# 1. **DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER WHO PREPARED THE DRAFT EMP**

1.1 **Details of the Company**

Name of Company: Tikamupo Environmental Consultancy

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1.2 **Details of the EAP who prepared the report**

Name of EAP: Thivhulawi Robert Tshivhandekano

Qualifications: Masters in Environmental Management (Potchefstroom University), MSc in Botany (University of Cape Town)

2. ***PURPOSE AND PHILOSOPHY OF THE ENVIRONMENTAL MANAGEMENT PROGRAM***

Mafikeng Local Municipality in the North West Province intends to develop a recreational park to be named Danville Park. This park will be developed at a vacant and undeveloped land at in Danville suburb in Mahikeng and it will be ± 10 hectares in size. There are socio-economic and bio-physical impacts that are likely to arise from this proposed development and as such there is a need to develop and implement some mitigation measures that will ensure that the effects of these impacts on the environment are kept at negligible levels. This environmental management program (EMP) has been developed for that reason.

This EMP highlights:-

* Impacts likely to arise from the above-mentioned development.
* Impact mitigation measures that will be to be undertaken. .
* Roles and responsibilities that various parties should play in implementing the mitigation measures.

The elements of mitigation measures are divided into three types of actions organized in this hierarchy:

* first, avoid adverse impacts as far as possible by use of preventative measures
* second, minimize or reduce adverse impacts to as low as practicable levels; and
* third, remedy or compensate for adverse residual impacts, which are unavoidable and cannot be reduced further.

Key principles for the application of mitigation consistent with the above framework include the following:

* give preference to avoid and prevent measures;
* identify customized measures to minimize each of the main impacts predicted;
* ensure they are appropriate, environmentally sound and cost-effective and
* use compensation or remedial measures as a last resort.

3. ***ROLES AND RESPONSIBLE PARTIES***

Mafikeng Local Municipality conceived a plan to beautify and to green open spaces in Mahikeng and its surrounding rural villages. This resulted in the development of the NW-Township Greening Project proposal which was submitted to the Chief Directorate: Social Responsibility Policy and Projects in the national Department of Environmental Affairs for funding. The NW-Township Greening Project proposal was the approved for funding by the Department of Environmental Affairs. The Department of Environmental Affairs then appointed Bembani Sustainability Training as an implementing Agent for this NW-Township Greening Project. The proposed development of the Danville Park forms part of this NW-Township Greening Project.

**Bembani Sustainability Training** as an **Implementing Agent** for the proposed development of Danville Park is responsible for :-

* Designating /appointing a qualified Environmental Assessment Practitioner who will be responsible for overseeing the implementation of this EMP
* Implementing the mitigation measures relevant to the planning and construction phase of this proposed development and as such must ensure that all role players in the planning, designing and construction phase of this project are contractually bound to implement mitigation measures that are relevant to their scope of work.

Although **Mafikeng Local Municipality** is the **Applicant**, it will not be directly involved in the implementation of the proposed development. However, as an Applicant it must play an oversight role and in addition a collaborative or assistance role to ensure that the **Implementing Agent** is implementing the mitigation measures contained in this EMP. It is also highlighted that the implementation of the mitigation measures for impacts anticipated during the operational phase of the proposed development will be the responsibility of the **Applicant**

4. ***IMPACT MANAGEMENT PROGRAMME***

In this section descriptions of impacts that are likely to arise from the design, construction, operational, closure and decommissioning stages of this proposed development are given. Then mitigation measures to be undertaken for each impact are described and the party or parties responsible for implementing the mitigation measures are indicated. In this Impact Management Program, focused is mainly on direct impacts with the understanding that if the direct impacts are mitigated, indirect and cumulative impacts are less likely to occur.

The **Implementing Agent** must be understood to be **Bembani Sustainability Training** and the **Applicant** must be understood to be **Mafikeng Local Municipality**.

4.1 IMPACTS/ISSUES RELATED TO THE PLANNING/DESIGN PHASE

4.1.1 **Removal of the vegetation on some sections of the area where the proposed Park is to be developed. This impact is relevant for both the preferred Design/Layout Alternative 1 Design/Layout Alternative 2**

The vegetation will have to be removed in order to provide the space for the construction of the proposed shopping centre. In some instances branches of certain large trees might have to be cut. This will result in loss of biodiversity in terms of primarily the removal of trees and secondarily the disturbance of habitats for animals and birds. This impact is relevant to planning phase because it could be minimized by designing positioning some structures of the proposed Park in a way that t will result in the minimal removal of

**Mitigation Measures**

* When selecting the position for the construction of some structures which will form part of the Park, avoiding the area with a high number of big trees and a good vegetation cover could minimize vegetation loss in general and loss of big trees.
* Indigenous Trees must be planted to compensate for those that would have been removed.
* In a case where, the removal or cutting of protected and other trees cannot be avoided, a permit to cut or remove these trees should be obtained from the relevant Authority in accordance with National Forests Act, Act 84 of 1998. This should be done before the removal or cutting of these trees is done.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.1.2 **There could be a possible damage to Molopo River (which runs across the proposed site for development), its riparian vegetation and the wetland, which has been identified on the proposed site for development. This impact is more relevant to Design/Layout Alternative 2 than Design/Layout Alternative 1**

**Mitigation Measures**

* The design of the proposed Park should be done in such a way that any possible damage on the River and the wetland is avoided or reduced to insignificant levels.
* If any construction activity will take place within the River and the Wetland, the necessary water use licence must be obtained from the Department of Water Affairs before any construction work could take place in the area within the River and its banks and in the area within the wetland.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight and assistance role in ensuring that the mitigation measures are implemented.

4.1.3 **The railway line that runs across the proposed site for development could result in accidents due the train running over visitors to the proposed Park. This impact is relevant for both the Activity Design/Layout Alternatives 1 and 2**.

**Mitigation Measure**

In the design of the proposed Park measures to avoid possible accidents resulting from the train running across the proposed site for development must be put in place. These measures might include fencing off the proposed Park such that there will be a barrier between the proposed Park and the railway line.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight and collaborative role in ensuring that the mitigation measures are implemented.

4.1.4 **Flooding of the proposed Park. Since there is a River that runs across the proposed site for the development, some of the structures that will form part of the proposed Park could be damaged by flooding when the Molopo River becomes too full. This impact is relevant for both the Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Structures which will form part of the proposed Park must not be constructed within the flood line or 100 meters from the river course. This must be considered in the planning and design stage of the proposed Park.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight and collaborative role in ensuring that the mitigation measures are implemented.

4.1.5 **Solid waste existing on the proposed site for development will need to be removed and can pollute the environment if not disposed of at an appropriate site waste disposal site. This impact is relevant for both the Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Proper planning must be done in terms of resources that are needed to remove the solid waste that already exists on site.
* The appropriate solid waste disposal site must also be identified for the disposing of this solid waste.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight and collaborative role in ensuring that the mitigation measures are implemented.

4.1.6 **Vandalism and theft of street furniture, play equipment and other structures which will form part of the proposed Park.**

**Mitigation Measures**

In the planning and design phase of the proposed Park a consideration must be made with regard to security measures that will be put into place to deal with issues of vandalism. These security measures will need resources which must properly budgeted for.

**Responsible Parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2 IMPACTS/ISSUES RELATED TO THE CONSTRUCTION PHASE

4.2.1 **Removal of the vegetation on some sections of the area where the proposed Park is to be developed. This impact is relevant for both Activity Design/Layout Alternatives 1 and 2.**

The vegetation will have to be removed in order to provide the space for the construction of the structures that will form part of the proposed Park. In some instances branches of certain large trees might have to be cut. This will result in loss of biodiversity in terms of primarily the removal of trees and secondarily the disturbance of habitats for animals and birds. This impact is relevant to planning phase because it could be minimized by designing positioning some structures of the proposed Park in a way that t will result in the minimal removal of

**Mitigation Measures**

* When selecting the position for the construction of some structures which will form part of the Park, areas with a high number of big trees and a good vegetation cover must be avoided in order to minimize vegetation loss in general and loss of big trees.
* Indigenous Trees must be planted to compensate for those that would have been removed.
* In a case where, the removal or cutting of protected trees that may exist on site cannot be avoided, a permit to cut or remove these trees should be obtained from the relevant Authority in accordance with National Forests Act, Act 84 of 1998. This should be done before the removal or cutting of these trees is done.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.2 **The construction of the footpath and other structures across the River and within its banks can result on impacts such as removal of the riparian vegetation and soil disturbances which could change the physical characteristics of the River. This impact is relevant for Activity Design/Layout Alternative 2**

**Mitigation Measures**

* If possible the construction of the footpath and other structures across the River must be avoided.
* If the construction of the footpath and other structures across the River cannot be avoided, it must be done at the areas of the River with less riparian vegetation to minimize loss of the riparian vegetation.
* The necessary water use licence must be obtained from the Department of Water Affairs before any construction work could be done within the River.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.3 **The construction of the footpath and other structures across the wetland and within its buffer zone can result on impacts such as removal of the riparian vegetation and soil disturbances which could change the physical characteristics of the wetland. This impact is more relevant for Activity Design/Layout Alternative 2 than for Activity Design/Layout Alternative 1 (Preferred Design)**

**Mitigation Measures**

* The buffer zone of the wetland must be determined and if possible the construction of structures within the wetland and its buffer zone must be avoided. This could be achieved by implementing Design Alternative 1 in which no structures will be constructed within the wetland and its buffer zone.
* Where the construction of any structure such as the footpath within the wetland and its buffer zone cannot be avoided, the necessary water use licence must be obtained from the Department of Water Affairs before any construction work could be done.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.4 **Solid waste already existing on the proposed site and solid waste that will be generated during the construction phase and other forms of construction waste including can impact negatively on the River, the wetland and other areas of the proposed site for development. This impact is relevant for both Activity Design/Layout Alternative 1 and 2.**

**Mitigation Measure**

* Solid and other types of construction waste must be collected, removed from the proposed site for development and be disposed off at an appropriate waste disposal site.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.5 **Domestic waste generated by construction workers on the site for development could result on littering and pollution on the River, the wetland and the site in general. This impact is relevant for both Activity Design Alternatives 1 and 2.**

**Mitigation Measures**

Domestic waste generated by construction workers on the proposed site for development must be collected, removed from the proposed site for development and be disposed off at an appropriate waste disposal site.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.6 **Noise generated by construction activities can create problems for communities residing closer to the construction site. For example the community members might be unable to sleep properly and school children might be unable to study as a result of too much noise from the construction activities. This impact is relevant for both the preferred Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measure**

Construction activities must be restricted within working hours and no construction activity must be allowed to take place after working hours

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.7 **Sanitation-related impacts on rivers and underground water due to lack of toilets for construction workers. Lack of sanitation facilities could result in construction workers relieving themselves in the bushes, which could in turn result in the pollution of water in the rivers. This impact is relevant for both Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Chemical toilet facilities shall preferably be used and sited on the project and camping site in such a way that they do not cause water or other pollution.
* The Contractor could consider an option of establishing a camping site at a place with existing proper toilet facilities.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.8 **Dust pollution caused by construction activities. Excavation and construction activities will generate dust, which could pollute the air and also cause health problems to construction workers who suffer from dust sensitive dieses. This impact is relevant for both the Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Control measures such as wet-suppression (watering) should be implemented to reduce dust arising from construction activities.
* Where excessive dust is created due to excavations, stripping of topsoil, etc. continual wetting down of surfaces must be undertaken. Suitable water sources should be identified and designated, prior to the commencement of construction.
* Where necessary workers should be provided with dust-protection musk

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.9 **Soil Erosion resulting from excavation activities during the construction of some structures of the proposed Park. Excavations during the construction of some of the structures forming part of the proposed Park could lead to disruptions of the surface soil, which in turn will expose the surface soil to erosion by rain. This impact is relevant for both Activity Design Alternatives 1 and 2.**

**Mitigation Measures**

* Temporary topsoil stockpiles should be seeded, or protected in manner that will avoid erosion from rain or wind.
* Avoid unnecessary removal of removal of vegetation.
* Construction work should be done during the dry season where possible.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.10 **Danger to the construction workers posed by the train running on the railway line crossing the proposed site for development. This impact is relevant for both Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Construction workers must be made to be aware of the dangers of the trains that may pass across the site for development during the construction phase.
* Temporary barrier must be constructed between the proposed site for development and the railway line to avoid any possible accident from happening.
* Danger signs must be put on the area where the railway line is crossing the proposed site for development.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.11 **Pollution of soil by chemicals such as oils leaking from construction vehicles and oils stored on site for the maintenance of these construction vehicles. Leakages of chemicals such as oils and fuels from construction machines and vehicles can result in the pollution of soil more so if these spillages are huge and not cleaned immediately. This impact is relevant for both Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Maintenance of vehicles and construction machinery should be done at a proper site. If maintenance of the construction machinery and vehicles will be done on site, then a vehicle maintenance yard should be established at a place at least 500m from any natural water source. Drip pans and thin concrete slab shall be installed in such maintenance area with a view to prevent soil and water pollution
* No vehicle or machinery should be extensively repaired in any place other than in the maintenance yard.
* If chemicals such as oils will be stored on site then a storage area that is securely fenced should be established and all hazardous substances and stocks such as oils shall be stored therein. Drip pans and thin concrete slab with bund walls shall be installed in such storage areas with a view to prevent soil and water pollution.
* All empty containers for hazardous chemicals such as oils placed on site must be taken

to a hazardous waste disposal site.

* In case of any spillage of oil or fuel, the contaminated soil should be immediately collected and be disposed off at a proper site.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.12 **Stealing and vandalism of construction materials.** Itcould happen that construction materials be stolen or be vandalized, which could delay the progress of the project due to shortage of construction materials. **This impact is relevant for both Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

Security measures must be put in place to ensure that there is no stealing or vandalism of the construction materials. This would mean that construction materials may have to be put in lock up place which is guarded after working hours.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.13 **Transmission of diseases especially sexual transmitted dieses such as HIV among construction workers and local communities and any other social problem resulting from the influx of construction workers in the local community.** **This impact is relevant for both Activity Design/Layout Alternatives 1 and 2.**

During construction, construction workers camping in the area of study might sexually interact with people from the local communities. There is a high likelihood that sexual diseases including HIV/AIDS could be transmitted among the workers and local communities.

##### Mitigation measures

* Both Construction workers and the local population should be made aware of the possible power distribution of communicable diseases and the ways of protecting themselves from getting these diseases. This will need an awareness campaign.
* There should be a provision of condoms for both construction workers and the local population.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2. 14 **It could also be possible that construction workers who are not used to the customs and culture of the local people do thing in manner that is not acceptable to the local communities, which could cause frictions between the locals and non-local construction workers.**

**Mitigation Measures**

The **Implementing Agent, contractors and non-local construction workers** should be introduced to the local communities in a meeting where important cultural issues, crime prevention strategies in the local area and other specific ways of doing things in the local area could be explained to the non-locals. This will help non-locals to understand the local communities and be in better position to interact with them with less friction.

**Responsible Parties**

* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.2.15 **Lack of agreement in terms of roles of the Traditional Authority (if any), the Local Municipality and the Implementing Agent in the selection and appointment of local laborers might create a conflict amongst these stakeholders. This impact is relevant for both Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

There must be a discussion amongst the Traditional Authority, the Local Municipality and the Implementing Agent with regard to the process of selecting and appointing local laborers. This discussion may include the guidelines that will be used in selecting the beneficiaries and the roles to be played by each of the three stakeholders. Doing this will solve issues of possible expectation in terms of roles and possible misunderstandings around this matter.

**Responsible parties**

The **Implementing Agent** is responsible for ensuring that the discussion with the other role players is done,

4.2.16 **Short-term job opportunities will be created for the local communities during the construction phase of the proposed Park**. It should be encouraged that qualifying local people get preference in terms of employment when job opportunities arise. **This positive impact is relevant for both Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

This is a positive impact which does not require to be mitigated. It must just be ensured that local communities benefit from the short-term employment opportunities during the construction phase of the project.

**Responsible parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.
  1. ISSUES/IMPACTS RELATED TO THE OPERATIONAL PHASE
     1. **Noise made by people visiting the Park could disturb the people who residing closer to the Park. It could be possible that people visit the park and hold functions such as parties on the park which may extend into the evenings. These functions could result in the noise which could disturb people who residing closer to the proposed Park. This impact is relevant for both Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Visiting times to the proposed Park should be limited to times between the morning and the evening so that people who are residing closure to the Park cannot be disturb by noise in the evening, the time for resting and sleeping.
* Trees should be planted at the edge of the proposed Park to serve as a vegetation screen which might reduce noise and also promote privacy to the residents neighboring the proposed site for development.

**Responsible Parties**

* The **Applicant** in consultation with the **Barolong Boora Tshidi Traditional Authority** will be responsible for regulating the visiting times to the Park
* The **Implementing Agent** is responsible for the planting of trees at the edge of the proposed Park
  + 1. **Illegal dumping on the proposed Park could cause serious pollution on the proposed Park. Currently there is a practice of dumping of items such as disposable nappies on the proposed site for development. This practice could also continue even after the proposed Park has been developed. This impact is relevant for both Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Fencing off the proposed Park will help to solve the problem of illegal dumping
* The local people must be educated about the undesirable effects of illegal dumping may also help to change the mindset of the local people who are involved in this bad practice.

**Responsible Parties**

* The **Implementing Agent** is responsible for the fencing off of the Park
* The **Applicant** working together with other local leadership structures such as civic structures within the local communities is responsible for raising awareness about the bad effects of illegal dumping.

4.3.3 **Vandalism and theft of street furniture, play equipment and other structures which will form part of the proposed Park. This impact is relevant for both Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Fencing off the proposed Park will be a step towards solving the problem of vandalism
* Consideration must be made to put Security personnel on the Park to guard against vandalism
* Educating the local community about the importance of ownership of the Park by the local community and the local community being vigilant against acts of theft and vandalism of structures in their Park.

**Responsible parties**

* The **Implementing Agent** is responsible for the fencing off of the Park
* The **Applicant** working together with other leadership structures within the local communities is responsible for raising awareness about the bad effects of vandalism and for sensitizing the local communities about the importance of taking ownership of the Park in their area.

* + 1. **Waste generated by people visiting the proposed Park could litter the Park, the River and the Wetland. This impact is relevant for both the preferred Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Signs discouraging littering at the Park must be put on visible positions on the park and they must be written in at least one commonly spoken local language and English.
* Waste bins must be put at various convenient places within the Park so that visitors could be able to put in their waste instead of littering.
* The waste bins must be emptied when full and the collected waste must be disposed off at a registered waste disposal site.

**Responsible Parties**

The **Implementing Agent** will be responsible for the installation of No Littering signs and waste binds.

The **Applicant** will be responsible for the collection and disposal of the waste

4.3.5 **Sanitation problems created by non-functionality of the ablution facilities on the proposed Park. It could be possible that the ablution facilities on the proposed Park get not to work properly due to problems of not maintaining them properly. This impact is relevant to both Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* Contingency plans such provision of temporary toilets must be put in place to deal with a situation where ablution facilities are not working properly
* Routine checks for possible faults on the entire ablution system linked with proper maintenance of the ablution facilities will also avoid the issue mentioned above.
* Provision of proper toilet papers in the toilets will also help by not forcing to use improper wiping things such as newspapers that may block the sewage system and thereby rendering it non-functional. A consideration could be made to charge a small fee for the use of the toilet and in order to get the money that will assist in the buying of toilet papers and maintenance of the toilets.

**Responsible Parties**

The **Applicant** is responsible for implementing the mitigation measures above.

4.3.6 **If chemical fertilizers will be used to fertilize grass and flowers on the proposed Park, they can run off to the River and cause pollution. This impact is relevant for both the Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

Organic fertilizers must be used for the reason that they are not easily washed off by rain water and as such the problem of fertilizers being washed off into the River will be minimal.

**Responsible Parties**

The **Applicant** is responsible for implementing the mitigation measure above.

4.3.7 **Flooding could damage some of the structures that will form part of the Proposed Park. This impact is relevant for both the Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

Structures that form part of the proposed Park must not be constructed within the flood line or 100 meters from the river course.

**Responsible Parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.3.8 **People walking off the footpath might cause impacts such as trembling on the vegetation and soil compaction particularly in the riparian area of the River and the Wetland area. This impact is relevant for Activity Design Alternative 2 (footpath crossing the River and the Wetland).**

**Mitigation Measures**

* Not constructing footpath across the River and the Wetland will limit access to these sensitive parts of the Park, which will then reduce the chance of park visitors causing impacts such as vegetation trembling and soil compaction.
* If constructing the footpath across the River and the Wetland cannot be avoided, then walkers must be educated about the need for not walking off the footpath particularly on these sensitive areas.

**Responsible Parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.3.9 **People walking across the River and the Wetland might litter the River and the Wetland. This impact is relevant for Activity Design Alternative 2 (footpath crossing the River and the Wetland).**

**Mitigation Measures**

* Not constructing footpath across the River and the Wetland will limit access to these sensitive parts of the Park, which will then reduce the chance of park visitors causing impacts such as littering within these sensitive areas.
* If constructing the footpath across the River and the Wetland cannot be avoided, then walkers be educated about the need for not littering
* Enough waste bins must also be provided on the proposed Park site for visitors to put waste.

4.3.10 **The railway line that runs across the proposed site for development could result in accidents due the train running over visitors to the proposed Park. This impact is relevant for both the Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* In the design of the proposed Park measures to avoid possible accidents resulting from the train running across the proposed site for development must be put in place.
* These measures might include fencing off the proposed Park such that there will be a barrier between the proposed Park and the railway line.
* Awareness must be raised on the visitors particularly young kids about the dangers of the railway line

**Responsible Parties**

* The **Implementing Agent** is responsible for implementing these mitigation measures.
* The **Applicant** must play an oversight role in ensuring that the mitigation measures are implemented.

4.3.11 **Job opportunities will be created for the local communities during the operational phase of the proposed Park. It should be encouraged that qualifying local people get preference in terms of employment when job opportunities arise. This is a positive impact that is relevant for both the Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

This is a positive impact which does not need any mitigation. It is recommended that people from the local community gets preference when this opportunity for long-term employment arises.

**Responsible Parties**

The appointment of workers at the operational phase of the proposed Park will be the responsibility of the **Applicant**.

4.3.12 A**t an operational phase of the proposed Park local communities will have an opportunity to visit the Park with their families and enjoy quality outdoor life such as picnics and their kids will be exposed to playing facilities. The Park could also serve as a venue where some functions can be conducted.**

**Mitigation Measures**

This is a positive impact which does not need any mitigation except that local communities must be encouraged to make use of the Park at their disposal.

**Responsible Parties**

The **Applicant** working together with other leadership structures in the local communities could play a role in encouraging local communities to make use of the proposed Park.

* 1. ISSUES/IMPACTS RELATED TO THE DECOMMISSIONING AND CLOSURE PHASE

4.4.1 **Rubble waste (corrugated irons) and solid waste from the demolished structures that would have formed part of the proposed Park will result in the pollution and littering in the area where the park would have existed including the existing River and the Wetland. This impact is relevant to both Activity Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* The rubble waste and the solid waste from the demolished structures must be collected and be disposed off at an appropriate municipal approved disposal site.
* Corrugated iron and steel from this demolished building could be separated from the general rubble for re-use and re-cycling.

**Responsible Parties**

The **Applicant** is responsible for implementing these mitigation measures

4.4.2 **Job losses as a result of the closure of the Park. This impact is relevant for both the preferred Design/Layout Alternatives 1 and 2.**

**Mitigation Measures**

* The closure of the proposed Park must be avoided at all costs in order to save jobs of people who will be employed to work in the Park.
* If the closure of the Park is unavoidable, a consideration must be made to transfer the affected workers to do related work elsewhere within the Municipality.

**Responsible Parties**

The **Applicant** is responsible for implementing this mitigation measure

4.4.3 **Closure of the proposed Park will result in the local people no longer having an access to a recreational Park that they were used to. This could be a negative social issue and the local people could feel that the Local Government is not treating them well and this may cause a hostile situation between the Local Government and the local people. This impact is relevant for both the Design/Layout Alternatives 1and 2.**

**Mitigation Measures**

* The closure of the proposed Park must be avoided at all costs.
* If the closure of the Park is unavoidable due to other compelling reasons, the idea of closing the Park must be discussed with the local people until there is a good understanding by the local people with regard to the compelling reasons behind the closure of the Park.

**Responsible Parties**

The **Applicant** is responsible for implementing this mitigation measure

5. ENVIRONMENTAL AWARENESS

It is recommended that the **Implementing Agent** should ensure that before any construction work can be embarked on, the role players such as contractors and landscape designers are work- shopped with the focus of making them to be aware and to understand the conditions stipulated on the Environmental Authorization and the contents of the Environmental Management Program. In this workshop the responsibilities of each role player in the implementation of the conditions stipulated on the Environmental Authorization and those in the Environmental Management Program must be highlighted.

6. MONITIRING FOR COMPLIANCE WITH THE ENVIRONMENTAL MANAGEMENT PROGRAM AND REPORTING

The **Implementing Agent** should then appoint an Environmental Compliance Officer (ECO) who will monitor the compliance with the Environmental Management Program. The appointed Environmental Compliance Officer should develop a checklist based on the EMP, which shall be used as an instrument to audit as to whether mitigation measures recommended in the EMP are implemented. At least once a month the Environmental Compliance Officer should go to the construction site to conduct an audit for compliance with the EMP.

Areas of non-compliance should be explained to the relevant non-complying role player, who should actually sign the checklist form to indicate his/her agreement with the findings of the audit. Corrective measures should also be discussed with the non-complying role player. At least on monthly basis the Environmental Compliance Officer should compile a monitoring report, which should be submitted to the Proponent. If project site meetings are held during the construction period, the appointed Environmental Compliance officer should attend such meetings and highlight the findings with regard to compliance with the EMP and corrective measures should be discussed in such meetings. The **Implementing Agent** should put a mechanism in place to deal with any service provider with regard to issues of non-compliance with the EMP.