects in the following application for Environmental Authorisation.

Is an EMPr attached?	YES	NO

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

_____

NAME OF EAP

_____ _____

SIGNATURE OF EAP DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Refer to the locality maps and the wetland desktop maps included in the Gauteng South Rehabilitation Plan.

Appendix B: Photographs

Refer to the site photographs included in the Gauteng South Rehabilitation Plan.

Appendix C: Facility illustration(s)

Refer to the design drawings of each intervention included in the Gauteng South Rehabilitation Plan.

Appendix D: Specialist reports (including terms of reference)

All rehabilitation plans include specialist wetland assessments and specialist engineering input.

Appendix E: Public Participation

E_1 – Adverts and Posters
E_2 – Letters to I&AP's
E_3 – Comments and Response report
E_4 – Record of Commenting Authorities contacted
E_5 – I&AP database
E_6 – Record of meetings and minutes

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Refer to the Construction Phase EMP included in the Gauteng South Rehabilitation Plan.

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information

H_1 – Wetland forum minutes

SECTION F: APPENDICES

The following appendices must be attached as appropriate:

Appendix A: Maps

Refer to the locality maps and the wetland desktop maps included in the Draft Wakkerstroom Rehabilitation Plan.

Appendix B: Photographs

Refer to the site photographs included in the Draft Wakkerstroom Rehabilitation Plan.

Appendix C: Facility illustration(s)

Refer to the design drawings of each intervention included in the Draft Wakkerstroom Rehabilitation Plan.

Appendix D: Specialist reports (including terms of reference)

The rehabilitation plan includes specialist wetland assessments and specialist engineering input.

Appendix E: Public Participation Process

E_1 – Proof of adverts & notices
E_2 – Stakeholder & I&AP Notifications
E_3 – CRR *(no comments received to date)*
E_4 – Notification of Authorities and Organs of State *(to be included in Final BAR)*
E_5 – Database
E_6 – Record of meetings & minutes *(no meetings to date)*

WORKING FOR WETLANDS PROGRAMME
ENVIRONMENTAL IMPACT ASSESSMENT (EIA) - WETLAND REHABILITATION PROJECTS IN SOUTH AFRICA

PUBLIC PARTICIPATION: BASIC ASSESSMENT PROCESS

DEA REFERENCE NUMBERS:
MPUMALANGA Province Wetlands rehabilitation projects: 14/12/16/3/3/1/760
LIMPOPO Province Wetlands rehabilitation projects: 14/12/16/3/3/1/761
KZN Province Wetlands rehabilitation projects: 14/12/16/3/3/1/762
GAUTENG Province Wetlands rehabilitation projects: 14/12/16/3/3/1/759

NEAS REFERENCE NUMBERS:
MPUMALANGA Province Wetlands rehabilitation projects: DEA/EIA/0001565/2012
LIMPOPO Province Wetlands rehabilitation projects: DEA/EIA/0001566/2012
KZN Province Wetlands rehabilitation projects: DEA/EIA/0001567/2012
GAUTENG Province Wetlands rehabilitation projects: DEA/EIA/0001564/2012

The South African National Biodiversity Institute's (SANBI) Working for Wetlands Programme intends to rehabilitate a number of degraded wetlands within four Provinces of South Africa. Aurecon has been appointed to undertake the planning as well as the requisite environmental authorisation and water licence process(es) (GA) for the project.

Wetland rehabilitation involves the construction of a variety of interventions that could include gabion, and concrete structures; as well as soft options such as re-vegetation and/ or alien removal. The number, type, scale and location of each of these interventions within the wetlands would vary according to the nature and magnitude of the problem and the state of the receiving environment.

The programme is listed in terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1998) and therefore requires authorisation from the competent authority, *viz.* the Department of Environmental Affairs (DEA) via the EIA process (GN R543 of 18 June 2010). The proposed project(s) triggers one or more of the following activities 11 and 18 of GN 544 and 13 and 16 of GN 546 of 18 June 2010 of the NEMA.
Aurecon applied for exemption from independence as their engineers are undertaking the design work for the interventions. An application to DEA is being considered.
In terms of Section 39 of the National Water Act (NWA), a General authorisation (GA) has been granted for certain activities that are listed under the NWA (Act No. 36 of 1998) that usually require a Water Use Licence; as long as these activities are undertaken for wetland rehabilitation and the primary purpose of the rehabilitation is for conservation purposes. Applications for a GA will be submitted to the competent authority, *viz.* the Department of Water Affairs.
Notice is hereby given of a public participation process in terms of the NEMA EIA Regulations (2010) and the NWA (1998).

Public Participation
Draft Basic Assessment Reports for the five affected Provinces is available to I&APs for public comment until **4 February 2012**. All reports are available for download from www.aurecongroup.com - click on the "**South Africa**", "***Public Participation"***, "***Environmental Projects***" and finally the "***SANBI Working for Wetlands***" project.

If you would like to raise any issues, concerns and/ or suggestions, request further information, and/ or would like to register as an interested and/ or affected party, please contact **Franci Gresse** on 021 526 6022, franci.gresse@aurecongroup.com, Fax: (021) 526 9500 or P.O. Box 494, Cape Town, 8000.

environmental affairs
Department:
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REPUBLIC OF SOUTH AFRICA

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Biodiversity for Life

EXPANDED PUBLIC WORKS PROGRAMME

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WERK-VIR-VLEILANDE-PROGRAM
OMGEWINGSINVLOEDBEPALING (OIB) VIR VLEILAND- REHABILITASIE PROJEKTE IN SUID-AFRIKA

PROSES VAN DEELNAME: BASIESE EVALUERINGSPROSES

NOS -VERWYSINGSNOMMERS:
MPUMALANGA Provinsie Vleiland-rehabilitasieprojek: 14/12/16/3/3/1/760
LIMPOPO Provinsie Vleiland-rehabilitasieprojek: 14/12/16/3/3/1/761
KZN Provinsie Vleiland-rehabilitasieprojek: 14/12/16/3/3/1/762
GAUTENG Provinsie Vleiland-rehabilitasieprojek: 14/12/16/3/3/1/759

NOS -VERWYSINGSNOMMERS:
MPUMALANGA Provinsie Vleiland-rehabilitasieprojek: DEA/EIA/0001565/2012
LIMPOPO Provinsie Vleiland-rehabilitasieprojek: DEA/EIA/0001566/2012
KZN Provinsie Vleiland-rehabilitasieprojek: DEA/EIA/0001567/2012
GAUTENG Provinsie Vleiland-rehabilitasieprojek: DEA/EIA/0001564/2012

Die Suid-Afrikaanse Nasionale Biodiversiteit-instituut (SANBI) se Werk-vir-Vleilande-program beoog om 'n aantal afgetakelde vleilande in vier provinsies van Suid-Afrika te rehabiliteer. Aurecon is aangestel om die beplanning en die vereiste omgewingsmagtiging- en waterlisensieproses(se) vir die projek te onderneem.

Die rehabilitasie van vleilande behels die konstruksie van 'n verskeidenheid intervensies, wat "gabion"-strukture (bv. keermure / omleidingsmure) en betonstrukture (bv. keerwalle); asook sagte opsies soos herplanting en/of die verwydering van indringers kan insluit. Die aantal, tipe, omvang en ligging van elkeen van hierdie intervensies in die vleilande sal varieer na gelang van die natuur en omvang van die probleem en die toestand van die betrokke omgewing.

Die program is gelys ingevolge die Wet Op Nasionale Omgewingsbestuurs (WNOB) (Wet nr. 107 van 1998) en die magtiging van die bevoegde owerheid, naamlik die Departement van Omgewingsake (DOS), word by wyse van die Omgewingsinvloedbepalingproses (OIB-proses) (GK R543 of 18 June 2010) vereis. Die voorgestelde projek(te) gee aanleiding tot een of meer van die volgende aktiwiteite: 11 en 18 van GK 544 en 13 en 16 van GK546 van 18 Junie 2010 van die WNOB.
Aurecon het aansoek gedoen om vrystelling van onafhanklikheid, aangesien sy ingenieurs die ontwerpwerk vir die intervensies gaan onderneem. Die aansoek word tans deur die DOS oorweeg.
Ingevolge Artikel 39 van die Nasionale Waterwet (NWW), is 'n Algemene Magtiging (AM) uitgereik vir sekere aktiwiteite wat onder die NWW (Wetnr. 36 van 1998) aangedui word en wat gewoonlik 'n Watergebruikslisensie vereis, mits hierdie aktiwiteite vir vleilandrehabilitasie onderneem word en die primêre doel van die rehabilitasie vir die doeleindes van bewaring is. Aansoeke vir 'n AM sal aan die bevoegde owerheid, naamlik die Departement van Waterwese, voorgelê word.
Kennis word hiermee gegee van 'n proses van openbare deelname ingevolge WNOB se OIB-regulasies (2010) en die NWW (1998).

Openbare Deelname
Die Basiese Omgewingsinvloedbepalingverslae vir die vier geaffekteerde Provinsies is beskikbaar aan alle Belanghebbende wn/of geaffekteerde partye (B&GPe) vir publieke kommentaar tot **4 Februarie 2013**. Alle verslae sal beskikbaar wees op die webwerf **www.aurecongroup.com** - kliek op "**Suid-Afrika**", "***Openbare Deelname"***, "***Omgewingsprojekte***" en dan uiteindelik op die "***SANBI Werk-vir-Vleilande***"-projek.

Indien u enige kwessies, kwellinge en/of voorstelle wil opper, verdere inligting verlang en/of as 'n B&GPe wil registreer, kontak asseblief vir **Franci Gresse** by 021 526 6022, franci.gresse@aurecongroup.com , Faks: (021) 526 9500 of Posbus 494, Kaapstad, 8000.

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Department: Environmental Affairs
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SANBI Biodiversity for Life
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WORKING FOR WETLANDS PROGRAMME
ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR WETLAND REHABILITATION PROJECTS IN SOUTH AFRICA

PUBLIC PARTICIPATION: BASIC ASSESSMENT PROCESS

DEA REFERENCE NUMBERS:
14/12/16/3/3/1/759 Gauteng Province Wetlands rehabilitation projects

NEAS REFERENCE NUMBERS:
DEA/EIA/0001564/2012 Gauteng Province Wetlands rehabilitation projects

The South African National Biodiversity Institute's (SANBI) Working for Wetlands Programme intends to rehabilitate a number of degraded wetlands within four Provinces of South Africa. Aurecon has been appointed to undertake the planning as well as the requisite environmental authorisation and water licence (GA) process(es) for the project.

Working for Wetlands is a national poverty alleviation programme that is part of the Government's Expanded Public Works Programme (EPWP). The two main objectives of the Working for Wetlands Programme are wetland conservation and rehabilitation coupled with poverty reduction through job creation and skills development amongst vulnerable and marginalised groups.

Wetland rehabilitation involves the construction of a variety of interventions that could include gabion structures (e.g. retaining/ diversion walls), concrete structures (e.g. weirs), earthen structures (e.g. berms or sloping); as well as soft options such as re-vegetation and/ or alien removal, and/or eco-logs. The number, type, scale and location of each of these interventions within the wetlands would vary according to the nature and magnitude of the problem and the state of the receiving environment.

Rehabilitation activities are to occur in the following wetland project areas in Gauteng:
- Gauteng South (in the vicinity of Johannesburg South)

The programme is listed in terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1998) and therefore requires authorisation from the competent authority, *viz.* the Department of Environmental Affairs (DEA) via the EIA process (GN R543 of 18 June 2010). The proposed project(s) triggers one or more of the following activities 11 and 18 of GN 544 and 13 and 16 of GN 546 of 18 June 2010 of the NEMA

Aurecon applied for exemption from independence as their engineers are undertaking the design work for the interventions. An application to DEA is being considered.

In terms of Section 39 of the National Water Act (NWA), a General authorisation (GA) has been granted for certain activities that are listed under the NWA (Act No. 36 of 1998) that usually require a Water Use Licence; as long as these activities are undertaken for wetland rehabilitation and the primary purpose of the rehabilitation is for conservation purposes. Applications for a GA will be submitted to the competent authority, *viz.* the Department of Water Affairs.

Notice is hereby given of a public participation process in terms of the NEMA EIA Regulations (2010) and the NWA (1998).

Working for Wetlands has received environmental authorisation from DEA for activities planned for specific project areas for five Provinces for the 2012/2013 financial year. For the 2013/2014 financial year, some of these activities will be carried over, and in some of the existing project areas, new wetlands and/ or new interventions have been proposed. Basic Assessments have been undertaken for new wetlands and/ or new interventions. A Basic Assessment Report will be submitted to DEA for four affected Provinces. In order to prevent the duplication of basic assessment studies, activities would continue in existing authorised project areas. DEA has however requested that annual updates of the basic assessments be produced. Where new project areas are proposed, new basic assessment reports will be produced. These updated BARs are now available for public comment. Registered I&APs will be notified of the availability of the Reports.

Public Participation
Basic Assessment Reports for this Province are available for public comment. All reports are available for download from www.aurecongroup.com - click on the "**South Africa**", "***Public Participation"***, "***Environmental Projects***" and finally the "***SANBI Working for Wetlands***" project.

If you would like to raise any issues, concerns and/ or suggestions, request further information, and/ or would like to register as an interested and/ or affected party, please contact **Franci Gresse** on 021 526 6022, franci.gresse@aurecongroup.com, Fax: (021) 526 9500 or P.O. Box 494, Cape Town, 8000.

environmental affairs
Department:
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SANBI
Biodiversity for Life

EXPANDED PUBLIC WORKS PROGRAMME

aurecon

PO Box 494,
Cape Town
8000
Email: Claire.blanche@aurecongroup.com

30 November 2012

Dear Sir / Madam,

WORKING FOR WETLANDS REHABILITATION PROJECT

DEA REFERENCE NUMBERS:
MPUMALANGA Province Wetlands rehabilitation projects: 14/12/16/3/3/1/760
LIMPOPO Province Wetlands rehabilitation projects: 14/12/16/3/3/1/761
KZN Province Wetlands rehabilitation projects: 14/12/16/3/3/1/762
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GAUTENG Province Wetlands rehabilitation projects: DEA/EIA/0001564/2012

40 DAY COMMENT PERIOD ON DRAFT REPORTS

This letter is available in any of the official languages on written request.

BACKGROUND INFORMATION

Aurecon South Africa (Pty) Ltd was appointed by the South African National Biodiversity Institute (SANBI) to undertake the various project activities and associated reporting required for the various phases of the wetland rehabilitation planning cycle. These include both Phase 1 & 2 Reports, the Wetland Rehabilitation Plans as well as the Basic Assessment Reports required for each project area within the nine provinces.

As part of the planning process, the Phase 1 reports prioritised the wetlands to be visited for Phase 2. The field work was subsequently undertaken by the project team (consisting of the Environmental Practitioner, the Engineer, the Wetland ecologist as well as the Working for Wetland's Provincial Coordinator) whereby the selected wetland sites were visited and the rehabilitation measures for each of the wetland sites agreed. This information has been included in the Phase 2 reporting in the form of a Wetland Rehabilitation plan (written for each project) and the draft Basic Assessment Report (BAR) which has been compiled for each of the affected Provinces, for the upcoming planning cycle (2013/2014).

LEGAL PROCESSES UNDER THE NATIONAL WATER ACT (NO. 36 OF 1998) AND THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998)

In terms of Section 39 of the National Water Act (NWA), a General authorisation (GA) is granted for certain activities that are listed under the NWA (Act No. 36 of 1998) that usually require a Water Use

Licence. Government Notice (G.N.) 1198 of 18 December 2009 introduced a GA for activities undertaken for the rehabilitation of wetlands for conservation purposes. Applications for a GA will be submitted to the competent authority, *viz*. the Department of Water Affairs simultaneously with the other authorisations required for this work.

EIA listed activities

The programme is listed in terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1998) and therefore requires authorisation from the competent authority, viz. the Department of Environmental Affairs (DEA) via the Environmental Impact Assessment (EIA) process (GN R543 of 18 June 2010). The proposed rehabilitation project triggers the following listed activities:

- 11 and 18 of Listing Notice 1 in Government Notice R. 544, 2010; and
- 13 and 16 of Listing Notice 3 in Government Notice R. 546, 2010.

Accordingly, the EIA application form notes all triggered 2010 listed activities.

EXEMPTION FROM INDEPENDENCE

Aurecon applied for exemption from independence as its engineers are undertaking the design work for the interventions. DEA is currently considering the request.

PUBLIC PARTICIPATION PROCESS AND WAY FORWARD

This letter, a national advertisement in the *Sunday Times* and *Die Rapport* on 1 and 2 December 2012; along with site notices (in at least two official languages), forms the official notification of the Public Participation process (PPP) for the 2013/2014 planning cycle. The draft rehabilitation plans (written for each project) and the draft Basic Assessment Report (BAR) (compiled for each Province) has been made available for public comment.

Please find enclosed a copy of the Summary document which provides an overview of the Working for Wetlands programme, as well as highlights the key findings for each project located within the affected Province. A response form has also been provided whereby Interested and Affected Parties (I&APs) can provide written comment on the proposed wetland rehabilitation measures and associated projects.

The Draft BAR as well as the Draft Rehabilitation plans for the proposed wetland rehabilitation activities for each affected Province (four in total) have been made available for a 40 day review period from **Wednesday, 5 December 2012**. The SANBI PC and implementer have hard copies of the Phase 2 Reporting for their Province. Should you wish to review the report, please contact Franci Gresse to have this arranged. The draft Reports have also been made available for download from the Aurecon website (http://www.aurecongroup.com - - click on the "**South Africa**", "***Public Participation"***, "***Environmental Projects***" and finally the "***SANBI Working for Wetlands***" project). I&APs have until **4 February 2013** to submit comments on the draft Phase 2 reports. Electronic copies of the Phase 2 reporting will also made available on written request.

After the 40 day public comment period, the draft BAR as well as the draft Rehabilitation Plans will be updated via incorporating I&AP comments received on the reports. The updated, final Reports will then be submitted to DEA for their decision. Registered I&APs will simultaneously be afforded a further 21 days to provide comment on the Final BAR. Further comments received will be collated

by Aurecon and submitted to DEA. Once DEA have made their decision on the proposed project, all registered I&APs on the project database will be notified of the outcome of the decision within twelve (12) calendar days of the date of the decision. Should anyone (a member of public, registered I&AP or the Applicant) wish to appeal DEA's decision, a Notice of Intention to Appeal must be lodged with the Minister within twenty (20) calendar days of the date of the decision.

If no appeals are received and the landowner(s) have signed (i.e. approved) the proposed rehabilitation work detailed in the Final Rehabilitation plan, the interventions will be constructed from April 2013 until March 2014.

Should you wish to raise any issues, concerns and/or suggestions on the draft Phase 2 reports, and/or register as an I&AP, please contact Franci Gresse at Tel: (021) 526 6022; Fax: (021) 526 9500; Mail: PO Box 494, Cape Town, 8000; or Email: franci.gresse@aurecongrou.com or Claire.Blanche@aurecongroup.com; by **4 FEBRUARY 2013**.

Should you have any queries, please do not hesitate to contact us.

Yours sincerely
AURECON

CLAIRE BLANCHÉ *(Pr. Sci. Nat).*
Practitioner: Environmental & Advisory Services

Annexure A – Executive Summary

WORKING FOR WETLANDS REHABILITATION PROJECT IN THE GAUTENG PROVINCE: DRAFT BASIC ASSESSMENT REPORT

Summary Document

The South African National Biodiversity Institute (SANBI) appointed Aurecon South Africa (Pty) Ltd to undertake the project activities and associated reporting required for the various phases of the rehabilitation planning cycle. These include Phase 1 Reports, the wetland rehabilitation plans as well as the BARs required for each project area within four provinces. Refer to **Figure 1** below that graphically depicts the entire 24 month planning and implementation process which begins in Phase 1 and ends in Phase 3. Phase 1 and 2 are undertaken in the first twelve months and Phase 3 in the second twelve months.

Objectives of the Working for Wetlands Programme

Working for Wetlands is (WfWetlands) a government funded programme that started in 2001 with a R20 million budget that was implemented across 14 projects. The programme is managed by SANBI and is currently implemented across 35 projects countrywide with a budget of R83 million. Being part of the Expanded Public Works Programme (EPWP), more than 1 500 local people are recruited to work in projects on limited term contracts. Typical activities undertaken within the projects include:

- constructing structures (gabions, berms, weirs) in wetlands;
- removing invasive alien plants from the wetland and immediate catchment;
- plugging artificial drainage channels in the wetland;
- raising awareness of wetlands among workers, landowners and the general public;
- providing adult basic education and training, and technical skills; and
- developing management plans for the rehabilitated wetlands.

The two main objectives of the programme are **wetland conservation** in South Africa and **poverty reduction** through **job creation** and **skills development** amongst **vulnerable** and **marginalised** groups.

Environmental legislation

EIA listed activities

The proposed project(s) triggers listed activities 11 and 18 of Regulation 544 and activities 13 and 16 or Regulation 546 of 18 June 2010 of the National Environmental Management Act (No. 107 of 1998) (NEMA), as amended.

A Basic Assessment (BA) process must therefore be undertaken before the authorities, in this instance the national Department of Environmental Affairs (DEA), can make a decision

on whether the proposed activities and ultimately the proposed projects should be authorised.

Exemption from independence

The Public Participation process (PPP) was formally initiated with notifications to Interested and Affected Parties (I&APs) of the availability of this Draft BAR for comment on 28 November 2012. Adverts were also placed in *Die Burger* and *Sunday Times* on 1 and 2 December 2012, respectively. Aurecon applied for exemption from independence as its engineers are undertaking the design work for the interventions.

As part of the BA process, environmental (biophysical and socio-economic) impacts are identified and assessed to ascertain the consequences of the project on the environment and the people that live in it. Based on the findings from the impact assessment, specific mitigation measures are recommended to reduce the significance of negative impacts and enhance positive impacts (those that improve the integrity and health of an ecosystem or human health and well-being). The process also gives I&APs an opportunity to comment and to be kept informed about decisions that may impact them or the environment.

As planning continues over a 24 month period, prioritisation and planning (in terms of identifying which wetlands will be rehabilitated and how) is undertaken within the first 12 months, while the actual implementation (via the construction of the interventions) is undertaken within the second 12 months. Interventions may be postponed even if they have received environmental authorisation due to issues such as lack of budget, logistical problems in the area, and / or dramatic changes to the receiving environment (flooding etc.). In other words these structures would be 'banked' for implementation as/ when suitable or appropriate.

In terms of Section 39 of the National Water Act (No. 36 of 1998), a General Authorisation (GA) has been granted for certain activities that are listed under the NWA that usually require a Water Use Licence. Such a GA exists for wetland rehabilitation as long as the activities are for **conservation purposes**. As some of the rehabilitation activities entail '*impeding or diverting the flow of water in a watercourse*' and / or '*altering the bed, banks, course or characteristics of a watercourse,* a number of GAs have been registered with the Department of Water Affairs (DWA) for structures that would ordinarily require a Water Use Licence. For each planning cycle the proposed rehabilitation work will be submitted to DWA, the requisite approval sought and project monitoring reported as required.

Phase 1, 2, and 3 explained

The purpose of **Phase 1** and the associated reporting is to identify within a province:

1. which are the priority catchments and associated wetlands / sites within which rehabilitation work needs to be undertaken; and to
2. identify key stakeholders who would review and comment on the detailed planning (Phase 2) reports.

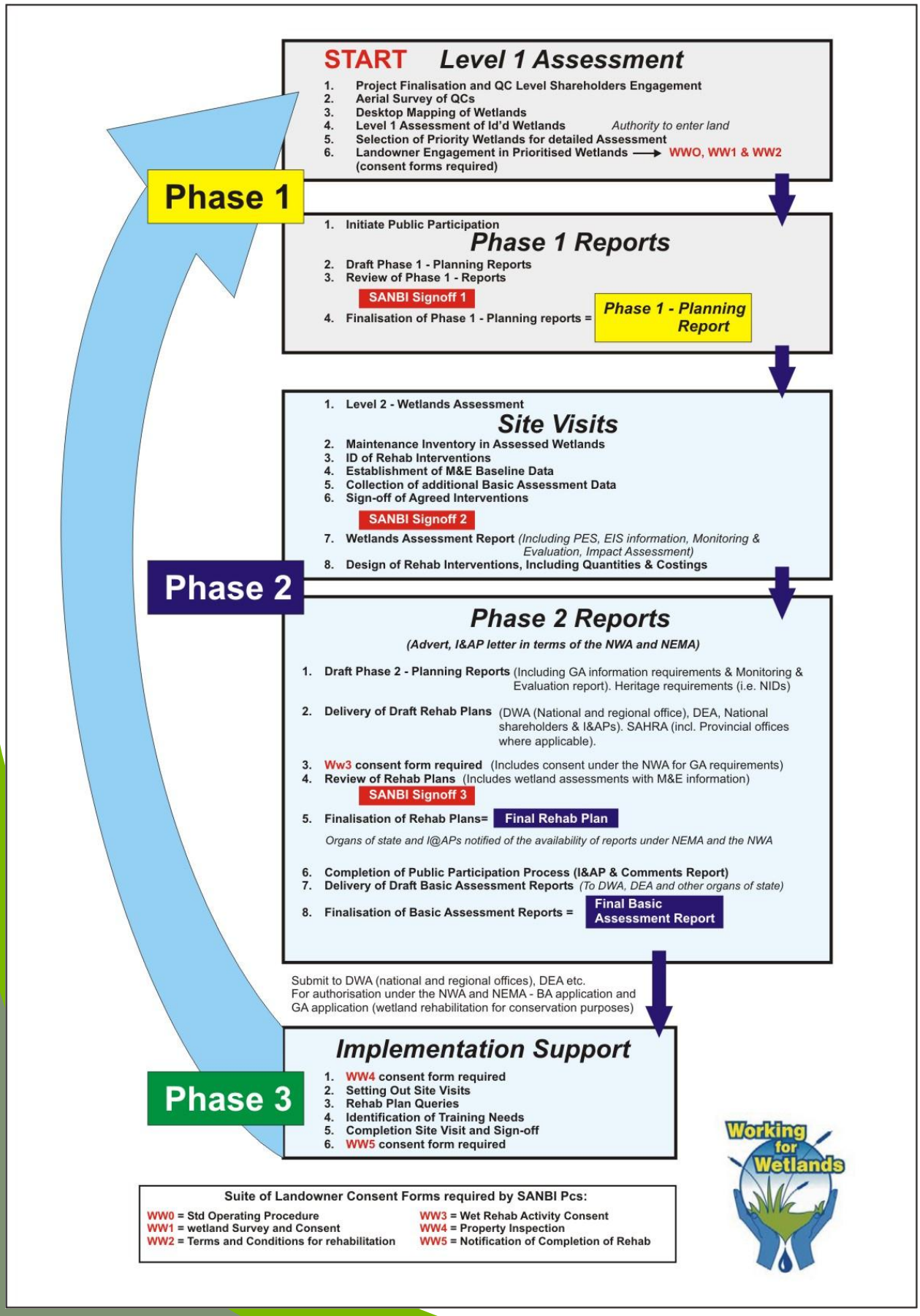

Figure 1: The Working for Wetlands planning process (Phase 1 to Phase 3)

As part of Phase 1, the Engineers peg / set-out the previous year's interventions that had been authorised by DEA. Refer to **Figure 1** below that graphically depicts the entire 24 month planning process which begins in Phase 1 and ends in Phase 3.

During **Phase 2**, the wetlands that were prioritised in Phase 1 are visited by the project team which consists of a Wetland ecologist, Engineer, Environmental Practitioner, SANBI's Provincial Coordinator (PC), and where possible and / or appropriate Implementers, Landowners, and other specialists.

The Phase 2 reports document and provide detail on the type and location of interventions that are needed to rehabilitate the prioritised wetlands within a specific catchment area. A wetland assessment is undertaken using the WET-Tools methodologies (WRC 2010) to ensure that systematic assessments are utilised and the ecosystem consequences and benefits understood. This is described in more detail below. The motivation for the rehabilitation work, and the potential impacts associated with the interventions are also detailed in these reports.

Wetland ecologist working in the Gauteng wetlands.

Regular monitoring and evaluation (M&E) of the interventions is undertaken to establish the effectiveness of the structure in rehabilitating the identified wetland. This baseline data is also included in the Phase 2 reporting. BARs are compiled as separate documents (one for each province), while the Rehabilitation Plans are compiled for each project and are attached as an Appendix to the provincial BAR and submitted to DEA for their environmental authorisation decision. Summaries of the wetland prioritisation, problems and rehabilitation objectives are included in the rehabilitation plans.

As part of Phase 2, a maintenance inventory is undertaken by the PC, in consultation with the Engineer of any existing interventions that are damaged and/ or failing and thus requires maintenance.

Upon approval of the wetland rehabilitation plan by DEA, DWA, and the directly affected landowners, the work detailed for the project will be implemented within a year with on-going monitoring being undertaken thereafter. This occurs within **Phase 3** of the project cycle.

The Rehabilitation Plans are considered to be the primary working document for the implementation of the project via the construction / undertaking of interventions[2] listed in the Plan. Fourteen implementing agents (IAs) are currently employed and are responsible for employing contractors and their teams (workers) to construct the interventions detailed in each of the Rehabilitation plans.

A buttress weir being built and a site being prepared by the Implementing agents

Wetland Assessments

Time and resources required for detailed assessments of the wetlands is limited, and thus using the WET-Tools methodology, a rapid procedure was adopted to assist the project team in systematically carrying out the assessments under constraints. The assessments entailed the following steps:

1. Assessment of the impacts and threats within each wetland system via establishing the current 'health' of the wetland;
2. Establishment of rehabilitation objectives and the selection of appropriate interventions to achieve the identified rehabilitation objectives; and finally; and
3. Assessment of the likely contribution of rehabilitation interventions to the wetland health and ecosystem delivery via determining the spatial area likely to be affected by the proposed intervention(s) and assessing the benefits to the health and / or eco-system services of the specific wetland i.e. the difference between the current health and the projected health of the wetland with and without the intervention(s).

Screening process – Alternative

While on-site during Phase 2, the project team identify and locate the interventions that would meet the rehabilitation objectives as well as the programme's overall objectives (wetland conservation in South Africa and poverty reduction through job creation). The project team discuss and evaluate the potential intervention options; and factoring in environmental, social, and economic considerations into their discussions, they agree on the most appropriate intervention that would meet the rehabilitation objectives for the wetland.

[2] This could include soft options such as alien clearing, eco-logs, gabion structures as well as hard structures for example weirs.

Increased labour requirement for the Working for Wetlands Programme

As a result of changes to the donor fund requirements, an increase in the labour percentage requirement for the WfWetlands programme has been experienced since 2010. The project team were thus required to investigate more labour intensive intervention options for wetland rehabilitation. These included soft engineering options such as berms, eco-logs, as well as alien clearing.

This resulted in the project team having to investigate other wetland areas in order to meet the requirements. Consequently, some of the wetlands prioritised during 2012 in the Phase 1 reporting would not be rehabilitated during this planning cycle (due to the large amount of hard engineering required which was less labour intensive), while new additional wetlands were identified during the Phase 2 site visits as their rehabilitation requirements contributed towards meeting the increased labour component for the programme.

Rehabilitation work within floodplain systems

Based on lessons learnt and project team discussions had during the National Prioritisation workshop in November 2010 SANBI took an in-principle decision regarding work within floodplain systems.

Recognising the ecosystem services provided by floodplain wetlands and the extent to which they have been transformed, SANBI do not intend to stop undertaking rehabilitation work in floodplains entirely. Instead, SANBI propose to adopt an approach to the rehabilitation of floodplain areas that takes into account the following guiding principles:

1. As a general rule, avoid constructing hard interventions within an active floodplain channel; and rather
2. explore rehabilitation opportunities on the floodplain surface using smaller (possibly more) softer engineering options outside of the main channel.

When rehabilitation within a floodplain setting is being contemplated, it will be necessary to allocate additional planning resources, including the necessary specialist expertise towards ensuring an adequate understanding of the system and appropriate design of interventions.

Intervention design

After appropriate interventions have been decided upon by the project team, GPS coordinates and digital photographs are taken for record purposes. Appropriate dimensions of the locations are recorded in order to design and calculate quantities for the interventions. At the end of the site visit a location layout of the agreed interventions and rehabilitation objectives is agreed upon by the project team. Based on certain criteria and data measurements (water volumes, flow rates, and soil types); the availability of materials such as rock; labour intensive targets; maintenance requirements etc., the interventions are then

designed. Bills of quantity are calculated for the designs and cost estimates made. Maintenance requirements for existing interventions in the assessed wetlands are similarly detailed and costs calculated. The engineer also reviews and, if necessary, adjusts any previously planned interventions that are included into the historical rehabilitation plans.

Maintenance and amendments to authorized interventions

Based on discussions with DEA, it was agreed that variations and deviations (in design or location) to the already authorised intervention(s) could be made via written notification to DEA which would include a motivation, supporting information, and the proposed changes clearly detailed. The DEA have formalised this approach by including a condition in the WfWetlands EA whereby any changes to, or deviations from, the project description require written approval from DEA. The proposed changes (type, design, location), motivation, as well as other project-related information (redesigns, site photographs etc.) are provided to DEA. Anticipated reasons for the changes could include modifications to the aquatic system as a result of unforeseen circumstances such as flooding, fires etc., savings to the project budget, improved rehabilitation and/ or enhanced protection from erosion etc.

As per the definition of maintenance[3], modifications would be made to existing (built) interventions as long as the changes occur within the same footprint, location etc. DEA would be informed of the changes in writing.

For a list of interventions requiring redesign, maintenance and or new structures, please refer to the summary in **Table 5** below.

Maintenance The replacement, repair or the reconstruction of an existing structure within the same footprint, in the same location, having the same capacity and performing the same function as the previous structure ('like for like').

Monitoring and Evaluation

During the Phase 2 site visits, baseline monitoring is carried out prior to the rehabilitation of the wetland to provide comparable data for monitoring at a later stage (once the intervention(s) have been constructed). Monitoring and Evaluation (M&E) is thus a vital component of the project as it allows for the evaluation of the performance of the interventions in successfully rehabilitating the affected wetland. Baseline M&E data (fixed point photography, GPS co-ordinates, water quality measurements etc.) as well as information for the BAR is collected during the Phase 2 site visits.

[3] **Maintenance:** The replacement, repair or the reconstruction of an existing structure within the same footprint, in the same location, having the same capacity and performing the same function as the previous structure ('like for like').

Based on WET-Rehab Evaluate tool, protocols for data collection for monitoring purposes have been developed, which includes compulsory collection of certain data[4], while other data collection for monitoring would be considered to be optional[5] depending on the importance of the wetland, costs of rehabilitation undertaken etc.

Upon completion of the interventions within a wetland, the Engineer would revisit the site to sign-off on the interventions based on what was detailed in the rehabilitation plan; while the Wetland ecologist would assess the effectiveness of the intervention(s) in achieving the specified objectives and contributing towards the rehabilitation strategy. Appropriate corrective action would be specified if either of the project team members were unsatisfied with the intervention's effectiveness in terms of achieving the objectives and long-term stability. Ideally an annual M&E report would be compiled by the project team; however, this process is still being established and would require additional funding.

Future planning for the project areas

Table 1: Summary of possible budget allocations per project area

Wetland name	Catchments and major rivers	Budget requirement	Period	Comments*
1. Gauteng South	Upper Vaal – Klipriver, Suikerbosrant	R 2,052,000.00	5 years	To achieve catchment objectives, which are improved water quality and quantity; safe guard biodiversity, improve ecosystem functioning and social livelihoods.
2. Gauteng North	Crocodile west and Marico – Hennops, Jukskei, Crocodile, Soutpan, and Kaalspruit rivers	R 1,864,652.87	5 years	
3. Gauteng East	Upper Olifants – Wilge Upper Vaal – Blesbokspruit, Natalspruit, Rietspruit	R 2,446,707.13	5 years	

Key project objectives include:

- Stabilisation of head-cuts
- Lift water table in degraded wetlands
- Biodiversity conservation

Summary of the Final BAR findings

Wetlands that were prioritised during Phase 1 and visited during Phase 2 are located within the following quaternary catchments- refer to **Figure 2** below.

Phase 2 site visits were undertaken for the following projects:

- Gauteng South: Klipriviersberg (October 2012)

[4] Maintenance inventory, rehabilitation effectiveness, fixed point photography/ site photographs, and wetland assessments.
[5] Sediment and erosion control, hydrology, vegetation and water quality

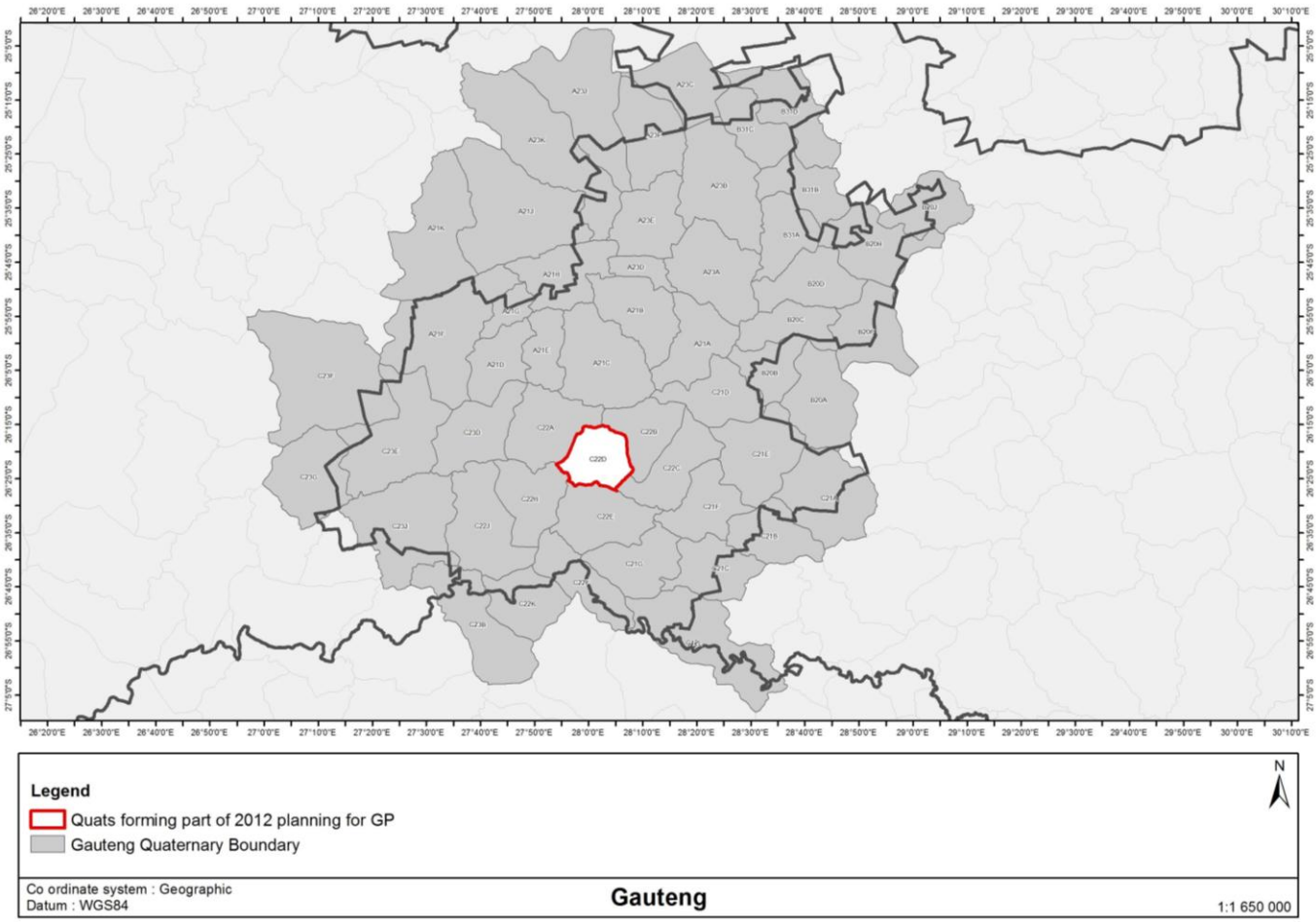

Figure 2: Quaternary catchments that were visited during the Phase 2 site visits for the Gauteng Province

Within the Gauteng Province, the following wetland areas will be rehabilitated:

Klipriviersberg (C22D-04)

Existing rehabilitation work in this quaternary catchment will be augmented with new rehabilitation initiatives identified during a site visit undertaken in October 2012. The quaternary catchment is under pressure due to agricultural (overgrazing) and development related activities and infrastructure, e.g. stormwater outflows, roads, pipeline and railway line crossings, formal and informal residential developments. Other negative factors include alien invasive plant species, illegal dumping and mining. According to the Gauteng Biodiversity Conservation Plan Version 3.3, 2011 (C-Plan 3.3), the Klipriviersberg wetland area falls within a Critical Biodiversity Area (CBA) with Orange Listed plant species and Red Listed mammal and bird species occurring within the area.

The rehabilitation of the above wetland would involve the following interventions *inter alia*:

- Constructing gabions to deactivate eroding headcuts;
- Constructing gabions with concrete capping to prevent gully erosion;
- Earth structures to spread flow across wetlands; and
- Earth works including the infilling of drainage channels

The number, type, scale and location of each of these interventions within the wetlands would vary according to the nature and magnitude of the problem and the state of the receiving environment.

The list of interventions which form part of this Basic Assessment process is summarised in **Table 5** below. The engineering designs for each of these interventions are included in the Final Rehabilitation plan which forms part of the BAR.

Summary of the potential impacts identified

Table 3: Summary of impacts

	Significance of impact		
	Preferred alternative		No go
	No mitigation	With mitigation	
Construction phase			
Aquatic ecosystems	Low (-)	Very Low (-)	Low (-)
Flora & fauna	Low (-)	Very Low (-)	Very Low (-)
Heritage	Very Low (-)	Neutral	Neutral
Nuisance	Low (-)	Very Low (-)	Neutral
Socio-economic	Medium (+)	High (+)	Medium (-)
Operational phase			
Ecosystem functioning	High (+)	High (+)	Medium (-)
Flora & fauna	Medium (+)	Medium (+)	Medium (-)
Socio-economic	High (+)	High (+)	Low (-)

Key mitigation measures recommended

A summary of the key mitigation measures recommended to reduce the significance of the potential negative impacts and enhance potential positive impacts is provided in Table 3 below.

Table 3: Key mitigation measures recommended for potential operational phase impacts

Construction phase impacts
Impacts on aquatic ecosystems
Implement and enforce the CEMP
Impacts on flora & fauna
Implement and enforce the CEMP
Impacts on heritage resources
Contact the provincial heritage resource agency should any artefact be found or cultural use of a wetland be noted
Nuisance impacts
Workers to be given environmental awareness “toolbox talks”
Implement and enforce the CEMP
Liaise with landowner

Socio-economic impacts
Draw labour from the local community
Workers to be aware of fire risks and contingency plans
Operational phase impacts
Undertake M&E of the structures to establish whether the wetland rehabilitation measures have been met. Undertake maintenance to structures where required.

Regarding the construction phase impacts, the standard Construction Phase Environmental Management Programme (CEMP) (included as **Appendix G** of the BAR) and must be on site and complied with during the construction phase.

Need and desirability

Wetlands play a critical role in improving the ecological health of an ecosystem by performing many functions that include flood control, water purification, sediment and nutrient retention and export, recharge of groundwater, as well as acting as vital habitats for diverse plant and animal species. Wetlands are thus considered to be extremely important in preserving biodiversity and are regarded as fundamental to the sustainable management of South Africa's water resources.

Wetlands also function as valuable open spaces and create recreational opportunities for people that include hiking, fishing, boating, and bird-watching. Many wetlands also have cultural and spiritual significance for the communities living nearby. Commercially, products such as reeds and peat, are also harvested from wetlands. Wetlands are thus considered to be critically important ecosystems as they provide both direct and indirect benefits to the environment and society.

Extensive damage to wetlands has occurred as a result of poor land use practices which has resulted in erosion and further degradation to aquatic ecosystems. Without the implementation of the planned rehabilitation activities (the **'no-go'** option or retaining the status quo), the programme's objectives would not be realized; and the loss of wetland habitat and its associated eco-system services would be significantly greater. The strategic importance of the WfWetlands programme is clear as evidenced by the distinct positive impacts associated with the programme which has resulted in a ***net benefit / gain*** as wetland health and integrity is improved and the associated eco-services enhanced. Overall the cumulative impact of wetland rehabilitation would thus be positive (refer to the summary of potential impacts identified above) to both human beings and the environment, now and in the future. Based on the above information, it is clear that rehabilitating wetlands is considered to be the '***best practicable environmental option***' as a result of the positive impact that the programme has on both the natural and socio-economic environment.

Commercial products made by locals from reeds harvested from wetlands

Conclusions and recommendations

The potential impacts associated with the rehabilitation of various wetlands within the Gauteng Province would result in impacts (both biophysical and social) that would positively affect the area and result in a net environmental gain for the project. These include:

- Socio economic impacts such as job creation, increased awareness of wetland importance and up-skilling;
- Restoring wetland corridors;
- Improvements in water quality and quantity;
- Improved biodiversity of the area via improvements to the wetland functioning; and
- Enhanced/ increased wetland habitat.

Based on the above, the EAP (Aurecon) is of the opinion that the proposed wetland rehabilitation activities being applied for should be authorised, as the substantial benefits (both biophysical and socio-economic) substantially outweigh the minimal localised negative impacts that have been identified. Furthermore, the proposed activities undoubtedly meet the principles prescribed in NEMA.

Public Participation Process and Way Forward

Public participation is an important part of the BA process, as it allows I&APs opportunity to obtain information about the proposed project and to provide input and raise any concerns at defined stages throughout the project.

The Public Participation process (PPP) was formally initiated with notifications to I&APs of the availability of this Draft BAR for comment on 5 December 2012. Adverts were also placed in *Die Burger* and *Sunday Times* on 1 and 2 December 2012, respectively. As part of the PPP, SANBI's Provincial Coordinators have been engaging with the directly affected landowners, while posters (in the key languages spoken in the Province) were erected at strategic locations in/ near the prioritised wetland(s).

As part of the 40 day public comment period on the draft Phase 2 reports, registered I&APs were sent copies of this Summary document, a letter notifying them of the public comment period as well as a response form. Based on the comments received, the draft reports will be updated. The final reports will then be made available for a 21 day comment period.

The Draft BAR for the proposed wetland rehabilitation activities for the Gauteng Province has been made available for review from Wednesday, 5 December 2012 for a 40 day comment period. SANBI's PC's and implementers have hard copies of the Phase 2 Reporting for their Province. Should you wish to review the report, please contact Franci Gresse to have this arranged. The Reports are also available for download from the Aurecon website (**http://www.aurecongroup.com** - follow the public participation links). I&APs have until **Monday, 4 February 2013** to submit comment on the Draft BAR.

After the 40 day public comment period, the final BAR, incorporating I&AP comments received on the Draft BAR (as well as the project team's responses to these), will be submitted to DEA for their decision. Registered I&APs will simultaneously be afforded a further 21 days to provide comment on the Final BAR. Further comments received will be collated by Aurecon and submitted to DEA. Once DEA have made their decision on the proposed project, all registered I&APs on the project database will be notified of the outcome of the decision within twelve (12) calendar days of the date of the decision. Should anyone (a member of public, registered I&AP or the Applicant) wish to appeal DEA's decision, a Notice of Intention to Appeal must be lodged with the Minister within twenty (20) calendar days after the date of the decision.

If no appeals are received and the landowner(s) have signed (i.e. approved) the proposed rehabilitation work detailed in the Final Gauteng Rehabilitation Plan, the interventions will be constructed from April 2013 until March 2014.

Should you wish to raise any issues, concerns and/or suggestions, and/ or register as an I&AP, please contact Franci Gresse at Tel: 021 526 6022, Fax: 021 526 9500, Mail: PO Box 494, Cape Town, 8000 or Email: franci.gresse@aurecongroup.com on/before **Monday, 4 February 2013.**

Lst of Acronyms

BAR	Basic Assessment Report
CEMP	Construction phase Environmental Management Programme
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DWA	Department of Water Affairs
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EPWP	Expanded Public Works Programme
GA	General authorisation in terms of the NWA
IA	Implementing Agent
I&APs	Interested and Affected Parties
M&E	Monitoring and evaluation
NEMA	National Environmental Management Act (Act 107 of 1998)
NWA	National Water Act (Act 36 of 1998)
PC	Provincial Coordinator
SANBI	South African National Biodiversity Institute

Table 5: Summary of the interventions included as part of this Basic Assessment process

Descriptive name	Old intervention number (if applicable)	New Intervention number	Proposed action	Reference document
NEW				
MacMat-R	-	C22D-04-201-00	MacMat-R with earthworks and rock packing; site rehabilitation with indigenous plant species	Gauteng South Draft Rehab Plan: November 2012
Gabion weir	-	C22D-04-202-00	Gabion weir with MacMat-R, earthworks and rock packing; site rehabilitation with indigenous vegetation	
MacMat-R	-	C22D-04-203-00	MacMat-R with earthworks and rock packing; site rehabilitation with indigenous plant species	
MacMat-R	-	C22D-04-204-00	MacMat-R with earthworks and rock packing; site rehabilitation with indigenous plant species	
Gabion weir	-	C22D-04-205-00	Gabion weir with earth berm; site rehabilitation with indigenous vegetation	
MacMat-R	-	C22D-04-206-00	MacMat-R with earthworks and rock packing; site rehabilitation with indigenous plant species	
Gabion weir	-	C22D-04-207-00	Gabion weir; site rehabilitation with indigenous vegetation	
Stone Masonry weir	-	C22D-04-208-00	Stone masonry weir; site rehabilitation with indigenous vegetation	
Rock fill	-	C22D-04-209-00	Rock packing	
Gabion weir	-	C22D-04-210-00	Gabion weir with MacMat-R and earthworks; site rehabilitation with indigenous vegetation	
Gabion weir	-	C22D-04-211-00	Gabion weir; site rehabilitation with indigenous vegetation	
Gabion weir	-	C22D-04-212-00	Gabion weir; site rehabilitation with indigenous vegetation	
Gabion weir	-	C22D-04-213-00	Gabion weir; site rehabilitation with indigenous vegetation	

Descriptive name	Old intervention number (if applicable)	New Intervention number	Proposed action	Reference document
Earth works	-	C22D-04-214-00	Cut and fill drainage channel; site rehabilitation with indigenous vegetation	
Earth works	-	C22D-04-215-00	Cut and fill drainage channel; site rehabilitation with indigenous vegetation	
MAINTENANCE				
Gabion weir	C22D-04-001	C22D-04-216-00	Concrete capping with earth works to fill cavities	Gauteng South Rehabilitation Plan: October 2009
Gabion weir	C22D-04-002	C22D-04-217-00	Concrete capping with earth works to fill cavities; cut and slope downstream embankment	
Gabion weir	C22D-04-006	C22D-04-218-00	Raise spillway, key walls and splash wall; concrete capping	
Gabion weir	C22D-04-007	C22D-04-219-00	Raise spillway, key walls and splash wall; concrete capping	
Gabion weir	C22D-04-010	C22D-04-220-00	Reduce spillway height; concrete capping; raise key walls and splash walls	
Gabion weir	C22D-05-002	C22D-05-201-00	Raise left bank key wall; lengthen right bank key wall	
Gabion weir	C22D-05-003	C22D-05-202-00	Add berm to left bank key wall	
Gabion weir	C22D-05-004	C22D-05-203-00	Raise key walls and splash walls; concrete capping; earth works to fill cavities	
Gabion weir	C22D-05-006	C22D-05-204-00	Raise key walls and splash walls; extend left bank key wall; concrete capping; cut and slope downstream embankments; earth works to fill cavities	
Gabion weir	C22D-05-009	C22D-05-205-00	Cut and slope downstream left embankment	
Gabion weir	C22D-05-010	C22D-05-206-00	Cut and slope approach to bridge on both banks	
Gabion weir	C22D-05-013	C22D-05-207-00	Remove excess excavated soil; revegetation	
Gabion weir	C22D-05-014	C22D-05-208-00	Remove and redo left bank key wall and splash wall; raise left bank key wall and splash wall; revegetation	
Gabion weir	C22D-05-016	C22D-05-209-00	Fill cavities; raise key walls and splash walls	
Gabion weir	C22D-05-017	C22D-05-210-00	Raise spillway, key walls and splash walls	
Gabion weir	C22D-05-018	C22D-05-211-00	Raise left bank splash wall; raise key walls and right bank splash wall; earth works to fill cavities	
Gabion weir	C22D-05-019	C22D-05-212-00	Remove excess soil	
Gabion weir	C22D-05-020	C22D-05-213-00	Earth works to fill / re-compact area upstream of structure; redo upstream geo-fabric	

Descriptive name	Old intervention number (if applicable)	New Intervention number	Proposed action	Reference document
Gabion weir	Unknown	A21C-10-201-00	Raise key walls and splash walls; earth works to fill cavities; MacMat-R with revegetation	Pre 2007; no records could be found
Gabion weir	Unknown	A21C-10-202-00	Concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-203-00	Concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-204-00	Concrete capping; raise key walls; reduce spillway height; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-205-00	Concrete capping	
Gabion weir	Unknown	A21C-10-206-00	Redo upstream geo-fabric; concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-207-00	Redo upstream geo-fabric; concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-208-00	Redo upstream geo-fabric; concrete capping; earth works to fill cavities	
Gabion weir	Unknown	A21C-10-209-00	Concrete capping	
Gabion weir	Unknown	A21C-10-210-00	Concrete capping	
INTERVENTION REDESIGNS				
N/A				

Annexure B – Response Form

WORKING FOR WETLANDS REHABILITATION PROJECT IN THE GAUTENG PROVINCE

DEA Reference No: 14/12/16/3/3/1/762 / NEAS Reference No: DEA/EIA/0001567/2012

Response Form for comment by Interested and Affected Parties

Please return this form to Aurecon on/ before 4 February 2013

Attention: Franci Gresse

Tel No: (021) 526 6022 Fax No: (021) 526 9500

Postal Address: PO Box 494, Cape Town, 8000

Email: franci.gresse@aurecongroup.com

REQUIRED INFORMATION

(Please note: the legislation governing EIA processes requires you to provide the following information). Should your details change during this process it is your responsibility to send us updated information.

1) Please provide your contact details:

NAME: .....

ORGANISATION (If applicable): .....

POSTAL ADDRESS: .....

..... **CODE:** .....

PHONE NUMBER: . ..... **FAX NUMBER:** .....

CELLPHONE NUMBER: ..... **EMAIL:** .....

2) How would you prefer to receive future project information?

Please tick ☑ the appropriate box ☐ Post ☐ Email ☐ Fax

3) Do you have any direct interest in the approval or refusal of the proposed project by the environmental authorities? Please tick ☑ the appropriate box/es below

BUSINESS/ FINANCIAL

Competing business ..... ☐ Yes ☐ No

Neighbouring business ..... ☐ Yes ☐ No

Potential employment opportunities ..... ☐ Yes ☐ No

Service provision (machinery etc) ..... ☐ Yes ☐ No

PERSONAL

Neighbour to proposed project site ..... ☐ Yes ☐ No

OTHER (please explain)

..... ☐ Yes ☐ No

.....

Please Turn Over…/

ADDITIONAL INFORMATION

4) Please list any other Interested and Affected Parties that should be contacted (with contact details if available):

Name/ Organisation	Postal and/ or email address	Tel No.	Fax No.

PLEASE LIST ANY COMMENTS, ISSUES OR CONCERNS THAT YOU MAY HAVE.
(These will be captured in a Comments and Responses Report in which responses will be provided. Feel free to submit additional pages if more space is required).

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Thank you for your time.

Gauteng IBAR DatabaseP Database
November 2012

TITLE	INITIAL/NAME	SURNAME	ORGANISATION
NATIONAL AUTHORITIES			
Ms	Jackie	Jay	Department of Water Affairs
Mr	David	Kleyn	Department of Agriculture Forestry & Fisheries
Mr	Christo	Marais	Department of Water Affairs
Ms	Kerryn	Morrison	Endangered Wildlife Trust
Ms	Naomi	Fourie	Department of Water Affairs
Ms	Valerie	du Plessis	Department of Water Affairs
Mr	Guy	Preston	Department of Water Affairs
Ms	Fulufhelo	Mafelatshuma	Department of Water Affairs : RQS
Ms	Wilma	Lutsch	Department of Environmental Affairs
Mr	Bonani	Madikizela	Water Research Commission
Mr	Tambubzani	Mulaudzi	Department of Environmental Affairs: Directorate: Sensitive Environments
Ms	Linda	Poll-Jonker	Department of Environmental Affairs
PROVINCIAL AUTHORITIES			
	Nhlanhla	Makhathini	GDACE
	Florah	Mamabolo	DWA Regional Representative WMA 8
	Rens	Botha	Department of Water Affairs - Gauteng
Mr	Grant	Botha	Gauteng Provincial Heritage Resources Agency
Mr	Siyabonga	Buthelezi	GDARD
Mr	Harmen	den Dulk	GDARD
Mr	Ian	Engelbrecht	GDACE
Mr	Marius	Keet	Department of Water Affairs - Gauteng
Mr	Kelvin	Legge	Department of Water Affairs
Mr	Justice	Maluleke	DWA: Gauteng
Mr	Mike	Mokgwabone	DWA: Gauteng
Mr	Christopher	Nemalili	Department of Water Affairs
Ms	Maphata	Ramphele	Gauteng Provincial Heritage Resources Agency
Mr	Ernst	Seamark	GDACE
Mr	Ramogale	Sekwale	Department of Water Affairs
Mr	H. A.	Smit	DWA: Chief Director: Gauteng
LANDOWNERS			
	The Municipal Manager		City of Johannesburg
WORKING FOR WETLANDS			
Mr	Umesh	Bahadur	SANBI: Planning, Monitoring & Evaluation Manager
Mr	John	Dini	SANBI: Programme Manager
Mr	B huti	Dlamini	Wetland Consulting Services (Pty) Ltd
Mr	Eric	Munzhedzi	SANBI:Implementation & Aftercare Manager
Mr	Thilivhali	Nyambeni	SANBI; Provincial Coordinator
MUNICIPALITIES			
Ms	Jane	Eagle	City of Johannesburg
Mr	John	Kruger	Johannesburg City Parks
Ms	Linda	Kuhn	City of Johannesburg
Mr	Freddie	Letsoko	City of Johannesburg
Ms	Maishe	Makwela	City of Johannesburg
Mr	Simphiwe	Mbuli	City of Johannesburg
Ms	Cebo	Mhlongo	Johannesburg City Parks
Mr	Sydney	Nkosi	Johannesburg City Parks
Mr	Ralf	Bittkau	DA - Democratic Alliance
Mr	David	Dewes	DA — Democratic Alliance
	Marian	Kemp	DA - Democratic Alliance

Gauteng IBAR DatabaseP Database
November 2012

TITLE	INITIAL/NAME	SURNAME	ORGANISATION
	Busisiwe Sylvia	Khanyile	ANC - African National Congress
Mr	Martin	Louw	DA - Democratic Alliance
	Jackie	Matladi	DA — Democratic Alliance
	Maureen	Scheemann	ANC - African National Congress
Mr	Mike	Tonkin	DA — Democratic Alliance
WETLAND FORUM/OTHER			
Mr	Lemson	Betha	WESSA
Mr	Marc	de Fontein	Rand Water Foundation
Mr	Freddie	Letsoko	Gauteng Wetland Forum
Mr	Khayi	Mabasa	Rand Water Foundation
Mr	William	Mabota	Rand Water Foundation
	Linda	Mabuza	Working for Water: Gauteng
Mr	LC	Malan	Little Gnomes Landscaping
Ms	Karen	Marx	WESSA
Mr	Bismark	Mashau	Gauteng Wetland Forum
Mr	Terrence	Mccarthy	Wits University
Mr	Irvin	Molepo	SANBI: Walter Sisulu
Ms	Lufuno	Mugwena	Mbonelkaphanda Civils

Appendix F: Impact Assessment Methodology

F_1 – Summary of Impact Assessment Methodology

Please also refer to Sections D and E of the Draft BAR for the assessment of potential impacts.

1. IMPACT ASSESSMENT METHODOLOGY

This section outlines the methodology used to assess the significance of the potential environmental impacts for the *WfWet* project as a whole. Wetland-specific impacts are noted where relevant. For each impact, the EXTENT (spatial scale), MAGNITUDE (size or degree scale) and DURATION (time scale) are considered. These criteria are used to ascertain the SIGNIFICANCE of the impact. Note that significance is assessed under the assumption that most of the best practicable mitigation measure(s) will be put into place. It is acknowledged that implementation of all of the recommended mitigation measures is unlikely.

Positive impacts are indicated by "+" and negative ones by "-".

CRITERIA	CATEGORY	DESCRIPTION
Extent or spatial influence of impact	**Regional**	Beyond a 20 km radius of the site
	Local	Within a 20 km radius of the centre of the site
	Site specific	On site or within 100 m of the site
Magnitude of impact (at the indicated spatial scale)	**High**	Natural and/ or social functions and/ or processes are *severely* altered
	Medium	Natural and/ or social functions and/ or processes are *notably* altered
	Low	Natural and/ or social functions and/ or processes are *slightly* altered
	Very Low	Natural and/ or social functions and/ or processes are *negligibly* altered
	Zero	Natural and/ or social functions and/ or processes remain *unaltered*
Duration of impact	**Construction period**	Up to 5 years
	Medium Term	Up to 10 years after construction
	Long Term	More than 10 years after construction

The SIGNIFICANCE of an impact is then derived by taking into account the temporal and spatial scales and magnitude. The means of arriving at the different significance ratings is explained in the following table.

SIGNIFICANCE RATINGS	LEVEL OF CRITERIA REQUIRED
High	• High magnitude with a regional extent and long term duration • High magnitude with either a regional extent and medium term duration or a local extent and long term duration • Medium magnitude with a regional extent and long term duration
Medium	• High magnitude with a local extent and medium term duration • High magnitude with a regional extent and construction period or a site specific extent and long term duration • High magnitude with either a local extent and construction period duration or a site specific extent and medium term duration • Medium magnitude with any combination of extent and duration except site specific and construction period or regional and long term • Low magnitude with a regional extent and long term duration

SIGNIFICANCE RATINGS	LEVEL OF CRITERIA REQUIRED
Low	• High magnitude with a site specific extent and construction period duration • Medium magnitude with a site specific extent and construction period duration • Low magnitude with any combination of extent and duration except site specific and construction period or regional and long term • Very low magnitude with a regional extent and long term duration
Very low	• Low magnitude with a site specific extent and construction period duration • Very low magnitude with any combination of extent and duration except regional and long term
Neutral	• Zero magnitude with any combination of extent and duration

Once the significance of an impact has been determined, the PROBABILITY of this impact occurring as well as the CONFIDENCE in the assessment of the impact would be determined using the rating systems outlined in the Tables below. It is important to note that the significance of an impact should always be considered in concert with the probability of that impact occurring. Lastly, the REVERSIBILITY of the impact is estimated using the rating system outlined in the final table.

Definition of probability ratings

PROBABILITY RATINGS	CRITERIA
Definite	Estimated greater than 95 % chance of the impact occurring.
Probable	Estimated 5 to 95 % chance of the impact occurring.
Unlikely	Estimated less than 5 % chance of the impact occurring.

Definition of confidence ratings

CONFIDENCE RATINGS	CRITERIA
Certain	Wealth of information on and sound understanding of the environmental factors potentially influencing the impact.
Sure	Reasonable amount of useful information on and relatively sound understanding of the environmental factors potentially influencing the impact.
Unsure	Limited useful information on and understanding of the environmental factors potentially influencing this impact.

Definition of reversibility ratings

REVERSIBILITY RATINGS	CRITERIA
Irreversible	The activity will lead to an impact that is permanent.
Reversible	The impact is reversible, within a period of 10 years.

1.1 Subjectivity in assigning significance

Despite attempts at providing a completely objective and impartial assessment of the environmental implications of development activities, EIA processes can never escape the subjectivity inherent in attempting to define significance. The determination of the

significance of an impact depends on both the context (spatial scale and temporal duration) and intensity of that impact. Since the rationalisation of context and intensity will ultimately be prejudiced by the observer, there can be no wholly objective measure by which to judge the components of significance, let alone how they are integrated into a single comparable measure.

This notwithstanding, in order to facilitate informed decision-making, EIAs must endeavour to come to terms with the significance of the potential environmental impacts associated with particular development activities. Recognising this, we have attempted to address potential subjectivity in the current EIA process as follows:

- Being open about the difficulty of being completely objective in the determination of significance, as outlined above;
- Developing an explicit methodology for assigning significance to impacts and outlining this methodology in detail in the Plan of Study for EIA and in this EIR. Having an explicit methodology not only forces the assessor to come to terms with the various facets contributing towards the determination of significance, thereby avoiding arbitrary assignment, but also provides the reader of the EIR with a clear summary of how the assessor derived the assigned significance;
- Wherever possible, differentiating between the likely significance of potential environmental impacts as experienced by the various affected parties; and
- Utilising input from specialists, a team approach and internal review of the assessment to facilitate a more rigorous and defendable system.

Although these measures may not totally eliminate subjectivity, they provide an clear context within which to review the assessment of impacts.

1.2 Consideration of cumulative impacts

Section 2 of the National Environmental Management Act requires the consideration of cumulative impacts as part of any environmental assessment process. EIA's have traditionally, however, failed to come to terms with such impacts, largely as a result of the following considerations:

- Cumulative effects may be local, regional or global in scale and dealing with such impacts requires co-ordinated institutional arrangements; and
- EIA's are typically carried out on specific developments, whereas cumulative impacts result from broader biophysical, social and economic considerations, which typically cannot be addressed at the project level.

However, when assessing the significance of impacts in the next chapter, cumulative effects have been considered as far as possible.

Appendix G: Environmental Management Plan (EMP)

Refer to the Construction Phase EMP included in the Draft Wakkerstroom Rehabilitation Plan.

Appendix H: Details of EAP and expertise

Curriculum vitae: Ms FI GRESSE

Name	:	**GRESSE, FRANCIENA ISABELLA**
Date of Birth	:	14 March 1985
Profession/Specialisation	:	Environmental Practitioner
Years with Firm	:	4
Nationality	:	South African
Years experience	:	5

Key qualifications

Ms Gresse is a Senior Environmental Practitioner in the Cape Town office. She completed a Bachelor of Science and an Honours Degree in Conservation Ecology at the University of Stellenbosch. She has been involved in various projects, including a 24G application, environmental impact assessments, renewable energy projects, environmental management plans, environmental control officer (ECO) work, pre-feasibility and feasibility studies for the Western Cape Water Supply System and a catchment management strategy for the Olifants-Doorn catchment, Western Cape.

Employment record

03/2009 - Date	Aurecon, (previously Africon, Ninham Shand and Connell Wagner), Environmental Practitioner
2008 - 02/2009	Ninham Shand, Candidate Environmental Consultant

Experience record

***Proposed Rehabilitation of Wetlands as Part of the Working for Wetlands (Western and Northern Cape, South Africa)* 2010 – Date.** *Project Staff.* Appointed by the South African National Biodiversity Institute (SANBI) to conduct environmental impact assessments for the rehabilitation of specific wetlands in all provinces of South Africa over a five year period. She was responsible for the compilation of Basic Assessment Reports and Wetland Rehabilitation Plans for the Western Cape as well as the Northern Cape. Other responsibilities includes liaison with authorities, public participation process, management of specialists and general project management. (SANBI)

***Environmental Impact Assessment for the Proposed Extension of the Ash Dam Facility at Kriel Power Station* (Mpumalanga, South Africa) 2010 – Date.** *Project Staff*. Appointed by Eskom to conduct an environmental impact assessment for the proposed construction of a fourth ash dam facility at the Kriel power station. She was involved in the screening process, compiling the scoping and EIA reports and public participation. In conjunction, she was also involved in the compilation of a Waste Management Licence application required for the proposed ash dam. (Eskom)

***Environmental Impact Assessment for Proposed Solar Energy Facility, Onder Rietvlei Farm (Portion 3 of Farm 18, Aurora, West Coast, South Africa)* 2010 – 2011.** *Project Staff.* Appointed by Solaire Direct to undertake a basic environmental impact assessment process for the proposed construction of a 10 MW solar energy facility. Responsible for the compilation of the draft and final reports, public participation process, management of specialists and general project management. (Solaire Direct Southern Africa)

***Environmental Sensitivity Study for a Proposed Solar Energy Facility on a Farm Near Aurora (West Coast, South Africa)* 2010.** *Project Staff.* Appointed to provide and environmental sensitivity study (ESS) which inter alia highlights the potential constraints ("red flags") and opportunities presented by the site from an environmental perspective. Responsible for the compilation of the ESS. (Solaire Direct Southern Africa)

***Proposed Remediation, Rehabilitation and Restoration of the Spruit, Krom, Leeu and Palmiet Rivers* (Wellington and Paarl, South Africa) 2009 – 2010.** *Project Staff.* Appointed by the Drakenstein Municpality to undertake the requisite EIA process for the rehabilitation, remediation and stabilisation of four rivers within Paarl and Wellington. Responsible for the EIA and public participation processes. (Drakenstein Municipality)

***Proposed Construction of a New Pipeline from Bovlei Winery to Withoogte Dam* (Wellington, South Africa) 2009 – 2011.** *Project Staff.* The Drakenstein Municipality propose to replace a section of the existing pipeline extending from the Withoogte Dam to the Welvanpas Reservoir near Wellington as part of

the municipality's water master plan in order to improve the overall water supply. Responsible for the compilation of the EIA report, management of specialists and the public participation process. (Drakenstein Municipality)

Proposed Erection of Eskom Communication Sirens/PA Systems **(Blaauwberg, South Africa) 2009 – 2010.** *Project Staff.* Appointed by Eskom to conduct three EIA processes for the (a) erection of 10 new sirens in the Parklands area, (2) relocation of one siren in Bloubergstrand and (3) upgrade of five sirens on farms near Melkbosstrand. Responsible for compilation of EIA reports and the public participation process. (Eskom)

Overberg District Municipality: Integrated Transport Plan: Strategic environmental informants **(South Africa) 2009.** *Project Staff.* Aurecon's Transportation Unit was appointed to revise the integrated transport plan. The Environmental Unit was sub-contracted to provide environmental input. Responsible for identifying and describing the relevant informants. (Overberg District Municipality).

Annandale Commercial: Development of Petrol Filling Station on Portion of Erf 5561 **(Kuils River, South Africa) 2009.** *Project Staff.* Appointed to compile a construction environmental management plan (CEMP) for the construction of a filling station on the corner of Gladioli Street and Amandel Drive, Kuils River. Responsible for the compilation of the project specification document as part of the CEMP. (Communicate)

Pre-feasibility and Feasibility Studies for Augmentation of the Western Cape Water Supply System **(South Africa) 2008 – Date.** *Project Staff.* The Department of Water Affairs commissioned the pre-feasibility and feasibility studies for the augmentation of the Western Cape Water Supply system through the further development of the surface water resources. Surface water schemes to be investigated, were identified by the Western Cape Water Supply system: Reconciliation strategy study. Responsible for the public participation process, management of environmental specialists and the compilation of a socio-economic overview of the study area.

C.A.P.E. Olifants-Doring Catchment Management Agency Project: Development of a catchment management strategy water resource protection sub-strategy for the Olifants-Doring Catchment **(South Africa) 2008 – 2009.** *Project Staff.* Appointed by CapeNature to compile a catchment management strategy water resource protection sub-strategy for the Olifants-Doorn catchment. Responsible for the compilation of a database that lists all institutions and their respective mandates in terms of water resource protection and biodiversity conservation decision-making for the Olifants-Doring catchment, workshop arrangements and general project related work.

Table Mountain Group Aquifer Feasibility Study and Pilot Project **(Western Cape, South Africa) 2008 - 2010.** *Environmental Control Officer.* The City of Cape Town initiated a study into the Table Mountain Group Aquifer as a potential water source to augment the city's supply. The feasibility and pilot project phase Record of Decision (RoD) required completion for site-specific Environmental Management Plans (EMPs) for drilling sites that were assessed to be environmentally sensitive. Site-specific EMPs were designed for sensitive sites to ensure minimal environmental impact during the drilling phase. Responsible for monitoring compliance with the RoD and EMP during the drilling phase. (City of Cape Town).

Water Reconciliation Strategy for the Algoa Water Supply Area **(Eastern Cape, South Africa) 2008 - 2009.** *Project Staff.* This project provided an assessment of the environmental opportunities and constraints for a suite of water schemes in the Algoa water supply area. This was undertaken as part of a broader study in the area.

Proposed Extension of Lock Road **(Kalk Bay, South Africa) 2008 - 2009.** *Project Staff.* The project comprised an Environmental Impact Assessment (EIA) process for extending Lock Road to an existing erf. Responsible for being involved during the final stages of the application. (Mr Rick Bartlett).

Proposed Development of Apple and Pear Orchards on Soetmelksvlei Farm **(Riviersonderend, South Africa) 2008 - 2009.** *Project Staff.* This Agri-development project involved the development of 50ha of apple and pear orchards in the Riviersonderend region. Responsible for compiling the basic assessment report, Environmental Management Plan (EMP), and managing the specialists and public participation process. (BETCO).

Application for Rectification in Terms of Section 24G of NEMA for the Unlawful Commencement of a Fruit Processing Factory on Farm Op De Tradouw, Number 69 **(Barrydale) 2008 - 2009.** *Project Staff.* The project consisted of an application for rectification in terms of Section 24G of NEMA. Responsible for

compiling an environmental impact report and an Environmental Management Plan (EMP) for the application, as well as managing the public participation process. (Schoonies Family Trust).

Proposed redevelopment of the Blaauwberg Conservation Area: Eerstesteen Node **(South Africa) 2008 - 2010.** The project entailed an Environmental Impact Assessment (EIA) process for redeveloping the Eerstesteen Conservation Area on the West Coast. Responsible for compiling the EIA report, as well as managing specialists and the public participation process. (City of Cape Town).

Environmental Sensitivity Study for the Proposed Dasdrif Poultry Farm **(Moorreesburg, South Africa) 2008.** *Project Staff.* Appointed to provide and environmental sensitivity study (ESS) which inter alia highlights the potential constraints ("red flags") and opportunities presented by the site from an environmental perspective. Responsible for the compilation of the ESS. (Eikenhoff Poultry Farms (Pty) Ltd).

Department of Economic Affairs, Environment and Tourism (DEAET) decision-making support **(South Africa) 2008.** *Project Staff.* Responsible for assisting DEAET with the review and processing of Environmental Impact Assessment (EIA) applications in terms of the Environment Conservation Act.

Joint Maputo River Basin water resources study **(Mozambique, Swaziland and South Africa) 2008.** *Project Staff.* The project provided an environmental opportunities and constraints assessment of a suite of potential dams in South Africa and Swaziland, within the Maputo River Catchment. This was undertaken as part of a broader study into the catchment.

Education

2007 : BSc (Hons) Conservation Ecology, University of Stellenbosch, South Africa

Professional affiliations

Member, International Association of Impact Assessment (IAIA)

Languages

	Reading	**Writing**	**Speaking**
English	Excellent	Excellent	Excellent
Afrikaans	Excellent	Excellent	Excellent

By my signature below I certify the correctness of the information above and my availability to undertake this assignment.

_____ _____

Signature of Staff Member Date

Appendix I: Specialist's declarations of interest

Please note that the Specialist's declarations of interest will be included in the Final BAR.

Appendix J: Other information

J_1 – Wetland forum minutes

Gauteng Wetland Forum
Minutes
28 September 2012
Endangered Wildlife Trust, Modderfontein

No	Item	Action
1	**Welcome** • The Chairperson welcomed everyone to the meeting and thanked the EWT for hosting the meeting and for providing the venue for the rest of 2012.	M de Fontaine
2	**Introduction of Attendees** • The Chairperson gave everyone who attended the meeting an opportunity to introduce themselves and requested that they fill in the attendance register which was circulated.	All
3	**Apologies** • See Appendix 1 for a list of apologies.	All
4	**Minutes of the Previous Meeting** • The minutes of the previous meeting were read and accepted with a few minor corrections.	All
5	**Matters Arising from the Previous Minutes** • No matters arising from the previous minutes. Issues to be discussed as per the agenda.	All
6 6.1	**Additions to the Agenda** Forum Chairperson 2013 – 2015	 M de Fontaine
7 7.1	**Items for Presentation** • The Klip River wetland presentation was cancelled by V Vermaak but will be presented at the November meeting.	 V Vermaak
8	**Financial Report** • J Taylor reported back on the financial status of the GWF and noted that funds were being received into the account but that this was for SAWS membership (See Section 10.3.7 for more information). • Current balance is approximately R40,000-00 of which R18,000-00 is for the GWF.	J Taylor
9 9.1 9.2 9.3 9.4	**Working Groups Report Back** **Education and Training** • No feedback given. **Marketing and Awareness** • P Fairall noted that he is communicating with as many organizations as possible to raise the profile of the GWF and the SA Wetland Society. • However, all members must make a conscious effort to promote the activities of the GWF at any opportunity when speak to organizations or the public. **Wetland Database** • No feedback given. **Wetlands in Crisis** • See Appendix 2 for an updated list of Wetlands in Crisis.	 PL Grundling P Fairall A Grobler P Fairall

10	**Stakeholder Feedback**	
10.1	**Catchment Forums**	
10.1.1	**Blesbokspruit** • Feedback from Cop 11 indicates that the Blesbokspruit Ramsar site will be removed from the Montreux Record and returned to full Ramsar status. • However, this will be managed by National office and it is hoped that there will be stakeholder input into the process.	V Ndlopfu
10.1.2	**Hennops River** • No feedback given.	
10.1.3	**Klip River** • No feedback given.	
10.2	**Local Authorities**	
10.2.1	**Ekurhuleni** • No feedback given.	
10.2.2	**Emfuleni** • No feedback given.	
10.2.3	**Johannesburg** • The AMD running through the playground near to Princess Dump has been stopped. • In order to proceed the city is considering 2 options: o To declare the dump ownerless. o Grant prospecting rites.	P Makena
10.2.4	**Tshwane** • J van den Berg reported that removal of alien invasive vegetation is being planned for the Apes River. • There is concern however, that the removal will of vegetation will cause a greater problem of soil erosion. • Any documents for this work will be circulated via the GWF for comment.	J van den Berg
10.2.5	**West Rand District Municipality** • No feedback given.	
10.3	**Other Organisations**	
10.3.1	**DAFF** • No feedback given.	
10.3.2	**DWA** • T Patha reported on the planned Emfuleni Landfill Site application with DWA and requested that if there were any concerns to the development that these be raised through the EIA process. • On the issue of illegal dumping, it was noted that DWA is not responsible for this and should be reported to GDARD. • T Pather also reported that clay was dumped on part of a wetland at the Holfontein Waste site. The forum agreed that the remedial action to follow should be the removal of the clay and not a river diversion.	T Patha

10.3.3	**GDARD** • V Ndlopfu reported that the Biosphere Programme is ongoing but that GDARD will be focusing more on monitoring to provide information on the water quality status of wetlands. • Mapping is continuing. • EIA and compliance is ongoing.	
10.3.4	**Klipriviersberg Sustainability Association (KlipSA)** • A Barker reported that the project proposal report for the Klip River Wetland Rehabilitation is being prepared. • The AGM for KlipSA was held and the chairperson's report can be accessed from the website www.klipsa.org.za.	A Barker
10.3.5	**Rand Water Foundation** • W Mabotha reported that Rand Water Foundation is busy finalizing the projects for 2011/2012. However, work for R4.5 million will continue in the following areas for the current financial year: o Klipkop. o Rietvlei. o Diepsloot. o Ezemvelo.	W Mabotha
10.3.6	**Sanbi / Working for Wetlands** • T Manungufala has resigned from SANBI and so a replacement representative at the GWF needs to be found. • T Manungufala requested that his thanks and gratitude be expressed to the GWF and members for the time that he has represented SANBI.	T Mangufala
10.3.7	**SA Wetland Society** • The society is drawing in members which currently stands at 55 Ordinary and 4 Organisation. • GWF members are urged to support the society and sign up as their contributions will go a long way to getting the society going. • The society's first AGM will be held at Indaba 2012.	M de Fontaine
11 **11.1**	**Discussion of Additions to the Agenda** **Forum Chairperson 2013 - 2015** • M de Fontaine reported that he will not be available to chair the GWF after his term of office ends with the November 2012 meeting. • However, he did note that all the back office support for the forum will continue but that the GWF will need to select someone to organize and run the 6 forum meetings held during the year. • A request will be sent out to the GWF for requests for people who would consider contributing to the forum in the above described manner.	M de Fontaine
12	**Next Meeting** • 30th November 2012 at the EWT, Modderfontein from 10:00 to 13:00.	
13	**Closure** • The chairperson closed the meeting after he had thanked all GWF members for attending the meeting.	M de Fontaine

APPENDIX 1 – APOLOGIES

Charl van der Merwe
Tshifhiwa Ravele
Andrew Barker
Willem Lubbe
Bridget Corrigan
Paul Meulenbeld
Thomani Manungufala
Wayne Sinclair
Thapelo Loabile
Mashudu Funzani
Piet-Louis Grundling
Johan van der Waals
PS Rossouw
Marian Laserson
Siya Buthelezi
Bismark Mashau

APPENDIX 2 - WETLANDS IN CRISIS

WETLAND IN CRISIS	PREVIOUS (25 MAAY 2012)	CURRENT (28 SEPTEMBER 2012)
Bruma Lake Bedfordview	• P Fairall threatened legal action against Jo'burg which has resulted in a tender being advertised for the remediation of the lake.	
Davidsonville AMD Soweto	• F Letsoko reported that a site visit to Davidsonville Park was held last week and the site has been flooded with acid mine drainage (AMD) from the adjacent mining industry. • It was further noted that this issue is a complicated matter covering a number of legal issues and involving various stakeholders such as CoJ, JRA, Durban Roodepoort Deep and DMR. • This issue has been tabled at the Klip River Forum and feedback will be given at the next forum meeting.	• See Section 10.2.3 for an update.
Dlamini Ext.5 Soweto	• Stands for houses in the wetland have been sold off to local residents. • It would appear that no EIA was undertaken and when JPC was informed, all sales were cancelled. • However, one property owner is continuing to build in the wetland and this issue needs to be addressed as soon as possible in order for remediation to be undertaken. • The community was thanked for their vigilance in the area as it is known to flood significantly during periods of high rainfall.	
K56 Road Bryanston	• It is acknowledged that the development of this road is essential to reducing serious congestion in the area. • However, the planned road will cut across three parts of a wetland which is known to be the fourth largest breeding site of the Giant African Bullfrog.	
Kelland	•	
Kengies Wetland	•	
M1 Skydeck Melrose North	• M Laserson reported that the development is still on hold pending stakeholder involvement. • F Letsoko indicated that he will request the Planning Committee at CoJ to follow-up on this issue and feedback will be given in the next GWF meeting.	
Modderfontein	• There is currently 8.4km of wetlands that reside in the Modderfontein area and has been defined as one of the largest	• P Fairall lost his appeal for the planned rezoning and development of the Modderfontein wetlands. • The designated wetland area will be severely restricted in the

	raptor breeding sites in South Africa. • Continued development in the area is placing significant pressure on the wetland region.	future with extensive loss of habitat.
Mushroom Farm Park Sandown	• Feedback given by P Fuller as to the continuing ignoring of the problem that this wetland is facing. • Building rubble and formal structures are still present in the permanent wet zone and no action has been taken to remove the rubble or break down the structures. • The contentious issue regarding this wetland is that the wetland delineation needs to be confirmed and accepted by all parties.	• P Fairall is still awaiting GDARD's wetland delineation. • No meeting between various parties has taken place recently.
Pan African Parliament Midrand	• This site has been abandoned and there is no security present due to problems with the Public Works department. • As a result of this, quad bikes have started to use the site for recreational riding which will no doubt cause further damage to the area.	• The site is still deserted but at least there are now guards on the gate to prevent access. • Two seasons of alien invasive vegetation removal have been missed which will make rehabilitation of the site in the future difficult.
Pick n Pay William Nicol	• B Itholeng reported that he still need to have a meeting with P Fairall and Pick n Pay management to discuss outstanding issues relating to this matter.	
Queens Wetland Kensington	• The wetland has been rehabilitated with future developments on site taking place.	• Planting of vegetation will take place in September 2012.
Rietvlei Dam	• High performance Training Centre proposed to be built on the Rietvlei Dam nature reserve.	• Tshwane Metro has ignored all public consultation and refuses to implement an EIA for the planned development.
Sanral Head Office Midrand	• A fine of R5 million has been levied with no chance of an appeal for reduction in cost.	• Rehabilitation of the site has not begun yet.
Toyota Bike Park Bryanston	• Papers have been served for rectification and rehabilitation of the site to be undertaken. • It is expected that when work begins it will take about 2 to 3 months to complete.	
Waterfall Estate Mias Farm Midrand	• This entire area is being cut up and subdivided for future development with acknowledgement that all hill slope seeps will be sacrificed. • Has been confirmed that a number of endangered bulbs are on site and are threatened by the development.	
West Lake	• This site is known to have the largest collection of raptor birds of prey in the area and an amended authorization has been granted. • P Fairall noted that the comments he made were not submitted to	

	GDARD for record.	
Zolla	• The Eco-Park and bridge will be built in 2013.	
Zulu Nyala	•	• Rectification is in process and the rehabilitation is under control. • Assistance from CoJ was appreciated.

GAUTENG WETLAND FORUM ATTENDANCE REGISTER 28 SEPTEMBER 2012

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