

# **National Water Reuse Programme:**

## **Programme Design and Preparation of a Full Funding Proposal to the Green Climate Fund**



### **Environmental and Social Management Framework and Plan**

#### **Annexure 6**

**09 June 2023**

## EXECUTIVE SUMMARY

The Development Bank of Southern Africa (the DBSA) has partnered with various government departments (including the Department of Water and Sanitation (DWS), the Department of Cooperative Governance (DCOG) through its agency the Municipal Infrastructure Support Agency (MISA), and the National Treasury for the development of a national Water Reuse Programme ('WRP' or the 'Programme').

In addition, as an Accredited Entity of the Green Climate Fund (GCF), the DBSA submitted a proposal to the GCF to support the design and implementation of the WRP in South Africa.

Noting the importance of water reuse to diversifying the 'water mix' in South Africa, and the challenges and barriers to entry that exist in the development of these water reuse sub-projects at scale, the development of a focussed programme to address these challenges and ultimately implement pathfinder sub-projects is critical to contributing towards building a more resilient water future. The sub-project team will design a national Water Reuse Programme (WRP) aimed at enhancing water security and improved resilience to climate change through the scale-up of water reuse approaches and infrastructure in municipalities and through improved management of Ecological Infrastructure (EI).

At the highest level, the WRP will encourage and support municipalities to implement water reuse and reclamation initiatives that would also include nexus issues, such as combined heat and power (CHP) installations and sewage sludge reuse. The WRP would need to be highly effective, technically advanced, and ready-to-launch towards demonstrably achieving climate change resilience objectives (by strengthening the country's adaptive capacity against water stress and scarcity), and measurably maximize climate change mitigation co-benefits, in a manner that explicitly meets the criteria and requirements of the Green Climate Fund – thereby lending itself to the preparation and submission of a successful GCF funding proposal.

This report is the Environmental and Social Management Framework and Plan (ESMFP) which has been prepared for the Programme and for submission by DBSA to GCF. The aim of the ESMFP is to avoid and minimise negative environmental and social (E&S) impacts and to enhance positive aspects of the Programme. The ESMFP contains environmental and social baseline information at the national level and provides the framework and guidelines that ensure that the DBSA and the sub-project owners (municipalities) are committed and able to comply with the revised GCF Environmental and Social Policies (B.BM-2021/18) and DBSA Environmental and Social Safeguard Standards. The ESMFP is developed at a programme level and provides the framework within which sub-project specific ESMPs will be prepared at the sub-project level. The Water Partnership Office (WPO) will provide support to Municipalities to prepare sub-projects for financing as well as to provide technical and financial support in sub-project implementation. As such, the ESMFP will be a key component of all sub-project processes, with the WPO and the DBSA overseeing the use of the ESMFP. In all sub-projects, and ESIA will be undertaken and an ESMP will be prepared. This will apply to all 27 sub-projects in the longer-term project pipeline.

Noting the GCF requirement to consider the implications of environmental and social risks across the entire sub-project lifecycle, it must be noted that this juncture the ESMFP covers the initiation, construction and operations, as well as sub-project closure, decommissioning or post-closure management of assets. The typical life expectancy of such advanced treatment plants is estimated at 60 years and within this timeframe it can be reasonably expected that environmental and social safeguard requirements will have been further improved or adjusted. The DBSA's commitment to the use of its safeguard standards will remain and these standards would be applied during such a sub-project closure process.

The ESIA and ESMP will be subject to information disclosure requirements per GCF Revised Environmental and Social Policy and the Information Disclosure Policy. In order to develop the ESIA and ESMP required, the DBSA's own due diligence approaches will be applied. The ESIA and ESMP along with the ESS Disclosure Form will be submitted to GCF for clearance following the disclosure and aligned to the ESS requirements in the relevant GCF policies. It is critical to note that all sub-projects, as per definition, will therefore be subject to the environmental and social risk assessment and screening and the associated information disclosure as provided by GCF policies and those of the DBSA.

Whereas the ESMFP provides the framework for ensuring that sub-project processes consider E&S impacts in accordance with GCF and DBSA safeguards, as well as national regulatory instruments, the Environmental and Social Management Plan (ESMP) is a plan developed at sub-project planning phase to outline proposed mitigation measures to address identified environmental risks and impacts that the ESMFP would identify throughout the sub-project life cycle. The objective of an ESMP is to guide and manage the range of mitigation measures that are identified in the ESIA study and should include the responsibilities, timelines, costs, and monitoring of identified environmental and social indicators. This would cover all components of sub-projects inclusive of construction and operational activities on site and surrounding areas from an environmental and social perspective. This will need to be appropriately structured in accordance to the nature and scale of each sub-project.

A generic ESMP has been developed for the Programme to assist in the compilation of sub-project specific ESMPs required at the application which will set out the sub-project specific measures and actions required to comply with the Environmental and Social Safeguards (ESS) over a specified timeframe.

The core aims of the Programme are to:

- Encourage the scaled development of water reuse sub-projects at municipal level.
- Support municipalities with the scaling of their reuse sub-projects by providing support in the identification, conceptualization and prioritization of large-scale water reuse sub-projects, in the sub-project preparation and the development of implementation-ready plans, and in the development of blended finance options to fund implementation.

- Assist municipalities to develop diversified sub-projects that not only support water reuse but have extended beneficiation from aspects such as water reclamation through nature –based solutions, sludge management and beneficiation as well as energy generation from biogas.
- Create a new asset class around water reuse infrastructure.
- Assist municipalities to counter the adverse effects of climate change in the water and wastewater services sector.
- Ensure Climate adaptation as a principal objective of the programme.
- Mainstreaming climate resilience into the water use and reuse sector.
- Improve Ecological infrastructure for water security and to meet climate mitigation strategic objectives.

The negative impacts can be addressed and mitigated by implementation and compliance with the requirements of the ESMFP and ESMP. The Programme will also provide indirect positive social impacts including job creation. The negative impacts, which have been described, will be mitigated in the planning, design, planning, construction and operation of the facilities.

The proposed Programme will have an overall positive impact on the environment in terms of more sustainable water resource management, climate adaption and provide municipalities with a more resilient water and climate future.

In this regard, sub-projects means eligible water reclamation and/or reuse projects to be developed in South Africa selected in accordance with the Eligibility Criteria, which will be financed by the Sub-Loans under Component 2 and/or the Sub-Grants under Components 1.2 or 3 of the Funded Activity (and, each a “Sub-Project”). These sub-projects financed by the DBSA fall in one of the following categories based on the type of sub-project and associated risk:

- Category 1 or High and Substantial Risk: with potential significant adverse social and/or environmental impacts that are diverse, irreversible, or unprecedented;
- Category 2 or Medium Risk: with potential limited adverse social and environmental impacts that are few in number, generally site specific, largely reversible and readily addressed through mitigation measures;
- Category 3 or Low Risk with minimal or no impacts; or
- Category 4 or Financial Institutions: involving the extension of credit-lines to other financial institutions.

These categories align with the risk categories of GCF with the DBSA's categories 1,2 and 3 aligning with the GCF's categories A, B and C respectively. It is important to note that this programme will not be supporting sub-projects that are deemed category 1 (A).

The DBSA has designed its own Environmental and Social Safeguards (ESS) that are aligned with the GCF policies and standards, and with South African National legislation. As GCF and DBSA advance their policies and practices the DBSA and its financial partners will endeavour to address not only updated national policy and legislation and DBSA environmental and social standards but also GCF safeguards within a reasonable time frame to all affected. The DBSA ESS are as follows:

- Standard 1: Sub-project Screening: Environmental and Social Risks, Impacts and Opportunities
- Standard 2: Stakeholder Engagement and Information Disclosure
- Standard 3: Gender Mainstreaming (including SEAH)
- Standard 4: Indigenous Peoples
- Standard 5: Land Acquisition, Land Use Restrictions and Involuntary Resettlement
- Standard 6: Labour and Working Conditions
- Standard 7: Community Health and Safety
- Standard 8: Cultural Heritage
- Standard 9: Biodiversity Conservation and Sustainable Living Natural Resources Management
- Standard 10: Resource Efficiency, Pollution Prevention and Management
- Standard 11: Safety of Dams

The activities outlined in the Gender Action Plan (GAP) for the Programme aim to address the current social and gender inequalities that will impact upon the success of the Programme. Some of the initiatives include:

- Applying quotas in female participation in sanitation policies for water committee members, Boards and agencies.
- Integrating a monitoring system with gender monitoring indicators, include gender responsive budgeting.
- Ensuring a 30-40% target for the beneficiaries of the program to be women.
- Raising Public awareness campaigns aimed at creating an appreciation and understanding of the benefits of water reuse.
- Enabling all water stakeholders—from the implementing agencies to the beneficiaries to build requisite skills and knowledge for gender-sensitive services and management.

Ultimately, gender disparity is not only a challenge in South Africa but across the globe. Through programmes like the WRP, some of these issues can be intricately addressed while avoiding exacerbating existing social inequalities. As the WRP scales and evolves, greater in-depth research will need to be conducted to complement this current gender assessment report in the future.

As sub-projects are implemented, there are increased opportunities for sexual exploitation abuse and harassment (SEAH). The appointment of a gender and social oversight officer who will lead the development of gender action plans and SEAH management plans in support of established GRM's will be an important prerequisite for all sub-projects. The support of the DBSA and WPO will in the first instance be essential to ensure that these instruments and mechanisms are in place. However, and secondly, the DBSA and WPO will play an essential monitoring and oversight role to ensure that implementation across all sub-projects is effective.

In developing the WRP programme, a range of stakeholder engagement processes were held with key stakeholders with the purpose to gather inputs into the design of the programme, as well as ensuring alignment with key strategies and plans. This also had the benefit of improving the levels of awareness and understanding of the importance of water reuse as a programmatic and sub-project level intervention to strengthening climate resilience. These engagements emphasised the importance of strengthening the competency and capacity of government at various levels (from local to national) to initiate, structure and implement water reuse sub-projects, while systematically improving the levels of awareness across society regarding water reuse as a viable, important and safe approach to addressing climate vulnerabilities.

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## ACRONYMS & ABBREVIATIONS

°C	Degrees Celsius
AE	Accredited Entity
ATP	Advanced Treatment Plant
BA	Basic Assessment
BFS	Blended Finance Solution
CEC	Chemicals of Emerging Concern
CHP	Combined Heat and Power
CMA	Catchment Management Agency
COGTA	Department of Cooperative Governance and Traditional Affairs
CRIDF	Climate Resilient Infrastructure Development Facility
CSAG	Climate Systems Analysis Group
CSIR	Council for Scientific and Industrial Research
DBSA	Development Bank of Southern Africa
DCOG	Department of Cooperative Governance
DEO	Designated Environmental Officer
DFFE	Department of Forestry, Fisheries and Environment
DFI	Development Finance Institutions
DPR	Direct Potable Reuse
DPSIR	Driver–Pressure–State–Impact–Response
DRT	Development Results Template
DWAF	Department of Water Affairs and Forestry (now DFFE)
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
ECO	Environmental Control Officer
EE	Executing Entity
EI	Ecological Infrastructure
EIA	Environmental Impact Assessment
ELU	Existing Lawful Water Use
EPIP	Environmental Protection and Infrastructure Programme
ESMFP	Environmental and Social Management Framework and Plan
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguards
FCA	Financial and Economic Appraisal
GA	General Authorisation
GCF	Green Climate Fund
GCM	General Circulation Model
GEF	Global Environment Facility
GEM	Gender Equality Marker
GESI	Gender Equality and Social Inclusion

<b>GEWE</b>	Gender Equality and Women's Empowerment
<b>GTAC</b>	Government Technical Advisory Centre
<b>IF</b>	Infrastructure Fund
<b>IFC</b>	International Finance Corporation
<b>IGRM</b>	Independent Grievance Redress Mechanism
<b>IMO</b>	International Maritime Organisation
<b>IPP</b>	Indigenous Peoples Plan
<b>IPR</b>	Indirect Potable Reuse
<b>MFMA</b>	Municipal Finance Management Act
<b>MIG</b>	Municipal Infrastructure Grant
<b>MISA</b>	Municipal Infrastructure Support Agency
<b>MTSF</b>	Medium Term Strategic Framework
<b>NCCAS</b>	National Climate Change Adaptation Strategy
<b>NDC</b>	Nationally Determined Contribution
<b>NEMA</b>	National Environmental Management Act
<b>NHRA</b>	National Heritage Resources Act
<b>NID</b>	Notice of Intent to Develop
<b>NWA</b>	National Water Act
<b>NWP</b>	National Water Programme
<b>NWSMP</b>	National Water and Sanitation Master Plan
<b>O&amp;M</b>	Operations and Maintenance
<b>OC</b>	Organising Committee
<b>PIC</b>	Prior Informed Consent
<b>PPP</b>	Public-Private Partnerships
<b>PS</b>	Performance Standards
<b>RCMs</b>	Regional Circulation Models
<b>RCP</b>	Representative Concentration Pathway
<b>RE</b>	Resident Engineer
<b>REIPPP</b>	Renewable Energy Independent Power Producer Procurement
<b>SADC</b>	Southern Africa Development Community
<b>SALGA</b>	South African Local Government Association
<b>SANBI</b>	South African National Biodiversity Institute
<b>SANS</b>	South African National Standard
<b>SCM</b>	Supply Chain Management
<b>SDGs</b>	Sustainable Development Goals
<b>SEAH</b>	Sexual Exploitation, Sexual Abuse and Sexual Harassment
<b>SEP</b>	Stakeholder Engagement Plan
<b>SPV</b>	Special Purpose Vehicle
<b>SWPN</b>	Strategic Water Partners Network
<b>UN</b>	United Nations
<b>UNCT</b>	United Nations Country Team

<b>UNEP</b>	United Nations Environment Programme
<b>WPO</b>	Water Partnership Office
<b>WRC</b>	Water Research Commission
<b>WRP</b>	Water Re-Use Programme
<b>WSA</b>	water services authority
<b>WTW</b>	Water Treatment Works
<b>WUL</b>	Water Use Licence
<b>WWTW</b>	Wastewater Treatment Works

# 1 INTRODUCTION

## 1.1 PROGRAMME CONTEXT

South Africa is a water-stressed country and its national water resource system is continually being subjected to pressures, with a potential 17% water deficit forecast by 2030. A number of interventions have already been initiated by national government to avoid this projected water deficit with a key element of these interventions being to develop an enhanced level of diversification in relation to the “mix” of water supply sources. The South African National Water and Sanitation Master Plan (2018) makes a specific note of the need to reduce water demand and increase water supply through amongst others the “*re-use of effluent from wastewater treatment plants, water reclamation, as well as desalination and treated acid mine drainage*”. It therefore identifies water reuse as one of the central strategies to ensuring water security and climate resilience.

Implementing water reuse nationwide would support major tenets of South Africa’s National Climate Change Adaptation Strategy (NCCAS), which urges water management institutions to adopt more adaptive responses and more water-wise practices. South Africa’s updated draft Nationally Determined Contribution (NDC) reinforces this commitment further through its Goal 3: Implementation of the NCCAS interventions for the period 2021-2030, including in the priority sector of water.

At present, most effluent discharge and urban run-off are not reused and in light of The South African National Water and Sanitation Master Plan, the opportunity to initiate a framework for the scaled development of water reuse infrastructure is evident. It also identifies water reuse as one of the central strategies to ensuring water security and climate resilience.

The National Water Programme (NWP) has been separately established as a national intervention to enhance water security for South Africa and comprises of three primary priority initiatives (or sub-programmes). These initiatives are a) the Non-Revenue Water (NRW) Reduction Programme, b) the Water Reuse Programme (WRP) and c) the Private Sector Participation Model for Water and Sanitation. The NWP supports the achievement of South Africa’s National Development Plan (NDP), the country’s primary socio-economic development planning framework. The NDP notes the impact of climate change and explicitly directs the investigation of water reuse, through a regional programme (such as the WRP which comprises part of the NWP) to support focused investment in such sub-projects.

To this end, the Development Bank of Southern Africa (the ‘DBSA’) has partnered with various government departments (including the Department of Water and Sanitation (the ‘DWS’), the Department of Cooperative Governance (‘DCOG’) through its agency the Municipal Infrastructure Support Agency (‘MISA’), and the National Treasury for the development of a National Water Reuse Programme (‘WRP’). In addition, as an Accredited Entity of the Green Climate Fund (‘GCF’), the DBSA submitted a proposal to the GCF to support

the design and implementation of the WRP in South Africa. Noting the importance of water reuse to diversifying the ‘water mix’ in South Africa, and the challenges and barriers to entry that exist in the development of these water reuse sub-projects at scale, the development of a focussed programme to address these challenges and ultimately implement pathfinder sub-projects is critical to contributing towards building a more resilient water future.

## 1.2 PROGRAMME BRIEF AND OBJECTIVES

The national Water Reuse Programme (WRP) is aimed at enhancing water security and improved resilience to climate change through the scale-up of water reuse approaches and infrastructure in municipalities as well as through the improved management of Ecological Infrastructure (EI)<sup>1</sup> such as catchments, rivers and wetlands to which municipalities are connected. At the highest level, the WRP will encourage and support municipalities to implement water reuse and reclamation initiatives that would also include nexus issues, such as combined heat and power (CHP) installations and sewage sludge reuse. The WRP would need to be highly effective, technically advanced, and ready-to-launch towards demonstrably achieving climate change resilience objectives (by strengthening the country’s adaptive capacity against water stress and scarcity), and measurably maximize climate change mitigation co-benefits, in a manner that explicitly meets the criteria and requirements of the Green Climate Fund – thereby lending itself to the preparation and submission of a successful GCF funding proposal.

## 1.3 KEY PROGRAMME DESIGN ELEMENTS

With the objective to provide a national programme to support the development of water reuse sub-projects in South Africa, where “Sub-Projects” means eligible water reclamation and/or reuse projects to be developed in South Africa selected in accordance with the Eligibility Criteria, which will be financed by the Sub-Loans under Component 2 and/or the Sub-Grants under Components 1.2 or 3 of the Funded Activity (and, each a “Sub-Project”). The core aims of the WRP will be to:

- ❑ Encourage the scaled development of water reuse sub-projects primarily but not limited to municipal level.
- ❑ Support municipalities with the scaling of their reuse sub-projects by providing support in the identification, conceptualization and prioritization of large-scale water reuse sub-projects, in the sub-project preparation and the development of implementation-ready sub-projects, and in the development of blended finance options to fund implementation.

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<sup>1</sup> Ecological infrastructure refers to naturally functioning ecosystems that deliver valuable services to people, such as water and climate regulation, soil formation and disaster risk reduction. It is the nature-based equivalent of built or hard infrastructure and can be just as important for providing services and underpinning socio-economic development. Ecological infrastructure does this by providing cost effective, long-term solutions to service delivery that can supplement, and sometimes even substitute, built infrastructure solutions. Ecological infrastructure includes healthy mountain catchments, rivers, wetlands, coastal dunes, and nodes and corridors of natural habitat, which together form a network of interconnected structural elements in the landscape (SANBI 2022)

- ❑ Assist municipalities to develop diversified sub-projects that not only support water reuse but have extended beneficiation from aspects such as water reclamation through nature –based solutions, sludge management and beneficiation as well as energy generation from biogas.
- ❑ Create a new asset class around water reuse infrastructure.
- ❑ Adhere to climate adaptation principles as one of the main objectives, increasing resilience to climate change including aspects around the importance of catchment management and ecological infrastructure for water security.
- ❑ Adhere to climate mitigation strategic objectives.
- ❑ Increase institutional capacity and advance the enabling environment for advancing private sector partnerships.

To achieve these objectives, the WRP will be constructed around three core components:

- ❑ Component 1 – Establishing a WRP project pipeline: Establish a national water reuse programme (programme office) that will support and facilitate a programmatic approach: This will provide for a national water reuse programme management office that will be a “Centre of Excellence” that will support sub-project identification and prioritization, will drive sub-project preparation, will facilitate funding solutions, and monitor sub-project implementation.
- ❑ Component 2 – Implementing water reuse sub-projects: The WRP will support climate innovation and market transformation through the implementation of a range of technical interventions that will support the implementation of water reuse sub-projects and the establishment of water reuse infrastructure as a new asset class. The WRP will establish a panel of service providers to provide municipalities (as the sub-project owners) with professional services support to undertake their sub-project preparation activities including scoping, feasibility and procurement. Although procured and contracted by the WRP the service providers will work directly with the sub-project owners in the sub-project preparation process. This structure will assist in the delivery of the key value proposition of the WRP, that the WRP will enable continuity of care between stages on the sub-project preparation process. This capacity will further enable the achievement of the objective of becoming a centre of excellence. The WRP sub-project owners are primarily the municipalities as water services authorities for their areas of jurisdiction. The sub-project owners will engage the WRP for support and engagement will be through formal written correspondence including on-boarding contractual commitments, signed by the required authority, as required at various stages and gates of the sub-project preparation process. To support the implementation of sub-projects, the approach will be to create an enabling blended financing environment through alternative funding solutions.
- ❑ Component 3 - Building capacity and creating awareness: A national and regional public awareness and education processes will support the implementation of existing national, provincial and local climate adaptation strategies and plans. These knowledge exchange

interventions will underpin the development of awareness regarding climate change impacts at local levels and will support the successful scaling and implementation of water reuse sub-projects in South Africa as an adaptation response. This stakeholder engagement, learning and communication strategy will also be driven and coordinated by the WRP. While the DBSA will take the lead in the rollout of this component due to its strong institutional position in the water sector, the WPO will undertake key supportive actions. It is important to note the important role of DWS in supporting these important processes, particularly as the water sector leader.

The WRP will be a pathfinder programme for the establishment of a broader National Water Programme. The National Water Programme aims to provide support to the other aspects of the water value chain and is envisaged to be developed over time. The programmatic approach to the development of the WRP will therefore provide ‘*proof of concept*’ guidance in the development of later programmes with certain aspects of the WRP being leveraged to support the other programmes (e.g. the WPO will be progressively developed and strengthened).

It is also important to recognize that there is significant scope for sub-projects under the WRP. The needs at municipal level vary technically and in scale and, with many municipalities being in need of support, it is necessary to have a phased and progressive approach to developing the WRP and providing this support. Likewise, there is opportunity to provide support to other sectors, including mining and industry, and this could be provided in later stages of the WRP’s development.

*Table 1: WRP intervention framework*

Activities	Sub-activities
<b>Component 1 – Establish a WRP and project pipeline</b>	
<b>Sub-component 1.1:</b> Establishment and Operationalisation of the WRP	<b>Activity 1.1.1:</b> Establish the WRP within the DBSA
	<b>Activity 1.1.2:</b> Establish Oversight Committee and develop governance modalities
	<b>Activity 1.1.3:</b> Appoint staff and operationalise the WPO and technical WRU
	<b>Activity 1.1.4:</b> Develop PIP and annual workplan and budgets
	<b>Activity 1.1.5:</b> Finalise operational manual and supporting tools
	<b>Activity 1.1.6:</b> Establish financial arrangements and reporting regimes.
	<b>Activity 1.1.7:</b> Develop and implement monitoring and evaluation and reporting regimes
<b>Sub-component 1.2:</b> Project pipeline preparation	<b>Activity 1.2.1:</b> Design and launch an open-ended RFP.
	<b>Activity 1.2.2:</b> Procure and manage a panel of sub-project preparation service providers
	<b>Activity 1.2.3:</b> Provide technical assistance for sub-project structuring and preparation
<b>Component 2 – Implementing water reuse sub-projects</b>	
	<b>Activity 2.1.1:</b> Provide technical assistance for detailed design and implementation of sub-projects
	<b>Activity 2.1.2:</b> Facilitate procurement and contracting

<b>Sub-component 2.1:</b> Provision of Technical Assistance for Sub-project Implementation	<b>Activity 2.1.3:</b> Monitor, evaluate and report on sub-project development.
<b>Sub-component 2.2:</b> Development of the Blended Financing Solutions	<b>Activity 2.2.1:</b> Develop principles and approved protocols for developing the BFS
	<b>Activity 2.2.2:</b> Sub-project finance support through the BFS.
	<b>Activity 2.2.3:</b> Establish the IBCF function and appoint specialist independent service provider
	<b>Activity 2.2.4:</b> Provide financial structuring services on a sub-project-by-sub-project basis
	<b>Activity 2.2.5:</b> Audit and report to measure impact of the BFS use and efficacy
<b>Component 3 – Building capacity and creating awareness</b>	
<b>Sub-component 3.1:</b> Communications and awareness creation	<b>Activity 3.1.1:</b> Develop, manage, and maintain the WRP brand
	<b>Activity 3.1.2:</b> Development of knowledge products and collateral
	<b>Activity 3.1.3:</b> Undertake outreach and awareness creation events
	<b>Activity 3.1.4:</b> Facilitate and manage forum
	<b>Activity 3.1.5:</b> Provide strategic review and guidance on specific sub-projects and interventions
<b>Sub-component 3.2:</b> Strengthen institutional and regulatory frameworks	<b>Activity 3.2.1:</b> Develop a key stakeholder engagement framework
	<b>Activity 3.2.2:</b> Undertake targeted strategic outreach
	<b>Activity 3.2.3:</b> Establish and maintain strategic partnerships with key actors and institutions

Therefore, the development of the WRP passes through a number of stage-gates. In order to lay the foundation for future programmatic development the start-up design will consider the following:

- ☐ Use the City of uMhlathuze water reuse sub-project as a pathfinder for sub-project preparation, ownership, financing and contracting considerations;
- ☐ An enhanced focus on municipalities with Wastewater Treatment Works greater than 25 ML/ day; and
- ☐ Develop a portfolio of sub-projects in order to demonstrate the programmatic approach and its management and operational needs.
- ☐ Support building blocks for EI to promote water security at various scales and levels of governance in catchments to enhance resilience to climate change and to stem the destruction of important ecosystems, noting that principally for each sub-project intervention the linkages between EI and built infrastructure will be thoroughly understood and the use of ecosystem based approaches being thoroughly explored through the undertaking of sub-project preparation studies.

The final business case for the WRP will outline a complete suite of risks and provide a risk management framework for the Programme, including details relating to the Programme's national and local impact. Importantly, this phased approach enables the progressive mitigation of the various financial, operational and fiduciary risks.

## 1.4 PROGRAMME GOVERNANCE OVERVIEW

The WRP is part of a National Water Program (NWP), which comprises several sub-programmes, of which the WRP is one such sub-programme. The programme will be centrally managed and implemented by the Water Partnerships Office (WPO) that will report to an Oversight Committee that provides strategic guidance for the programme and oversees overall progress. The DBSA will participate in its capacity as GCF Accredited Entity (AE) and WPO managing agent. DBSA will act as management agent of the WPO for a period of five years or until such time that the WPO is institutionalized. The WPO will not have its own legal personality during this initial period and this will only be developed over time in conjunction with the National Water Programme.

To give effect to the NWP, which is broader than just the water re-use sub-programme (WRP), it is proposed that the following governance structures are required as provided in Figure 1.

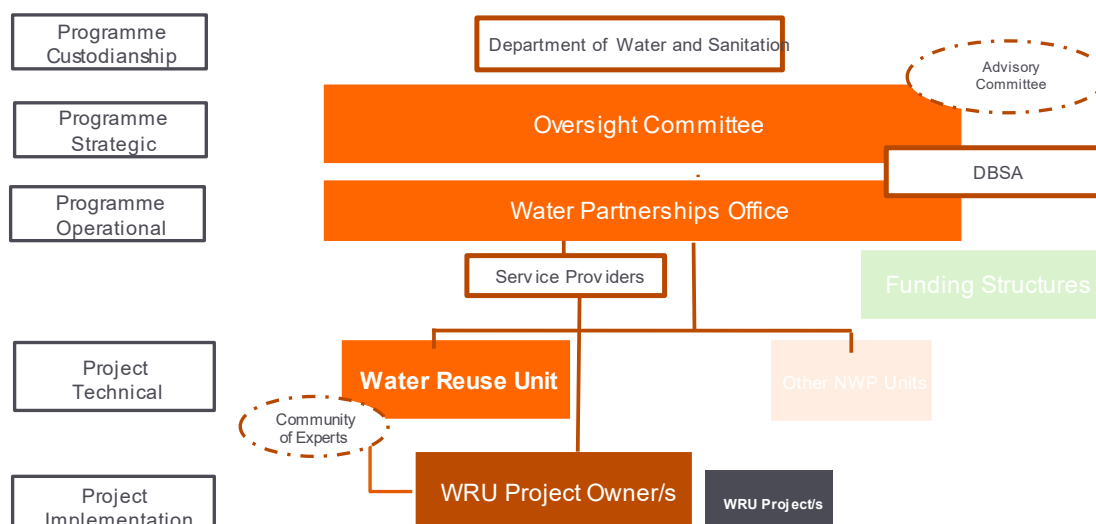


Figure 1: NWP governance structure

The organisational structure recognises and respects the power and function and accordingly roles of local government as Sub-project owner. It further allows for scalability as the water reuse project pipeline grows and or sub-programmes are implemented. It distinguishes strategic oversight of the Programme, and the necessary co-ordination at national level, with the need to decentralise implementation at local sub-project level. The WPO will be established as a centre of excellence to support the intended outcomes of the water reuse sub-projects.

The programme owners of the WRP are outlined as the DWS while sub-project owners will be the municipalities at local levels where such sub-projects will be implemented and aligned to the municipal role of water services provider. The core functions of the WRP, through the WPO, will be to:

- **Create the enabling environment:** Support water reuse sub-projects through addressing various policy, regulatory and institutional aspects and creating an environment that is conducive to prepare and implement water reuse sub-projects at scale;
- **Support sub-project preparation:** Support sub-project scoping, preparation and design towards developing bankable sub-projects, as well as developing a pipeline of sub-projects;
- **Provide procurement support:** Support sub-project preparation by scoping, procuring and providing appropriate contracted capacity by undertaking procurement and management of the service provider capacity, for the WPO, WRU and the sub-project owners;
- **Develop administrative standardisation:** Provide a range of appropriately standardised documentation, tools and instruments that support procurement, contracting, loan agreements, and monitoring and reporting templates;
- **Facilitate best practice:** Transfer of lessons learned and best practice into sub-project approaches will support the introduction of efficiency, effectiveness and innovation;
- **Drive technologies and innovation:** Provide expertise that can support the introduction of new technologies, through focused collaboration with its Advisory Committee (which may include representation from research institutions such as the Water Research Commission, CSIR and others);
- **Undertake monitoring, reporting and oversight:** Undertake a range of activities that assess progress and support adaptive management of sub-projects;
- **Manage communications and knowledge exchange:** Facilitate the creation of awareness and knowledge regarding the range of benefits from water reuse sub-projects.

Key activities of the WPO will include:

- Assist the Programme Custodian (DWS) and Sub-project Owners (municipalities) to implement the WRP;
- Undertake the OC and WPO secretariat function - schedule committee meetings and keep records of monitoring and evaluation of the programme;
- Produce a guide for water reuse sub-project implementation;
- Plan the WRP with estimated annual and multi-year budgets;
- Compliance function – regular reporting and audits (internal and external);
- Develop organisational requirements like job specs etc. and appointment of staff;
- Ensure that legislation and regulatory related issues are highlighted and propose amendments if applicable;
- Exercise duty of care of the office and take responsibility for all technical content of programmes;
- Develop various technical models/approaches to ensure standardized methodologies;
- Develop standardised procurement documentation including tender specifications and agreements;
- Invite and prioritise participation of private sector;
- Receive municipal sub-project applications and screening thereof;

- Support Sub-project owners to initiate, plan and prepare feasibly bankable water reuse sub-projects and keep OC updated of developments;
- Engage with DBSA SCM to ensure that there is a panel of services providers for sub-project preparation support.
- Support WRP procurement processes in consultation with DBSA SCM;
- Assist with evaluation of bids and contract negotiations/award; and
- In consultation with the Infrastructure Fund (IF) assist sub-project owners with financing through the development of appropriate blended finance solutions for the various sub-programmes.

DWS is the water sector lead and as such has the mandate to ensure sustainable water resource management and development, as well as oversee/ regulate that municipalities provide water services according to national norms and standards. COGTA (through its agency the Municipal Infrastructure Agency (MISA)) have the mandate to support municipalities in providing effective services. Municipalities will be the primary water reuse sub-project owners and ultimate beneficiaries of the sub-projects and will be required to work closely with the WRU and Service Providers to prepare and implement the water reuse sub-projects. They will identify sub-projects and/ or be engaged when the WRP identifies opportunities. As water services authorities (WSAs) they will need to lead the sub-project preparation process, with direct engagement with the WRP and the WPO. As sub-project owners, the relevant WSAs will request sub-project preparation support and if approved, will be allocated a sub-project preparation transaction advisor to assist with the preparation of the water reuse sub-project. The WPO will facilitate the process with the key aim of encouraging scaled and effective development of water reuse at municipal level. Sub-project owners will ultimately be accountable for identifying, conceptualising and prioritising of large-scale water reuse sub-projects.

Key activities of Sub-project Owners include:

- Proper water services delivery planning;
- Water use licensing;
- Identification of opportunities for water reuse sub-projects;
- Application for sub-project preparation support to the WPO;
- Working with the sub-project preparation service provider to prepare the sub-project, including providing all information required and receiving and considering reports timeously;
- Taking decisions at the appropriate time to allow the sub-project preparation process to proceed as is feasible, including prioritisation of the sub-project in the Integrated Development Plan (IDP) and Infrastructure Master Plan of the municipality; engaging DWS on the water licence process; keeping Council timeously advised of developments etc.;
- If the sub-project is approved for implementation, facilitating a procurement and contracting process in accordance with the MFMA and SCM requirements, including engagement with National treasury if it is a PPP;
- Monitoring, evaluation and reporting on the water reuse sub-project as is appropriate at the various sub-project development phases;

- Development of contract management plan and capacity to ensure implementation of the water reuse sub-project.

The Water Research Commission (WRC) has done significant research and groundwork on the technical and water quality aspects of water reuse as well as several studies on social and cultural perceptions of water reuse, including a recent study which measures the South African public's current awareness and understanding of aspects of water reuse. The proposed programme design will build on the WRC work and develop a strategy on how to educate and communicate the details of water reuse as a means of improving the public's perception of the approach. The key drivers affecting water reuse choices include climate change impacts and importance of water security, water quality, the cost relative to other water supply options and the social, cultural, and religious perceptions.

The Programme will also build on work undertaken to address water accounts for South Africa and its catchments and sub catchments, the mapping of sensitive ecosystems and their services by the South African National Biodiversity Institute (SANBI) and Department of Forestry, Fisheries and Environmental (DFFE) including recent work by the DBSA/SANBI GEF 'Biodiversity for Water Security Sub-project (2021)', and sustainable Green Finance Taxonomies Sub-project currently being developed by the Department of National Treasury.

## 1.5 PURPOSE OF THE ESMFP AND ESMP

An ESMFP provides a practical suite of steps to be applied during sub-project formulation and design to identify and mitigate environmental and social risks as well as ensure improved sub-project performance against designated environmental and social safeguards. While this ESMFP provides an overarching framework for the entire WRP, it is essential to note that this importantly applies to all sub-projects undertaken under the WRP.

The ESMFP therefore outlines measures and plans to reduce, mitigate and/or offset adverse risks and impacts, a budget to implement identified measures, the parties responsible and their capacity.

Noting that the WRP comprises of three components which includes an array of activities to ensure programmatic governance, to develop blended financing solutions as well as address an array of institutional capacity issues, this ESMFP is focused upon the water reuse sub-projects themselves and how the programme will ensure that environmental and social safeguards are adhered to through the roll out of these sub-projects.

This report is the Environmental and Social Management Framework (ESMFP) which has been prepared for submission by DBSA to GCF. The aim of the ESMFP is to avoid and minimise negative environmental and social (E&S) impacts and to enhance positive aspects of the Programme. The ESMFP contains environmental and social baseline information at the national level and provides the framework and guidelines that ensure

that the DBSA and the programme beneficiaries are committed and able to comply with GCF Environmental and Social Policies, and DBSA Environmental and Social Safeguard Standards. It is critical to note that all sub-projects, as per definition, will therefore be subject to the environmental and social risk assessment and screening and the associated information disclosure as provided by GCF policies and those of the DBSA.

The Environmental and Social Impact Assessment (ESIA) is a comprehensive document that describes a sub-project's potential environmental and social risks and impacts. All sub-projects, in accordance with national regulatory instruments, will require an ESIA to be undertaken no matter no matter the type of sub-project development each sub-project requires (i.e. new facilities, existing facilities). These assessments will be undertaken by the Sub-project Owners (i.e. Municipalities) and these will be submitted to the Provincial level Environmental Authorities who will evaluate these, make recommendation for any required amendments as well as ultimately approve these assessments. These are subject to information disclosure requirements. The undertaking of these assessments are a prerequisite for the obtaining of a water use license under the National Water Act (Act 36 of 1998) which will be required for each sub-project.

The ESIA is produced through undertaking a number of key processes that include:

- initial screening of the sub-project and scoping of the assessment process;
- examining the various sub-project alternatives;
- identifying stakeholders (focusing on those directly affected and other stakeholders) and assimilating environmental and social baseline data;
- identifying, predicting and analysing the various impacts;
- generating mitigation or management measures and actions;
- evaluating the significance of impacts and evaluating any residual impacts;
- consulting with stakeholders and disclosing to people affected by the sub-project, including setting up a grievance mechanism; and
- documenting the assessment process in the form of an ESIA report.

An Environmental and Social Management Plan (ESMP) is a plan developed at sub-project planning phase to outline proposed mitigation measures to address identified environmental risks and impacts throughout the sub-project life cycle. The ESMP may form part of the ESIA or be prepared as a standalone document that accompanies the ESIA. As noted above, these will require submission to, and the approval of, Provincial Environmental Authorities. The objective of an ESMP is to guide and manage the construction and operational activities on site and surrounding areas from an environmental and social perspective. The ESMP is compiled early in the sub-project application process to set out the sub-project measures and actions required to comply with both DBSA and the GCF/IFC Environmental and Social Safeguards (ESS) over a specified timeframe.

The ESMP is agreed with the DBSA and other affected funders/stakeholders and will form part of the legal agreement requirements. The identified actions and measures, which are included in the ESMP, must be diligently implemented. An ESMP does not exclude the client from obtaining any other approvals or licenses in terms of environmental legislation, if and where required.

The Environmental and Social Management Plan (ESMP) component of this report have been developed at a programme level to integrate the social and environmental impact mitigation measures, environmental monitoring and institutional responsibility. The ESMP also addresses DBSA's environmental management procedures and standards and aims to provide guidance for the development of sub-project specific ESMP's.

## 1.6 FOCUS AND CONTENT OF THE ESMFP AND ESMP

This document sets the framework for the management of environmental and social impacts related to the Programme for future implementation of sub-projects selected for financing under the Programme. It describes the programme background and context, and the applicable Environmental and Social legislative framework as well as the safeguards. While describing the selected technologies/archetypes, it provides a description of the associated environmental and social risks and potential impacts for each. It is important to note that the relative scope and detailed assessment of the various E&S risks and impacts be determined by screening against the ESMFP and its requirements, as well as the safeguards and standards of the GCF and the DBSA. Noting that the sub-projects undertaken under the WRP are assessed as being Category B, in terms of their impact, it is essential that all sub-projects undertake a comprehensive ESIA that informs the development of a fit for purpose ESMP. Nevertheless, the initial sub-project screening and assessments will review this Categorisation and the implications thereof.

The scope and depth of the ESIA and the ESMP must be proportional to the level of risks and impacts and be determined by the screening and the specific requirements of the applicable safeguards pursuant to the ESS standards and policy of the GCF. For Category B sub-projects an ESIA and ESMP will always be required. The contents of the scoping report, which are included in Appendix C of this report, are also stipulated by law through Regulations to the National Environmental Management Act (Act 107 of 1998) published in Gazette Notice 40772 in 2017. This report is required separately to the ESIA and the ESMP as stipulated by national regulatory requirements.

Where there are instances that sub-projects will impact upon Indigenous Peoples, an Indigenous Peoples Plan (IPP) will be developed, and this plan will outline the actions necessary to minimize and/or compensate for any adverse impacts and identify opportunities and actions to enhance the advantageous impacts of a sub-project. Where required, the IPP will ensure that Free, Prior and Informed Consent has been undertaken before implementation. The IPP and the ESMP will need to align and be coherent. The plan will set out how these are to be undertaken in a culturally appropriate manner. Where there are biodiversity impacts, or impacts on cultural heritage it will be required that more detailed studies be undertaken, and an accompanying Plan will also be required. It is expected that the ESMP will cover these elements, but the level of risk and impact may

require very specific plans to address such impacts, such as a cultural heritage site management plan or a biodiversity action plan. Likewise, should there be a need to resettle communities a Resettlement Action Plan is required. At this juncture it is not likely that land acquisition would be required as all sub-projects are expected to take place on municipally owned land. Should land acquisition be required then a land acquisition plan will be addressed as part of the Resettlement Action plan (aligned to the safeguards guidance provided by DBSA). Outlines for these plans are provided in the Annexes as follows:

- Appendix G: Draft Outline of an Indigenous Peoples Plan
- Appendix H: Draft Outline of a Resettlement Action Plan
- Appendix I: Draft Outline of a Cultural Heritage Site Management Plan
- Appendix J: Draft Outline of a Biodiversity Action Plan

The use of environmental and social checklists is intended to provide tools for individual sub-project design and implementation, as they allow participating entities to assess the environmental and social aspects that are key. The design of the checklist will be dependent on the nature of the sub-project, the level of risk and impacts, and linkages to the DBSA and ECF/GCF safeguards.

As part of the framework, the document sets out to describe the general guidelines for gender and stakeholder engagement, as developed in the Gender and Stakeholder Engagement Plans. While impacts related to indigenous groups are not expected in the implementation of sub-projects, a guideline for mitigating potential impacts on the indigenous groups has been developed as part of this ESMFP, for the potential situations in which future sub-projects might impact them.

Finally, the document provides the tools for environmental and social management and monitoring with the inclusion of the ESMP. This includes the suite of standard checklists, the different E&S safeguard standards, standardised ESIA, ESMP and planning instrument's structure and content guidance across the various phases of sub-project implementation, requirements for stakeholder engagement and grievance redress, as well as the requirements for reporting and monitoring. For the latter, the DBSA's Development Results Template (DRT) provides the basis for monitoring all sub-projects and the DBSA Monitoring Unit will guide sub-projects to provide the requisite reports. The mitigation measures are described in detail and identifies specific people or organisations to undertake specific tasks and responsibilities, in order to ensure that potential biophysical and socio-economic impacts are minimised. The priorities for the sub-project are set out and the plan details responsible parties, resources and time frames to manage and implement environmental and social mitigation measures required to manage the environmental, health and safety and social commitments.

## 2 ENVIRONMENTAL AND SOCIAL LEGAL PROVISIONS

### 2.1 NATIONAL LEGAL PROVISIONS

#### 2.1.1 CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA (ACT NO. 108 OF 1996)

The South African Constitution (Act 108 of 1996) is the supreme law of the land. The Constitution of the Republic of South Africa (Act No. 108 of 1996), chapter 9 (3) underpins equality and clearly states that "The state may not unfairly discriminate directly or indirectly against anyone on one or more grounds including race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth".

The Constitution provides the foundation for environmental regulation and policy in South Africa. The right to environmental protection and to live in an environment that is not harmful to health or well-being is set out in the Bill of Rights (Section 24). This fundamental right underpins environmental policy and law, in particular the framework environmental legislation established by the National Environmental Management Act, 1998 (Act No. 107 of 1998).

The environmental right is set out in Section 24 of the Constitution's Bill of Rights which states that:

Everyone has the right-

- (a) to an environment that is not harmful to their health or well-being; and
- (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:
  - (i) prevent pollution and ecological degradation;
  - (ii) promote conservation; and
  - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

The Environmental Right in the Constitution is supported by other environmental legislation to protect the environment while pursuing sustainable economic growth. The main legislation is the National Environmental Management Act, (Act 107 of 1998 (NEMA)).

#### 2.1.2 THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998)

The National Environmental Management Act (Act No. 107 of 1998), as amended (NEMA), aims to give effect to Section 24 of the Constitution – 'to secure an environment that is not harmful to the health and well-

being of the people of South Africa’.

NEMA is the framework legislation governing environmental matters and all other related legislation must be read subject to its provisions. Any functions and actions carried out by organs of state must follow the general principles (see section 2) and spirit of this law, and these organs are bound by the Act (section 48).

The principles as per Section 2 of NEMA state that sustainable development requires the consideration of, amongst other factors:

- “That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied (section 2(4) (a) (i)).”
- “That waste is avoided, or where it cannot altogether be avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner (section 2(4)(a)(iv)).”
- “That a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions (section 2(4) (a)(vii)).”
- “That negative impacts on the environment and on people’s environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied (section 2(4)(a)(viii)).”
- “The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment (section 2(4)(p)).”

Section 28 of NEMA imposes a duty of care responsibility on persons to take reasonable measures to prevent pollution or degradation of the environment from occurring, continuing or recurring, or in so far as such harm is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment (Section 28(1)). This duty rests on, amongst others, the land owner, person in control or user thereof (Section 28(2)); and includes state organs.

It also defines “**pollution**” as

*any change in the environment caused by-*

- (i) *substances;*
- (iii) *noise, odours, dust or heat, emitted from any activity, including the storage or treatment of waste or substances, construction and the provision of services, whether engaged in by any person or an organ of state, where that change has an adverse effect on human health or well-being or on the composition, resilience and productivity of natural or managed ecosystems, or on materials useful to people, or will have such an effect in the future (section 1).*

There is a duty on persons to take reasonable measures to prevent pollution or degradation of the environment from occurring, continuing or recurring, or in so far as such harm is authorised by law or cannot reasonably be

avoided or stopped, to minimise and rectify such pollution or degradation of the environment (Section 28(1)). This duty rests on, amongst others, the landowner, person in control or user thereof (Section 28(2)); this includes state organs.

The Act also requires the application of integrated environmental management principles (i.e. Environmental Impact Assessment (EIA) requirements) and objectives set out in Chapter 5.

The NEMA EIA Regulations 2017 provide a list of activities that require Environmental Authorisation, if triggered. Should a Listed Activity (namely an activity listed within the regulations) be triggered, either a Basic Assessment or Scoping and EIA process will be required. Listed activities that may potentially be applicable are provided in Table 2. These may be directly applicable to the sub-project archetypes (see archetype descriptions further down in this section of the report) and excludes associated activities such as change of land use, road construction, clearing of vegetation, construction of dams, etc., and excludes site specific biodiversity listed activity triggers. The applicability of these listed activities will depend on existing authorisation and permits that are in place, and in some cases an amendment could be undertaken.

*Table 2: Selected Listed activities that may be applicable to the proposed archetypes or WRP sub-projects*

<b>Listing Notice 1 – (requires Basic Assessment Process)</b>	
<b>Clause</b>	<b>Description</b>
9.	The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.
10.	The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes – (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.
16.	The development and related operation of facilities for the desalination of water with a design capacity to produce more than 100 cubic metres of treated water per day.
19.	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse; but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.
25.	The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.
34.	The expansion of existing facilities or infrastructure for any process or activity where such expansion will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions, effluent or pollution, excluding— (ii) the expansion of existing facilities or infrastructure for the treatment of effluent, wastewater, polluted water or sewage where the capacity will be increased by less than 15 000 cubic metres per day;
45.	The expansion of infrastructure for the bulk transportation of water or storm water where the existing infrastructure— (i) has an internal diameter of 0,36 metres or more; or (ii) has a peak throughput of 120 litres per second or more; and (a) where the facility or infrastructure is expanded by more than 1 000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more; excluding where such expansion— (aa) relates to transportation of water or storm water within a road reserve or railway line reserve; or (bb) will occur within an urban area.

48.	The expansion of— (i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or (ii) dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more; where such expansion occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding— (aa) the expansion of infrastructure or structures within existing ports or harbour that will not increase the development footprint of the port or harbour; (bb) where such expansion activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such expansion occurs within an urban area; or (ee) where such expansion occurs within existing roads, road reserves or railway line reserves.
50.	The expansion of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, where the combined capacity will be increased by 50 000 cubic metres or more.
53.	The expansion and related operation of facilities for the desalination of water where the design capacity will be expanded to produce an additional 100 cubic metres or more of treated water per day.
57.	The expansion and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage where the capacity will be increased by 15 000 cubic metres or more per day and the development footprint will increase by 1 000 square meters or more.
63.	The expansion of facilities or infrastructure for the transfer of water from and to or between any combination of the following— (i) water catchments; (ii) water treatment works; or (iii) impoundments; where the capacity will be increased by 50 000 cubic metres or more per day, but excluding water treatment works where water is treated for drinking purposes.
<b>Listing Notice 2 - Scoping and Environmental Impact Assessment (EIA) Process</b>	
6.	The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding— (i) activities which are identified and included in Listing Notice 1 of 2014; (ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies; (iii) the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or (iv) where the development is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic metres per day.
11.	The development of facilities or infrastructure for the transfer of 50 000 cubic metres or more water per day, from and to or between any combination of the following — (i) water catchments; (ii) water treatment works; or (iii) impoundments; excluding treatment works where water is to be treated for drinking purposes.
25.	The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of 15 000 cubic metres or more.

A Basic Assessment Process takes between 8 and 10 months to complete and Scoping and Environmental Impact Assessment (EIA) Process take 18 – 24 months to complete.

Should any listed activities be triggered, completion of the DFFE National Web based Environmental Screening Tool is required. It is a geographically based web-enabled application which allows a proponent intending to submit an application for environmental authorisation in terms of the EIA Regulations 2014, as amended, to screen their proposed site for environmental sensitivity.

Environmental Screening is undertaken in six main steps with the final step being the generation of the screening report which is required to be submitted with an application for Environmental Authorization as identified in regulation 16(1)(v) of the EIA Regulations 2014, as amended, whereby a Screening Report is required to accompany any application for Environmental Authorisation.

The Screening Tool is required for all sub-projects and also provides site specific EIA process and review information. At this stage, the screening will review which listed activities apply to the sub-project, for example, the Screening Tool may identify if an industrial development zone, minimum information requirement, Environmental Management Framework or bio-regional plan applies to a specific area. Further to this, the Screening Tool identifies related exclusions and/or specific requirements including specialist studies applicable to the proposed site and/or development, based on the national sector classification and the environmental sensitivity of the site.

The Screening Tool can also be used to inform and highlight any additional potential environmental sensitivities of a site that does not necessarily trigger a listed activity.

### 2.1.3 NATIONAL WATER ACT (ACT NO. 36 OF 1998)

The National Water Act (NWA) makes provision for one's "right" to water, the Reserve. This is the water required to maintain the ecosystem and basic human needs. Except for the water required for this Reserve and basic human needs use, all other water uses must be authorised by the Department of Water and Sanitation or a Catchment Management Agency (CMA).

The legal framework for water use authorization is:

- The Constitution of the Republic of South Africa
- The National Water Act (No. 36 of 1998)
- The National Water Amendment Act (No. 27 of 2014)
- The Procedural Requirements for Water Use Licence Applications and Appeals (Regulation).

It is necessary to authorize water use:

- To protect water resources;
- To promote equitable access to water;
- To facilitate social and economic development;
- To protect aquatic and associated ecosystems and their biological diversity; and
- To meet international obligations.

There are four types of water use authorizations:

#### **Schedule 1:**

Schedule 1 Water Use constitutes -

- water taken for reasonable domestic use in a person's household from any source;
- small gardening (but not for commercial purposes);
- watering of livestock (excluding feedlots) that graze on that land (within the carrying capacity of that property);
- storing and using run-off water from a roof (rainwater harvesting);

- in emergencies, e.g. fire-fighting;
- recreation, e.g. swimming, angling, etc.

A CMA may limit the taking of water in terms of Schedule 1 (Schedule 3(2)(e) of the Act. Water users in this category can commence with their activities without informing the Department.

### General Authorization:

General Authorization (GA) is an authorization to use water without a licence, provided that the water use is within certain limits and complies with conditions set out in the Gazetted General Authorisation. This authorization requires a registration with the Department prior to exercising the water use(s).

### Existing Lawful Use:

Existing Lawful Water Use (ELU) means the use of water authorization by or under any law that took place at any time for a period of two years before the commencement of the NWA, 1998.

An ELU, with any conditions attached, is recognised but may continue only to the extent that it is not limited, prohibited or terminated by this Act. No licence is required to continue with an ELU until a responsible authority requires a person claiming such an entitlement to apply for a licence. If a licence is issued it becomes the source of authority for the water use. If a licence is not granted the use is no longer permissible.

### Licensed Water Use:

A responsible authority may dispense with the requirement for water use licence if it is satisfied that the purpose of this Act will be met by a licence, permit or other Authorization granted under any other law. Person(s) intending to use water in this category should write a letter, attaching the relevant authorization to request the Department to dispense with the requirements of a water use licence (WUL).

*Table 3: Activities that constitute water uses and require authorization in terms of Section 21 of the NWA*

Water Use	Example
Section 21 (a) Taking water from a water resource.	Abstracting water from a river or borehole for the following purposes: - domestic use - irrigation - watering of livestock - industrial - mining - water bottling, etc.
Section 21 (b) Storing water.	Raw water containment facilities constructed in-stream and in off-channel dams.
Section 21 (c) Impeding or diverting the flow of water in a watercourse.	Construction of structures/facilities within surface water resources, e.g. weirs, bridges, pipelines, etc.
Section 21 (d) Engaging in a stream flow reduction activity.	Plantation of forestry species (Eucalyptus, Pine and Wattle).

Water Use	Example
Section 21 (e) Engaging in a controlled activity identified as such in section 37(1) or declared under section 28(1) of the NWA.	Irrigation with water containing waste, artificial recharge of aquifer, modification of atmospheric precipitation and in-stream power generation activities.
Section 21 (f) Discharging waste or water containing waste into a water resource.	Discharging of water containing waste into a surface water resource, e.g. discharging treated effluent into a river or a wetland.
Section 21 (g) Disposing of waste in a manner which may detrimentally impact on a water resource.	Disposal of effluent into a water containment facility, dust suppression and stockpiles.
Section 21 (h) Disposing of waste in a manner which contains waste from or which has been heated in any industrial or power generation process.	Discarding of industrial/power generation wastewater or water which has been heated.
Section 21 (i) Altering the bed, banks, courses or characteristics of a watercourse.	Construction of structures/facilities within surface water resources, e.g. weirs, bridges, pipelines, etc. Introduction of unnatural characteristic to the resource.
Section 21 (j) Removing, discharging or disposing of water found underground if it is necessary of the efficient continuation of an activity or for the safety of the people.	Extraction of water from underground workings for safe continuation of activities.
Section 21 (k) Using water for recreational purpose.	The use of surface water resources for fishing, boating, etc.

The NWA places considerable responsibility on local authorities for the protection of water resource. Part 4, Section 19(1), states that, *“An owner of land, a person in control of land or a person who occupies or uses the land on which – (a) any activity or process is or was performed or undertaken; or (b) any other situation exists; which causes, has caused or is likely to cause pollution of a water resource, must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring.”*

The NWA defines a “watercourse” as –

- (a) a river or spring;
- (b) a natural channel in which water flows regularly or intermittently;
- (c) a wetland, pan, lake or dam into which, or from which, water flows; and any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse as defined in the National Water Act, 1998 (Act No. 36 of 1998); and a reference to a watercourse includes, where relevant, its bed and banks; and

And

“wetland” means land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

Where existing WULs are in place, these can be amended to address proposed changes to the licensed water use activities resulting of reuse of effluent, such as changes in discharge volume and quality. The amendment process requires a quantitative analysis of the potential downstream ecological impacts and impacts on downstream users. A WUL takes into account the return flows which are regarded as a resource and is important to ensuring the reserve is catered for.

## 2.1.4 NATIONAL HERITAGE RESOURCES ACT (NO. 25 OF 1999)

The purpose of the National Heritage Resources Act (Act No. 25 of 1999) (NHRA), is to ensure that heritage resources of South Africa, which are of cultural significance or other special value for the present community and for future generations, are considered part of the national estate and fall within the sphere of operations of heritage resources authorities. Section 38 (1) of the Act lists the following activities that could be applicable:

- (a) *the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (c) *any development or other activity which will change the character of a site-*
  - (i) *exceeding 5 000 m<sup>2</sup> in extent; or*
  - (ii) *involving three or more existing erven or subdivisions thereof; or*
- (d) *the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent.*

Should any of the above activities be triggered, a Notice of Intent to Develop (NID) Form will need to be compiled by a Heritage Practitioner and submitted to the relevant heritage authority for review and decision making as to whether or not further studies, such as a Heritage Impact Assessment, is required.

## 2.1.5 DRAFT GREEN FINANCE TAXONOMY

South Africa's National Treasury published the technical paper "Financing a Sustainable Economy" in May 2020 with the aim of unlocking access to sustainable finance and stimulating the allocation of capital to support a development-focused and climate-resilient economy.

One of the recommendations of the paper is to "develop or adopt a taxonomy for green, social and sustainable finance initiatives, consistent with international developments, to build credibility, foster investment and enable effective monitoring and disclosure of performance".

A green finance taxonomy is an official classification or catalogue that defines a minimum set of assets, sub-projects, and sectors that are eligible to be defined as "green" in line with international best practice and national priorities. It can be used by investors, issuers, and other financial sector participants to track, monitor, and demonstrate the credentials of their green activities in a more confident and efficient way.

The Draft Version of such a taxonomy for South Africa has been developed through extensive engagement with South African stakeholders and was published in June 2021. (<https://sustainablefinanceinitiative.org.za/taxonomy-working-group-oct/> )

The Taxonomy will have a range of benefits. Among other things, it will:

- Help the financial sector with clarity and certainty in selecting green investments in line with international best practice and South Africa's national policies and priorities.
- Reduce financial sector risks through enhanced management of environmental and social performance.
- Reduce the costs associated with labelling and issuing green financial instrument.,
- Unlock significant investment opportunities for South Africa in a broad range of green and climate-friendly assets.
- Support regulatory and supervision oversight of the financial sector.

## 2.1.6 OTHER NATIONAL LEGISLATION THAT MAY BE RELATED TO WATER MANAGEMENT

The following Acts also have an indirect bearing on the management of water in South Africa:

- i. National Water Services Act, Act 108 of 1997
- ii. Municipal Systems Act, Act 32 of 2000;
- iii. Disaster Management Act, Act 57 of 2002;
- iv. National Environmental Management: Biodiversity Act, Act 10 of 2004; and
- v. National Environmental Management: Protected Areas Act, Act 57 of 2004.

These have, however, not been discussed in detail but should be consulted during the detailed planning and feasibility stages of proposed water reuse sub-projects implementing the archetypes.

## 2.2 INTERNATIONAL LEGISLATION

The following international Environmental Conventions and Directives are relevant to water quality management:

- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted 22 March 1989 (entry into force, 5 May 1992).
- The Bamako Convention on the ban of the Import into Africa and the Control of Transboundary Movement of Hazardous Wastes within Africa was adopted in Bamako, Mali, 30 January 1991 (entry into force 10 March 1999).
- Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Sep. 10, 1998, (entry into force Feb. 24 2004).
- Convention on Persistent Organic Pollutants, 22 May 2001, (entry into force May 17, 2004).
- Convention on Environmental Impact Assessment in a Transboundary Context, Feb. 25, 1991 (entered into force Sept. 10, 1997), reprinted in 30 I.L.M. 800 (1991).

- Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context, Kiev, 23 May 2003 (entry into force 11 July 2010).
- Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Mar. 17, 1992 (entry into force Oct. 6, 1996), reprinted in 31 I.L.M. 1312 (1992).
- Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, Jun. 25, 1998 (entry into force Oct. 30, 2001), reprinted in 38 I.L.M. 517 (1999).
- Kiev Protocol on Pollutant Release and Transfer Registers under the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 21 May 2003, (entry into force 8 October 2009).
- London Convention - 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (entry into force 30 August 1975), administered by the International Maritime Organisation (IMO)

## 2.2.1 GREEN CLIMATE FUND

The Green Climate Fund (GCF) commits to (1) gender equality and equity; and (2) inclusiveness in all activities. Gender mainstreaming is central to the GCF's objectives and guiding principles, including through engaging women and men of all ages as stakeholders in the design, development and implementation of strategies and activities to be financed. The GCF Governing Instrument states that: *"The Fund will strive to maximize the impact of its funding for adaptation and mitigation... promoting environmental, social, economic and development co-benefits and taking a gender-sensitive approach."*

In this regard the Revised Environmental and Social Policy (B.BM-2021/18) notes that all supported GCF activities will commit to:

- Avoid, and where avoidance is impossible, mitigate adverse impacts to people and the environment;
- Avoid, and where avoidance is impossible, mitigate the risks of Sexual Exploitation, Sexual Abuse and Sexual Harassment (SEAH) to people impacted by GCF-financed activities;
- Enhance equitable access to development benefits; and
- Give due consideration to persons in vulnerable positions and situations and marginalised populations, groups, and individuals, including women and girls, local communities, indigenous peoples, and other marginalized groups of people and individuals that are affected or potentially affected by GCF-financed activities and are especially vulnerable to exploitation or other potentially harmful unintended sub-project impacts.

Aligning with and adhering to the GCF environmental and social safeguards is imperative and all sub-projects will be designed, managed and monitored to ensure this. The proposed updated suite of safeguards<sup>2</sup> are outlined in Table 4, below.

*Table 4: IFC PS (PS1-8) as utilised by the GCF as interim safeguards*

Environmental and Social Safeguard	Description
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	(a) Identify funding proposal's environmental and social risks and impacts; (b) Adopt mitigation hierarchy: anticipate, avoid; minimize; compensate or offset; (c) Improve performance through an environmental and social management system; (d) Engagement with affected communities or other stakeholders throughout funding proposal cycle. This includes communications and grievance mechanisms.
ESS 2: Labour and Working Condition	(a) Fair treatment, non-discrimination, equal opportunity; (b) Good worker–management relationship; (c) Comply with national employment and labour laws; (d) Protect workers, in particular those in vulnerable categories; (e) Promote safety and health; (f) Avoid use of forced labour or child labour.
ESS 3: Resource Efficiency and Pollution Prevention	(a) Avoid, minimize or reduce sub-project-related pollution; (b) More sustainable use of resources, including energy and water; (c) Reduced sub-project-related greenhouse gas emissions.
ESS 4: Community Health, Safety and Security	(a) Avoid, minimize or reduce sub-project-related pollution; (b) More sustainable use of resources, including energy and water; (c) Reduced sub-project-related greenhouse gas emissions.
ESS 5: Land Acquisition and Involuntary Resettlement	(a) Avoid/minimize adverse social and economic impacts from land acquisition or restrictions on land use: (i) Avoid/minimize displacement; (ii) Provide alternative sub-project designs; Interim environmental and social safeguards of the Fund Page 2 (iii) Avoid forced eviction. (b) Improve or restore livelihoods and standards of living; (c) Improve living conditions among displaced persons by providing: (i) Adequate housing; (ii) Security of tenure.
ESS 6: Biodiversity Conservation and Sustainable Management	(a) Protection and conservation of biodiversity; (b) Maintenance of benefits from ecosystem services;

<sup>2</sup> <https://www.greenclimate.fund/sites/default/files/page/gcf-new-ess-stage-2-report-march-2022.pdf>

of Living Natural Resources	(c) Promotion of sustainable management of living natural resources; and (d) Integration of conservation needs and development priorities.
ESS 7: Indigenous Peoples	(a) Ensure full respect for indigenous peoples (i) Human rights, dignity, aspirations; (ii) Livelihoods; (iii) Culture, knowledge, practices; (b) Avoid/minimize adverse impacts; (c) Sustainable and culturally appropriate development benefits and opportunities; (d) Free, prior and informed consent in certain circumstances.
ESS 8: Cultural Heritage	(a) Protection and preservation of cultural heritage; (b) Promotion of equitable sharing of cultural heritage benefits.  2. The International Finance Corporation (IFC) PS can be viewed at:  <a href="http://www.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES">http://www.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES</a> .

## 2.2.2 UNITED NATIONS (UN) SUSTAINABLE DEVELOPMENT GOALS

Goal 5 of the Sustainable Development Goals ('SDG's' or the 'Goals') encourages an end to all forms of discrimination against all women and girls everywhere. The Goals aims to eliminate all forms of violence against all women and girls, and harmful practices. It recognizes the value of unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family. Further, it ensures the universal access to sexual and reproductive health and reproductive rights. It encourages countries to undertake reforms to give women equal rights to economic resources, as well as access to natural resources.

SDG 6 is a core feature for the goals. At a programme level, SDG Target 6.3 states that *"by 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally"*.

Finally, the Goals encourage the adoption and strengthening of sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

## 2.2.3 INTERNATIONAL STANDARDS

The DBSA and IFC/World Bank safeguards will apply to the Programme along with the associated Environmental Health and Safety Guidelines to ensure that all sub-projects will ensure a net benefit for:

- Gender equity (UNEP Marker system and UNEP gender guidelines will be applied to all sub-projects)
- Biodiversity/Ecosystem services (alignments with emerging global targets, standards and good practices)
- Climate Adaptation
- Climate mitigation
- Water use and re-use

The “Do No Harm” Principle will apply and all sub-projects will complete a detailed Development Results Template complete with baseline metrics, targets and indicators and will report every 6 months against this framework. This will be applied to all sub-projects and is provide in Appendix B.

## 2.3 DBSA ENVIRONMENTAL AND SOCIAL SAFEGUARDS

Sub-projects financed by the DBSA fall in one of the following categories based on the type of sub-project and associated risk:

- Category 1 or High and Substantial Risk: with potential significant adverse social and/or environmental impacts that are diverse, irreversible, or unprecedented;
- Category 2 or Medium Risk: with potential limited adverse social and environmental impacts that are few in number, generally site specific, largely reversible and readily addressed through mitigation measures;
- Category 3 or Low Risk with minimal or no impacts; or
- Category 4 or Financial Institutions: involving the extension of credit-lines to other financial institutions.

As a GCF AE, the DBSA commits to ensuring compliance with the GCF ESS.

### Aligning to GCF Screening

As a preliminary process in due diligence, the screening of environmental and social risks of activities involves the following actions:

- Identify the potential environmental and social risks and impacts of the activities (including direct and indirect, induced, long-term and cumulative impacts, potential environmental and social risks);
- Analyse the identified risks and impacts to understand their potential significance including SEAH risks and will take into account the activities’ areas of influence including associated facilities and third-party impacts.
- Associated facilities must meet the requirements of their environmental and social safeguards pursuant to the ESS standards of GCF. Where the associated facilities are financed by other funding agencies, GCF, and the accredited entities, may then rely on the environmental and social requirements of these funding agencies, provided that these are more stringent or equivalent to the ESS standards, as determined by GCF.
- Assign an environmental and social risk category; and

- Determine applicable standards, policies and plans for meeting requirements, including the scope of further assessments.

The environmental and social risk categories of activities supported by GCF are defined as follows:

- Category A. Activities with potential significant adverse environmental and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible, or unprecedented;
- Category B. Activities with potential limited adverse environmental and/or social risks and impacts that, individually or cumulatively, are few, generally site-specific, largely reversible, and readily addressed through mitigation measures; and
- Category C. Activities with minimal or no adverse environmental and/or social risks and/or impacts.

Thus, the DBSA's Category 2 risk profile aligns with that of the GCF Category B.

The DBSA has designed its own ESS that are aligned with the GCF policies and standards, and with South African National legislation. As GCF and DBSA advance their policies and practices the DBSA, and its financial partners will endeavour to address not only updated national policy and legislation and DBSA environmental and social standards but also GCF safeguards within a reasonable time frame to all affected.

Sub-projects that are supported by the DBSA will be carefully designed to benefit local communities, with a particular focus on women and vulnerable groups, and the environment in their focal areas, with no anticipated adverse social or environmental impacts.

While the DBSA Safeguards are applicable to each archetype included in the Programme (the Funding Proposal refers to four types of waster reuse options (DPR, IPR, INR and IR)) the programme effectively covers two key stages of sub-project development, namely a sub-project preparation phase and a detailed design/implementation phase. It is during these two key phases of sub-project delivery where the safeguards are importantly applied, noting that these are underpinned by the financing arrangements as well as efforts to build capacity and ensure awareness. The applicability of the DBSA's safeguards against these two key sub-project delivery phases are presented in Table 5. It must be noted that should specific sub-projects require different structuring and phasing, then each of these sub-project phases must be assessed against the safeguards.

*Table 5: Summary of applicability of Environmental and Social Safeguards*

O	GCF interim ESS and IFC PS1-8	Sub-project Preparation	Comments	Detailed Design and Implementation	Comments
Standard 1: Sub-project Screening: Environmental and Social Risks, Impacts and Opportunities	<u>Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts</u>	Yes	Up to feasibility scale of assessment	Yes	Detailed assessment of risks and their mitigation

O	GCF interim ESS and IFC PS1-8	Sub-project Preparation	Comments	Detailed Design and Implementati on	Comments
Standard 2: Stakeholder Engagement and Information Disclosure		Yes	Stakeholder assessment with strategic engagement and disclosure	Yes	Detailed engagement plan supported by thorough engagement and disclosure. Details of arrangements for information and document disclosure will be outlined in the engagement plan.
Standard 3: Gender Mainstreaming (including SEAH)		Yes	Assessment of gender and SEAH impacts with plan for management	Yes	Detailed action plan to ensure gender mainstreaming and protection against SEAH, supported by mitigation and reporting framework to ensure implementation
Standard 4: Indigenous Peoples	Performance Standard 7: Indigenous Peoples	Possibly	Assessment of possible impacts through assessment of affected people and beneficiaries. IPP developed where applicable	Possibly	Detailed IPP, including FPIC where required, implementation, implementation, supported by mitigation and reporting framework.
Standard 5: Land Acquisition, Land Use Restrictions and Involuntary Resettlement	Performance Standard 5: Land Acquisition and Involuntary Resettlement	Possibly	Assessment of possible impacts and plan for interventions where necessary	Possibly	Detailed action plans, including resettlement action plans where needed,, supported by reporting framework to track progress.
Standard 6: Labour and Working Conditions	Performance Standard 2: Labour and Working Conditions	Yes	Scoping assessment of implications and challenges to manage	Yes	Detailed labour plans to address identified challenges including mitigation and management options, as well as reporting structures to ensure responsive management.
Standard 7: Community Health and Safety	Performance Standard 4: Community Health, Safety, and Security	Yes	Scoping assessment of implications and challenges to manage	Yes	Detailed action plans to manage identified and emergent health and safety issues, supported by clear accountabilities.
Standard 8: Cultural Heritage	Performance Standard 8: Cultural Heritage	Possibly	Assessment of status and potential implications and challenges to manage, if identified.	Possibly	Where identified, detailed action plans to manage identified and emergent impacts. Effective reporting frameworks to ensure adaptive and responsive management.
Standard 9: Biodiversity Conservation and	Performance Standard 6: Biodiversity	Possibly	Assessment of status and potential implications and	Possibly	Where identified, detailed action plans to manage identified and

O	GCF interim ESS and IFC PS1-8	Sub-project Preparation	Comments	Detailed Design and Implementati on	Comments
Sustainable Living Natural Resources Management	Conservation and Sustainable Management of Living Natural Resources		challenges to manage, if identified. Nature based solutions must be explored.		emergent impacts. Effective reporting frameworks to ensure adaptive and responsive management.
Standard 10: Resource Efficiency, Pollution Prevention and Management	Performance Standard 3: Resource Efficiency and Pollution Prevention	Yes	Detailed regulatory impact assessment of these in the feasibility level assessments, producing management plans and adherence to environmental and water use regulations.	Yes	Complete all regulatory requirements. Develop monitoring and reporting framework to support provision of data to regulatory authorities and adhere to license conditions.
Standard 11: Safety of Dams		No	These sub-projects will not develop dam/ impoundment infrastructure that requires screening against national dam safety regulations.	No	

The DBSA will align with the GCF safeguards which in the interim are aligned to the IFC's Environmental and Social Performance standards and included in Table 5 to indicate the alignment.

DBSA Safeguard Standard 1 refers to Sub-project Screening: Environmental and Social Risks, Impacts and Opportunities that sets out the responsibilities to assess, manage and monitor environmental and social risks and impacts associated with each stage of a sub-project for which the DBSA provides financing to achieve environmental and social outcomes consistent with the ESS Environmental and social assessment carried out under ESS 1 determines whether sub-project operations trigger any risks addressed under Standards 2 - 11 and whether the client needs to implement related mitigations.

Sub-projects undertaken in terms of this Programme may be Category 2 or Medium Risk Category Sub-projects which include (only sub-projects relevant to this programme are listed):

- Water supply sub-projects (without impoundments or new river intakes)
- Medium to small scale sanitation sub-projects
- Water purification plants
- Reservoirs for public water supply
- Pipelines (depending on the route).

Category 2 programmes and sub-projects are medium risk sub-projects which may have adverse environmental and social impacts, but which are likely to be potentially less severe than those associated with Category 1, high and substantial risk sub-projects. For category 2 sub-projects few impacts are irreversible and mitigation measures can be more easily prescribed.

The DBSA approach to Category 2 sub-projects requires the following:

- An Environmental and Social Scoping report,
- An ESIA,
- An ESMP containing sufficient detail to assess, manage and mitigate the sub-project's environmental and social risks and outcomes and comply with the DBSA ESSSSs. The ESMP to address any sub-project related GHG emissions and climate change risks. The ESMP to detail sub-project resource use, including at least water and waste usage.
- If the sub-project is not a regulated Listed Activity according to relevant country legislation, DBSA requires that the client apply the ESSSSs stipulated environmental and social assessment requirements.
- Any additional impact and / or risk assessments and plans that the DBSA may consider necessary as determined by the sub-project environmental and social screening and appraisal (including gender, SEAH and the need for Grievance Response Mechanisms).

Brine disposal, produced from the treatment process, is a barrier to the introduction of water reuse sub-projects and must be considered during sub-project screening. A saline brine waste stream may remain after recovery for some types of treatment. This presents a challenge as most municipalities do not permit the direct discharge of brine into sewerage lines. Therefore, in these situations, industries often concentrate waste streams to reduce volumes and improve ease of removal, thereby incurring additional treatment costs. Coastal sites typically dispose brine in the sea. For inland sites, disposal is more complicated and costly. Brine is beginning to be viewed as a resource with extractable value, but it remains an environmental barrier nonetheless and will require the necessary permitting and supporting environmental assessments including ESIAs, ESMPs and Section 21 water use license under the National Water Act.

An important part of potable reuse sub-projects is the need to conduct regular highly specialist effluent quality verification that is over and above conventional laboratory testing. These specialist tests are particularly needed for Chemicals of Emerging Concern (CECs) in potable reuse sub-projects.

The existing national potable water quality standard, SANS 241, defines the minimum water quality required for human consumption. It was however developed with surface and groundwater sources in mind and is not extensive enough to cover the specific water pollutants found in potable reuse sub-projects. For instance, it does not have a standard for phosphate or organic COD and the microbiological standard is not approached from a log reduction perspective as has been adopted internationally. There is thus a need to develop a national water quality standard for potable reuse. However, in the absence of such a standard, existing reuse sub-projects have generally adopted the California Department of Health standards for potable reuse, as these

are state-of-the-art standards internationally. These set a require standard for pathogen log reduction across a potable reuse treatment train as well as maximum CEC levels in the final product water. This is all in-line with the WHO's Potable Reuse Guidelines. Furthermore, the Water Research Commission has recently published guidelines that provide update guidance on discharge standards and notes a list of priority CECs that need to be considered for the update of SANS 241

Water reuse sub-projects will have the option to assess the feasibility of sludge beneficiation, noting the range of regulatory requirements and the potential environmental impacts. In the preparation of the WRP this has not been identified as a priority outcome for the programme. Nevertheless, during sub-project preparation these options will be explored with the intent to maintain sub-projects within this medium risk categorisation. As such, the sub-project eligibility criteria for sub-project selection, prioritises Category B and C sub-projects.

For medium risk sub-projects, the depth and type of environmental and social impact assessment required will depend on the type of sub-project and the type of environmental and social risks encountered. The client / sub-project owner / sponsor will provide at least the following:

- An Environmental and Social Scoping report,
- An ESIA,
- An ESMP to assess, manage and mitigate the sub-project's environmental and social risks and outcomes and comply with the DBSA ESSs.
- Safeguard report reflecting on the alignment of activities with all applicable safeguards and associated global good practice guidelines (including specifically all GCF, IFC and DBSA standards and guidelines) and noting any gaps and how these will be addressed.

In terms of the safeguards, the sub-projects to be undertaken would be categorised as Category 2 sub-projects which are those that have potentially limited adverse social and environmental impacts that are few in number, generally site specific, largely reversible and readily addressed through mitigation measures. At the screening stage it will be imperative to assess all ESS as laid out in Table 5 . Where needed due to the nature of the sub-projects impacts and scale then Indigenous People Plans, Resettlement Action Plans, biodiversity protection plans and cultural heritage management plans will be developed. The WRP will also establish a dedicated WPO to manage the programme level compliance to both the GCF and DBSA environmental and social standards, and will be accountable for ensuring the development of supporting safeguard instruments.

Early engagement with the South African leading line ministries, including DWS, DCOG, the national designated authority (DFFE) and the GCF focal point will be a key risk mitigation measure to ensure meeting the GCF requirements for environmental and social safeguards are aligned to the South African policy framework. These have been outlined in the ESMFP.

If the sub-project is not a regulated Listed Activity, DBSA requires that the client apply the ESSs stipulated environmental and social assessment requirements along with any additional impact and / or risk assessments

and plans that the DBSA may consider necessary and as determined by the sub-project environmental and social screening and appraisal.

Category 3 or low risk category are those sub-projects which are unlikely to have adverse environmental impacts as the social, physical and biophysical environments will not be significantly affected. Sub-project types include:

- Health service sub-projects with minimal negative social and environmental impacts
- Internal reticulation of urban developments with minimal negative social and environmental impacts
- Institutional development and capacity-building sub-projects with minimal negative social and environmental impacts
- Advisory assignments (to consider all relevant stakeholders)
- Technical assistance (to consider all relevant stakeholders)
- Rights issues (to consider all relevant stakeholders)
- Securitisation

Category 4 sub-projects involve DBSA lending to financial intermediaries that on - lend or invest in subsub-projects that may result in adverse environmental and social impacts.

Financial intermediaries include private or public sector companies that receive corporate loans or loans for investment sub-projects from the DBSA that are used to finance a set of subsub-projects. Financial intermediary subsub-projects equivalent to Category 1 and Category 2 are subject to the relevant ESS requirements, as if they were directly financed Category 1 or Category 2 sub-projects. However, if a client will use a DBSA corporate loan to finance high and substantial risk investment sub-projects known at the time of loan approval, the loan will be considered Category 1.

Category 4 financial intermediaries are required to:

- Have adequate corporate environmental and social governance policies and apply the DBSA's Standards to its Category 1 – and Category 2 subsub-projects, comply with local environmental and social policy and legislation and seek global best practices as applicable to their operational activities.
- Develop and maintain an ESMP in line with the DBSA's Standards that is appropriate for the scale and nature of its operations—recognising that the operations of financial intermediaries vary considerably.
- Demonstrate that it has the management capability, organisational capacity, resources and expertise to monitor ESMS sub sub-project implementation.

A high-level screening of the sub-project archetypes has been undertaken. A detailed screening of sub-projects to be implemented will take place as part of the sub-project development. Table 6 provides an

overview of the initial project pipeline, which is a shortlist of 27 potential sub-projects. In a number of the larger municipalities, particularly the Metropolitan municipalities, there is already an understanding of the importance of water reuse and the environmental, social and regulatory impacts. In these contexts, public acceptance of these sub-project is likely to be stronger.

*Table 6: Initial project pipeline*

Sub-project #	Municipality	No. of Sub-projects	Total Reuse Flow (Ml/d)	Potential reuse types	Already Initiated Water Reuse Sub-projects	Public Acceptability
1	Nelson Mandela Metropolitan Municipality	1	40	DPR, INR	Yes	Medium
2	City of Ekurhuleni	3	113	DPR, INR	Yes	Medium
3	City of Johannesburg Metropolitan Municipality	3	200	IPR, INR	No	High
4	City of Tshwane Metropolitan Municipality	2	110	IPR, INR	No	High
5	eThekweni Metropolitan Municipality	3	162	DPR, IPR, INR	Yes	Medium
6	City of uMhlathuze	1	75	INR	Yes	High
7	Sol Plaatjie Local Municipality	1	15	IPR	No	Medium
8	City of Cape Town Metropolitan Municipality	2	110	DPR	Yes	High
9	Drakenstein Local Municipality	1	10	IPR	Yes	Medium
10	Mangaung Metropolitan Municipality	1	25	IPR	Yes	Medium

Table 7: Initial screening of the first ten sub-projects in the WRP pipeline

No.	Municipality	Risk Category	Safeguards										Comments
	DBSA		ESS 1	ESS 2	ESS 3	ESS 4	ESS 5	ESS 6	ESS 7	ESS 8	ESS 9	ESS 10	
	<b>GCF interim ESS and IFC PS1-8</b>		<b>PS1</b>			<b>PS7</b>	<b>PS5</b>	<b>PS2</b>	<b>PS4</b>	<b>PS8</b>	<b>PS6</b>	<b>PS3</b>	
1	Nelson Mandela Metropolitan Municipality	2	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	• ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP
2	City of Ekurhuleni	2	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	• ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP
3	City of Johannesburg Metropolitan Municipality	2	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	• ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP
4	City of Tshwane Metropolitan Municipality	2	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	• ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP
5	eThekweni Metropolitan Municipality	2	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	• ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP
6	City of uMhlathuze	2	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	• ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP
7	Sol Plaatje Local Municipality	2	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	• IPP needed • ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP
8	City of Cape Town Metropolitan Municipality	2	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	• Indigenous peoples screening needed • ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP
9	Drakenstein Local Municipality	2	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	• ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP
10	Mangaung Metropolitan Municipality	2	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	• ESS 9 will require more detailed assessment as part ES, ESIAS and ESMP

DBSA Safeguard Standard 2 refers to stakeholder engagement, stating that *‘effective, open and transparent engagement between the Client and sub-project stakeholders is an essential element of any transaction, leading to improved environmental and social sub-project sustainability, sub-project acceptance, and contributing to successful sub-project design and enhanced implementation.’*

For the purpose of this ESS, the term “stakeholder” is used to refer to:

- Sub-project beneficiaries - those who will benefit directly from the sub-project, with indirect beneficiaries also being tracked over the course of the programme implementation.
- Sub-project - affected parties - those who are affected or likely to be affected but not sub-project beneficiaries.
- Other interested parties – those who may have an interest(s) in the sub-project.

This ESS applies to all sub-projects that the DBSA supports. The objectives of this safeguard are to:

- Assist the programme and sub-projects to establish a systematic and inclusive approach to stakeholder engagement to build and maintain a constructive relationship with sub-project beneficiaries and sub-project affected parties throughout the sub-project life-cycle.
- Assist the programme and sub-projects to create an enabling environment that allows sub-project beneficiaries and sub-project-affected parties to exercise their rights about the sub-project, and to influence sub-project design and environmental and social performance.
- Provide key stakeholders with appropriate sub-project information on environmental and social risks and impacts in an understandable, transparent, and appropriate manner which enables stakeholders to make informed choices.
- Provide sub-project beneficiaries and sub-project-affected parties with accessible and inclusive means to raise their grievances and allow the Client to effectively respond to concerns raised in a comprehensive manner.

For the Programme, stakeholders are likely to include the following:

- i) Institutions providing sub-project oversight, namely DWS, DFFE, DBSA and Municipalities
- ii) COGTA and its agency MISA, Government Technical Advisory Centre (GTAC) and the National Treasury, South African Local Government Association (SALGA)
- iii) Water Utilities/Boards and Water Service Authorities, Private sector water developers and service providers
- iv) Financiers
- v) Local and district municipalities
- vi) Civil society organisations (resident’s associations, community-based organizations, non-governmental organisations, etc.)
- vii) Water Research Commission (WRC) and other academic research institutions (UCT, Wits, Rhodes, NMMU etc)

For the purposes of this Programme a Communications Strategy and Implementation Plan has been developed along with a Consultation and stakeholder engagement plan.

A specific context relevant stakeholder engagement plan (SEP) will need to be developed for each water reuse sub-project to be implemented and, in each municipality, as they all differ. A draft structure for the SEP is provided in Appendix F to this report. In addition, each sub-project would also be required to comply with NEMA public participation and consultation requirements, should listed activities be triggered and this would need to be incorporated.

In terms of sub-project information disclosure, the WRP will ensure that:

- Programme and sub-project information will be disclosed to allow stakeholders to understand all sub-project implications, any potential risks and impacts, and any anticipated development opportunities to accrue from it.
- Information will be disseminated to stakeholders in a transparent, relevant, understandable and accessible format
- Sub-project information will be disclosed in relevant local languages and in an accessible and culturally appropriate manner
- Information responses will be provided to address specific stakeholder interests that may be differently or disproportionately affected by the sub-project including people living with disabilities, illiterate, gender, mobility, differences in languages, and the Indigenous Peoples
- Stakeholders will be provided with access to the following information before the DBSA proceeds to sub-project appraisal:
  - The purpose, nature, scale, and duration of proposed sub-project activities;
  - The potential sub-project risks, stakeholder impacts, and proposed mitigation measures to avoid and minimise any adverse impacts;
  - The proposed stakeholder engagement process as defined in the SEP;
  - The time and venue of any proposed public consultation meetings; the process to notify stakeholders of such meetings; how the meetings will be conducted, and how meeting will be disseminated to stakeholders; and
  - The process and channels to communicate any grievances and the turnaround time to address these.

The DBSA Safeguard Standard 3 refers to gender mainstreaming, that is an institutional and development strategy to address the factor that *‘gender inequality exposes individuals to different types of risks and impacts from development sub-projects, especially in areas of health, education, labour, water and sanitation, energy, transport, ICT and access to, benefits from and control of resources.’*

A Gender Action Plan has been developed detailing the above. For this Programme, the following actions are proposed to mainstream gender and address SEAH:

- Applying quotas in female participation in sanitation policies for water committee members, Boards and agencies.
- Integrating a monitoring system with gender and SEAH monitoring indicators.
- Ensuring a 30-40% target for the beneficiaries of the program to be women.
- Raising Public awareness campaigns aimed at creating an appreciation and understanding of the benefits of water reuse.
- Enabling all water stakeholders—from the implementing agencies to the beneficiaries to build requisite skills and knowledge for gender-sensitive services and management.
- Developing on a sub-project-by-sub-project basis a scorecard to ensure support to the GCF E&S safeguards as well as a sub-project level SEAH toolkit that will ensure protection from sexual abuse, exploitation and sexual harassment.

The approach to the ensuring protection against SEAH is structured around four key steps that are outlined in Table 8, and the toolkit that will be developed during the establishment phase of the programme, will align to these steps as well as with the policies of both GCF and DBSA.

*Table 8: Four steps to ensuring protection against SEAH in the WRP*

Steps	Actions
<b>Assessing:</b> Identifying and assessing the risks and the response capacity	<ul style="list-style-type: none"> <li>• Undertake social risk assessment</li> <li>• Assess the impact of these risks and effectiveness of existing controls</li> <li>• Review ability of the client to respond to SEAH risks and develop plans to address any issues.</li> <li>• Develop risk register, outlining priority risks</li> <li>• Establish procedures to review and update the risk assessments during sub-projects</li> <li>• Establish appropriate management committee to oversee and review procedures and plans</li> <li>• Ensure that the DBSA procedures regarding SEAH are understood, supported by training.</li> </ul>
<b>Addressing:</b> Establishing the mitigation, reporting and monitoring measures	<ul style="list-style-type: none"> <li>• Develop risk mitigation measures and outline an implementation plan</li> <li>• Monitor progress against the implementation plan and adapt as and when appropriate</li> <li>• Conduct new risk assessments when needed and based upon monitoring results</li> <li>• Ensure reporting of progress</li> </ul>
<b>Responding:</b> Ensuring sub-project response on cases	<ul style="list-style-type: none"> <li>• Provide essential services for survivors of SEAH</li> <li>• Reporting of cases as appropriate ensuring confidentiality of survivors</li> <li>• Document cases and record actions taken</li> </ul>

<b>Communicating:</b> Creating awareness and understanding	<ul style="list-style-type: none"> <li>• Develop an awareness creation and communications plan</li> <li>• Undertake interventions to ensure staff are aware of procedures</li> </ul>
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It is a requirement that all sub-projects:

- Ensure that GRMs are established by the AE and/or EEs to address SEAH in addition to other E&S impacts of the activities proposed for GCF financing.
- Specify all procedures required in incidences of SEAH (or similar terms employed by the AE that are of substantive equivalence). This may include confidential reporting with safe and ethical documenting of SEAH cases, that indicate when and where to report incidents, and what follow-up actions will be undertaken.
- Indicate the modalities for timely services and redress to SEAH survivors, including as appropriate, medical care, psychosocial support, legal support, community driven protection measures, and reintegration.

Safeguard Standard 4: Indigenous Peoples considerations are essential and there are potentially a few areas where the San and Khoi-Khoi peoples may be impacted-upon by these sub-projects. Where sub-projects impact upon indigenous peoples, an Indigenous Peoples Plan will be developed. A draft outline of an Indigenous Peoples Plan is provided in Appendix G.

The DBSA uses the term to include a distinct social and cultural group which:

- self - identify as members of an indigenous cultural group and whose identity is recognised as such by others.
- Are collectively attached to geographically distinct habitats, ancestral territories and natural resources in the sub-project area.
- Possess customary cultural, economic, social, or political institutions separate from mainstream society or culture.
- Utilise a distinct language, different from official languages for the country or region in which they reside.

However, upon initiation of individual sub-projects, confirmation that this standard is not applicable will need to be assessed.

Safeguard Standard 5: Land Acquisition, Land Use Restrictions and Involuntary Resettlement may apply in certain circumstances, but it is expected that that new and existing sub-projects will take place on land owned by the Municipality. As such, it is expected that these sub-projects would not require the acquisition of land or the resettlement of communities. Nevertheless, the DBSA sub-project risk categorisation flags this and as such sub-projects that require this automatically are categorised as risk level 1. Noting this, the sub-project eligibility criteria has flagged this as a key consideration. Thus, this assessment will be undertaken for every sub-project with an appropriate land acquisition plan and a resettlement action plan where necessary. An outline of a resettlement action plan is provided in Appendix H.

Standard 6: Labour and Working Conditions recognises the importance of employment creation and income generation in pursuit of poverty reduction and inclusive economic growth. Clients should promote sound worker-management relationship and enhance the development benefits of a sub-project by treating workers in the sub-project fairly, and provide safe and healthy working conditions, considering the needs to ensure protection against sexual abuse, exploitation and sexual harassment. The national policies with regards to affirmative action and equal opportunity will apply noting that all public and private sector businesses are required to report annually to the national Department of Labour with regards to employment equity and Broad Based Black Economic Empowerment plans and progress made in this regard. This will be included in contracts for the construction phase and for the operational management of the facilities of proposed sub-projects. Under the DBSA ESS 6 the objectives of this safeguard are outlined as follows and as such will be considered on each and every sub-project.

- To promote fair treatment, non-discrimination and equal opportunity of sub-project workers;
- To protect workers, especially vulnerable workers such as women, persons with disabilities, migrant and contract workers, as appropriate;
- To promote health and safety in the workplace;
- To prevent the use of all forms of forced and/or child labour and
- To provide workers with accessible means to raise workplace concerns.

It is important to note that in terms of the Occupational Health and Safety Act (Act 85 of 1993) public and private sector organisations must provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery, and ensure the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work. As such plans must be put in place to ensure this and this is subject to audit by the Department of Labour.

Safeguard Standard 7: Community Health and Safety – The Safeguard recognises that sub-project activities, equipment, and infrastructure can increase community exposure to risks and impacts. Hence the objectives of this safeguard is:

- To anticipate and avoid adverse impacts on the health and safety of sub-project - affected communities during the sub-project life – cycle;
- To promote quality and safety in the infrastructure design and construction;
- To avoid or minimise community exposure to sub-project - related traffic and road safety risks, diseases and hazardous materials;
- To put effective measures in place to address emergency events and avoid disasters; and
- To ensure that personnel and property are safe.

In this regard these sub-projects have been identified as having a Category B level of risk and as such these sub-projects are expected to have moderate/ potential limited adverse risks and impacts, upon communities and their health and safety. However, this safeguard addresses the health, safety, SEAH and security risks

and impacts on sub-project affected communities and the corresponding responsibility of Clients to avoid or minimise such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable. Hence, while the initial categorisation is level 2, it is a requirement that each sub-project is assessed. An initial and indicative suite of risks include:

- Consultants and contractors have access to communities during early sub-project phases and undertaking stakeholder engagement processes can expose the vulnerable members of communities to abuse.
- An influx of workers can expose the community to risks of sexual exploitation and abuse.
- Female (but also male) construction workers are vulnerable to sexual harassment and abuse, exacerbated by the traditionally male working environment.
- Access roads created by the sub-project (e.g. for transportation of construction materials) may pass through established routes used by the community and could put children and vulnerable groups at risk, especially after dark and in remote areas.
- Illegal practices undertaken off-site and near communities can put villages/settlements at greater risk of SEAH as well as a range of other social risks.
- Modern slavery and human and sex trafficking of men, women and children has been linked to the construction sector.
- Safety issues on construction sites for workers, noting that the community often supply the workforce.
- Violence and gangsterism can surface in terms of ensuring access to work or associated contracts.

In terms of the Occupational Health and Safety Act (Act 85 of 1993) public and private sector organisations must provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery and ensure the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work. As such plans must be put in place to ensure this and this is subject to audit by the Department of Labour.

Safeguard Standard 8: Cultural Heritage may apply to this sub-project as, although sites will be selected which do not have any cultural heritage aspects, the associated pipelines may trigger the requirements of the National Heritage Resources Act (NHRA) (Act 25 of 1999). This Standard applies if a sub-project / programme:

- Involves excavations, demolition, movement of earth, flooding or other changes in the physical environment
- Is located within a legally protected area or a legally defined buffer zone
- Is located in, or in the vicinity of, a recognised cultural heritage site
- Is designed to support cultural heritage conservation, management and use
- Impacts materially on intangible cultural heritage or if a sub-project intends to use such intangible cultural heritage for commercial purposes

- Impacts on or depends on cultural heritage including manmade, natural capital or institutional capital.

A Heritage Specialist will be required to submit a Notice of Intent to Develop should the pipelines trigger the NHRA requirements and may require application for a permit under the regulations published in 2000 through Government Gazette No. 21239. Heritage requirements are also included in the ESMP. Guidelines provided by the South African Heritage Resource Agency note the following key considerations in this regard as being:

- Social assessment, identification of stakeholders and formation of management committee'
- Documentation, research and investigation of the identity of the place,
- Analysis of the information gathered,
- Development of appropriate responses.
- Implementation plan, and
- Basic principles for the development of management plans.

An indicative table of contents for a cultural heritage management plan is provided in Appendix I.

#### Safeguard Standard 9: Biodiversity Conservation and Sustainable Living Natural Resources Management –

The safeguard adopts a precautionary approach to conserve, manage and use biodiversity in a sustainable manner in line with the Rio Declaration and the Convention on Biological Diversity. This safeguard will apply for sites selected for sub-projects that may fall within critical biodiversity areas or any other natural areas, however sites that have been set aside for conservation purposes must be avoided. In this regard, the WRP aligns with the GCF ESS6/ IFC PS6 which states that in areas that are deemed critical habitats that the programme will not implement any sub-project activities unless all of the following are demonstrated:

- No other viable alternatives within the region exist for development of the sub-project on modified or natural habitats that are not critical;
- The sub-project does not lead to measurable adverse impacts on those biodiversity values for which the critical habitat was designated, and on the ecological processes supporting those biodiversity values;
- The sub-project does not lead to a net reduction in the global and/or national/regional population of any Critically Endangered or Endangered species over a reasonable period of time; and
- A robust, appropriately designed, and long-term biodiversity monitoring and evaluation program is integrated into the client's management program.

In such cases where a sub-project is able to meet the requirements defined above, the sub-project's mitigation strategy will be described in a Biodiversity Action Plan, as outlined in Appendix J.

The sites are likely to be located adjacent to or nearby existing water treatment or wastewater treatment works which are often disturbed sites and the sub-projects will typically be in keeping with the existing land use. However, it needs to be acknowledged that WWTW and WTP often create manmade habitat and freshwater

features that will be assessed in terms of the required NEMA EIA Regulations, and the necessary processes followed, which will result in adequate mitigation measures being implemented.

All natural habitats must be left with a nett positive impact as a result of the sub-projects and biodiversity offsets may be required to compensate for any impacts on natural habitats that cannot be avoided or mitigated in any other way. However, these offsets are only to be used as a last resort with the Biodiversity Action Plan outlining the necessary management and mitigation measures needed. Positive biodiversity/ecosystem impact must be demonstrated (over and above legal or safeguard requirements). Impacts must be integrated into sub-project co benefit objectives with clear targets and indicators. If degraded sites are selected, rehabilitation/restoration of the site must be included in the sub-project design.

Safeguard Standard 10: Resource Efficiency, Pollution Prevention and Management – This safeguard draws on and aligns DBSA operations to international pollution, hazardous materials and waste, pest/vector control conventions and standards. It outlines DBSA client requirements to address resource equity, efficiency and pollution prevention over the life of a programme/sub-project. This standard is applicable as potential waste/effluent streams are planned for treatment that will allow reuse and conversion into a resource which has potential environmental benefits. The ESMP will ensure that the site is constructed and managed with pollution prevention as a focus. In this regard, there is a requirement that a water use license under Section 21 (f) of the National Water Act (Act 36 of 1998) that regulates discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit or, depending on context, Section 21(g) which regulates disposing of waste in a manner which may detrimentally impact on a water resource. Under these regulations there is a requirement to put in place mitigations and to report on these.

DBSA and all partners will ensure applicability of this standard to safeguard environmental integrity and human health, applying to emissions to air, discharges to water, GHG emissions, soil contamination, sub-project-associated waste, and environmentally sound management of hazardous substances following the international best practices and standards.

DBSA and partners will elaborate on the applicability of this standard in the context of the programme archetypes and considering the sensitivity/ vulnerability of the receiving environments and local capacities in enforcing relevant policies and standards of environmental management.

DBSA and partners will follow the relevant IFC EHS Industry Guidelines and all other relevant IFC sector guidelines regarding wastewater and ambient water quality, water quality and availability, water conservation, and water and sanitation. As such, South Africa has developed guidance on discharge standards to which adherence is also required. This is a complex area of regulation and considerable attention has already been paid to this in South Africa. The following standards exist:

- South African Water Quality Guidelines for a number of different water user sectors (DWAF, 1996)
- Drinking water quality standards (SANS 241, 2015, Edition 2), and the
- General and Special Standards pertaining to the discharge of treated wastewater to the water resource.

In addition, it must be noted that the water quality discharge standards are also linked to the instream environmental requirements that are outlined under the 'Reserve' requirements that are outlined in Chapter 3 of the National Water Act (Act 36 of 1998). Furthermore, Section 19 of this Act outlines a number of requirements in order to prevent and remedy pollution. These approaches are also encapsulated in the Integrated Water Quality Management Policy that indicates the precautionary approach that is used and therefore, required of all sub-projects.

## 2.4 COMPARATIVE ANALYSIS BETWEEN DBSA AND GCF SAFEGUARD STANDARDS

DBSA, IFC and GCF are currently in process of revising their Safeguard Standards. The DBSA update will ensure alignment of the revised GCF/IFC safeguards as appropriate. As an interim measure partners will align with DBSA/GCF/IFC safeguards noting key points raised by Mott Macdonald GCF Report titled *GCF Environmental and Social Safeguards Outline of proposed new structure and content* (March 2022<sup>3</sup>) and incorporating measures where practical. The two key areas of different approaches are noted below.

### Climate

GCF: The implications of the Paris Agreement for appraisal and reporting of biodiversity, mitigation and adaptation efforts has led to changes in DBSA appraisals and its management systems. Changes relating to the consideration, appraisal and management of GHGs during sub-project delivery and lifetime are reflected within GCF ESS 3. Climate risk assessment (including resilience benefits), hazard and disaster analysis and associated considerations are captured in a proposed new ESS 10 on Climate Change. GCF ESS 3 and ESS 10 together, therefore, will contain the most fundamental changes for embedding climate change across the standards to better align to GCF unique mandate and ambitions, however additional climate references remain integrated as appropriate into the other standards where appropriate.

The following factors should inform the implementation of the Climate Risk Assessment:

- Application of appropriate risk classification methodologies such as IPCC hazard risk classification or other technically credible methodology.
- Disaggregation of risk profiles for impacted communities by marginalized, disadvantaged, gender, age and social vulnerabilities.
- Setting a risk screening period (i.e. 30 years).
- Propose strategy for, and activities to, maximize co-benefits (mitigation/adaptation) and minimize mal-adaptation potential. O Include relevant indigenous, local and traditional knowledge.

<sup>3</sup> <https://www.greenclimate.fund/sites/default/files/page/gcf-new-ess-stage-2-report-march-2022.pdf>

- The tailoring of the scope of the Climate Risk Assessment may be appropriate if the results of an initial Climate Change Impact Screening (giving consideration to the risk receptors and factors identified above), indicates it is appropriate to do so.

DBSA: The bank has considered climate components in ESS 1, and 8 and 9 but these will be expanded upon in its revised safeguards. The focus is on the need to understand sub-project physical and transitional climate risks, provide guidance on how best to assess and manage these risks and their compounding nature, support the maximizing of co-benefits and minimizing mal-adaptation, consideration of natural hazard and disaster analysis and the need to align with the Paris Agreement and the Draft Global Biodiversity Framework.

In the interim DBSA appraisal format requires

- All sub-projects to be mapped in terms of IFC green climate mapping taxonomy;
- Assess how programme or partner is positioned in terms of DBSA statement on net zero (2022) and DBSA commitment to the Just Transition
- Mainstreaming Climate in Financial Institutions; the key principles<sup>4</sup>
- The Sub-project Company's Progress Towards the Paris Agreement (Climate Change Progress To 1.5°C<sup>5</sup>) which includes a review of the key elements of a client credible transition plan. <sup>6</sup>
- Programme sub-project adaptation rating tool<sup>7</sup>

## 2.4.1 BIODIVERSITY

Until its safeguards are realigned DBSA partners will need to fully align with the relevant provisions in GCF RESP: (para.52) which requires that activities are screened and assessed, including component subsub-projects for any potential impacts on biodiversity. For activities that have potential adverse impacts on natural habitats, DBSA will require the preparation of a biodiversity action plan (see Appendix J) that describes the long-term mitigation, conservation outcomes, monitoring, and evaluation programme. Where avoidance, minimization or mitigation measures are not available or sufficient, and where there is sufficient evidence to justify and support viability, DBSA in coordination with relevant experts and GCF, will design and implement measures that provide remedy or restoration before adequate and equitable compensation of any residual risks and impacts. Such measures shall be described and costed in the biodiversity action plans and/or ESMPs as part of the consideration for GCF funding. Compensation, or offsets, will be used to mitigate adverse impacts on biodiversity and ecosystems in rare cases, only as a last resort, and only in specific instances where: all other technically feasible avoidance, minimization or restoration measures have been considered; supported by rigorous, sound science; developed in consultation with independent experts; and long-term management, support, and financing have been secured.

<sup>4</sup> <https://www.worldbank.org/content/dam/Worldbank/document/Climate/5Principles.pdf>

<sup>5</sup> Based On World Benchmark Alliance for Oil And Gas Industry Headings

<sup>6</sup> Based on the headings of the Climate Policy Initiative

<sup>7</sup> An internal interim tool based on inputs from other IDFC members and still under construction

## 2.4.2 PROGRAMME ARCHETYPES

Until recently, wastewater treatment works (WWTWs) have simply been seen as a necessary evil to clean our sewage so as not to damage the environment. They are also seen as a generator of a side stream waste in the form of sludge. However, with a move to Circular Economy thinking and Water Sensitive Urban Design, it has been realised that WWTWs can now rather be viewed as potential sources of valuable resources, such as water, energy and nutrients. As such, WWTWs may be viewed as **Water Resource Centres**, where one is able to extract these resources and reuse them within a city environment, thus reducing the pressures placed on non-renewable and other stressed resources. Undertaking baseline assessments of these opportunities for improved beneficiation will be a key element of the sub-project preparation phase.

Incentive-based regulation has gained momentum and support in the South African Water Sector. In this regard, the "Green Drop Wastewater Services Audit measures and compares the results of the performance of Water Service Institutions, and subsequently rewards (or penalises) the institution based on evidence of excellence (or failures) when measured against the defined standards. Benchmarks are used to help WSIs to identify gaps between their standard and industry norms. The report is designed to give comparative analysis and diagnostics to assist WSIs to focus on specific areas for improvement" (DWS, 2022). This review enables the performance at each WWTW and municipality against the following criteria:









- Capacity management;
- Environmental management;
- Financial management,
- Technical management, and
- Effluent and sludge compliance.

Compliance with the Green Drop score of greater than 50% is included in the sub-project eligibility criteria.

The Market Study (Annexure 2 to the Funding Proposal) presents various water reuse archetypes that may be considered as potential sub-project implementation options within the WRP.

Each type of water reuse sub-project is associated with various characterises. A qualitative summary of the characteristics of each type of water reuse (IDR, IPR, industrial reuse and irrigation reuse) is provided in Table 9. A longer bar indicates a more favourable solution.

*Table 9: Summary of water reuse archetype characteristics.*

Reuse characteristics	Direct Potable (DPR)	Indirect Potable (IPR)	Industrial	Irrigation
Advanced treatment plant product quality:	Highest 	Very High 	Medium 	Lowest 
Range of usability of water:	Highest 	Highest 	Medium 	Lowest 

<b>Capital Cost:</b>	Highest ■	High ■■	Medium ■■■■	Lowest ■■■■■■
<b>Operational Cost:</b>	Highest ■	High ■■	Medium to High ■■■■	Lowest ■■■■■■
<b>Public Acceptance:</b>	Lowest ■■	Medium ■■■	High ■■■■	Highest ■■■■■■
<b>Operational Expertise Required:</b>	Highest ■	High ■■	Medium ■■■	Lowest ■■■■■■
<b>Environmental Considerations</b>	<ul style="list-style-type: none"> <li>Reduced discharge to the resource with associated in stream flow requirement considerations</li> <li>However, this also means reduced abstractions from the resource.</li> <li>Improved adherence to water quality discharge standards with reduced WWTW discharges</li> <li>Near environment I considerations with plant construction.</li> </ul>	<ul style="list-style-type: none"> <li>As the water is returned to the resource there is less impact on instream flow requirements</li> <li>Adherence to discharge standards imperative</li> <li>Near environment considerations with plant construction.</li> </ul>	<ul style="list-style-type: none"> <li>Reduced discharge to the resource with associated in stream flow requirement considerations</li> <li>Improved adherence to water quality discharge standards with reduced wastewater discharges</li> <li>Onsite plant construction likely to have limited environmental footprint.</li> </ul>	<ul style="list-style-type: none"> <li>Reduced discharge to the resource with associated in stream flow requirement considerations</li> <li>Concerns regarding nutrient loadings from irrigation return flows</li> <li>No plant construction concerns but pipeline construction will require environmental screening and potentially servitudes/easements</li> </ul>
<b>Social risks and impacts</b>	<ul style="list-style-type: none"> <li>Lack of water quality standards for direct potable reuse present regulatory risk of poor water quality</li> <li>Near environment and social considerations with advanced treatment plant construction.</li> <li>Potential for SEAH and GBV associated with construction of works and associated infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Increased discharges into local rivers and streams can present social risks and hazards</li> <li>Near environment and social considerations with plant construction or expansion where required.</li> <li>Potential for SEAH and GBV associated with construction of works and associated infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>As industrial reuse closes the water reuse loop this can result in less discharges back into the supply system, which is made up for by reduced water abstraction</li> <li>Onsite plant construction likely to have limited social footprint.</li> <li>Therefore social risks are limited</li> </ul>	<ul style="list-style-type: none"> <li>Adherence to water quality standards for irrigation of crops using waste-water reuse presents regulatory risk and aspects of possible crop contamination</li> <li>Potential for SEAH and GBV associated with construction of associated infrastructure such as canals</li> </ul>

Note the programme will allow for promoting nature-based solutions and ecosystem investments as they relate to water reuse either as a cross cutting theme of the below archetypes or as a stand-alone but significant contribution to such archetypes.

## 2.5 DIRECT POTABLE REUSE

### What is Direct Potable Reuse?

Direct Potable Reuse (DPR) can be described as the treatment of final wastewater effluent in an advanced treatment plant (ATP) and transfer of the product water to the inlet of a bulk water treatment plant or directly into the water distribution network. This is shown schematically in Figure 2.

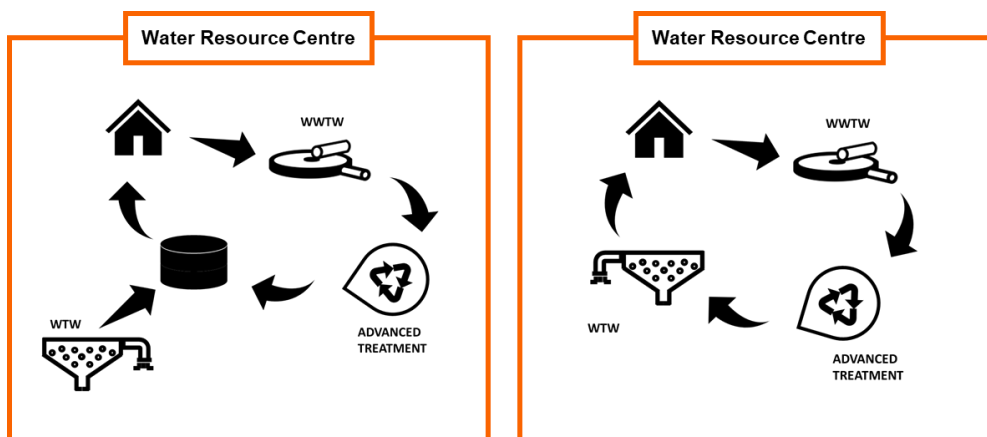


Figure 2: Schematic of typical Direct Potable Reuse Sub-projects

## 2.6 INDIRECT POTABLE REUSE

### What is Indirect Potable Reuse?

Indirect Potable Reuse (IPR) can be described as the treatment of final wastewater effluent in an advanced treatment plant and the transfer of the product water to an environmental buffer (such as an aquifer or surface water reservoir) where it will blend with raw water before treatment in a bulk water treatment plant. This is shown schematically in Figure 3.

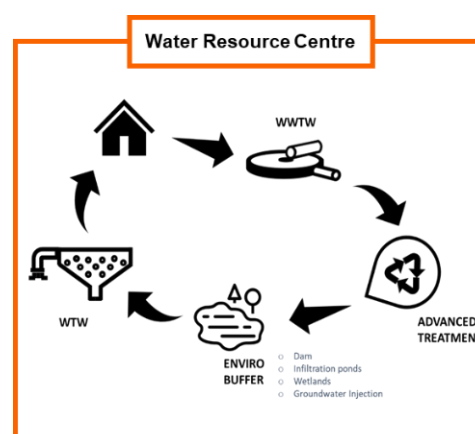


Figure 3: Schematic of typical Indirect Potable Reuse Sub-projects

## 2.7 INDUSTRIAL REUSE

### What is Industrial Reuse?

Industrial Reuse can be described as the treatment of final wastewater effluent in an advanced treatment plant to a quality suitable for industrial purposes and the transfer of the product water to a specific industry or generally to an industrial area. This is shown schematically in Figure 4.

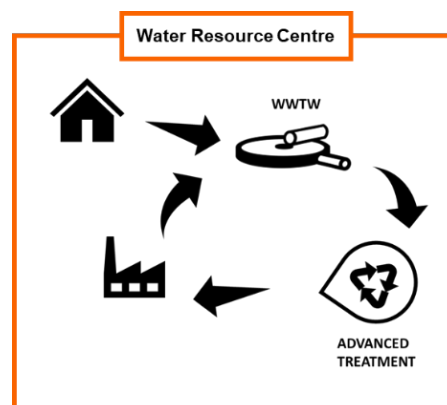
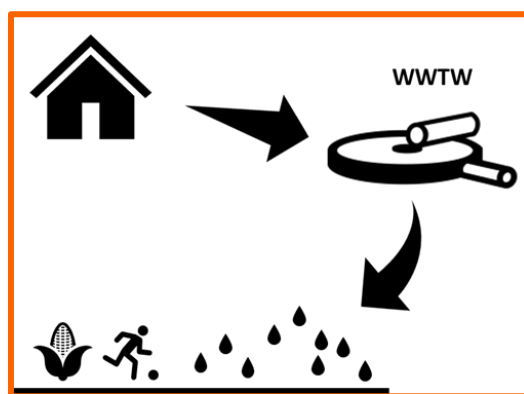


Figure 4: Schematic of typical Industrial Reuse Sub-projects

## 2.8 IRRIGATION REUSE

Irrigation Reuse can be described as the transfer of the polishing final wastewater effluent to quality standards required by agriculture or other irrigation users. This is shown schematically in Figure 5.

Irrigation re-use sub-projects require relatively minimal additional treatment before the treated water is distributed into an irrigation reuse network or a rising main and therefore, the subsequent capital investment on the associated WWTW is relatively minor. For irrigation reuse to be effective, significant capital expenditure may be required in respect of the reused water's distribution network and this should be carefully considered in terms of the climatic objectives of the WRP. However, it is noted that each sub-project will be carefully assessed by the WPO and the DBSA (as the AE) on a case-by-case basis, and as such, in the case that it can be demonstrated that a particular irrigation reuse sub-project contributes towards achieving the proposed climatic-related benefits of the WRP, that sub-project may be considered for inclusion with the WRP.



*Figure 5: Schematic of typical Irrigation Reuse Sub-projects*

## 2.9 HIGH LEVEL SCREENING

The impacts of each sub-project will be assessed in terms of national water and environmental regulatory frameworks, noting that adherence to these requirements is underpinned by compliance monitoring and enforcement by the DFFE and by the DWS. The impacts of these sub-projects will be contextual but an initial and high-level screening of water reuse sub-projects and key regulatory considerations is presented in Table 10 below.

Table 10: Overview of regulatory requirements for water reuse sub-projects according to archetype

Regulatory Instrument	Activity	Direct Potable (DPR)	Indirect Potable (IPR)	Industrial (INR)	Irrigation (IRR)
GNR. 327 (983) (2014 EIA Regulations as amended in 2017)	The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.	Yes where water services require extensive reticulation	Unlikely	Yes where pipelines are required	Yes where pipelines are required
	The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more, where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse measured from the edge of a watercourse	Yes possible depending on location	Yes possible depending on location	Yes possible depending on location	Yes possible depending on location
	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse; but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.	Yes particularly during construction	Yes particularly during construction	Yes particularly during construction	Yes particularly during construction

	<p>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for-</p> <p>(i) the undertaking of a linear activity; or,</p> <p>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	Yes possible depending on location	Yes possible depending on location	Yes possible depending on location	Yes possible depending on location
	<p>The clearance of an area of 300 square metres or more of vegetation where 75% or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>(i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>(ii) Within critical biodiversity areas identified in bioregional plans;</p> <p>(iii) Within the littoral active zone or 100 metres inland from high water mark of the sea, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas.</p> <p>(iv) Outside urban areas, within 100 metres inland from an estuarine functional zone; or</p> <p>(v) On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.</p>	Yes possible depending on location	Yes possible depending on location	Yes possible depending on location	Yes possible depending on location
Section 21 of the National Water Act (Act No. 36 of 1998) provides the list of water use activities that will require an authorisation or registration in accordance with the Act	<p><b>Impeding</b> – means to, in any manner, hinder or obstruct the instream flow of water, temporarily or permanently, but excludes the damming of flow so as to cause storage of water;</p> <p><b>Diverting</b> – means to, in any manner, cause the instream flow of water to be rerouted, temporarily or permanently;</p> <p><b>Discharging</b> - waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;</p> <p><b>Disposing of waste</b> - in a manner which may detrimentally impact on a water resource; and which contains waste from, or which has been heated in, any industrial or power generation process;</p> <p><b>Characteristics of a watercourse</b> – means the resource quality of a watercourse, within the extent of a watercourse, including altering the bed, banks, course or characteristics of a watercourse</p> <p><b>Extent of a watercourse</b> – means:</p>	Yes but with primary focus on impacts on the characteristics of a water course and resource due to adjusted flow regimes	Yes and will require adherence to waste water discharge standards	Yes and will require adherence to waste water discharge standards	Yes and will require adherence to waste water discharge standards

	<p>(a) The outer edge of the 1 in 100-year flood line and / or the delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam; and</p> <p>(b) Wetlands and pans: the delineated boundary (outer temporary zone) of any wetland or pan.</p> <p><b>Regulated area of a watercourse</b> – for section 21(c) or (i) water uses, means:</p> <p>(a) The outer edge of the 1 in 100-year flood line and / or delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam;</p> <p>(b) In the absence of a determined 1 in 100-year flood line or riparian area, the area within 100 m from the edge of a watercourse, where the edge of a watercourse is the first identifiable annual bank fill flood bench (subject to compliance with Section 144 of the Act); or (c) A 500-m radius from the delineated boundary (extent) of any wetland or pan.</p>				
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### 3 PROGRAMME'S CONTRIBUTION TO CLIMATE MITIGATION/ADAPTATION OBJECTIVES

SA has adopted a series of national and global policies, strategies and commitments to combat climate change and as part of its efforts to reduce greenhouse gas emissions, most notably through its SDG commitments, Climate Change Response Strategy and its recent NDC commitments to the UNFCCC.

SA's adaptation communication outlines the following key sectors for adaptation support to be implemented over 2021- 2030: human settlements, agriculture, water and energy. The draft National Climate Change Adaptation Strategy (DFFE, 2017) places emphasis on the need for improved adaptation planning to support national development aspirations as a key goal for the strategy. In support of this the National Climate Change Response White Paper states that the water sector is a critical component of climate change mitigation and adaptation. The National Climate Change Response Strategy for the Water Sector (DWS, 2014) outlined that good water management as a critical foundation for adaptation to water-related climate change impacts.

The WRP will contribute to address the challenge of growing water scarcity in South African municipalities, in the face of climate change. While national strategic instruments call for water reuse to address water security due to climate change, there is still no strategic initiative to drive water reuse, and as such the WRP is of national importance as part of the broader NWP. It is designed to tackle a number of barriers, including the lack of an integrated approach to natural resource management, competition and trade-offs amongst water users, and inequitable and uneven access to water. Current water usage in South Africa is estimated to be split between agriculture (62%), municipal use (27%), of which urban use comprises 24% and rural use only 3%, industry (3%), forestry (3%), energy (2%), mining (3%), and watering and nature conservation (2%) (GreenCape, 2020). Water is unevenly distributed across the country and is not always available where needed most, resulting in constraints in several highly populated municipalities and settlements, and key economic nodes.

There is also extreme inequality in access to water for productive purposes. These challenges are enhanced by deteriorating quality of water in South Africa's major river systems, water storage reservoirs, and ground water resources – the core water supply systems that underpin social and economic development in South Africa. There is robust evidence on where climate change-linked water supply vulnerability overlaps with socio-economic, physical, economic, and environmental vulnerability in South Africa, which will be a consideration in the roll-out of the WRP, so that it is able to benefit vulnerable groups. Beyond these barriers, the WRP will also address challenges around infrastructure, governance and institutional capacity.

The WRP will work synergistically with other critical water management interventions in the Master Plan and the National Water Conservation and Water Demand Management Programme, its primary focus is to support climate change adaptation through water reuse. This will significantly improve resource use efficiencies by promoting climate smart designs that result in improved services to vulnerable communities, and the optimising

of scarce water resources especially in light of South Africa's drier future and increase likelihood of multi-year droughts.

As part of the response to South Africa's vulnerability to climate change, the WRP supports a low-carbon and climate adaptive development pathway in five ways, by:

- Increasing water availability through improved natural, technical, institutional system efficiency.
- Broadening treatment options by developing technologies that lead to more resilient systems, link water quality to its intended use and incorporate managed natural systems into urban/rural water infrastructure.
- Considering wastewater as a resource through energy and nutrient recovery.
- Establishing an enabling environment by explicitly addressing institutional, and financial challenges related to a need to account for nonmonetary benefits, manage trade-offs among alternatives and more effectively engage stakeholders.
- Adopting a holistic ecosystem-based approach and promoting nature-based solutions to service delivery, the WRP will be aligned to the GCF's objective of providing equitable and effective results to both women and men will aim to mitigate risks for women and reduce gender gaps, including the identification of additional programme activities that offer opportunities to do so.

The WRP will contribute to South Africa's efforts on climate change adaptation and accelerate the transition to climate-resilient sustainable development. The interventions undertaken in the WRP will support the implementation of South Africa's National Climate Change Adaptation Strategy.

## 4 ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

The market study (Annexure 2 to the Funding Proposal) outlines a range of opportunities and barriers regarding the implementation of water reuse sub-projects. This will require addressing both social and environmental barriers to develop advanced solutions that are both socially acceptable and environmentally sustainable. This must be undertaken in conjunction ensuring that political and legal barriers are also addressed (Figure 6).

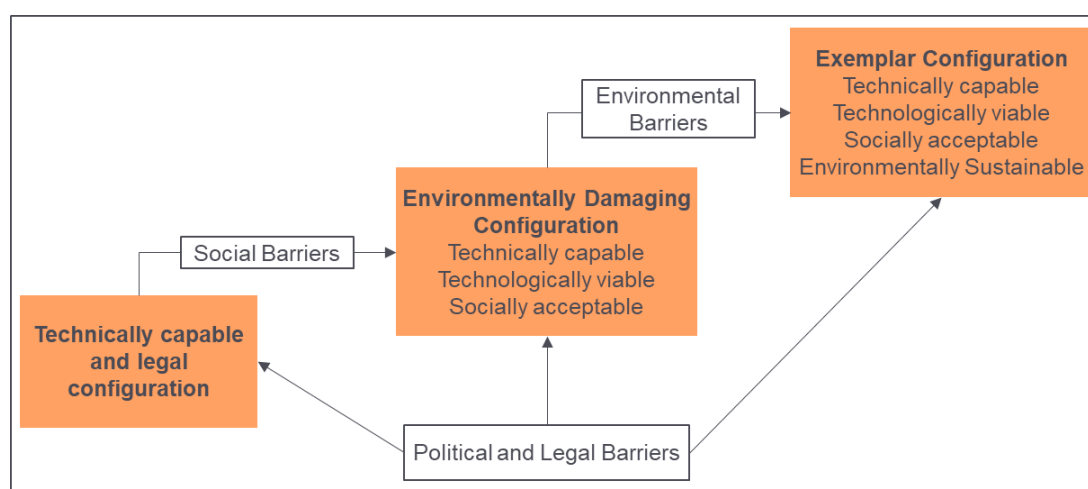


Figure 6: Addressing barriers systematically to lead towards an advanced, exemplar configurations for water reuse sub-projects

The environmental and social management framework providing herein, gives the tools and approach that the WRP will utilise to assess the environmental and social impacts of each water reuse sub-project, providing the various management instruments (as outlined in the sections above) to address and mitigate challenges and conflicts towards ensuring sub-projects are exemplar in their configuration.

The necessary impact assessments and resultant action plans will need to consider these water reuse sub-projects within their catchment and landscape contexts noting their linkage to associated and potentially 'downstream' facilities depending on the nature of the water reuse sub-project.

### 4.1 ENVIRONMENTAL AND SOCIAL RISK APPRAISAL FOR THE PROGRAMME

In accordance with GCF policy it is required to screen activities that include programmes, sub-projects and subsub-projects, and following the result of the screening, to assign appropriate risk categories consistent with their environmental and social management systems and the GCF ESS standards. This screening is captured in Table 11.

Table 11: Environmental and social screening of the WRP

Component	1 – Establish a WRP and project pipeline		2 – Implementing water reuse sub-projects		3 – Building capacity and creating awareness	
Sub-Component	1.1: Establishment and Operationalisation of the WRP	1.2: Project pipeline preparation	2.1: Provision of Technical Assistance for Sub-project Implementation	2.2: Development of the Blended Financing Solutions	3.1: Communications and awareness creation	3.2: Strengthen institutional and regulatory frameworks
<b>Assessment and management of environmental and social risks and impacts</b>						
Will the activities involve transboundary impacts on air, water or other natural resources?	No, this will have a national focus	No, support for sub-project preparation will be at municipal scale	No, support for sub-project preparation will be at municipal scale	No, support for sub-project preparation will be at municipal scale	No, this will have a national focus	No, this will have a national focus
Are the activities likely to contribute to cumulative impacts?	No, this will only focus on establishing the WRP	No, this will only focus on sub-project preparation and support municipal capacity	No, while each sub-project will result in less water discharge back into the system, this will also mean less abstraction. Brine and sludge management will be localised and sludge beneficiation will be explored for all sub-projects	No, this will be focused on the crowding-in different sources of finance	No, this is focused on improving awareness and capacity regarding water reuse	No, focus is on strengthening the institutional and regulatory competencies
Will the activities involve associated facilities and third-party impacts?	No	No	Directly in that upstream WWTW will need to improve the quality of their discharge as input. Indirect impact on downstream facilities in that water reuse will adjust the system functioning possibly requiring operational adjustments.	No	No	No
Are the activities likely to induce potential social conflicts?	No	Unlikely at sub-project preparation phase, but there will be stakeholder engagements and mistrust of water reuse could cause some disagreement and conflict.	Possible during construction with an influx of staff and workers which could provide risks associated with GBV and SEAH. Construction can result in some health and safety risk that will need to be managed. In operations phase their can be health ns safety issues around treatment plants, as well as potential SEAH and GBV risks. Use of the DBSA SEAH procedures and gender-	No	Unlikely, but disagreements during awareness creation and stakeholder engagements sessions could result in some conflict, with the scale being limited.	No

Component	1 – Establish a WRP and project pipeline		2 – Implementing water reuse sub-projects		3 – Building capacity and creating awareness	
Sub-Component	1.1: Establishment and Operationalisation of the WRP	1.2: Project pipeline preparation	2.1: Provision of Technical Assistance for Sub-project Implementation	2.2: Development of the Blended Financing Solutions	3.1: Communications and awareness creation	3.2: Strengthen institutional and regulatory frameworks
			based approaches will support the management of these risks.			
Do the accredited entities, executing entities and implementing agencies (grantees, sub-borrowers and proponents) have the capacity to implement the environmental and social management plans/action plans?	Yes, plus the establishment of the WPO will provide additional capacity	Yes, particularly in the Metropolitan Municipalities. Capacity assessments will be undertaken for each sub-project to understand any risks and to build capacity	Yes, plus each sub-project will appoint a Social and Gender Oversight Officer and an Environmental Control Officer to support and management, monitoring and reporting	Yes	Yes with this activity looking to further build this capacity	Yes, with this activity looking at how to strengthen the policy and regulatory aspects relating to water reuse
<b>Labour and working conditions</b>						
Are the activities likely to affect working conditions, particularly in terms of employment, compliance with labour and other laws pertaining to non-discrimination, equal opportunity, child labour, and forced labour of direct, contracted and third-party workers?	No, as staff of the WPO will operate in alignment with the DBSA's internal policies and working conditions.	No, at sub-project preparation phase only consultants through the panel appointments will be supporting. Due diligence will have been performed by the DBSA SCM unit.	Possible in that during construction phase downstream workforces will be employed. DBSA will oversee procurement of contractors through the SCM unit, with each appointment having gone through due diligence assessments. These due diligence assessments will review any risks in terms of labour conditions, community risk and possibilities of SEAH.	No, this is likely to be only a Blended Capital Facilitator	No, at this phase only consultants through the panel appointments will be supporting. Due diligence will have been performed by the DBSA SCM unit.	No, at this phase only consultants through the panel appointments will be supporting. Due diligence will have been performed by the DBSA SCM unit.
Will the activities pose occupational health and safety risks to workers, including supply chain workers?	No, and will be aligned with DBSA policies and compliance regimens	No, not during sub-project preparation stage where is this is largely desk-based work.	Possible during both construction and operational phases of sub-projects. Municipal approaches to ensuring sub-project compliance will be overseen by DBSA. Plus, all institutions and organisations have to adhere to the Occupational Health and	No as this is largely office-based work	No as this is largely office-based work	No as this is largely office-based work

Component	1 – Establish a WRP and project pipeline		2 – Implementing water reuse sub-projects		3 – Building capacity and creating awareness	
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			Safety Act, which is enforced by the Department of Labour.			
<b>Resource efficiency and pollution prevention</b>						
Will the activities generate emissions; discharge pollution into water and land; generate activity related greenhouse gas emissions; use hazardous materials; generate noise and vibration; and/or generate waste including hazardous waste?	No as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No as the sub-project preparation support is largely advisory.	Yes. During sub-project construction there is a strong likelihood of localised environmental damage on site including possible silting of rivers as well as dust emissions. ESIA's and ESMPs will put in place mitigation actions. During plant operations there is likely increase in emissions, but each sub-project will be required to quantify this as well as develop mitigation options such as biogas to energy solutions. Localised brine and sludge management will be important, but options for sludge beneficiation will be explored for each sub-project. Importantly, adherence to the National Environmental Management Act and the National Water Act regulates these impacts, and requires monitoring of these and regular compliance reporting	No as this will be desk-based and office bound.	No as this will be largely desk-based and office bound.	No as this will be largely desk-based and office bound.
Are the activities likely to utilize natural resources, including water and energy	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, as the sub-project preparation support is largely advisory.	Yes. Water will be reused after treatment through an advanced treatment plant. This will reduce abstraction of water from the resource. Yes, there will be energy requirements, but during the sub-project	No, as this will be desk-based and office bound.	No, as any outreach event will utilise appropriate facilities while other activities will be desk-based and office bound.	No, as stakeholder engagements will be small in size and the other activities will be desk-based and office bound.

Component	1 – Establish a WRP and project pipeline		2 – Implementing water reuse sub-projects		3 – Building capacity and creating awareness	
Sub-Component	1.1: Establishment and Operationalisation of the WRP	1.2: Project pipeline preparation	2.1: Provision of Technical Assistance for Sub-project Implementation	2.2: Development of the Blended Financing Solutions	3.1: Communications and awareness creation	3.2: Strengthen institutional and regulatory frameworks
			preparation and design the use of biogas to provide sufficient energy to power the plant will be explored and incorporated into the design where feasible.			
Will there be a need to develop and implement measures to reduce pollution and promote sustainable use of resources?	No, but this function will oversee this.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope.	Yes, there will be a need to put in place measures to manage brine and sludge, as well as localise site management. The ESIA and ESMP will detail these measures noting that they are regulated by environmental and water regulatory instruments. These risks are likely to be very localised and with relatively low levels of impact.	No, as this will be desk-based and office bound.	No, but promotion of sustainable resource use will be incorporated in knowledge products, events and forums.	No, but promotion of sustainable resource use will be incorporated into stakeholder engagements and partnerships.
<b>Community health, safety and security</b>						
Will the activities potentially generate risks and impacts on the health and safety of the affected communities, including impacts on ecosystem services affecting the local community health and safety?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	Unlikely, but consultants will engage with communities during sub-project preparation and this could expose them to SEAH risks and the spread of communicable diseases. Due diligence assessments for panel appointments will assist to mitigate this possibility and implementing measures to minimise the spread	Yes, this will generate some risks during construction that could have impact on communities and vulnerable groups. This could introduce safety concerns, reduction of ecosystem goods and services as well as SEAH risks. On site Social and Gender Oversight Officers and Environmental Control Officers will oversee and ensure these risks are managed. The ESIA and ESMP for each sub-project will have identified these and provided management measures	No, as this will be desk-based and office bound.	Unlikely, but events with communities will be planned to prevent and/or minimise the spread of communicable diseases e.g., provision of hand sanitisers, mask-wearing etc.	Unlikely, but engagements with communities will be planned to prevent and/or minimise the spread of communicable diseases e.g., provision of hand sanitisers, mask-wearing etc.

Component	1 – Establish a WRP and project pipeline		2 – Implementing water reuse sub-projects		3 – Building capacity and creating awareness	
Sub-Component	1.1: Establishment and Operationalisation of the WRP	1.2: Project pipeline preparation	2.1: Provision of Technical Assistance for Sub-project Implementation	2.2: Development of the Blended Financing Solutions	3.1: Communications and awareness creation	3.2: Strengthen institutional and regulatory frameworks
		of communicable diseases e.g. social distancing, mask-wearing etc.				
Will the activities increase the risk of sexual exploitation, abuse and harassment?	Unlikely, but there is a possibility that staff in the WPO exploit, abuse or harass other staff, or staff at sub-project level. The WPO will be required to adhere to DBSA's clear policies and guidance in this regard including the disciplinary code. The DBSA IGRM will provide a channel through which affected parties can report such issues.	Unlikely, but there is a possibility that contractors abuse or harass other staff, or staff at sub-project level. The WPO will be required to adhere to DBSA's clear policies and guidance in this regard including the disciplinary code. The WPO will ensure that these policies are applied at sub-project level. The DBSA IGRM will provide a channel through which affected parties can report such issues.	Potentially, with there being SEAH risks during the construction phase amongst construction workers. On site Social and Gender Oversight Officers will oversee and ensure these risks are managed. The ESIA and ESMP for each sub-project will have identified these and provided management measures	No, as this will be desk-based and office bound.	Unlikely, but events and forums with stakeholders can increase the risk of abuse and harassment. Event organisers (WPO, WRU or Sub-project Owners) will oversee and ensure these risks are managed and will be required to adhere to DBSA's clear policies. The DBSA IGRM will provide a channel through which affected parties can report such issues.	Unlikely, but stakeholder engagements can increase the risk of abuse and harassment. WPO, WRU and /or Sub-project Owners will oversee and ensure these risks are managed and will be required to adhere to DBSA's clear policies. The DBSA IGRM will provide a channel through which affected parties can report such issues
Will there be a need for an emergency preparedness and response plan that also outlines how the affected communities will be assisted in emergencies?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope.	Unlikely, but emergency preparedness and response plans may be required during construction.	No, as this will be desk-based and office bound.	Unlikely, but large gatherings for awareness raising events may need such plans. Event organisers will need to ensure that such plans are place by the hosting Institutions / facility.	No, as stakeholder engagements will be small in size and the other activities will be desk-based and office bound.

Component	1 – Establish a WRP and project pipeline		2 – Implementing water reuse sub-projects		3 – Building capacity and creating awareness	
Sub-Component	1.1: Establishment and Operationalisation of the WRP	1.2: Project pipeline preparation	2.1: Provision of Technical Assistance for Sub-project Implementation	2.2: Development of the Blended Financing Solutions	3.1: Communications and awareness creation	3.2: Strengthen institutional and regulatory frameworks
Will there be potential risks posed by the security arrangements and potential conflicts at the sub-project site between the workers and the affected community?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	Unlikely, but there is a possibility of conflict between the contractors and the community at sub-project level. The WPO will be required to adhere to DBSA's clear policies and guidance in this regard including the disciplinary code. The WPO will ensure that these policies are applied at sub-project level. The DBSA IGRM will provide a channel through which affected parties can report such issues.	Unlikely, but is the risk of conflict during the construction phase between contracted services providers and communities. . On site Social Oversight Officers will oversee and ensure these risks are managed. The ESIA and ESMP for each sub-project will have identified these and provided management measures	No, as this will be desk-based and office bound.	Unlikely, but events and forums with communities can increase the risk of conflict. Event organisers (WPO, WRU or Sub-project Owners) will oversee and ensure these risks are managed and will be required to adhere to DBSA's clear policies. The DBSA IGRM will provide a channel through which affected parties can report such issues.	No, as stakeholder engagements will be small in size and the other activities will be desk-based and office bound.
<b>Land acquisition and involuntary resettlement</b>						
Are the activities likely involve the acquisition of lands, land rights or land-use rights through or other expropriation procedures in accordance with the legal system of the country?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope.	Unlikely, sites will be chosen that do not entail expropriation. Alignment and compliance with all related legislation and by-laws will be assured. The ESIA and ESMP for each sub-project will have identified these and provided management measures	No, as this will be desk-based and office bound.	No, but engagements with communities will entail consultation, awareness and transparency if land rights are impacted. This will follow all related legislation and regulations regarding consultation with affected communities.	No, as stakeholder engagements will be small in size and the other activities will be desk-based and office bound.

Component	1 – Establish a WRP and project pipeline		2 – Implementing water reuse sub-projects		3 – Building capacity and creating awareness	
Sub-Component	1.1: Establishment and Operationalisation of the WRP	1.2: Project pipeline preparation	2.1: Provision of Technical Assistance for Sub-project Implementation	2.2: Development of the Blended Financing Solutions	3.1: Communications and awareness creation	3.2: Strengthen institutional and regulatory frameworks
Are the activities likely to alter existing land use and restrict access to natural resources resulting in loss of livelihoods and other economic activities?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope.	Unlikely as site selection will ensure that land use is not negatively impacted or restrict access to resources. Alignment and compliance with all related legislation and by-laws will be assured. The ESIA and ESMP for each sub-project will have identified these and provided management measures	No, as this will be desk-based and office bound.	No, but engagements with communities will entail consultation, awareness and transparency if land rights are impacted. This will follow all related legislation and regulations regarding consultation with affected communities.	No, as stakeholder engagements will be small in size and the other activities will be desk-based and office bound.
<b>Biodiversity conservation and sustainable management of living natural resources</b>						
Is the sub-project or programme likely to be located on modified, natural and/or critical habitats or in protected or internationally recognized ecological areas?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope.	Unlikely as sites will be selected to avoid such areas and the EIA will ensure that such areas are not selected for construction.	No, as this will be desk-based and office bound.	No, any awareness raising events will not be located in such areas while other activities are desk-based and office bound.	No, any stakeholder engagements will not be located in such areas while other activities are desk-based and office bound.
Is the sub-project or programme likely to introduce invasive alien species of flora and fauna, affecting the biodiversity of the area?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope.	No, construction activities do not entail introduction of invasive flora or fauna.	No, as this will be desk-based and office bound.	No, activities do not entail introduction of alien invasive flora or fauna with most being desk-based and office bound.	No, activities do not entail introduction of alien invasive flora or fauna with most being desk-based and office bound.
Is the sub-project or programme likely to have potential impacts on biodiversity (especially critically endangered and/or endangered species, endemic or restricted-range species, and globally significant	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope.	Unlikely as sites will be selected to avoid such risks and the EIA will ensure that such sub-projects will not impact biodiversity, flora or fauna.	No, as this will be desk-based and office bound.	No, activities will not impact biodiversity, flora or fauna with most being desk-based and office bound.	No, activities will not impact biodiversity, flora or fauna with most being desk-based and office bound.

Component	1 – Establish a WRP and project pipeline		2 – Implementing water reuse sub-projects		3 – Building capacity and creating awareness	
Sub-Component	1.1: Establishment and Operationalisation of the WRP	1.2: Project pipeline preparation	2.1: Provision of Technical Assistance for Sub-project Implementation	2.2: Development of the Blended Financing Solutions	3.1: Communications and awareness creation	3.2: Strengthen institutional and regulatory frameworks
migratory or congregatory species) and ecosystem services, including production of living natural resources?						
<b>Indigenous peoples</b>						
Are the activities likely to have impacts on indigenous peoples and communities, such as impacts on lands and natural resources, land tenure and on cultural resources?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope including early engagements with indigenous groups if impacted.	Unlikely and sites will be chosen to avoid negative impacts on indigenous peoples. Alignment and compliance with all related legislation and by-laws will be assured including consultation with indigenous people prior to construction and site selection.	No, as this will be desk-based and office bound.	No, but engagements with indigenous people will entail consultation, awareness and transparency if they are impacted. This will follow all related legislation and regulations regarding consultation with affected communities.	No, as stakeholder engagements will be small in size and the other activities will be desk-based and office bound.
Are the activities likely to lead to physical displacement of indigenous peoples and/or restrict the access of indigenous peoples to lands and resources resulting in loss of livelihood?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope.	No, sites will be chosen to avoid negative impacts on indigenous peoples or displacement of communities.	No, as this will be desk-based and office bound.	No, activities will not impact indigenous peoples with most being desk-based and office bound.	No, activities will not impact indigenous peoples with most being desk-based and office bound.
Will the activities provide equitable opportunities to indigenous peoples and other vulnerable groups during stakeholder consultation and in decision-making during the preparation, implementation, monitoring and evaluation of the activities?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	Yes, the sub-project preparation stage will explore ways that this can be included in the sub-project scope.	Likely, construction activities will look at ways to benefit indigenous people and vulnerable communities and include them in consultations and decision-making processes (where appropriate) as well as potential employment opportunities.	No, as this will be desk-based and office bound.	Yes, awareness raising activities will target these groups and will explore ways in which more Inclusive opportunities are provided under the WRP	Likely, stakeholder engagements and strategic outreach will seek to consult with these groups and create a consultative and collaborative approach.

Component	1 – Establish a WRP and project pipeline		2 – Implementing water reuse sub-projects		3 – Building capacity and creating awareness	
Sub-Component	1.1: Establishment and Operationalisation of the WRP	1.2: Project pipeline preparation	2.1: Provision of Technical Assistance for Sub-project Implementation	2.2: Development of the Blended Financing Solutions	3.1: Communications and awareness creation	3.2: Strengthen institutional and regulatory frameworks
Will the activities need to obtain free, prior and informed consent (FPIC)? If so, has the sub-project obtained FPIC?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	Possibly and at the sub-project preparation stage such measures will be included in the sub-project scope.	Possibly and will be planned for during the inception stages of each sub-project.	No, as this will be desk-based and office bound.	Possibly and will be assessed for each type of intervention and engagement. South Africa's POPIA legislation does require prior consent on exchange of personal information.	No not required.
<b>Cultural heritage</b>						
Will the sub-project or programme be located on areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic and religious values or contain features considered as critical cultural heritage?	No, as the activities of the WPO are largely advisory, supportive and ensuring sub-project oversight.	No, but at the sub-project preparation stage such measures will be included in the sub-project scope.	Unlikely as sites will be selected to avoid such areas.	No, as this will be desk-based and office bound.	No, activities will be desk-based and office bound.	No, activities will be desk-based and office bound.

## 4.2 ENVIRONMENTAL AND SOCIAL RISK APPRAISAL PROCEDURE FOR EACH SUB-PROJECT

Each water re-use sub-project that will be supported by this Programme will follow a rigorous appraisal procedure and will require an Environmental and Social Impact Assessment as well as a Gender and SEAH Assessment. This ESMFP has identified the generic programmatic level environmental and social negative impacts and will serve as a guiding document for the implementation of sub-projects.

The ESMFP has determined that the sub-project archetypes may have negative environmental and social impacts, through the screening as well as in Tables 9 and 10. With this in mind, proposed sub-projects should follow a minimum due diligence procedure as follows:

- i. Identify the environmental and social conditions in the targeted municipality along with the applicable ESS safeguards.
- ii. The due diligence for the sub-project must include a dedicated environmental and social risk assessment and must include an assessment of the cumulative impact of the sub-project including aspects such as social conflict.
- iii. Establish the conditions and measures required to ensure that all the negative environmental and social impacts are properly and effectively mitigated.

These archetypes have been outlined in Section 2, above.

## 4.3 CHECKLIST OF ENVIRONMENTAL AND SOCIAL ELIGIBILITY CRITERIA FOR POTENTIAL SUB-PROJECTS

The following checklist should be completed for each water reuse sub-project that will be supported by this Programme to determine the environmental and social eligibility of the sub-projects. If the answer to at least one of these questions is yes, then the sub-project would be classified as a Category 1 sub-project (with potential significant adverse social and/or environmental impacts that are diverse, irreversible, or unprecedented).

1. Would the sub-project displace or involve relocation of more than 50 homes or a population of 200 or more?
2. Would the sub-project encroach or modify or be located inside a protected area of natural habitat?
3. Would the sub-project displace, modify or render inaccessible a cultural heritage site or structure?

4. Would the sub-project be located in the territory of any indigenous people, but that the sub-project would not benefit them?
5. Would the sub-project generate significant amount of waste including hazardous waste that could harm the communities or impair the quality of the receiving environment?
6. Would the sub-project involve activities with potential significant adverse environmental and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible, or unprecedented?

The WRP does not intend to undertake any sub-projects that would be considered Category 1. Nevertheless, this programme will, for all sub-projects require the following:

- An Environmental and Social Scoping report,
- A comprehensive ESIA,
- A detailed ESMP (or similar) and all supporting documentation, setting out the sub-project mitigation measures. Depending on the sub-project scope a Strategic Environmental and Social Assessment and Cumulative Impact Assessment, Environmental / Social Management System and Emergency Preparedness Plan may be required. The ESMP to address any sub-project related GHG emissions and climate change risks. The ESMP to detail sub-project resource use, including at least water and waste usage.
- A SEP outlining:
  - The level of stakeholder support for the sub-project,
  - The free, prior and informed consultation process to be undertaken with key and affected sub-project parties to disclose sub-project risks, impacts and outcomes, and
  - How stakeholder participation in key sub-project design and implementation stages is enabled (aligned with ESS2)
- Any special measures necessary to consult with indigenous peoples and vulnerable groups who may be impacted by the sub-project (aligned with ESS4)
- Measures to apply gender mainstreaming practices in sub-project design and implementation (aligned with ESS3)
- In cases of incidences of Gender-Based Violence and or Sexual Exploitation and Abuse the client will ensure:
  - Reporting and response protocols are in place with specific procedures for Gender Based Violence including confidential reporting with safe and ethical documenting of Gender Based Violence cases, that indicate when and where to report incidents, and what follow up actions will be undertaken, and
  - Modalities are in place to provide services and redress to survivors.

- Sub-project information disclosure mechanisms (aligned with ESS2)
- Grievance and redress mechanism (appropriate in scale to the sub-project risks and adverse impacts) to address any sub-project related grievances including environmental, social, SEAH and GBV.
- Sub-projects with high magnitude/impact will require the use of an independent advisory panel of expertise agreed to by DBSA- and funded by the Client.

## 4.4 CHECKLIST OF ENVIRONMENTAL AND SOCIAL CONDITIONS TO BE FULFILLED DURING SUB-PROJECT DESIGN AND IMPLEMENTATION

During the initial screening, each proposed water reuse sub-project must evaluate the applicability of the DBSA / GCF environmental and social standard safeguards as a first step. As indicated previously, based on the high-level evaluation of the archetypes it is assumed that DBSA ESS Standard 11 would not be applicable to the sub-projects, while safeguards 4, 5, 8 and 9 are possibly applicable and will need to be carefully screened.

Noting that there could be opportunity for additional beneficiation from water reuse sub-projects, these additionalities and their potential impacts will also be required to rigorously apply the environmental and social standard safeguards.

During the initial screening of the sub-projects, the rationale for applicability or non-applicability of each safeguard must be prepared based on Table 11: as show in Table 12.

*Table 12: Initial environmental and social safeguards screening*

DBSA Safeguard Standard	Applicable	Reason	ESS Standard instrument/tool to be implemented
Standard 1: Sub-project Screening: Environmental and Social Risks, Impacts and Opportunities			
Standard 2: Stakeholder Engagement and Information Disclosure			
Standard 3: Gender Mainstreaming			
Standard 4: Indigenous Peoples			
Standard 5: Land Acquisition, Land Use Restrictions and Involuntary Resettlement			
Standard 6: Labour and Working Conditions			
Standard 7: Community Health and Safety			
Standard 8: Cultural Heritage			

Standard 9: Biodiversity Conservation and Sustainable Living Natural Resources Management			
Standard 10: Resource Efficiency, Pollution Prevention and Management			

The questions/aspects listed in Table 13 need to be understood and answered before taking the planning phase considerations into account. In this regard, the DBSA's Environmental and Social Safeguard Standards guideline provides clear steps and considerations for each of the standards. This includes clarity as to the objectives of the standard, responsibilities in terms of implementing each standard, assessment requirements, and documentation requirements, as well as grievance mechanisms.

These guidelines are accessible online through the following link.

<https://www.dbsa.org/sites/default/files/media/documents/2021-03/DBSA%20Environmental%20and%20Social%20Safeguard%20Standards%202020.pdf>

*Table 13 : Additional Environmental and Social information*

Question	Yes or No
1. Does the Municipality own the land where the sub-project is to be implemented?	
2. Are any houses located near the proposed site? What is the distance from the proposed site to the nearest house?	
3. Is there any infrastructure for transportation of effluent to the site or from the site?	
4. Is there any road infrastructure for access to the site? (e.g. asphalt road, gravel road, dirt road)	
5. Is the sub-project located near a Wastewater Treatment Works?	
6. Is the sub-project located near a Water Treatment Plant?	
7. Is the sub-project located near a water body? (e.g. river, lake, pond, wetland – natural or man-made)	
8. Is the sub-project located near a natural protected or conservation area?	
9. Will the sub-project result in a net positive impact and avoid the perpetuation of environmental pollution?	
10. Are there concerns, based upon socio-economic context regarding community safety, SEAH or GBV?	

#### 4.4.1 PLANNING PHASE Considerations Common For All Archetypes

The sites are likely to be located adjacent to existing water treatment or wastewater treatment works which are often disturbed sites and the sub-projects will be in keeping with the existing land use. However, it needs to be acknowledged that some parts of WWTW and WTP may not be disturbed, and these facilities often result in manmade habitat and freshwater features that will need to be assessed in terms of the NEMA EIA

Regulations and other relevant environmental legislation. Table 14 provides site selection and planning phase consideration from an environmental perspective that need to be considered.

*Table 14: Site selection/Planning Phase considerations*

Aspect/Impacts	Guiding Principles for Mitigation
Site selection	<ul style="list-style-type: none"> <li>• Avoid greenfield sites and areas including natural / indigenous vegetation.</li> <li>• Avoid wetlands and watercourses (natural and man-made), wherever possible.</li> <li>• Check site for established fauna and bird habitats (natural and man-made).</li> <li>• Avoid locating site within the proximity of sensitive receptors, such residential neighbourhoods (odour, noise &amp; dust).</li> <li>• Select a site that. is accessible, i.e. avoid construction of new access roads/infrastructure.</li> <li>• Select a site with appropriate zoning and surrounding land use activities.</li> <li>• Ensure site is not protected and will not block or interfere with conservation corridors.</li> </ul>
Integration of EI with chosen water reuse archetype	<p>In selecting the water reuse archetype, during the design phase, has this been integrated with ecological infrastructure and the provision of ecosystem services. Consider whether an ecosystem-based approach may alter the type of water reuse archetype selected.</p>
Legislative processes	<p>Check NEMA regulations to assess if any listed activities are triggered. If activities are triggered the DFFE Screening Tool Report to be generated to understand potential sensitivities and specialist study requirements.</p> <p>If no listed activities are triggered – check biodiversity and freshwater mapping/layers for sensitive vegetation or freshwater features.</p> <ul style="list-style-type: none"> <li>• Check NWA to determine if a WUL or GA may be required.</li> <li>• Check if any NHRA activities are triggered.</li> </ul>
Protection of natural features, biodiversity on selected site and promoting net positive biodiversity and ecosystem benefits	<ul style="list-style-type: none"> <li>• Locate the facility in an area on site which limits vegetation clearance and avoids the unnecessary clearance of vegetation and/or habitat.</li> <li>• Avoid areas within selected sites where there has been no disturbance of vegetation or topsoil in last 10 years.</li> <li>• Identify biodiversity offsets, if applicable, to ensure natural habitats are left with a nett positive impact. However, avoidance of damaging natural habitat should be the primary focus.</li> <li>• Ensure net positive biodiversity/ecosystem benefits over and above legal requirements.</li> <li>• Identify restoration requirements for the site if it is degraded/polluted.</li> <li>• Promote nature-based solutions.</li> </ul>
Treatment phase wastes/effluent	<p>Ensure the site and facility are able to manage/store/process any waste and effluent (types and volumes) emanating from the process to prevent pollution events / impacts on the receiving environment. Due consideration of possible downstream</p>

Aspect/Impacts	Guiding Principles for Mitigation
	water resource and environmental impacts will be required. This will include understanding the downstream infrastructural requirements as a result of the water reuse sub-project and its impacts, dependent also on the reuse archetype which will influence what is, or is not, considered 'downstream'. Under DPR sub-projects this will not include water services reticulation, but under other archetypes these considerations would only be up to the point of discharge.
Protection of natural features, biodiversity	The "Environmental buffer" and any areas where irrigation is planned "for IPR must be included in all environmental and social assessments. The sub-project should result in a net positive impact on catchments and water resources/system and ecosystems (in addition to legal requirements)

Should an Environmental Authorisation and or WUA be required the sub-projects will be subject to the legislative requirements as well as those of the DBSA ESS standards. Should it be established that no further environmental permitting or licensing processes are required the sub-projects can proceed in terms of the ESS requirements. The environmental and social risks and impacts will be assessed for each sub-project and a sub-project ESIA and site specific ESMP will be developed.

It is recommended that as part of the sub-project specific environmental and social screening phase, risks are rated in accordance with accepted DBSA risk rating methodology as provided in Table 15.

## 4.5 MATERIAL RISK SUMMARY

This rating needs to take into consideration the more detailed DBSA/GCF categorisation as indicated in the document under section 2.

*Table 15 : Environmental and Social Material risk rating (Screening Phase) (colour coded as per key below)*

Risk Rating (After mitigation plan) considers likelihood and severity of impact = significance		
High risk (Category 1)	Risk of irreversible harm significant in terms of climate risk, or biodiversity risk and social livelihood risk \potential red flag or fatal flaw	
High within boundaries of DBSA, client and affected parties ability to manage risk and impact (Category 1)	Risk of irreversible harm significant with some opportunity for positive impacts for environment, economy and people and with opportunity to address appropriate mitigation measures for fatal flaws and redflags.	
Medium Risk (Category 2)	Risk is mostly local and or not highly significant	
Low Risk (Category 3)	Risk is minor and can be mitigated or no risk	
Risk examples below	Indicate if short term or long term Construction or Operations or Closure or Supply Chain related	Comments
ESG		
GHG EMISSIONS		
TRANSITION RISK		
PHYSICAL RISK		
NATURAL CAPITAL DEPENDENCIES		

<b>SOCIAL RISK</b>		
<b>INSTITUTIONAL RISK</b>		

## 4.6 DETAILED RISK ASSESSMENT

Provide below in Table 16 is a template to be followed for the risk assessment.

*Table 16: E&S Action Plan and monitoring format*

No.	Recommended Action i.e., additional request: information, desk study, field survey, modelling, mitigation or compensation measures...	Significance / Priority high, moderate, low	Requirement local, Equator Principles <sup>8</sup> (EP)	Parties involved	Schedule		Estimated cost (optional)
					Suggested timeframe	Deadline pre-construction, pre-operation	
	<b>Name of the Action</b> - Objective - Description - Deliverable				<u>Start:</u>  <u>End:</u>		

## 4.7 CONSTRUCTION AND OPERATIONAL PHASE: ENVIRONMENTAL AND SOCIAL RISKS AND POTENTIAL IMPACTS

This section addresses the positive and negative environmental and social impacts associated with each type of water reuse archetype, as well as any additional beneficiation aspects of the sub-project, so that these are considered holistically. The impacts are presented based on the sub-project's phases, construction, operation, and decommissioning of the facility. The construction and operational phase impacts are similar for each type of technology.

This section further identifies generic risks and impacts at a high level for each archetype included in the Programme. The location, natural features and unique geographic and ecological context of each sub-project may result in very site-specific impacts and risks that will also need to be assessed. This impact assessment also does not take into account any pipelines/networks that may be required for the distribution of water to be reused. Nevertheless, following the regulatory requirements of South Africa, and as noted in Table 10: , should pipelines be required then this will be incorporated into the environmental and social assessment.

A number of the impacts can be mitigated/prevented by careful consideration of various aspects during the planning and site selection phases and therefore these impacts and risks must be considered in conjunction with the planning phase considerations.

<sup>8</sup> Please indicate in this section if the requirement is necessary to bridge gaps with local standards or IFC Standards (PS+ relevant EHS guidelines).

It is recommended that as part of the sub-project specific Environmental and Social Impact Assessment, risks are rated in accordance with accepted DBSA risk rating methodology as provided in Table 17. The risk ratings should be used when updating the ESMP to be sub-project specific.

*Table 17: Sub-project Environmental and Social Sustainability Development Impact Rating*

IMPACT RATING		DBSA Risk Category	GCF Risk Category
	Irreversible harm insignificant	1	A
	Negative but mostly local and not highly significant	1	A
	Negative minor and can be mitigated	2	B
	Neutral	2	B
	Co-benefits not articulated into objectives or budgets (faint green)	3	C
	Strategic objective, co-benefit, positive impact, measurable indicator (light green)	3	C
	Principle objective, co-benefit, positive impact, measurable indicator (dark green)	3	C

#### 4.7.1 Positive Environmental and Social Impacts of The Programme

The positive impacts resulting from the implementation of the Programme are:

- Enhanced climate mitigation impact and increased contributions towards a resilient water future
- Reduced abstraction of water from natural resources,
- Increased availability of water as a resource through reuse,
- Job creation,
- Increased awareness and capacity building in terms of Advanced Wastewater Treatment options.

The positive impacts will be direct and indirect.

#### 4.7.2 Potential Negative Environmental and Social Risks

The Programme is aimed at improving the water availability and wastewater management practices. During construction and operation of the proposed facilities, some negative environmental and social risks and impacts might occur. The environmental and social risks and impacts have been assessed at a high level based on the archetypes, and not any required additional infrastructure as this is very contextual in its requirements, and this is presented in the tables below. Nevertheless, the environmental screening and impact assessments will consider carefully all potential related outcomes and impacts. Each of these will be considered on a case-by-case basis at site level. Wherever possible, these impacts will be mitigated by adopting preventative or remedial measures, reducing to a minimum any residual impact. However, this will not include for example the associated impacts of other infrastructural requirements such as the build of water services reticulation networks, water storage reservoirs and so forth. However, as noted before, each sub-project will undertake a thorough assessment that will be cognisant of any upstream and downstream impacts.

Noting the GCF requirement to consider the implications of environmental and social risks across the entire sub-project lifecycle, it must be noted that this juncture the ESMFP covers the initiation, construction and operations, as well as sub-project closure, decommissioning or post-closure management of assets. The typical life expectancy of such advanced treatment plants is estimated at 60 years and within this timeframe it can be reasonably expected that environmental and social safeguard requirements will have been further improved or adjusted. The DBSA's commitment to the use of its safeguard standards will remain and these standards would be applied during such a sub-project closure process.

## Construction Phase Risks and Impacts- All Archetypes

Table 18 below lists the key potential impacts and possible mitigation measures that are to be considered during the construction stage of any of the selected archetypes/ sub-projects. The construction phase impacts have been identified at a programme level as being common for all archetypes.

*Table 18: Impacts and mitigation measures for sub-projects during construction*

Potential Impacts/Risks	Possible mitigation measures
Change in landscape and land use	Good housekeeping and site management to reduce potential negative visual impacts and limit areas disturbed Design of facility to be in keeping of surrounding environment
Visual impact of construction site	Screening of Site Camp visual elements Good housekeeping of the site
Dust	Keep roads clean Ensure vehicle speed limits on site are kept to a minimum and below 20 km/hour Maintain groundcover for as long as possible to reduce the total surface area exposed to wind Wet dry and dusty areas using non-potable water Cover fine material stockpiles
Noise	Limit noise levels (e.g. install and maintain silencers on machinery) Comply with Occupational Health and Safety Act (No. 85 of 1993) regulations regarding noise
Litter and Waste Generation	Manage waste collection areas (weather/windproof and animal proof) Daily litter collection Provision of adequate bins with lids Weekly disposal scheduled Proper management of any hazardous wastes generated
Surface, groundwater, and soil contamination	Ensure use of best available technologies Contain wastewater and sludge before correct disposal e.g. contaminated water discharged into a conservancy tank/lined area Manage run-off and stormwater from construction activities Construction camp to provide adequate sanitation facilities Introduction of best available technologies to support contamination prevention.
Loss of vegetation/habitat and ecological processes/biodiversity	Undertake search and rescue before construction commences Consider establishing a no-go area and habitat/vegetation buffer around the site Limit working area as far as possible where there is natural vegetation
Impact on Existing Site operations (due to shared access road/entrance)	Facility vehicles/staff to have right of way over construction vehicles (including delivery vehicles and subcontractors) Appropriate security controls in place Existing facility and infrastructure to be regarded as a no-go area
Labour	Source labour force locally

Potential Impacts/Risks	Possible mitigation measures
	Ensure SEAH procedures and grievance response mechanisms are in place and operationalised Implement Gender Action Plan recommendations Comply with Occupational Health and Safety Act (No. 85 of 1993)
Community/Stakeholders	Engage with Stakeholders and implement stakeholder engagement plan recommendations
Community safety	Develop community safety plan together with stakeholders.
Sexual abuse, exploitation and sexual harassment	Undertake a sub-project level due diligence of exposure to these risks and develop, implement and monitor an SEAH management plan. A draft management plan outline is provided in Appendix L.

## Operational Phase Risks and Impacts per Archetype

Table 19 below lists the key potential impacts and possible mitigation measures at a high level that are to be considered during the operational stage of any of the selected archetypes/ sub-projects:

*Table 19: Environmental and social risks associated with operational phase impacts*

ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS	APPLICABLE TO PROPOSED ARCHETYPE				POSSIBLE MITIGATION MEASURES
	Direct Potable (DPR)	Indirect Potable (IPR)	Industrial Reuse	Irrigation Reuse	
Visual impact of facility	y	y	y	n	Good housekeeping and maintenance to reduce potential negative visual impacts Visual screening of the site – wall or fence and vegetation around the perimeter Access road and entrance to be swept on a daily basis and kept clean
Noise	y	y	y	n	Limit noise levels (e.g. install and maintain silencers on machinery) Comply with Occupational Health and Safety Act (No. 85 of 1993) regulations regarding noise
Odours and Pests	y	y	y	y	Minimise on-site storage of untreated effluent Maintain treatment/processing systems in good order – Provision shall be made for odour control which are positioned strategically considering the prevailing wind direction at the site Pest control systems shall be installed Operational control measures to be put in place at all times to minimise emissions of offensive odours, pests and vermin.
Litter and Waste Generation	y	y	y	n	Ensure good housekeeping Manage waste collection areas (weather/windproof and animal proof) Daily litter collection Adequate bins with lids Removed packaging and contaminants shall be collected in a skip on site and disposed of periodically at landfill – skip must be emptied before it is full. Skip must have a windproof cover or lid
Surface, groundwater, and soil contamination	y	y	y	y	Prevent leakage and spillage of untreated effluent Implement adequate stormwater management measures. Use of vegetated swale for contaminated stormwater polishing.

ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS	APPLICABLE TO PROPOSED ARCHETYPE				POSSIBLE MITIGATION MEASURES
	Direct Potable (DPR)	Indirect Potable (IPR)	Industrial Reuse	Irrigation Reuse	
					<p>Continual monitoring and visual checks on a daily basis for any signs of spillage, overflows and leakages</p> <p>Groundwater Monitoring Plan to be developed/updated and implemented, existing boreholes can be used for this</p> <p>Prevent all contaminated water and/or effluent from leaving the site. Untreated effluent must be stored in leak resistant containers which must be inspected weekly for early detection of leaks.</p> <p>Monitor water quality of final product water in terms of required re-use standards and based on monitoring programme.</p>
Poor/inconsistent Quality of incoming effluent	y	y	y	y	<p>Ensure quality of incoming effluent meets requirements</p> <p>Maintain correct operational requirements for pathogen removal.</p> <p>Ensure facility is operating correctly – efficiently and effectively.</p> <p>Manage quality and type of incoming effluent accepted</p>
Loss of vegetation/habitat and ecological processes/biodiversity	y	y	n	y	<p>Include monitoring requirements for Environmental buffer and areas being irrigated to ensure re-used water meets required quality standards.</p> <p>Maintain biodiversity offsets or restoration of the site.</p>
Poor/no monitoring and measuring	y	y	y	y	<p>Ensure that all infrastructure required for monitoring and measuring is installed and calibrated/maintained as required e.g. weighbridge, lab equipment.</p> <p>Systems for monitoring and measuring must be out in place prior to the commencement of the sub-project activities.</p> <p>Ensure required monitoring protocols are adhered.</p> <p>Adhere to the monitoring, auditing and reporting requirements set out in the ESMP and legislation.</p> <p>Ensure staff are adequately trained to undertake monitoring and measuring as well as interpret information and take action as/if required.</p>
No/Low demand	y	y	y	y	<p>Responsibility needs to be assigned for securing markets for the reuse of water. This is not a once-off mitigation measure but will require an ongoing and concerted effort. Municipalities will need to ensure internal buy-in to allow for 'internal' reuse in municipal parks and municipal owned properties.</p>
Contamination	y	y	y	y	<p>Work with DWS and South African Bureau of standards to improve discharge standards for water reuse including CECs</p> <p>Ensure monitoring and measuring on an ongoing and continuous basis so the water quality standards are met.</p> <p>Put procedures in place should standards not be met.</p>
Health and safety risks	y	y	y	y	<p>Comply with Occupational Health and Safety Act (No. 85 of 1993)</p> <p>Implementation of health and safety procedures for the staff working on the site (respiratory protection, vaccinations, PPE).</p> <p>Continuous education and awareness to residents and businesses</p>
Lack of available water or electricity	y	y	y	y	<p>Ensure a water risk, mitigation and contingency plan for advanced treatment plants.</p> <p>Implement preventive maintenance plans.</p>
Machinery breakdown, strikes, etc.	y	y	y	n	<p>Plant and equipment maintenance schedules to be built into programme</p> <p>Parts must be locally available</p> <p>Skilled mechanics to be identified</p>

ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS	APPLICABLE TO PROPOSED ARCHETYPE				POSSIBLE MITIGATION MEASURES
	Direct Potable (DPR)	Indirect Potable (IPR)	Industrial Reuse	Irrigation Reuse	
					Regular checks of machinery and equipment
Excessive feedstock/incoming effluent	y	y	y	y	Operational measures must be put in place to manage excessive feedstock or implement storage if required. Excessive feedstock should not compromise quality standards.
Poor quality product	y	y	y	y	Operational measures must be put in place to manage poor quality product before it is released for use.
Labour	y	y	y	y	Source labour force locally Ensure SEAH procedures and grievance response mechanisms are in place and operationalised Implement Gender Action Plan recommendations Comply with Occupational Health and Safety Act (No. 85 of 1993)
Community/ Stakeholders	y	y	y	y	Engage with Stakeholders and implement operational phase stakeholder engagement plan recommendations
Sexual abuse, exploitation and sexual harassment	y	y	y	y	Undertake a sub-project level due diligence of exposure to these risks and develop, implement and monitor an SEAH management plan
Water quality standards adherence	y	y	y	y	Undertake regular monitoring and reporting as per regulatory requirement including drinking water regulations (SANS 241 and recently published water reuse standards based upon the Californian standards) Regular compliance monitoring in terms of water use license requirements

## 4.8 RESPONSIBILITY TO IMPLEMENT THE ESMFP

A key element of the success of the WRP will be the establishment of an effective and efficient WPO. The WPO as the lead entity for the WRP will play a central role in initiating, procuring and overseeing interventions undertaken by the Programme. The WPO as being recognized for its technical expertise, planning ability, sub-project management capability, financial competencies, trusted delivery and accepted by stakeholders as a reliable entity. The WPO will be supported by the AE (DBSA) and its current monitoring and evaluation unit in tracking progress and ensuring compliance with safeguards and standards. This monitoring and evaluation will take place across the sub-project lifecycle from initiation, development, construction and operations, and sub-project closure. It is important to note that the DBSA ESS guidelines do cover closure/ decommissioning and notes the need to:

- Decommission and rehabilitate temporary sub-project facilities no longer necessary to the sub-project in accordance with a site – specific closure plan;

- Address site clearance, equipment removal of all, appropriate waste materials disposal, soil ripping and re - grade as necessary; and
- Ensure integrated land and water resource management approaches are intended to remain in place for an indefinite or prolonged period. Prepare closure or decommissioning plans at an appropriate timescale to align to this period.

The WPO will therefore be responsible for implementation of current ESMFP. The WPO will be supported by a team of Implementing Consultants that will be responsible for development of feasibility studies and implementing each sub-project including the Environmental and Social Due Diligence components, the ESMPs and the Gender and Stakeholder Engagement Plans.

Once a sub-project based ESMP is developed, its implementation will be shared between the involved parties in the construction of the new facility: the programme office, implementing consultants, local municipality, resident engineer, contractors and Environmental Control Officer (ECO).

Monitoring and auditing requirements have been set out the ESMP for the Operational Phase to manage impacts and ensure mitigation measures are implemented. This will include the need for participatory monitoring of progress and impact at sub-project levels. Furthermore, the regulatory requirements will also guide the monitoring and reporting requirements both from an environmental and water perspective. This will ensure compliance with these requirements. In addition to this all sub-projects will require annual reviews and mid-term reviews with supporting reports.

The roles and responsibilities for environmental and social assessments, as outlined in the DBSA's safeguard guidelines are provided in Table 20, below. These will be applied to all sub-projects. In addition, a DBSA DRT will be completed for each sub-project and reported against. An example of the template is provided in Appendix B.

*Table 20: Environmental and Social Assessment responsibilities*

Institution	Roles and Responsibilities					
	Element	Screening	Sub-project	Agreement	Implementation	Closure
<b>DBSA</b>	Actions	<ul style="list-style-type: none"> <li>▪ Screen sub-project according to DBSA ESSs</li> <li>▪ Categorise Sub-project as per DBSA Environmental and Social risk categorisation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scope and prepare sub-project appraisal ensuring it aligns with DBSA policy, procedures and ESSs</li> <li>▪ Prepare a TOR and involve specialists if required and commission work</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure loan terms and conditions comply with DBSA Policy and address ESS requirements</li> <li>▪ Include the ESIA/ESMP and sub-project documents in loan or grant agreement</li> </ul>	<ul style="list-style-type: none"> <li>▪ Surveillance</li> <li>▪ Monitor the Agreement &amp; ESMP</li> <li>▪ In the event that client comply, review documents with stakeholders</li> <li>▪ Include relevant sector analysts in site visits</li> </ul>	<ul style="list-style-type: none"> <li>▪ Include relevant analysts in the completion monitoring team and prepare completion report</li> <li>▪ Undertake desktop audits for select sub-projects</li> </ul>

						<ul style="list-style-type: none"> <li>Evaluate select sub-projects</li> </ul>
	Outputs	<ul style="list-style-type: none"> <li>Screening Report to identify sub-project scope &amp; appraisal &amp; information client needs to provide to DBSA</li> <li>DBSA &amp; Client agree on Disclosure Document (indicate DBSA intent to engage in appraisal) and place on the internet or other suitable platform.</li> </ul>	<ul style="list-style-type: none"> <li>Appraise Sub-project</li> <li>Incorporate Environmental &amp; social report into DBSA Appraisal Report, monitoring plans, budget &amp; loan conditions</li> <li>Confirm categorisation</li> <li>Disclose relevant document - ESIA / ESMP / SESA / ESMFP on client / DBSA web or other platform.</li> </ul>	<ul style="list-style-type: none"> <li>Final loan and grant agreement to satisfaction of Client and DBSA</li> </ul>	<ul style="list-style-type: none"> <li>Site visit Report for DBSA management</li> <li>Agreed summary report between DBSA and Client for disclosure as per loan / grant agreement and ESMFP requirements</li> <li>Reports on payment drawdown for DBSA management</li> </ul>	<ul style="list-style-type: none"> <li>Completion Report</li> <li>Desk Audit Reports for select sub-projects</li> <li>Commission External Independent Evaluation Report for select sub-projects</li> </ul>
	Estimated Timeframe	DBSA sector analysts 2 days depending on information available	DBSA sector analysts 5 days depending on information available	DBSA sector analysts 2 days depending on information available	DBSA sector analysts 2 days depending on information available	DBSA sector analysts 2 days depending on information available
Client	Actions	<ul style="list-style-type: none"> <li>Identify and prepare sub-project</li> <li>Seek finances</li> <li>Utilise integrated environmental management tools and methods such as a SESA</li> <li>Ensure sound public authority</li> <li>Engage independent environmental and social specialists</li> <li>Prepare Terms of Reference (TOR) and commission work</li> </ul>	<ul style="list-style-type: none"> <li>Provide sub-project information (e.g. SESA, ESIA, ESMP).</li> <li>Follow relevant legal process to obtain authorisation / permits and licenses.</li> <li>Provide DBSA with information including Basic Assessment, Environmental Integrated Report and ESMP.</li> <li>Update interested &amp; affected party &amp; authorities' inputs.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure Loan Agreement drafted by DBSA satisfies all legal requirements, Client needs and Authority requirements</li> </ul>	<ul style="list-style-type: none"> <li>Monitor Sub-project as per contract documentation</li> <li>Timeously inform all relevant parties if sub-project documents are insufficient to meet arising needs</li> </ul>	
	Outputs	<ul style="list-style-type: none"> <li>Provide DBSA with baseline information</li> </ul>	<ul style="list-style-type: none"> <li>ESIA / ESMP as agreed with DBSA sub-project team</li> </ul>	<ul style="list-style-type: none"> <li>Loan Agreement signed</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring Reports at regular intervals and</li> </ul>	<ul style="list-style-type: none"> <li>Undertake final Closure report</li> </ul>

		<ul style="list-style-type: none"> <li>as per ESSSS requirements</li> <li>▪ Prepare Summary Reports for external interested and affected parties and authorities (such as any EIA related reports)</li> <li>▪ Submit copy of Organisationa I EMS submitted to DBSA</li> </ul>	<ul style="list-style-type: none"> <li>▪ Submit relevant reports required by legislation such as EIA Procedures, Environmental Impact, or Environmental Management Plan</li> <li>▪ Confirm with DBSA that client meets legislative requirements (authorisations , permits and licenses)</li> </ul>		<p>annually Audit reports as per contract documentation</p>	<ul style="list-style-type: none"> <li>▪ Client Sub-project Closure Report submitted to DBSA</li> </ul>
<b>Interested and Affected Parties</b>	<b>Actions</b>	<ul style="list-style-type: none"> <li>▪ Input into sub-project concept via relevant Meetings</li> <li>▪ Provide sub-project input through public engagement processes, EIA procedures,</li> </ul>	<ul style="list-style-type: none"> <li>▪ Engage with client on sub-project concept</li> <li>▪ Participate in sub-project public engagement processes such as SESAs / ESIA</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inputs into sub-project plans via ESIA</li> <li>▪ Participate in sub-project client liaison structures such as Steering Committees, task teams and Forums</li> </ul>	<ul style="list-style-type: none"> <li>▪ Input into sub-project client liaison structures such as the Sub-project Steering Committee, Monitoring Committee, Stakeholder Forum</li> </ul>	<ul style="list-style-type: none"> <li>▪ Respond to sub-project report via Sub-project Steering Committee, Stakeholder Forum and Monitoring Committee</li> </ul>
	<b>Outputs</b>	<ul style="list-style-type: none"> <li>▪ Participate, on Client invitation, in sub-project engagement, design &amp; planning</li> <li>▪ Engage in strategic environmental processes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comments via Client invitation on strategic level</li> <li>▪ Provide inputs on legal procedures such as ESIA regulatory requirements</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comment on sub-project as per legislation governing public participation and as per Client engagement mechanisms such as Steering Committee</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comment on sub-project as per legislation governing public participation and as per Client invitation to engage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comment on sub-project as per legislation governing public participation and as per Client invitation to engage</li> </ul>
<b>National Authority</b>	<b>Actions</b>	<ul style="list-style-type: none"> <li>▪ Monitor and enforce law</li> <li>▪ Ensure sub-project promotes Environmental and social policy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Guide and comment on applicable legislation for sub-project as per Client invitation to engage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comment on sub-project as per legislation and as per Client invitation to engage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comment on sub-project as per legislation and as per Client invitation to engage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comment on sub-project as per legislation and as per Client invitation to engage</li> </ul>
	<b>Outputs</b>	<ul style="list-style-type: none"> <li>▪ Comment on sub-project as per legislation and as per Client invitation to engage National</li> </ul>	<ul style="list-style-type: none"> <li>▪ Integrate sub-project into government priority action plans</li> <li>▪ Authorisation / permits and licenses</li> </ul>	<ul style="list-style-type: none"> <li>▪ Discuss with Client a staged / milestone / developmenta I approach to achieving required permits /</li> </ul>	<ul style="list-style-type: none"> <li>▪ Permitting / licensing and authorisations</li> <li>▪ Monitoring and enforcement</li> </ul>	<ul style="list-style-type: none"> <li>▪ Comment on sub-project impact and lessons learnt</li> <li>▪ Ongoing Permitting / licensing and</li> </ul>

		<p>Frameworks, Policy, Legislation and Standards</p> <ul style="list-style-type: none"> <li>Establish Incentive mechanisms such as green and blue drop systems, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Provide inputs to sub-project via Steering Committee, Forums or task teams</li> </ul>	<p>licenses and authorisations</p> <ul style="list-style-type: none"> <li>Agree on phasing and development approach with key interested and affected parties</li> </ul>		<p>authorisations</p> <ul style="list-style-type: none"> <li>Monitoring and enforcement</li> <li>Enforce legislative requirements</li> </ul>
<b>Regional and Local Authorities</b>	<b>Actions</b>	<ul style="list-style-type: none"> <li>Ensure local Bylaws and standards Integrated Development and Sector Plans</li> </ul>	<ul style="list-style-type: none"> <li>As above but on a local scale</li> </ul>	<ul style="list-style-type: none"> <li>As above but on a local scale</li> </ul>	<ul style="list-style-type: none"> <li>Monitor and participate in Steering-Committee, forums and task teams as necessary</li> </ul>	<ul style="list-style-type: none"> <li>Comment on sub-project impact and quality of process and lessons learnt</li> <li>Ongoing monitoring and reporting</li> </ul>
	<b>Outputs</b>	<ul style="list-style-type: none"> <li>Comment on sub-project as per legislation and as per Client invitation to engage</li> </ul>	<ul style="list-style-type: none"> <li>Comment on as per legislation and as per Client invitation to engage</li> </ul>	<ul style="list-style-type: none"> <li>Comments on sub-project process and or substance as per legislation and as per Client invitation to engage</li> </ul>	<ul style="list-style-type: none"> <li>Comment on as per legislation and as per Client invitation to engage</li> </ul>	<ul style="list-style-type: none"> <li>Comment on as per legislation and as per Client invitation to engage</li> </ul>

## 5 GENDER AND STAKEHOLDER ENGAGEMENT

### 5.1 GENDER ACTION PLAN FOR THE PROGRAMME

The WRP is committed to applying a gender lens to its sub-project design and execution. The team is also acutely aware of the possible failures that may occur when limited consideration is applied to understanding the gender inequalities in a country and at a programme level. These inequalities will hamper the effective implementation of the programme and reap unintended consequences for those most vulnerable in society if they are not adequately addressed.

Based on the Findings above, Gender integration needs to happen at two levels;

- I. **Programme Level** - The Programme is to provide the broader overarching: framework and mechanisms for gender integration.
- II. **Sub-project Level** – This level should address the specific genders gaps in the localities identified.

The actions that are needed to be addressed in these levels are presented below.

#### 5.1. PROGRAMME-LEVEL INTERVENTIONS

##### A. Planning and Governance

**A.1. Embed gender considerations in the establishment and operationalisation of the WPO:** such as targets on the percentage of women in decision-making positions at varying levels and points of programme implementation. There will also be human resource targets set to ensure that modernisation of technology does not adversely impact the economic empowerment of women. Contract documents will include gender responsive clauses outlining the contractor's responsibility for the health and safety of all workers. Enforceable accountability measures assist in the effective promotion of integration of gender considerations at the personal, unit and institutional levels.

**A.2 Engendered procurement:** This includes ensuring that procurement and contracting processes are governed by labour laws and mandates equal wages for an equal value of work. Additional considerations include:

- The programme will endeavour to procure equipment from women-led small and medium enterprises during the public procurement process and infusing gender equality throughout the supply chain.
- The programme will attempt to support corporate supply chain diversification in line with environmental, social and governance considerations.
- The programme will endeavour to procure technology that is tested with a gendered approach.
- The programme will apply gender provisions as required in BBBEE Acts and labour provisions will be adhered to and improved on where possible.

- These targets/guidelines will be included in the framework/guidelines of sub-project specific gender action plans and the WRP will require sub-project sponsors to look at these elements when they prepare GAPs for their sub-projects.

**A.3. Budget for gender activities:** A ringfenced budget is implemented at the programme level that enables the listed initiatives to be realised. Without a firm financial commitment, there is a possibility that the activities will be side-lined until, or if, a budget is made available. A ringfenced budget ensures that financial parameters are set, and the activities are manageable and implemented without financial limitations. This budget needs to link to staffing, planning and operationalisation of activities.

## **B. Capacity Building and Awareness**

**B.1. Engender WRP brand development and communications strategies:** The public awareness campaigns during the implementation phase of the programme will consider the low uptake and buy-in from the community to water reuse. The campaigns will highlight points that will ease the various gender-related issues that may be perceived from the use of the water, e.g., menstruation, the use of chemicals at the advanced technological treatment plant etc., and how it will not adversely affect women physically, biologically, and physiologically. Throughout the design and implementation phases, the sub-project managers from the programme management office will safeguard that GESI implications are consistently discussed and brought up as a standing point to all the meetings, both internally and with stakeholders. This will ensure legitimacy that GESI is not brought in as a ‘tick box’ exercise for the programme but as a key component to being analysed and discussed. This will also include the stakeholder engagement plan.

**B.2. Develop gender-focussed knowledge products:** The interventions aimed at addressing the gender specific needs of women and girls in the anticipated sub-project areas will be identified during the initial sub-project conceptualisation phase. Progress in the form of specific sub-project outputs, outcomes will be measured consistently throughout all the sub-projects falling under this programme. The team will thus develop knowledge-products that address the impacts of water insecurity on women and girls and adapt the challenges to solutions to drive gender-responsive interventions. The knowledge products will also aid in the effectiveness of different types of water sub-projects in addressing gender inequalities related to water insecurity.

**B.3. Strengthen institutional capacity and awareness:** The programme will ensure that there is institutional awareness in the WPO and municipalities that promote gender equality. Capacity building and training programmes will aim to promote institutional awareness of the gender implications of water infrastructure. During the implementation stage, gender specialists and environmental and social experts will be secured to assist with community development and addressing gender equality issues that the sub-project team may confront. The experts will also drive training on participation, leadership and management of sanitation, health and hygiene, microplanning, participatory learning methods, self-help group strengthening. Managerial and executive leadership training will be offered internally to support women to participate in key strategic and decision-making roles the programme.

## **C. Monitoring, Evaluation and Reporting**

**C.1. Design of gender framework and monitoring and reporting strategies:** The gender monitoring framework for the programme needs to be flexible enough to incorporate the varying sub-project activities and robust enough to capture important baseline data for tracking the gender considerations at a programme level. The collection of data on both women and men enables the tracking of gender impacts and assessing the programme benefits for women and men.

**C.2. Appoint a gender specialist:** A gender specialist is required to ensure that the objectives of the programme are being translated into the sub-project and local-level interventions. The recruitment timing of this will be dependent on the Water Partners Office establishment and having a strong portfolio of sub-projects underway.

**C.3. Measure gender disaggregated outcomes:** This will include collating data water security, time poverty and household allocation of tasks to assist with measuring progress against meeting the gender-specific data requirements and targets.

**C.4. Undertake continuous monitoring, evaluation, and learning:** Once the programme is in its implementation phase, there will be an opportunity to refine or add activities and interventions that are more relevant and gender sensitive. Knowing the systemic issues will allow the implementation team to design more effective and sustainable outcomes, mirroring the diverse and inclusive needs with a targeted and inclusive approach and response.

## 5.2. SUB-PROJECT-LEVEL INTERVENTIONS

Based on the assessment, the following actions are required at a Sub-project Level. Many of these will be informed by the programme-level framing and requirements. These sub-project-level activities are not budgeted in the Gender Action Plan, as much of these costs will be transferred to sub-project-level budgets once they are initialised.

### A. Planning and Governance

**A.1. Alignment to programme-level gender monitoring framework:** At programme-level, guidance and tools are provided on how sub-project-level gender mainstreaming needs to be done and what targets and indicators need to feed into the programme level gender monitoring framework.

**A.2. Map institutional/governance gender elements at sub-project-level:** The roll out of gender related sub-project interventions will be dependent on the institutional context which varies across the different municipalities. An institutional map of each sub-project will help to better understand the gender elements at the specific municipal level, identify gaps and seek opportunities to align with broader programme interventions.

**A.3. Budget for gender activities:** Gender activities are appropriately resourced at sub-project level in terms of human resources and budgets. This should be outlined in sub-project-level Terms of Reference (ToR).

**A.4. Align to Programme Procurement:** The programme will provide strict guidance on gender-specific procurement requirements. It is important that at sub-project-level, these are adhered to.

## **B. Capacity Building and Awareness**

**B.1. Share Repository of resources, templates, and tools:** The consistent application of the same methods, templates and tools will be used to monitor, track the data that has been collected at a sub-project level and allow for better integration with the programme level gender monitoring framework.

**B.2. Create Awareness:** The sub-projects will combine social protection and water sub-projects with initiatives to sensitise communities about unequal gender relations, encourage gender sensitive allocation of sub-project benefits and empower women in household and community decision-making. If well designed and implemented, sub-projects can provide an opportunity to shift gender norms and encourage behaviour changes. Women can contribute to and lead community decision-making processes, provided that their time, mobility, and social constraints are considered and addressed.

**B.3. Implement training activities:** The programme will actively recognise and address the existing and growing interactions between municipal service sub-projects, job creation, environmental and social protection, water insecurity and gender inequalities. There are already clear areas of overlap between these issues, and the links will only become further entrenched with the increased impacts of climate change and the social exclusion of women from decision-making positions. Failure to acknowledge these links and coordinate action across sectors can reduce or reverse the intended impacts of individual programmes on poverty, vulnerability, water security or female empowerment. Accordingly, the programme will consider training programmes that address these key themes and explain them in an easy to digest and simple fashion. The training programmes will expose municipal officials and key stakeholders to gender terminology and broader consideration so that the burden for reporting and measuring progress to achieving gender equality is not strictly on women but is a requirement for all involved in the sub-project.

## **C. Monitoring, Evaluation and Reporting**

**C.1. Determine the Baseline:** Information on gender and sex-disaggregated data is limited at a local level and relies heavily on work already conducted by a range of different stakeholders. Ensuring that sex-disaggregated data is collected and shared with the initiation of each sub-project is important. This will support and feed into the Programme-Level M&E Framework. Sub-project level ToR's should include this as an update of the gender assessment activity to be undertaken. Budgeting for this will then fall under the sub-project implementation, and not the Programme budget.

### **C.2. Report on M&E activities (with disaggregated data, where available)**

Key activities include:

- Collect sex disaggregated data to track gender equality results and assess gender impacts.
- Monitor access, participation, and benefits among women and men and incorporate remedial action that redresses any gender inequalities in sub-project implementation.

- Ensure women and men can participate in monitoring and / or evaluation processes.
- Integrate gender evaluation questions and components in the Evaluation TORs
- Identify good practices and lessons learned on sub-project outcomes / outputs or activities that promote gender equality and / or women's empowerment.
- Consider and integrate lessons learned from previous sub-projects with gender dimensions into sub-project formulation where relevant.

### 5.3. RISK AND MITIGATION: INDEPENDENT GRIEVANCE MECHANISM

An Independent Grievance Redress Mechanism (IGRM) process will be established to resolve all complaints that arise from the programme. The mechanisms will be aligned with the GCF's independent redress mechanism and experiences. The DBSA has developed an IGRM with the guidelines being available at:

<https://www.dbsa.org/sites/default/files/media/documents/2021-02/DBSA%20Independent%20Grievance%20Redress%20Mechanism.pdf>

Aligned with the DBSA's ESS 2: Grievance Mechanism (as discussed in section 6.3 below), the DBSA provides the objective of the IGRM as being to ensure transparent, fair, equitable and prompt resolution of complaints/grievances from aggrieved parties to increase impact, sustainability and efficiency of the DBSA funded infrastructure sub-projects. The IGRM was designed to:

- Increase the effectiveness of the DBSA governance processes, sub-project operations and sub-project quality;
- Be responsive to the concerns of people adversely affected by sub-projects and programmes funded by the DBSA;
- Provide a platform for transparent, responsive fair and equitable engagement with concerned stakeholders;
- Adopt independent and transparent approach to problem solving;
- Be cost-effective and expeditious in the delivery of just redress; and
- Be complementary to other monitoring, supervision, audit, quality control and evaluation systems of the DBSA.

The IGRM is structured around the core processes of:

- Reporting and lodging;
- Compliance review and investigation; and
- Problem solving and mediation.

While GRMs are to be established at sub-project level, there is allowance for aggrieved parties to submit complaints about the programme through various mechanisms such as public participation community meetings, at the Municipal office and through their Ward Councillors. In addition, members could opt to use

the Municipal Help Desk and Suggestion Box as located at central offices. Municipal Employees can approach their Equity Officer and Labour Relations units through Employee Assistance Programme (under Human Resources), and their relevant trade or professional union.

While the GCF Revised Environmental and Social Policy (RESP) recognises that local or sub-project level grievance mechanism can provide an effective and direct remedy to complainants, and encourages the use of such mechanisms whenever possible, it is noted that complainants will be given direct access to the GCF's independent Redress Mechanism. Persons who allege that they have been affected by activities that do not comply with the DBSA's own policies and procedures will have the right to access the DBSA's own grievance redress mechanisms and/or those at the sub-project level. DBSA and the WPO will oversee these mechanisms to ensure that they are functioning effectively, efficiently, legitimately and independently. The DBSA and the WPO will ensure that grievance redress mechanisms at programme and sub-project level are accessible, equitable, predictable, transparent and allow for continued improvement through learning and experience. The lodging of complaints using the DBSA IRM can be undertake at [complaints@dbsa.org](mailto:complaints@dbsa.org), whilst accessing the GCF's IRM can be undertaken at <https://irm.greenclimate.fund/case-register/file-complaint>. During the initial sub-project initiation phases the means to access sub-project level GRM's will be shared with stakeholders through engagements, as well as being advertised in local newspapers and on-line using the programme level website.

In terms of response to survivors of SEAH, the programme approach will be sensitive and responsive to the needs of these victims. In this regard, sensitivity and discreet action will be imperative. As such, the programme will provide the necessary guidance and support including medical, psychosocial, legal, safety and protection, and reintegration support.

#### 5.4. PROGRAMME STAKEHOLDER ENGAGEMENT

A consultation and stakeholder engagement plan is a formal strategy to communicate with key sub-project-related stakeholders to a) keep them abreast of key developments, b) ensure that their input is considered at critical sub-project junctures and c) ultimately obtain their support for a sub-project. A consultation and stakeholder engagement plan should be developed during the initial phases of a sub-project to enable the achievement of effective engagement and should include the identification of key stakeholders and the prioritisation and structuring of major engagements with key stakeholder groups.

The implementation of the WRP and the sub-projects under the WRP requires the active cooperation and engagement of stakeholders. This will have the positive impact of ensuring that the programme and sub-projects include the richness and diversity of inputs required to make the sub-projects both appropriate and sustainable, but also importantly, this provides the support and cooperation that will later enable the effective and successful implementation of the sub-projects. Noting that there are levels of mistrust with regards to water reuse, these engagement processes will serve to improve awareness and exchange knowledge.

With this in mind, a stakeholder consultation and engagement process can be seen to achieve three key objectives:

- Drawing upon a range of views and perspectives on the nature and causes of challenges, and the various possibilities and opportunities that may exist to address these challenges. Many stakeholders have important information and insights that then provides innovation and diversity that makes the planning process, and sub-project implementation more robust.
- Fostering alignment with the various objectives, plans and activities of the various institutions and bodies so that sub-projects are appropriate, integrated and implementable.
- Generating understanding and ownership amongst a wide range of stakeholders of the overall objectives of the programme and sub-projects and how these deal with challenges and solutions, so that in effect the implementation of sub-projects will be supported and enhanced.

The sub-project undertaken are about addressing climate vulnerability and balancing this with that of environmental sustainability, and therefore interaction with stakeholders is essential to ensure that this integration is possible. Participation can be considered in terms of three variables, namely:

- The **scale** at which stakeholder engagement should be undertaken (national level/ catchments / local levels);
- The **scope** or level of management inputs of stakeholder engagement (programme/sub-projects); and
- The **form** or the depth and extent of stakeholder interaction and input (inform, consult, involve, collaborate)

These variables guide how to conceptualise and best structure participation. Effective stakeholder participation needs to be based upon adequate mechanisms and structures at the programme and sub-project levels, and to a certain extent requires some harmonisation in approach with regards to process to ensure consistency. In debating the appropriate scale at which participation needs to take place, careful consideration of the various implications will be key, and includes logistical issues, financial aspects, power relations and capacity differentials.

In considering the scope of inputs that stakeholders will engage upon, one has to carefully consider the appropriateness of that engagement and the benefit the process will accrue through that engagement. It must be noted that there could be distinct advantages in gaining ownership and buy-in into decisions and approaches at the sub-project level. Certainly, the levels of participation could vary from sub-project to sub-project, and from stakeholder to stakeholder.

When it comes to institutional cooperation, differing types of engagement will be needed depending on the sub-project and institution and its own planning and sub-project imperatives.

- **Incorporation:** The inter-relationships between planning and sub-project processes are relatively independent, but do require some form of consideration and review.

- **Alignment:** Roles and responsibilities are distinct and independent, and therefore do not require harmonisation, but there is a need to be aware of impacts and there needs to be alignment constructed around consultation processes.
- **Harmonisation:** There are close linkages and interfaces so that planning and sub-projects require coherence and consistency. This then requires a more structured process of coordination.
- **Integration:** The institutional linkages are such that effective and efficient implementation requires common action and response. This means that there needs to be a more cooperative process of exchange almost to the extent of joint decision making to ensure integration of plans and approaches.

The participation of stakeholders can take on different forms depending on the nature of the sub-project. This could include:

- **Informing stakeholders:** with very limited discussion or dialogue information is provided to assist the stakeholder understand the various issues and challenges as well as the necessary actions and responses.
- **Consulting stakeholders:** stakeholders get the chance to air their concerns and provide views and perspectives with regards to issues, priorities, objectives and solutions with no real discussion.
- **Involving stakeholders:** stakeholders are provided with the chance to deliberate issues so that their concerns and interests are considered and incorporated.
- **Collaborating with stakeholders:** stakeholders take on responsibilities and working together with officials work towards joint decision making.

For the programme and for each sub-project it will be imperative to:

- Develop a Draft SEP proportionate to the sub-project nature and scale and potential environmental and social risks and impacts, and afford stakeholders the opportunity to engage and agree on the SEP to be adopted during the sub-project implementation stage.
- Ensure that the SEP provides the rules of engagement during sub-project preparation and implementation stages; includes the range and timing of information to be communicated to stakeholders and the type of information to be sought from them; describes measures to address potential and identified obstacles to effective community consultation and meaningful participation; and details how the views of differently affected and vulnerable groupings will be responded to.
- In consultation with the DBSA, implement the Final SEP as agreed upon with the stakeholders.

## 6 OTHER DBSA ENVIRONMENTAL AND SOCIAL SAFEGUARDS

### 6.1 DBSA ESS STANDARD 4: INDIGENOUS GROUPS

DBSA Environmental and Social Safeguard Standard 4 recognizes that Indigenous Peoples in South Africa comprise social groups distinct from mainstream society, who can include the most marginalized and economically, socially, and legally vulnerable community segments in which they reside, thus specific mitigation measures are required when members of the indigenous community are affected by a sub-project.

The Programme will aim to avoid affecting indigenous communities in implementation of sub-projects. However, should the situation arise where future sub-projects impact on indigenous communities, and in such cases the following assessments and actions will need to be implemented.

In the case in which indigenous people are affected by a sub-project, an IPP will be developed.

The IPP should contain the following key elements:

- Summarise sub-project information
- Summarise the social assessment highlighting the sub-projects positive and negative aspects
- Summarise the FPIC results with affected Indigenous Peoples' communities that led them to support the sub-project
- A framework for ensuring FPIC with the affected Indigenous People's communities during sub-project implementation
- An action plan of appropriate measures to ensure that the affected Indigenous Peoples receive social and economic benefits that are culturally appropriate
- Where appropriate, include measures to enhance the Client capacity to cater for Indigenous People's needs
- Where adverse effects have been identified, clear measures (adopted in consultation with the Indigenous Peoples) to avoid, minimise, mitigate or compensate for these effects
- Appropriate grievance procedures drafted and adopted in consultation with the affected Indigenous Peoples
- The cost estimates and financing plan for the IPP
- Mechanisms and benchmarks for sub-project monitoring, evaluation, and reporting on the IPP implementation
- Undertake IPP appraisal whose depth will depend on the sub-project nature, complexity and sub-project components.

It should be noted that DBSA's Exclusion List (i.e. DBSA that should not finance) includes the following sub-projects that the DBSA should not finance:

- Sub-projects that contravene the Constitutional Rights of South Africans and in particular Indigenous Peoples rights.
- Sub-projects that undermine Indigenous Peoples' communities' rights to land, natural resources, language and indigenous knowledge.
- Sub-projects that contravene applicable national and international laws.

## 6.2 DBSA ESS STANDARD 5: RESETTLEMENT FRAMEWORK

DBSA is reluctant to support sub-projects involving resettlement, and very rarely provide financing for sub-projects involving involuntary community displacement. The current Programme includes sub-projects that have limited potential for negative social impacts, especially related to resettlement. Thus, the Programme should include exclusion criteria for sub-projects which restricts access to finance to any sub-project that might require physical resettlement situations.

## 6.3 DBSA ESS STANDARD 2: GRIEVANCE MECHANISM

As documented in the Gender Action Plan an Independent Gender Sensitive Grievance Redress Mechanism process will be established to resolve all complaints that arise from the programme. Specifically, the WRP will establish focused procedures to address grievance with regards to SEAH both at programme and sub-project levels, as highlighted in other sections of this framework (see section 5.3 above and 6.4 below). DBSA is also currently undertaking a process to update and improve its approach to gender mainstreaming and SEAH, with the inclusion of SEAH being a key component of the review and improvement process. The DBSA has provided guidance on the IGRM and this has been operational since 2018 and was reviewed in 2020.

The mechanisms for the WRP will utilise the DBSA's IGRM and will be aligned with the GCF's independent redress mechanism and experiences. The DBSA will only address complaints that meet the eligibility criteria below:

- The grievance must detail the perceived harm, risk of injustice which the Aggrieved Party wishes the DBSA to review which may inter alia include health and safety risks, physical, economic, situational (e.g., employment), and/or social losses and adverse environmental impacts in relation to DBSA funded sub-projects and programmes;
- The grievance must pertain to an active DBSA Financed Sub-project;
- The complaint is submitted by individuals and/or communities, or their representative, who believe that they are or may be affected by an active DBSA financed sub-project; and
- Grievances must be genuine/legitimate and be raised without malice and in good faith.

The DBSA IGRM excludes complaints that address the below matters:

- The procedure will not apply to complaints related to unsuccessful funding outcomes.
- Anonymous complaints;
- Grievance not related to an active DBSA financed sub-project;
- Grievance connected to a DBSA financed sub-project submitted to the IGRM on or after whichever is the later of the following two dates: (a) within two (2) years from the date the complainant became aware of the adverse impacts or (b) within two (2) years from the closure of the DBSA funded sub-project or programme;
- Complaints from unsuccessful bidders in any DBSA procurement process. Bidders who wish to submit queries/complaints pertaining to outcomes of procurement processes should refer to the DBSA Procurement related complaints guidelines;
- Reports of suspected crime including fraud, corruption, and gender-based violence or sexual exploitation, should please make use of DBSA whistleblower platforms;
- A grievance or complaint regarding matters already concluded by the IGRM unless the complainant has submitted new material information or evidence that was unavailable at the time the matter was previously considered by the IGRM;
- A grievance or complaint to gain competitive advantage;
- A grievance or complaint regarding matters relating to the DBSA's activities which are unconnected to a DBSA funded sub-project or programme, such as matters relating to administration and human resource management; and
- A grievance or complaint solely regarding the adequacy of the DBSA operational policies and procedures.

The grievance procedures and disclosures for the WRP will be in accordance with IFC WB DBSA safeguard requirements and the Stakeholder engagement plans based on GEF guidelines will be used as an additional guideline.

## 6.4 DBSA ESS STANDARD 3: GENDER MAINSTREAMING

As a Development Finance Institution, the DBSA is mandated with creating an inclusive and sustainable society through improving the quality of life of all its clients and beneficiaries. This safeguard recognises that all marginalised groups play a vital role in achieving sustainable and inclusive development and further aims to support clients in their efforts to become more gender sensitive and responsive in their work.

The safeguard objectives are to protect women's human rights and comply with international women's and human rights standards and treaties. As well as to identify and prevent potentially direct or indirect sub-project or programme related harm on women, men, girls, and boys. The safeguard is aligned to the GCF's revised Environmental and Social Policy which considers Sexual Abuse, Sexual Exploitation and Sexual Harassment (SEAH) to avoid, and where avoidance is impossible, mitigate the risks of SEAH to people impacted by the GCF-financed activities (GCF, 2021).

The following considerations are addressed in the sub-project preparation phase:

- Include an assessment as to whether women are included in decision-making process throughout the sub-project cycle. Are women beneficiaries or investors on the sub-project and to what extent?
- The sub-project sponsor should ensure that the product is approved by the affected community; that women are included in decision-making committees, that meetings are held at convenient times for men and women, that women are employed on the sub-project and that the development impact of the sub-project is clearly stated beyond just the numbers of women employed.
- Sub-project sponsors could also endeavour to include women investors in their partner teams.

At the sub-project appraisal stage, a gender-responsive social assessment is required that will address the SEAH risks. This includes:

- Examining the sub-project's potential to have negative impacts on individuals who are vulnerable due to gender inequalities, and the potential for women, girls, and sexual and gender minorities to be excluded from the full positive sub-project benefits and that this is considered in sub-project design;
- Undertaking the necessary due diligence assessments and examining areas of risk not limited to the possibility of economic discrimination or exploitation, increased risk of negative impacts on health due to lack of access to services, decreased access to education, sexual exploitation and abuse, domestic violence, decrease in personal safety, increase in unpaid workload, reduction or limitation of resources needed to secure individuals or their households' livelihoods and wellbeing;
- Ensuring that there is a clear organisational commitment to gender mainstreaming and to the protection from sexual exploitation, abuse and sexual harassment;
- Implementing measures are outlined to ensure that safeguarding is ensured with roles and accountability being clear;
- outlining the clear expectations in terms of professional and personal conduct;
- Providing effective and appropriate training and awareness on protection from sexual exploitation, abuse and sexual harassment; and
- Ensuring that there are mechanisms for grievance and responding to concerns using a survivor-centred approach. This will require approved and appropriate governance arrangements, appropriate and safe protocols for reporting, signed codes of conduct for staff, monitoring plans and reporting frameworks.

It will be essential to regularly review the GRM/complaints mechanisms (particularly if uptake/reporting is low). This will ensure they are fit for purpose and accessible to those who may need them, as well as being survivor centred. The importance of enabling multiple complaint channels is understood and recognised where alternative channels are trusted, whilst understanding that all information with regards SEAH grievances must be strictly confidential. As such the tracking of such grievances and their resolution must also be confidential and such information should not be shared beyond the resolution process and the

closure of the case. The review process for the GRM should carefully consider the effectiveness of the mechanism in ensuring this confidentiality.

The DBSA's ESS provide a list of Exclusions that the DBSA should not finance, as follows:

- Sub-projects that contravene the Constitutional Rights of South Africans and in particular Indigenous Peoples rights,
- Sub-projects that undermine Indigenous Peoples' community rights to land, natural resources, language and indigenous knowledge,
- Natural forest harvesting or plantation development that will involve conversion or degradation of critical forest areas or related critical natural habitats, and
- Sub-projects that will significantly convert or degrade critical natural habitats, including forests, and
- Sub-projects that contravene applicable national and international laws.

In addition to these, additional exclusions have been listed in Appendix A.

## 7 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

The ESMP details any sub-project measures, actions and implementation timeframes required to comply with the ESSs and to enable the DBSA to support the sub-project. The DBSA will assist the sub-project client to identify appropriate methods and tools to assess and manage the potential sub-project environmental and social risks and impacts and develop the ESMP. The WPO will develop appropriate guidance for sub-projects to construct the ESMP for both construction and operational phases, across the various sub-project archetypes so as to ensure consistency on the scope of risks and impacts identified by the programme. These guidance instruments will be developed during the programme's establishment phase. This will include guidance on ESIA required at sub-sub-project levels, to inform the preparation of ESMP; to specify the acceptable technical standards applicable; and to indicate the relevant ES safeguards and timeframe.

As such the sub-project clients will adhere to the DBSA and GCF safeguard standards which stipulate the requirements for an ESIA and ESMP, with this also being regulated by national regulatory instruments. Ensuring alignment in the understanding of these requirements and terminology with the client will be important.

During the initial stages of the sub-project the client will have disclosed the results of the environmental screening and the ESIA, that would have led to the development of the ESMP. The Client will disclose the draft ESMP as early as possible, and before sub-project appraisal. The ESMP will take into account the environmental and social assessment findings, the DBSA's environmental and social due diligence, and stakeholder engagement outcomes. It will provide an accurate summary of sub-project environmental and social risks and impacts, outline material performance improvement measures, actions and timeframes necessary to avoid, minimise, reduce or mitigate identified risks and address any gaps in meeting relevant ESS standards. The client will implement, monitor and report on progress in achieving the identified ESMP measures and actions. The WPO will consolidate the progress reporting for all sub-projects and will present this progress reports to the WRP's Oversight Committee, which will include the Department of Water and Sanitation, National Treasury, and the DBSA. The WPO will track all sub-projects and intervene where required to ensure corrective actions are undertaken when needed.

### 7.1 PRE-CONSTRUCTION PHASE

For the purposes of compliance monitoring, all prospective water reuse and treatment facilities should inform the Provincial Authority and the Local Authority (as appropriate, and as per any authorisations and permits) of construction commencing, 90 days prior to commencement.

Due diligence needs to have been conducted to understand what the site specific and local requirements mean in terms of authorisation or permitting needs. The ESIA undertaken in the earlier stages of the sub-project will provide guidance on these requirements and will have guided the development of the ESMP. The ESMP consolidates the measures and actions that must fulfil to address potential sub-project environmental and social risks and impacts in accordance with the mitigation hierarchy and ensures that the sub-project complies with the ESSs in a manner satisfactory to the DBSA and must be updated with any authorisation and permit conditions. The mitigation hierarchy stipulates that sub-projects must:

- Anticipate and avoid risks and impacts;
- Where this is not possible, minimise or reduce risks and impacts to acceptable levels;
- Mitigate risks and impacts which have been minimised or reduced; and
- Where significant residual impacts remain, compensate for, or offset them, where technically and financially feasible.

The due diligence process should include identification and consultation with stakeholders. A record of this must be maintained and will be presented as a report as well as the WPO maintaining a digital record of all sub-projects and the various due diligence assessments over time, noting that these due diligence assessments will be taken at key sub-project stage gates. The level of due diligence required will depend on the level of risk including environmental and social risk identified in the early review phase. This will include:

- Undertaking a detailed sub-project appraisal to determine the sub-project compliance with relevant legislation, client tools used and ability to manage environmental risk as per DBSA ESSs, sub-project GHG screening, and sub-project resource use.
- Identifying sub-project affected communities, assessing level of community organisation & representation, identify sub-project impact on affected communities and beneficiaries, and assessing community readiness to receive the sub-project.

If applicable, proof of provision for any biodiversity or wetland offsets should be provided prior to construction commencing. In accordance with GCF and DBSA protocols, activities should avoid impacts on biodiversity and ecosystem services and compensation or offsets, will be used to mitigate adverse impacts on biodiversity and ecosystems in rare cases and only as a last resort, and only in specific instances. Considerations in this regard include:

- Where all other technically feasible avoidance, minimization or restoration measures have been considered;
- Where this is supported by rigorous sound science;
- Where this is developed in consultation with independent experts; and
- Where long-term management, support, and financing have been secured.

More details regarding the DBSA's approach to offsets can be found at:

<https://www.iucn.org/theme/business-and-biodiversity/our-work/business-approaches-and%20tools/biodiversity-offsets>

## 7.2 CONSTRUCTION PHASE

### 7.2.1 Environmental Management Structure and Responsibility

The implementation of the ESMP will be the responsibility of all parties involved with the construction activities. The Resident Engineer (RE) and the Environmental Control Officer (ECO) will be central to monitoring the Contractor in terms of implementation of the ESMP during the construction phase. Likewise, the social and gender oversight officer will oversee and report upon social, gender and SEAH aspects.

All contracts will include mainstreaming environmental and social safeguards standard requirements, as well as promoting green supply chains and net positive impacts for water biodiversity ecosystem services and gender and climate (both mitigation and adaptation assessments and measures will apply). Regulatory requirements have been outlined in Table 10: , earlier in this report, and contractors will need to ensure compliance with these regulatory requirements.

### Communication Channels

The importance of open communication between all parties mentioned above is emphasised, as the attainment of environmental quality requires a joint effort. With open communication, the role of the ECO should be a positive one - aimed at being proactive in preventing problems - rather than a negative "policing" role when negative impacts have already occurred. Internal communication shall involve interaction between the Sub-project Beneficiary, DBSA & DWS/ WPO, the RE, the ECO and Contractor. External communication shall include discussions with the public and relevant government authorities, if required. A suggested communication structure / organogram applicable during the construction phase of the proposed sub-projects is outlined in Figure 7. This will need to be adapted or updated with sub-project specific requirements.

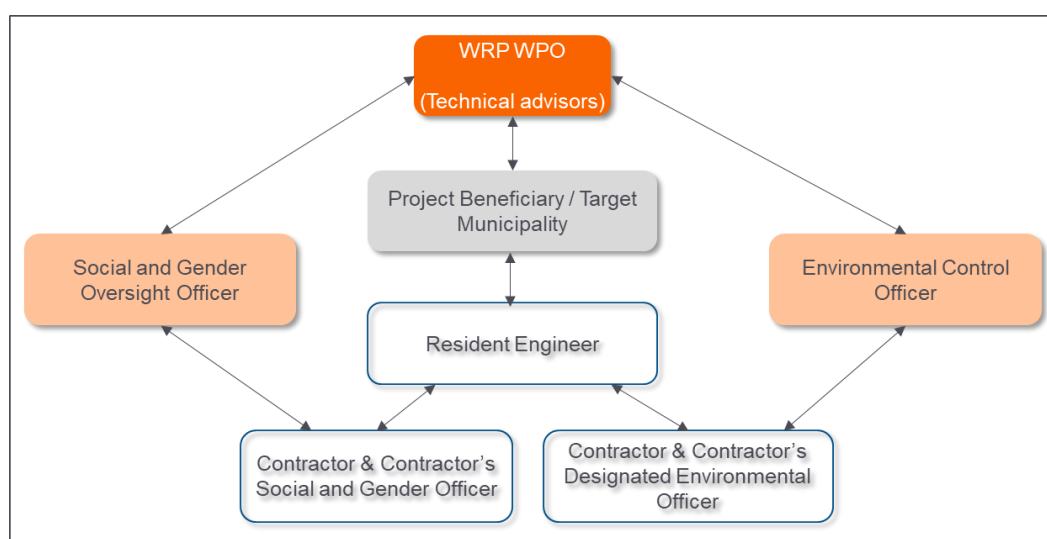


Figure 7: Communications hierarchy during the Construction Phase to ensure implementation of the EMP

Grievance procedures and disclosures will be in accordance with IFC, WB and DBSA safeguard requirements and stakeholder engagement plans based on GEF guidelines will be used as an additional guideline. The DBSA Environmental and Social Safeguard Standards guidance notes the following with regards to grievance.

The scope, scale and type of grievance mechanism required will be proportionate to the nature and scale of the potential sub-project risks and impacts. The grievance mechanism may include the following:

- Different ways in which individuals and groups can submit their grievances which may include submissions in person, by phone, text message, mail, email or via a web site.
- A log where grievances are registered in writing and maintained as a database.
- Publicly advertised procedures, setting out the length of time users can expect to wait for acknowledgement, response and grievance resolution.
- Transparency about the grievance procedure, governing structure and decision makers.
- An appeals process to which grievances may be referred when their resolution has not been achieved.

The approach of the DBSA to grievances and the establishment of GRM's will be the same at sub-project level with the oversight of the DBSA and the WPO. At the outset of this phase of work it is required that each sub-project will, using the precautionary principle:

- Fully assess SEAH risks;
- Consult SEAH risk mitigation options according to the level of risk;
- Select the appropriate mitigation measures and implement these; and
- Monitor the implementation of these mitigation and report on results.

The Client may provide mediation as an option where individuals or groups are not satisfied with the proposed resolution. For all sub-projects, the client will:

- Establish a credible, independent, transparent, effective and empowered local grievance and redress mechanism to receive, facilitate and follow up on the resolution of affected people's grievances and concerns about the sub-project environmental and social performance, and inform the Affected Communities about the mechanism during stakeholder engagement.
- Ensure that the mechanism functions well to receive, respond timeously to Affected Parties complaints regarding Sub-project implementation and seek to resolve such complaints. Complaint measures will not substitute country dispute resolution and redress mechanisms and do not impede Affected Parties access to judicial or administrative remedies.
- The grievance mechanism will, in alignment with the GCF RESP:
  - Be appropriate in scale to the sub-project risks and adverse impacts;
  - Have Affected Communities as its primary user;
  - Use an understandable and transparent consultative process that is culturally appropriate and readily accessible, and at no cost and without retribution to the party that originated the issue or concern;

- Accessible to the stakeholders at all times during the sub-project cycle;
- Provide clear and understandable survivor-centred and gender-responsive SEAH procedures (as noted in section 5.3 above);
- Record all responses to grievances and include findings in sub-project supervision reports, relevant monitoring and review reports.
- Ensure affected communities are informed of the GRM and DBSA contact details in order to facilitate easy communication and submission of complaints, noting that DBSA will oversee these sub-projects. The sub-project owners will:
  - Designate a social and gender officer at sub-project level to work receive and respond to complaints or disputes when required or deemed necessary by any affected parties. Due regard will be given to confidentiality and all submissions will be appropriately channelled through the sub-project level GRM;
  - Specify the complaint mechanism to ensure ease of submission to the GRM and provide multiple communications channels to enable confidential routes for submission;
  - Ensure affected parties have information on the GCFs and DBSA's Accountability and Grievance Systems in a way that is applicable to their language and needs;
  - Build the capacity of stakeholders with regards to the requirements of ESS and SEAH and the role of the GRM in redressing complaints;
  - Notify the DBSA and WPO of any material or operational change that impacts upon the approach to managing risks as well as in the operation of the GRM;
  - Monitor and report to the DBSA through the WPO on progress, process and adaptive management responses to support continued improvement.

In order to establish effective GRMs at sub-project level the DBSA and WPO will:

- Provide guidance to sub-project owners and contractors in developing and implementing measures to manage the risks and impacts identified, particularly with regard to SEAH. The responsibilities of all parties will be clarified to ensure that all the necessary assessments of risks and impacts are conducted, management plans are developed and implemented, information is provided, and the necessary stakeholder engagement and communication is conducted.
- Undertake due diligence assessments at sub-project level the environmental and social management systems and how these are applied, the effectiveness and independence of the GRM, how the disclosure of information is managed, the meaningful and timely consultations with all stakeholders, as well as how the GRM results in effective resolution of cases.
- Provide instructions as to redressive actions required to ensure improvement in the GRM with an associated action plan as needed.
- Expect all sub-projects to monitor and report on the performance of environmental and management systems including the GRM. The DBSA and WPO will provide guidance to all sub-projects as to the specificities and requirements. These monitoring processes are expected to be participatory in nature

and the DBSA and WPO will provide oversight to ensure that these processes are implemented as such. This will thus need to ensure the involvement of communities, local stakeholders, indigenous peoples, and civil society organisations.

- Through these monitoring and reporting mechanisms any changes that are required in approach to such systems and the GRM will need to be timeously communicated to the DBSA and WPO.

### 7.2.2 Roles and Responsibilities

The activity will require the services of an independent ECO to ensure that the ESMP is being complied with during the construction phase. Formal responsibilities are necessary to ensure that the ESMP is effectively implemented. Specific responsibilities of the Beneficiary, RE, ECO and the Contractor for the construction phase of the sub-project are detailed below.

#### Responsibility of the DBSA

As AE the DBSA will be responsible for overseeing the performance of the WPO and as such will ensure that ESMPs, and all measures to mitigate and manage environmental and social risks and impacts and to improve outcomes are implemented, monitored and continuously improved. In addition, the DBSA will through the WPO ensure that the progress and performance are monitored and reported to GCF and its stakeholders throughout the implementation of the GCF-financed activities, in accordance with the monitoring and accountability framework and allowing GCF or GCF-authorized third-party verification of such reports.

Key activities of DBSA as managing agent of the WPO will include:

- Assist with establishment of the WPO;
- WPO will report to the DBSA on all administrative matters;
- Facilitate with the appointment of the OC;
- Finalise the job specs for the Head of the WPO and the appointment thereof;
- Assist WPO Head with staffing organogram;
- Provide administrative and legal mechanism for the appointment of human resource;
- Assist with procurement of goods and services through DBSA SCM;
- Assist with procurement of panels for service provider;
- Enter into legal contracts on behalf of the WPO's functions (both staff and service providers);
- Manage oversight of the operating budget of the WPO, inclusive of external audit;
- Provide ring fenced bank account for WPO;
- Make payments on behalf of WPO;
- Through its Sub-project Preparation Unit, assist the WPO with sub-project preparation activities;

#### Responsibility of the WRP WPO

The WRP WPO is required to adopt, support and comply with the ESMP and take up an advisory role to the sub-project team. Importantly, the WPO has an essential oversight role to ensure that ESMPs, and all

measures to mitigate and manage environmental and social risks and impacts and to improve outcomes are implemented, monitored and continuously improved. Equally, the WPO will ensure that the progress and performance are monitored and reported to GCF and its stakeholders throughout the implementation of the GCF-financed activities, in accordance with the monitoring and accountability framework and allowing GCF or GCF-authorized third-party verification of such reports. It will be incumbent on the Oversight Committee and DBSA to ensure that the WPO has the requisite capacity to perform these functions as well as oversee the performance of the WPO in ensuring effective oversight and due diligence. This will include ensuring that the needed systems to support oversight and due diligence are in place.

An important consideration will be the capacity of the sub-project owner and the contractors to ensure the effective implementation, monitoring and reporting and as such the WPO will oversee all sub-projects to ensure that this capacity and competency is in place.

### **Role of the Sub-project Beneficiary**

The Sub-project Beneficiary/Target Municipality is required to be familiar with the contents of the ESMP, adopt, support and comply with the ESMP.

### **Role of the Resident Engineer**

The RE is required to:

- Be familiar with the contents of the ESMP;
- Liaise with the ECO regarding environmental management and provide the ECO with all relevant documentation and plans;
- Assist the ECO to ensure that the conditions of the ESMP are being adhered to and implemented;
- Assist the ECO in making decisions and finding solutions to environmental problems that may arise during construction;
- Communicate to the Contractor the advice of the ECO and the contents of the ECO reports and issue site instructions giving effect to the ECO requirements, where applicable;
- Communicate to the ECO any infringements of the environmental conditions;
- Discuss with the ECO the application of any penalties and other possible enforcement measures, when necessary;
- Facilitate communication between all role-players in the interest of effective environmental management; and
- Monitor the compliance of the Contractor through the ECO reports.

### **Sub-project Social and Gender Oversight Officer**

This officer will be independent and have expertise in conducting social and gender studies, ensuring compliance and auditing, including knowledge of the supporting legislation and regulations, guidelines and policies related to social, gender and SEAH aspects. The officer must conduct audits in terms of the ESMP

and the GAP for the sub-project. A minimum of one site inspection must be undertaken per month, for the duration of the construction activities.

The Sub-project Social and Gender Oversight Officer will be responsible for monitoring, reviewing and verifying compliance with the ESMP and the GAP by the Contractor. Duties in this regard will include the following:

- Monitor and verify that the ESMP, GAP and programme policies are adhered to at all times and recommending necessary action if the specifications and mitigation measures are not followed;
- Monitor and verify that social and gender impacts are kept to a minimum;
- Must obtain, examine and approve Method Statements to overview processes;
- Assist the Contractor in finding socially responsible solutions to problems;
- Report back on the social and gender issues at the site meetings and other meetings that may be called regarding environmental matters, if required;
- Monitor and review the Site Diary of all activities / incidents / complaints concerning the social and gender aspects on Site;
- Inspect the Site and surrounding working areas regarding compliance with the ESMP;
- Be reachable by the public regarding matters of social and gender concerns as they relate to the development;
- Provide social and gender awareness training for site personnel;
- Recommend corrective actions to the RE and the Contractor where construction activities are not in compliance with the ESMP;
- Inform the RE immediately of the occurrence of non-compliances and recommend appropriate measures of rectification.
- Ensure that activities on Site comply with legislative and regulatory requirements; and
- Undertake monthly site visits, compile and submit monthly reports to the Beneficiary, WPO, RE and Contractor.

## Environmental Control Officer

The ECO must be independent and have expertise in conducting environmental compliance auditing, including knowledge of the environmental legislation and regulations, guidelines and policies related to environmental management. The ECO must conduct audits in terms of the ESMP for the sub-project, these will be undertaken on a quarterly basis. **A minimum of one site inspection must be undertaken per month**, for the duration of the construction activities.

The ECO will be responsible for monitoring, reviewing and verifying compliance with the ESMP by the Contractor, in alignment with the requirements of this ESMFP. The ECO's duties in this regard will include the following:

- Monitor and verify that the ESMP is adhered to at all times and recommending necessary action if the specifications and mitigation measures are not followed;
- Monitor and verify that environmental impacts are kept to a minimum;

- The ECO, along with the RE, must obtain, examine and approve Method Statements;
- Assist the Contractor in finding environmentally responsible solutions to problems;
- Report back on the environmental issues at the site meetings and other meetings that may be called regarding environmental matters, if required;
- Monitor and review the Site Diary of all activities / incidents / complaints concerning the environment on Site;
- Inspect the Site and surrounding working areas regarding compliance with the ESMP;
- Be reachable by the public regarding matters of environmental concerns as they relate to the development;
- Provide environmental awareness training for site personnel;
- Recommend corrective actions to the RE and the Contractor where construction activities are not in compliance with the ESMP;
- Inform the RE immediately of the occurrence of non-compliances and recommend appropriate measures of rectification, e.g. issuing of fines.
- Ensure that activities on Site comply with legislation of relevance to the environment;
- Keep a photographic record of progress on Site from an environmental perspective; and
- Undertake monthly site visits, compile and submit monthly reports to the Beneficiary, WPO, RE and Contractor.

## Contractor

The Contractor has the responsibility to:

- Be familiar with the contents of the ESMP;
- Designate a responsible person for monitoring site activities against the ESMP on a daily basis.
- Communicate to the ECO, at least ten working days in advance, any proposed actions, which may have negative impacts on the environment;
- Designate all working areas and remain within working areas at all times;
- Comply with the environmental conditions contained in this document;
- Ensure that all sub-contractors are aware of and adhere to the requirements of the ESMP at all times in consultation with the Designated Environmental Officer (DEO);
- Compile the required Method Statements in accordance with the ESMP;
- Notify the ECO and RE immediately in the event of any accidental infringements of the ESMP to enable appropriate remedial action to be taken;
- Undertake rehabilitation of all areas affected by construction activities to restore to the original states, as determined by the ECO and in accordance with the ESMP; and
- Maintain a site diary.

## Designated Environmental Officer

The appointed Contractor will be required to appoint a competent individual as the Contractor's on-site Designated Environmental Officer (DEO). The DEO could be the same person monitoring Health and Safety aspects on site as long as they have sufficient environmental management experience. The selected DEO must fully familiarise him-/herself with the contents of this ESMP. The DEO should furthermore possess the necessary skills to confer environmental management to all personnel involved in the contract. The DEO's duties in this regard will include the following:

- Monitor and oversee the Contractor's internal compliance with the ESMP requirements and ensure that the environmental specifications are adhered to;
- Keep a record of all on-site environmental related incidents and how these incidents were dealt with;
- Monitor and verify that environmental impacts are kept to a minimum;
- Inspect the Site and surrounding areas on a daily basis regarding compliance with the ESMP;
- Compile and maintain an incidents and complaints register with regards to environmental issues;
- Undertake environmental awareness training for all new site personnel;
- Accompany the ECO during monthly site visits; and
- Ensure all issues identified by the ECO are rectified on site in a timely manner.

### 7.2.3 REPORTING

The Contractor / DEO must generate an Environmental File for the sub-project that must remain on site for the duration of the sub-project and which should contain all environmental related information, such as the following:

- Copy of ESMP; and any other authorisations or permits;
- Proof / signed attendance register of all environmental training sessions;
- Method Statements;
- Emergency contact numbers;
- Complaints Register;
- Copies of monthly ECO Reports;
- Waste manifests and Safe Disposal Slips;
- Any internal environmental compliance checklists; and
- Record of any incidents on site, outlining remediation undertaken.

The ECO is to provide monthly reports after each site visit. The DEO shall monitor the site daily. Environmental Awareness Training should take place at the start of the sub-project and for all new staff that may join the sub-project.

Due to the length of the sub-project, annual refresher training may be required. Training will also include training in ecological infrastructure for water security across sectors and stakeholders involved to build capacity

in establishing effective feedback networks to rehabilitate areas and protect scarce water resources including catchments, watersheds, riverine systems and wetlands.

#### **7.2.4 ENVIRONMENTAL TRAINING**

Before any construction work commences, all the Contractor's staff shall attend an environmental training session, presented by the ECO with the assistance of the Contractor / DEO. The Contractor shall liaise with the ECO prior to the commencement date to arrange a date and venue for the training. The Contractor shall ensure that all the employees attend the training session. The ECO shall ensure that all attendees sign an attendance register and shall provide the RE with a copy of the attendance register. The Contractor will ensure that follow-up training is conducted for any new employees coming onto Site. The ECO shall provide environmental education material. The environmental training should, as a minimum, include the following:

- The importance of conformance with all environmental policies;
- The environmental impacts, actual or potential, of work activities;
- The environmental benefits of improved personal performance;
- “No-go” areas;
- Roles and responsibilities in achieving conformance with the ESMP;
- The potential consequences of departure from specified operating procedures;
- Worker conduct on-site (for example, but not limited to, no fires or no pets on-site);
- Corrective actions pertaining to non-conformance with the ESMP;
- The mitigation measures required to be implemented when carrying out work activities;
- Management of waste, including both general and hazardous waste;
- Spill clean-up management (using spill kits); and
- Firefighting (using fire extinguishers).

#### **7.2.5 CONSTRUCTION PHASE ENVIRONMENTAL AUDITING**

- The appointed ECO shall visit the site on a monthly basis during the construction phase and produce a monthly report, outlining any non-compliances and recommending corrective actions.
- The DEO shall monitor daily site activities during construction in terms of the ESMP.

#### **7.2.6 EMERGENCY CONTACTS AND RESPONSE**

- The Contractor shall place a list of all emergency contact numbers at the site offices and at any other relevant area. All staff shall be informed of procedures to follow in the case of various emergencies (e.g. fire, hydrocarbon spill, construction incidence, etc.).
- The Contractor must nominate a Health and Safety person who should be responsible for managing any emergency.
- Emergency response systems will also include issues related to catchment management.

## 7.2.7 METHOD STATEMENTS

Method statements from the Contractor may be required for specific activities. A method statement forms the baseline information for work that takes place that may result in environmental impacts. Modifications of the method statements can be negotiated between the Contractor, ECO and the RE as circumstances unfold. All method statements will form part of the ESMP documentation and are subject to compliance by the Contractor. The Contractor may suggest alternative methods / measures, not included in the ESMP, which would need to be approved by the ECO and RE.

Method statements should be submitted at least 7 days prior to the activity taking place. As a minimum, the Method Statements listed in Table 21 shall be provided by the Contractor to the RE and ECO for approval.

Oversight will be undertaken by the WPO, linked to the programme DRT. This will include the support of the DBSA's monitoring and evaluation unit. Where there are reporting and data insufficiencies the WPO will liaise with sub-project owners (i.e. municipalities) to ensure that this is rectified, aligned with contractual arrangements. However, compliance at sub-project level will be undertaken by the Sub-project Owner's sub-project manager, in conjunction with the sub-project engineer, supported by the internal municipal compliance systems. Sub-project level compliance reporting is required on a monthly basis using the programme monitoring and reporting system that the WPO will put in place during the programmes establishment phase. An example of a typical compliance reporting format is provided in Appendix K and this will be formalised but the WPO during the programme's establishment phase.

Noting that the ESIA will identify any data, information and monitoring challenges that may exist, the ESMP will have identified the needed mechanisms to address such issues. In this regard, the WPO will maintain a sub-projects dashboard that tracks all sub-projects and progress, that flags issues requiring redress and tracks actions to ensure redress.

*Table 21: Method Statements required*

METHOD STATEMENT	DETAIL/CONTENT REQUIREMENTS
Site establishment and material handling	Location, preparation and layout of the Contractor's camp must be provided prior to establishment on site. Methods of handling use and storage of construction materials, spoil and material stockpiles, as well as location for all stockpiling. Search and Rescue Plan (if appropriate)
Cement / concrete mixing	Cement powder has a high pH. Spillage of dry cement powder and concrete slurry may adversely affect both soil and water pH. Careless handling of cement products resulting in spillage could have serious detrimental effects on the surrounding environment. Therefore, the following information is required: <ul style="list-style-type: none"> <li>Location, layout and preparation of cement / concrete mixing facilities, including the methods employed for the mixing of concrete and the management of runoff water from such areas.</li> </ul>
Dust and noise	Details on how dust and noise generation will be minimised and managed on site.

METHOD STATEMENT	DETAIL/CONTENT REQUIREMENTS
Handling and management of hazardous substances	<p>The following must be detailed by the Contractor:</p> <ul style="list-style-type: none"> <li>• Methods of handling and the storage of hazardous materials;</li> <li>• Emergency spill procedures and compounds to be used for clean-up/remediation, i.e. oil spill kits;</li> <li>• Material Safety Data Sheets (MSDS) are to be included for all hazardous chemicals stored on site;</li> <li>• Methods and procedures for handling hazardous spills.</li> </ul>
Integrated waste management	<p>Methods to record, manage, store, handle and dispose of waste generated on site, this includes both general and hazardous waste. Waste management should also include measures for recycling and re-use of materials.</p>
Management of Contaminated Water (Wastewater and Effluent)	<p>Methods for the management, handling and disposal of wastewater generated on site.</p>
Emergency Response Plan	<p>Procedures to follow in the case of various emergencies and manage environmental impacts.</p>

### 7.2.8 CORRECTIVE ACTION

The implementation table sets out roles and responsibilities for managing any non-compliance and detailing measures to prevent negative impacts. These have also been detailed in **Error! Reference source not found.** The sub-project client will designate senior officials to compile regular sub-project monitoring reports to submit to the DBSA as per the ESMP specifications. Based on the monitoring results, the client will identify any necessary corrective and preventive actions and incorporate these in an amended ESMP or the relevant management tool, in a manner acceptable to the DBSA. The sub-project client will implement the agreed corrective and preventive actions in accordance with the amended ESMP or relevant management tool and monitor and report on these actions.

Any avoidable non-compliance with the requirements of the ESMP shall be considered sufficient grounds for the imposition of a penalty in consultation with the RE. Possible offences, which could result in the issuing of a penalty, include, but are not limited to:

- Unauthorised entrance into no-go areas.
- Improper management of hydrocarbons/hazardous materials leading to large spills or leaks.
- Improper management and cleaning of ablution facilities where the environment is impacted by spills.
- Insufficient solid waste management (e.g. unauthorised dumping, incorrect disposal, etc.).
- Insufficient fire control and unauthorised fires.

These penalties will be outlined in the contractual arrangements between the DBSA and the sub-project owner, indicating liabilities where offences occur.

## 7.2.9 Generic Construction Phase Implementation and Management Plan

This will be augmented and detailed as applicable for each sub-project dependent on nature of risks, site-specific impacts and scale of sub-project. The risk rating will be required to be updated in accordance with the risk assessment.

This section outlines the potential environmental impacts, the risk ratings, the recommended control measures, responsible parties and monitoring frequency. Where relevant, this table would be updated by the ECO in consultation with the RE and Contractor to ensure that the sub-project activities and responsibilities are correctly assigned once the sub-project commences.

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
<b>VISUAL IMPACTS</b>		<b>Contractor</b>	<b>Low/ Medium/ High</b>
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Impact on aesthetics of the site due to change in landscape and land use.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>The development of the facility would result in visual impact to the site.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Good housekeeping and maintenance to reduce potential negative visual impacts.</li> <li>Roadways must be maintained, accessible and kept clean on a daily basis.</li> <li>Visual screening of the site – wall or fence and vegetation around the perimeter.</li> </ul>		
<b>CONSTRUCTION CAMP ESTABLISHMENT</b>		<b>Contractor / DEO</b>	<b>Low/ Medium/ High</b>
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Disturbance to operational activities if the facility is located at an existing facility.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Ensure location of site camp and material laydown area is located in previously disturbed areas and away from sensitive receptors, e.g. existing on-site activities, area covered with natural vegetation.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 4: Indigenous Peoples</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Location of site camp to be approved by RE and ECO prior to establishment.</li> <li>Incident and complaints register to be generated for sub-project.</li> <li>Site camp to be suitably demarcated.</li> <li>Fencing to include signage displaying relevant warning information and contact numbers.</li> </ul>		

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> <li>Suitable eating areas shall be provided for staff, including safe drinking water and refuse bins with lids.</li> <li>Stormwater management measures must be implemented to ensure water does not drain through the site.</li> <li>Sufficient toilets shall be provided (1 toilet per 15 staff). Toilets to be regularly maintained and properly secured. If chemical toilets are used, ensure no spillage occurs during emptying.</li> <li>Fires for heating, cooking or burning of any materials will not be permitted.</li> <li>Non-potable water to be used for construction activities, as far as possible. Non-potable water to be responsibly sourced and used. Approvals may be required for borehole use or abstraction from a water source.</li> <li>Contractor to implement water saving measures on site to limit water wastage.</li> </ul>		
Evidence	<ul style="list-style-type: none"> <li>Method Statement.</li> <li>Incident and complaints register.</li> </ul>		
SITE / WORKING AREA ESTABLISHMENT		Contractor DEO	Low/ Medium/ High
Potential Impact:	<ul style="list-style-type: none"> <li>Disturbance to operational activities if located at an existing facility.</li> </ul>		
Environmental Objectives	<ul style="list-style-type: none"> <li>Ensure that all construction activities remain within the approved working areas.</li> <li>Ensure any no-go areas are clearly demarcated and staff are made aware of these areas for the duration of the sub-project.</li> </ul>		
ES Safeguard Standard	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 4: Indigenous Peoples</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
Mitigation Measures	<ul style="list-style-type: none"> <li>Contractor to demarcate the working area, as required, prior to construction activities.</li> <li>All construction activities, stockpiling, etc., to remain within identified and approved working areas.</li> <li>Suitable signage to be erected to keep the public outside of construction areas.</li> <li>Any excavations to be adequately demarcated and signposted.</li> <li>Site to be clearly demarcated and sign posted for road users. Contractor to limit delays to traffic as far as possible.</li> <li>Restrict construction impact to site footprint. Demarcate no-go areas.</li> <li>Existing facility vehicles to have right of way over construction vehicles (including delivery vehicles and subcontractors).</li> </ul>		
SOLID WASTE MANAGEMENT		Contractor DEO	Low/ Medium/ High
Potential Impact:	<ul style="list-style-type: none"> <li>Contamination of soil, surface water and groundwater if not properly handled and disposed of.</li> <li>Impact on the environment as a result of littering.</li> </ul>		

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Properly manage all waste types on site and encourage recycling and re-use of materials as far as possible.</li> <li>Ensure correct disposal of all waste generated on site and reduce volume of waste requiring disposal.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 4: Indigenous Peoples</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Compile Method Statement outlining how waste will be managed on site, temporary storage areas, waste types to be recycled, as well as methods of disposal.</li> <li>No on-site burying, burning or dumping of waste is allowed.</li> <li>Different waste types to be stored separately.</li> <li>Contractor to investigate options of “take-back” policies for any materials, packaging, etc., not used on site. Examples could include used pallets, plastic wrapping, etc., prior to recycling materials.</li> </ul> <p><u>General Solid Waste</u></p> <ul style="list-style-type: none"> <li>The site must be kept neat and tidy and free of litter and waste at all times.</li> <li>Solid waste to be temporarily stored in refuse bins with lids, skips, or other suitable enclosed containers.</li> <li>Waste containers to be weather/windproof and animal proof.</li> <li>Solid waste to be disposed of once storage containers are full.</li> <li>Solid waste to be disposed of at a registered landfill site. Disposal slips to be retained.</li> </ul> <p><u>Hazardous Waste</u></p> <ul style="list-style-type: none"> <li>Hazardous waste to be stored in a demarcated area (i.e. impermeable area) prior to disposal.</li> <li>Hazardous waste includes contaminated hydrocarbon soils, oily rags, etc.</li> <li>Hazardous waste to be disposed of at a registered landfill site and proof of safe disposal slips retained.</li> </ul>		
<b>Evidence</b>	<ul style="list-style-type: none"> <li>Method Statement</li> <li>Safe disposal slips</li> </ul>		
<b>SOIL, SURFACE AND GROUNDWATER MANAGEMENT</b>		<b>Contractor DEO</b>	<b>Low/ Medium/ High</b>
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Impact to groundwater and surface water quality.</li> </ul>		

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Prevent contaminated water from entering stormwater channels and groundwater.</li> <li>Contain all contaminated / polluted construction water on-site for safe disposal.</li> <li>Prevent soil contamination.</li> <li>Prevent upstream and/or downstream impacts to the catchment.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 4: Indigenous Peoples</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 8: Cultural Heritage</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<u>Disposal of wastewater</u> <ul style="list-style-type: none"> <li>Compile a Method Statement outlining how wastewater (water containing cement, chemicals, hydrocarbons, paints, etc) will be managed on site, as well as method of disposal.</li> <li>Set-up a contaminated wastewater management system.</li> <li>No contaminated water may be released into the natural ground or off-site. Wastewater shall be removed to a licensed disposal site.</li> <li>Contractor to notify ECO of any pollution incidents on site.</li> </ul>		
<b>Evidence</b>	<ul style="list-style-type: none"> <li>Method Statements.</li> <li>Proof of disposal of contaminated wastewater.</li> </ul>		
DUST MANAGEMENT		Contractor DEO	Low/ Medium/ High
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Impact on visibility for driving, walking, operational activities on-site (if applicable) etc.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Limit dust impacts as far as possible and to an acceptable level.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Exposed surfaces to be limited and monitored for dust.</li> <li>Maintain groundcover for as long as possible to reduce the total surface area exposed to wind.</li> </ul>		

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> <li>Loose material stockpiles (topsoil, sand, etc.) to be located in sheltered areas away from roads or dust control measures, such as covering or wetting, shall be implemented.</li> <li>Non-potable water to be used for dust suppression.</li> <li>Restrict working hours to existing facility operational hours and working hours if residential areas are located nearby.</li> <li>Ensure vehicle speed limits on site are kept to a minimum and below 20 km/hour.</li> </ul>		
<b>Evidence</b>	<ul style="list-style-type: none"> <li>Method Statement.</li> </ul>		
NOISE		Contractor DEO	Low/ Medium/ High
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Noise impacts on people working on site.</li> <li>Noise impacts on neighbours/residential areas near site.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Ensure that noise levels are managed.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Limit noise levels (e.g. install and maintain silencers on machinery)</li> <li>Comply with Occupational Health and Safety Act (No. 85 of 1993) regulations regarding noise.</li> <li>Restrict working hours to regulated working hours in terms of local by-law if residential areas are located nearby.</li> </ul>		
MATERIALS MANAGEMENT AND HANDLING		Contractor DEO	Low/ Medium/ High
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Loss of materials and equipment due to poor management.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Ensure proper management and handling of all materials and equipment.</li> <li>Prevent wastage by poor storage and planning, for example.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 4: Indigenous Peoples</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 8: Cultural Heritage</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Delivery vehicles to be instructed of offloading areas, no-go areas, etc.</li> <li>All materials to be secured during transit.</li> <li>Loads including, but not limited to, sand, asphalt, stone chip and waste materials, shall have appropriate cover to prevent them spilling from the vehicle during transit.</li> <li>All roads must be kept clean of construction materials at all times.</li> <li>All vehicles must adhere to all road rules and speed limits. Construction activities must not cause delays or inconvenience to surrounding users.</li> <li>All manufactured or imported materials shall be stored within the Contractor's site camp, where possible.</li> <li>All stockpiling areas to be agreed upon by the RE and ECO.</li> </ul>		
	<u>Topsoil</u> <ul style="list-style-type: none"> <li>Where applicable, topsoil shall be stripped before bulk earthworks commences and stockpiled separately.</li> <li>Topsoil must not be compacted and should be protected from wind and rain (e.g. wetting, covering, etc.).</li> <li>Topsoil stockpiles should not exceed 2 m in height.</li> <li>Monitor stockpiles for weeds and remove as and when they appear.</li> <li>Topsoil should be used again during rehabilitation of the site.</li> </ul>		
	<u>Spoil</u> <ul style="list-style-type: none"> <li>Spoil stockpiles to be protected from wind and rain (e.g. wetting, covering, etc.).</li> <li>Spoil stockpiles to be clearly separated from topsoil stockpiles.</li> <li>Excess spoil to be disposed of if no alternative options for its use have been identified.</li> </ul>		
HAZARDOUS SUBSTANCES		Contractor DEO	Low/ Medium/ High
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Impact on stormwater systems if any spills occur which are not contained.</li> <li>Impact on workers handling hazardous substances</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Ensure the proper handling, storage and management of hazardous substance to prevent impacts to the natural environment.</li> <li>Ensure correct use of personal protective equipment.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 6: Labour</li> <li>Standard 7: Community health and safety</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Compile a Method Statement detailing hazardous substances, fuels, oils, etc., to be brought to site, storage measures, quantities, refuelling details and disposal methods, as well as a spill response plan and procedures for any spills / incidences.</li> <li>Applicable signage must be in place at all storage areas.</li> </ul>		

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> <li>Staff handling hazardous materials to be trained and provided with correct personal protective equipment.</li> </ul> <p><u>Hazardous Chemicals</u></p> <ul style="list-style-type: none"> <li>Hazardous chemical substances (as defined in Regulations for Hazardous Chemical Substances GN 1179 (1995) and the Occupational Health and Safety Act 181 of 1993) used during construction shall be stored in designated storage areas, when not in use.</li> <li>Relevant Material Safety Datasheets (MSDS) must be available on site for all hazardous substances.</li> <li>Storage areas must be enclosed with lockable access to control and limit access.</li> <li>The surface under the storage area shall be protected against spills (i.e. impermeable) to the satisfaction of the RE and ECO.</li> </ul> <p><u>Fuels and Oils</u></p> <ul style="list-style-type: none"> <li>The Contractor shall ensure that all liquid fuels and oils are stored in containers/jerrycans with lids, which are kept firmly shut.</li> <li>Areas for the storage of fuels and other flammable materials shall comply with standard fire safety regulations. All empty and externally dirty containers/jerrycans, etc., shall be sealed and stored on a waterproof/impermeable surface.</li> <li>Adequate precautions shall be provided to prevent spillage during re-fuelling on site and work areas, e.g. making use of drip trays during re-fuelling.</li> <li>Drip trays to be provided for stationary plant.</li> <li>Old oil to be collected for recycling and stored on an impermeable surface prior to collection by a service provider.</li> </ul>		
<b>Evidence</b>	<ul style="list-style-type: none"> <li>Method Statement.</li> <li>Proof of oil recycling, if applicable.</li> </ul>		
FIRE CONTROL		Contractor DEO	Low/ Medium/ High
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Fire leading to damage to equipment, properties, and leading to injuries, etc.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Prevent damage caused by fire by quick response times.</li> <li>Ensure staff are trained in how to react should a fire breakout.</li> <li>Ensure proper management of hazardous materials.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Contractor to appoint a fire safety officer who shall be responsible for ensuring immediate and appropriate actions in the event of a fire.</li> <li>Basic and appropriate firefighting equipment must be on site at all times that is approved by the local fire services and easily accessible.</li> </ul>		

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> <li>Fire extinguishers to be located in hazardous and fuel storage areas and any other applicable areas.</li> <li>Staff must be trained to use the firefighting equipment.</li> <li>Designated smoking areas must be allocated with containers for cigarette butts.</li> <li>Relevant contact numbers for local firefighting services must be included on the emergency list.</li> </ul>		
EMERGENCY PROCEDURES		Contractor DEO	Low/ Medium/ High
Environmental Objectives	<ul style="list-style-type: none"> <li>Protection of the biophysical environment from hazardous spills.</li> <li>Prevent injury or loss of life as a result of construction activities.</li> <li>Ensure all staff are aware of emergency procedures.</li> </ul>		
ES Safeguard Standard	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
Mitigation Measures	<p><u>General</u></p> <ul style="list-style-type: none"> <li>Contractor to compile an Emergency Response Plan, including all emergency contact numbers, and identifying key designated staff to manage different potential emergencies. <ul style="list-style-type: none"> <li>Ensure inclusion of potential issues related to catchment management impacts.</li> </ul> </li> </ul> <p><u>Hydrocarbon Spills</u></p> <ul style="list-style-type: none"> <li>Compile a Method Statement outlining how hydrocarbon spills will be managed, contained and removed.</li> <li>The site shall have a supply of absorbent material readily available to absorb any incidental emergency hydrocarbon spills.</li> <li>In the event of a spill the source of the spillage shall be isolated, contained using absorbent materials.</li> <li>The clean-up of spills and any damage caused by the spill shall be for the Contractor's account.</li> <li>Employees to be aware of procedures to be followed in the event of a spill or leak.</li> <li>RE and/or ECO to be notified of significant spills.</li> <li>All spills to be reported to DEO and actions undertaken recorded in an incidents and complaints register.</li> <li>Safe disposal slips to be obtained once contaminated area remediated.</li> </ul>		
Evidence	<ul style="list-style-type: none"> <li>Emergency Response Plan (list of emergency contact details and appointed responsible person(s)).</li> <li>Method Statement for hydrocarbon management.</li> <li>Safe disposal slips.</li> </ul>		
EROSION CONTROL		Contractor DEO	Low/ Medium/ High

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
Potential Impact:	<ul style="list-style-type: none"> <li>Loss of topsoil, construction materials.</li> </ul>		
Environmental Objectives	<ul style="list-style-type: none"> <li>To effectively manage stormwater on site to prevent erosion.</li> <li>To prevent upstream and/or downstream impacts to the catchment.</li> </ul>		
ES Safeguard Standard	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
Mitigation Measures	<ul style="list-style-type: none"> <li>Areas susceptible to erosion shall be protected by installing temporary or permanent drainage works as soon as possible to prevent scouring / washing away of slopes or other areas.</li> <li>All runnels or erosion channels developed during construction to be backfilled, compacted and restored to a reasonable condition.</li> <li>Stormwater run-off to be properly managed within all working areas and site camp(s).</li> <li>Contractor to determine appropriate erosion protection measures, if needed, in consultation with the ECO.</li> <li>No polluted run-off must leave the site.</li> </ul>		
CEMENT AND CONCRETE MIXING		Contractor DEO	Low/ Medium/ High
Potential Impact:	<ul style="list-style-type: none"> <li>Impacting natural ground pH balance, which could also negatively impact on groundwater and surface water if cement or concrete enter the stormwater system.</li> </ul>		
Environmental Objectives	<ul style="list-style-type: none"> <li>Proper handling and management of cement and cement wastewater.</li> <li>Prevent wastage.</li> </ul>		
ES Safeguard Standard	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 6: Labour</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
Mitigation Measures	<ul style="list-style-type: none"> <li>Cement must not be mixed directly onto natural ground.</li> <li>Cement must be mixed on an impermeable surface that is large enough to contain the cement and any cement wastewater.</li> <li>All wastewater resulting from cement mixing must be disposed of via a wastewater management system.</li> <li>Cement wastewater storage areas must not be allowed to overflow.</li> <li>Empty cement bags must be stored in weatherproof containers to prevent windblown cement dust and potential stormwater and surface water contamination.</li> <li>Cement bags to be disposed of at a licensed waste disposal facility.</li> <li>Cleaning of equipment and flushing of cement mixers must not result in the pollution of the surrounding environment. All contaminated wastewater must be collected and carefully disposed of in a manner approved by the ECO.</li> </ul>		

Construction Phase: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
TEMPORARY CLOSURE		Contractor / DEO	Low/ Medium/ High
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>To ensure that all materials are properly secured, waste is removed, and the site is clean and tidy.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> </ul>		
<b>Mitigation Measures</b>	<p>Should the site be temporarily closed for longer than 4 days, the ECO must check the site to ensure the following conditions are inspected and report in terms of compliance.</p> <p><u>Fuels / flammables / hazardous material stores</u></p> <ul style="list-style-type: none"> <li>Fuel stores are as low in volume as possible;</li> <li>There are no leaks;</li> <li>The store is secure and locked;</li> <li>Fire extinguishers are serviced and accessible;</li> <li>The area is secure from accidental damage through vehicle collision and the likes; and</li> <li>Emergency contact numbers are available and displayed.</li> </ul> <p><u>Safety</u></p> <ul style="list-style-type: none"> <li>There is an inspection schedule and log for use by security or contracts staff;</li> <li>All trenches are secured, where applicable;</li> <li>Fencing and barriers are in place in accordance with the Occupational Health and Safety Act (No. 85 of 1993);</li> <li>Applicable notice boards are in place and secured;</li> <li>Security personnel have been briefed and have the facilities to contact or be contacted by relevant management and emergency personnel;</li> <li>Night hazards such as reflectors, lighting, traffic signage, etc., have been checked; and</li> <li>Material stockpiles are secured.</li> </ul> <p><u>Water contamination and pollution</u></p> <ul style="list-style-type: none"> <li>Hazardous fuel stores are secure;</li> <li>Cement and materials stores are secure;</li> <li>Toilets are empty and secured. Refuse bins are empty and secured;</li> <li>Drip trays are empty and secure.</li> </ul>		
<b>Evidence</b>	<ul style="list-style-type: none"> <li>Temporary Closedown Checklist.</li> </ul>		

The positive impacts related to the construction phase are presented below. This includes recommendations for enhancing/maintaining the positive nature of the impacts.

POSITIVE IMPACTS			
Impact	Recommendations	Responsible person(s) to implement recommendations	ES Safeguard Standard
<b>Gender Impact</b>	<ul style="list-style-type: none"> <li>• Apply quotas to female participation in construction phase</li> <li>• Integrating a monitoring system with gender monitoring indicators.</li> <li>• Ensuring a 30-40% target for the beneficiaries of the program to be women.</li> <li>• Compliance with the GAP</li> </ul>	Contractor	Standard 3: Gender Mainstreaming
<b>Job Creation</b>	<ul style="list-style-type: none"> <li>• Source labour from local community</li> <li>• Construction to include training and upskilling of local labour</li> <li>• </li> </ul>	DBSA/WRP	Standard 6: Labour

## 7.3 OPERATIONAL PHASE

### 7.3.1 ENVIRONMENTAL MANAGEMENT RESPONSIBILITY

The implementation of the ESMP will be the responsibility of all parties involved with the operational activities i.e, the Sub-project Owner, Target Municipality and the Facility Operator. This will need to be determined and the Operational Phase Implementation and Management Plan updated with these details to ensure that responsibility is assigned accordingly.

### 7.3.2 ENVIRONMENTAL AUDITING

The environmental monitoring and auditing requirements are listed below:

#### Monitoring and inspection

- Effluent tanks and storage containers as well as waste storage containers must be inspected on a regular basis;
- The stormwater management or containment system, where applicable, must be inspected weekly or after each significant rainfall event to ensure that the system is free from debris, and other materials.
- The site must be inspected on a weekly basis to ensure early detection and addressing of environmental pollution.
- Should the preliminary findings indicate that the groundwater underneath and adjacent to the facility is vulnerable and that systems to prevent groundwater pollution are required, then a groundwater and soil monitoring network must be established.
- The volume of water being treated must be monitored and recorded on an ongoing basis and the records thereof must be safely kept at the facility or company office for a period of 5 years.
- Treated Effluent Quality to be monitored on a regular basis.

#### Auditing

- Internal audits must be conducted bi-annually by the facility owner and on each occasion a report must be compiled for record purposes.
- External audits of the facility must be conducted every twelve (12) months by an independent auditor and the auditor must prepare an official audit report documenting the audit findings. The external audit report must be submitted to the Local and/or Provincial Authority (as applicable) upon request.
- A competent authority, should there be any licensing requirements, may prescribe auditing formats and methodologies to be applied by the external auditor.
- The External Audit report must:

- a) Detail the extent of compliance with the conditions of the ESMP and any other permits or authorisations for the reporting period;
- b) Specify non-compliances identified and rectified prior to the audit;
- c) Contain recommendations regarding non-compliance or potential non-compliance;
- d) Specify target dates for the implementation for the recommendations and whether corrective action taken for the previous audit non-compliances was adequate;
- e) Confirm any major environmental incidents that occurred and details of the manner the incidents were addressed; and
- f) Confirm that hazardous waste is separated from general waste and that such waste is removed by a registered waste handling company for either recycling or disposal at licenced disposal facility.
- g) A complaints register and incident report must be made available to the external auditor.

**Competent authority audits and inspections** (if applicable and where authorisation / permit has been issued):

- A competent authority may reserve the right to audit and/or inspect the facility without prior notification at any time.
- Any records or documentation pertaining to the management of the facility must be made available to the competent authority upon request, as well as any other information that may be required.
- Records must be kept for a minimum of five years and must also be available for inspection by the competent authority.
- A complaints register and incident report must be made available to the competent authority.
- A record of any finding of non-compliance and how the manner of such non-compliances were addressed must be kept in a file and produced upon request by any relevant competent authority.

It should be noted that any authorisation or permit that has been issued may contain additional conditions for audits and inspections which must be adhered to.

**Reporting**

- Monitoring reports on month-to-month operational effectiveness and efficiency and progress in terms of all safeguards (both DBSA and GCF standards), adherence and alignment to policies (both DBSA and GCF including the RESP), aspects relating to SEAH and progress with the GRM, and progress against key indicators in terms of the DBSA's Development Results Template.
- Compliance reporting with regards to adherence to regulatory requirements. Operational tracking of compliance using an agreed upon format (see example in Table 22).
- All incidents occurring at the facility, excluding those that fall within the ambit of Section 30 of the National Environmental Management Act, 1998 must be reported to the competent authority.

Table 22: Example of operational compliance monitoring to support reporting

Legal requirement	Authority responsible to issue	Timelines for requirement of authorisation/ permit or licence	Activities are compliant	Client has provided document on DBSA shared folder	Authorisation date	Notes on amendments or version tracking's	Status (including dates)	Compliance plan of action
e.g ESIA	DEFF	before construction of x activity	yes	draft provided	3 months' time or less	version 2 reviewed by...	no anticipated delays	n/a
ESMP	DEFF							
EMSS	DEFF							
Water use licence	DWS							

### **DBSA Development Results Template**

A DBSA Development Results Template (DRT) will be completed for each sub-project and reported against every 6 months. The DRT sets baselines, targets and provides development impact indicators, see Appendix B for an example of the DRT.

### **7.3.3 ENVIRONMENTAL TRAINING**

Before operation of the site commences, the responsible party for Operating the facility (Operator) shall ensure that all employees attend an environmental training session. The Operator shall ensure that all attendees sign an attendance register and shall retain it on site. The Operator shall ensure that follow-up training is conducted for any new employees coming onto Site.

The environmental training should, as a minimum, include the following:

- Facility management and operation;
- Health and safety requirements including the importance of personal protective equipment;
- Response to complaints and emergency incidents;
- The importance of conformance with all environmental policies;
- The environmental impacts, actual or potential, of work activities;
- The environmental benefits of improved personal performance;
- “No-go” areas;
- Roles and responsibilities in achieving conformance with the ESMP;
- The potential consequences of departure from specified operating procedures;
- Worker conduct on-site (for example, but not limited to, no fires or no pets on-site);
- Corrective actions pertaining to non-conformance with the ESMP;

- The mitigation measures required to be implemented when carrying out work activities;
- Management of both general and hazardous waste, including the identification of hazardous and unacceptable waste materials;
- Storage requirements relevant to the specific waste streams;
- Spill clean-up management (using spill kits); and
- Firefighting (usage of fire extinguishers).

Training will also include training in ecological infrastructure for water security across sectors and stakeholders involved to build capacity in establishing effective feedback networks to rehabilitate areas and protect scarce water resources including catchments, watersheds, riverine systems and wetlands.

Restoration sub-projects will include training on sustaining a desired dynamic state of natural systems and ensuring capacity to manage the rehabilitation programme is built amongst key role players once these have been completed.

### 7.3.4 GENERIC OPERATIONAL PHASE IMPLEMENTATION AND MANAGEMENT PLAN

This section outlines the potential environmental impacts, the risk ratings, the recommended control measures, responsible parties and monitoring frequency during the operational phase of the sub-project. These will be augmented to include sub-project specific requirements and the risk rating must be updated.

OPERATIONAL PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
VISUAL IMPACTS		Operator	Low/ Medium/ High
Potential Impact:	<ul style="list-style-type: none"> <li>Visual impacts of the facility.</li> </ul>		
Environmental Objectives	<ul style="list-style-type: none"> <li>Ensure that site is well managed and maintained.</li> </ul>		
ES Safeguard Standard	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> </ul>		
Mitigation Measures	<ul style="list-style-type: none"> <li>Good housekeeping and maintenance to reduce potential negative visual impacts.</li> <li>Roadways must be maintained, accessible and kept clean on a daily basis.</li> <li>Visual screening of the site, if applicable – wall or fence and vegetation around the perimeter which is maintained on a consistent basis.</li> </ul>		
NOISE		Operator	Low/ Medium/ High
Potential Impact:	<ul style="list-style-type: none"> <li>Noise impacts on people working on site.</li> <li>Noise impacts on neighbours/residential areas near site.</li> </ul>		
Environmental Objectives	<ul style="list-style-type: none"> <li>Ensure that noise levels are managed.</li> </ul>		
ES Safeguard Standard	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> </ul>		
Mitigation Measures	<ul style="list-style-type: none"> <li>Limit noise levels (e.g. install and maintain silencers on machinery).</li> <li>Comply with Occupational Health and Safety Act (Act No. 85 of 1993) regulations regarding noise.</li> </ul>		
SOLID WASTE MANAGEMENT		Operator	Low/ Medium/ High
Potential Impact:	<ul style="list-style-type: none"> <li>Contamination of soil, surface water and groundwater if not properly handled and disposed of.</li> <li>Impact on the environment as a result of littering.</li> </ul>		
Environmental Objectives	<ul style="list-style-type: none"> <li>Properly manage all waste types on site and encourage recycling and re-use of materials as far as possible.</li> </ul>		

OPERATIONAL PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> <li>Ensure correct disposal of all waste generated on site and reduce volume of waste requiring disposal.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 4: Indigenous Peoples</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Compile Waste Management Plan to be incorporated in the operating manual outlining how waste will be managed on site, temporary storage areas, waste types to be recycled, as well as methods of disposal.</li> <li>No on-site burying, burning or dumping of waste is allowed.</li> <li>Different waste types to be stored separately.</li> <li>Operator to investigate options of "take-back" policies for any containers, drums, materials, packaging, etc., for materials not re-used on site. Examples could include used pallets, plastic wrapping, etc., prior to recycling materials.</li> <li>Waste shall be collected in a skip or bins on site and disposed of periodically at a municipal landfill – skip/bins must be emptied before it is full to prevent overflowing.</li> </ul> <p><u>General Solid Waste</u></p> <ul style="list-style-type: none"> <li>The site must be kept neat and tidy and free of litter and waste at all times.</li> <li>The facility including the operational area must be kept clean of any waste during or produced as part of the processing.</li> <li>Solid waste to be stored in refuse bins with lids, skips, or other suitable enclosed containers. Solid waste to be disposed of once storage containers are full. Solid waste to be disposed of at a registered landfill site. Disposal slips to be retained.</li> </ul> <p><u>Hazardous Waste</u></p> <ul style="list-style-type: none"> <li>Hazardous waste to be stored in a demarcated area (i.e. impermeable area) prior to disposal.</li> <li>Hazardous waste includes contaminated hydrocarbon soils, oily rags, etc.</li> <li>Hazardous waste to be disposed of at a registered landfill site and proof of safe disposal slips retained.</li> <li>No hazardous waste may be processed at the facility unless it has the necessary authorisation to do so.</li> </ul>		
<b>Evidence</b>	<ul style="list-style-type: none"> <li>Safe disposal slips.</li> </ul>		
<b>SOIL, SURFACE AND GROUNDWATER MANAGEMENT</b>		<b>Operator</b>	<b>Low/ Medium/ High</b>
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Impact to groundwater and surface water quality.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Prevent contaminated water from entering stormwater channels and groundwater.</li> <li>Contain all contaminated / polluted water on-site for safe disposal.</li> </ul>		

OPERATIONAL PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> <li>Prevent Soil Contamination</li> <li>Prevent upstream and/or downstream impacts to the catchment.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 4: Indigenous Peoples</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 8: Cultural Heritage</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Any wastewater generated from the processing of effluent must comply with required discharge/disposal standards.</li> </ul> <p><u>Disposal of wastewater, effluent, brine, by-products and sludges</u></p> <ul style="list-style-type: none"> <li>Compile an Operational Plan outlining how wastes/effluent and by-products will be managed on site, as well as method of disposal.</li> <li>Set-up a contaminated wastewater management system.</li> <li>If wastewater is stored on site, it must be undertaken in leak resistant containers which must be inspected weekly for early detection of leaks.</li> <li>No contaminated water may be released into the natural ground or any stormwater channel, stream, etc..</li> </ul> <p><u>Stormwater management</u></p> <ul style="list-style-type: none"> <li>Monitor stormwater management system.</li> <li>Continual monitoring for contamination.</li> <li>Prevent all contaminated water from leaving the site.</li> <li>The operational area must be hard surfaced/impermeable where there is potential for significant surface or groundwater contamination.</li> </ul>		
<b>Evidence</b>	<ul style="list-style-type: none"> <li>Operational Plan for the management of wastes/effluent and by-products</li> <li>Proof of disposal of contaminated wastewater.</li> <li>Incident register</li> </ul>		
<b>DUST MANAGEMENT</b>		<b>Operator</b>	<b>Low/ Medium/ High</b>
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Dust resulting from vehicles.</li> <li>Impact on visibility for driving, walking, etc.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Limit dust impacts as far as possible and to an acceptable level.</li> </ul>		

OPERATIONAL PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Exposed surfaces to be limited and monitored for dust.</li> <li>Non-potable water to be used for dust suppression.</li> <li>Ensure vehicle speed limits on site are kept to a minimum and below 20 km/hour.</li> <li></li> </ul>		
ODOUR AND PEST MANAGEMENT		Operator	Low/ Medium/ High
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Impact on staff as well as neighbouring areas/facilities.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Limit odours and pests as far as possible.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Minimise on-site storage times for effluent and any waste.</li> <li>Use closed containers for the storage of effluent or waste.</li> <li>If applicable, provision shall be made for odour control, these controls must be positioned strategically considering the prevailing wind direction at the site.</li> <li>Pest control systems shall be installed.</li> <li>Train staff on incident reporting procedures and emergency measures to address odour and pests .</li> </ul>		
HAZARDOUS SUBSTANCES		Operator	Low/ Medium/ High
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Impact on stormwater systems if any spills occur which are not contained.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Ensure the proper handling, storage and management of hazardous substance to prevent impacts to the natural environment.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 6: Labour</li> </ul>		

OPERATIONAL PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
Mitigation Measures	<ul style="list-style-type: none"> <li>Standard 7: Community Health and Safety</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
	<ul style="list-style-type: none"> <li>Compile an Operational Plan detailing hazardous substances, fuels, oils, etc., to be brought to site, storage measures, quantities, refuelling details and disposal methods, as well as a spill response plan and procedures for any spills / incidences.</li> <li>Applicable signage must be in place at all storage areas.</li> </ul> <p><u>Hazardous Chemicals</u></p> <ul style="list-style-type: none"> <li>Hazardous chemical substances (as defined in Regulations for Hazardous Chemical Substances GN 1179 (1995) and the Occupational Health and Safety Act 181 of 1993) used during construction shall be stored in designated storage areas, when not in use.</li> <li>Relevant Material Safety Datasheets (MSDS) must be available on site for all hazardous substances.</li> <li>Storage areas must be enclosed with lockable access to control and limit access.</li> <li>The surface under the storage area shall be protected against spills (i.e. impermeable).</li> </ul>		
	<p><u>Fuels and Oils</u></p> <ul style="list-style-type: none"> <li>The Operator shall ensure that all liquid fuels and oils are stored in containers/jerrycans with lids, which are kept firmly shut.</li> <li>Areas for the storage of fuels and other flammable materials shall comply with standard fire safety regulations. All empty and externally dirty containers/jerrycans, etc., shall be sealed and stored on a waterproof/impermeable surface.</li> <li>Adequate precautions shall be provided to prevent spillage during re-fuelling on site and work areas, e.g. making use of drip trays during re-fuelling.</li> <li>Drip trays to be provided for stationary plant.</li> <li>Old oil to be collected for recycling and stored on an impermeable surface prior to collection by a service provider.</li> </ul>		
Evidence	<ul style="list-style-type: none"> <li><u>Operational Plan outlining management of hazardous substances.</u></li> <li>Proof of oil recycling, if applicable.</li> <li>Incident register</li> <li>Training records</li> </ul>		
FIRE CONTROL		Operator	Low/ Medium/ High
Potential Impact:	<ul style="list-style-type: none"> <li>Fire causing damage to equipment, properties, and leading to injuries, etc.</li> </ul>		
Environmental Objectives	<ul style="list-style-type: none"> <li>Prevent damage caused by fire by quick response times.</li> <li>Ensure staff are trained in how to react should a fire breakout.</li> <li>Ensure proper management of hazardous materials.</li> </ul>		
ES Safeguard Standard	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 6: Labour</li> </ul>		

OPERATIONAL PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> </ul>		
<b>Mitigation Measures</b>	<p>A fire management plan/strategy (as part of the Emergency Response Plan) must be in place and must be in accordance with the applicable legislation and local by-laws and at a minimum contain the following:</p> <ul style="list-style-type: none"> <li>Sufficient fire-fighting equipment that is kept in good working conditions and available at the facility.</li> <li>Identified sources of fires that may result at the facility and appropriate operational procedures to be undertaken to bring the fire under control.</li> <li>A firebreak or barrier constructed around the perimeter of the site to avoid the spread of fires.</li> <li>Clear signs must be in place and should inform the public that flammable liquids are not permitted on the site</li> </ul> <p><u>General</u></p> <ul style="list-style-type: none"> <li>Operator to appoint a fire safety officer who shall be responsible for ensuring immediate and appropriate actions in the event of a fire.</li> <li>Fire extinguishers to be located in hazardous and fuel storage areas and any other applicable areas.</li> <li>Staff must be trained to use the firefighting equipment.</li> <li>Designated smoking areas must be allocated with containers for cigarette butts.</li> <li>Relevant contact numbers for local firefighting services must be included on the emergency list.</li> </ul>		
Evidence	<ul style="list-style-type: none"> <li>Fire management plan/strategy (as part of the Emergency Response Plan)</li> </ul>		
EMERGENCY PROCEDURES		Operator	Low/ Medium/ High
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Protection of the biophysical environment from hazardous spills.</li> <li>Prevent injury or loss of life as a result of operational activities.</li> <li>Ensure all staff are aware of emergency procedures.</li> <li>Prevent upstream and/or downstream impacts to the catchment.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<p><u>General</u></p> <ul style="list-style-type: none"> <li>Operator to compile an Emergency Response Plan, including all emergency contact numbers, and identifying key designated staff to manage different potential emergencies.</li> </ul>		

OPERATIONAL PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
	<ul style="list-style-type: none"> <li>Emergency incidents must be dealt with in accordance with section 30 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).</li> </ul> <p><u>Hydrocarbon Spills</u></p> <ul style="list-style-type: none"> <li>Compile an Emergency Response Plan outlining how hydrocarbon spills will be managed, contained and removed.</li> <li>The site shall have a supply of absorbent material readily available to absorb any incidental emergency hydrocarbon spills.</li> <li>In the event of a spill the source of the spillage shall be isolated, contained using absorbent materials.</li> <li>The clean-up of spills and any damage caused by the spill shall be for the Contractor's account.</li> <li>Employees to be aware of procedures to be followed in the event of a spill or leak.</li> <li>All spills to be and actions undertaken to remedy spills must be recorded in an incidents and complaints register.</li> <li>Safe disposal slips to be obtained once contaminated area remediated.</li> </ul>		
<b>Evidence</b>	<ul style="list-style-type: none"> <li>Emergency Response Plan which must include the following:               <ol style="list-style-type: none"> <li>Emergency response plan</li> <li>Remedial actions; and</li> <li>Preventative measures</li> </ol> </li> <li>Safe disposal slips.</li> </ul>		
EROSION CONTROL		Operator	Low/ Medium/ High
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Loss of topsoil.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>To effectively manage stormwater on site to prevent erosion.</li> <li>Prevent upstream and/or downstream impacts to the catchment.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Monitor stormwater infrastructure to ensure its operational efficiency.</li> <li>No polluted run-off must leave the site.</li> </ul>		
MEASURING, REPORTING AND VERIFICATION		Operator	Low/ Medium/ High
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>Monitoring / measuring not accurate due to poor data availability</li> <li>Difficulty assessing the effectiveness of management actions and to understand the actual residual impact of the operations on the environment.</li> </ul>		

OPERATIONAL PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Monitoring is a critical component of managing the facility and process.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 4: Indigenous Peoples</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 8: Cultural Heritage</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Ensure that all infrastructure required for monitoring and measuring is installed and calibrated/maintained as required</li> <li>Systems for monitoring and measuring incoming wastewater, treated water and outgoing product water must be out in place prior to the commencement of the sub-project activities.</li> <li>Regular Internal Audits and Annual external audits to take place to verify compliance with the ESMP.</li> <li>Adhere to the monitoring, auditing and reporting requirements set out in the ESMP as a minimum.</li> </ul>		
<b>EXCESS EFFLUENT FOR TREATMENT/ EXCESS TREATED EFFLUENT FOR REUSE (PRODUCT)</b>		<b>Operator</b>	<b>Low/ Medium/ High</b>
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>No/low demand for pre-treated outputs could result in operational issues and nuisance on site.</li> <li>Poor management, monitoring and measuring may also result in poor process management.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>Protection of the biophysical environment from the excess effluent (treated and untreated).</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 3: Gender Mainstreaming (including SEAH)</li> <li>Standard 4: Indigenous Peoples</li> <li>Standard 6: Labour</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 8: Cultural Heritage</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>The quantities of incoming and processed effluent must at all times not exceed the design requirements of the facility.</li> <li>Operational measures must be put in place to manage throughput.</li> <li>Municipality to have bypass/operational plan in place to deal with excess input and outputs.</li> </ul>		
<b>TREATED EFFLUENT QUALITY</b>		<b>Operator</b>	<b>Low/ Medium/ High</b>

OPERATIONAL PHASE: ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES		RESPONSIBLE PERSON(S)	RISK RATING
<b>Potential Impact:</b>	<ul style="list-style-type: none"> <li>• Health impacts on consumers</li> <li>• Environmental impacts of using poor quality effluent.</li> <li>• Loss of consumer/customer confidence.</li> </ul>		
<b>Environmental Objectives</b>	<ul style="list-style-type: none"> <li>• To ensure the treated effluent meets the required standards for re-use without posing any environmental or health risk.</li> </ul>		
<b>ES Safeguard Standard</b>	<ul style="list-style-type: none"> <li>• Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>• Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>• Standard 3: Gender Mainstreaming (including SEAH)</li> <li>• Standard 4: Indigenous Peoples</li> <li>• Standard 6: Labour</li> <li>• Standard 7: Community Health and Safety</li> <li>• Standard 8: Cultural Heritage</li> <li>• Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>• Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>		
<b>Mitigation Measures</b>	<ul style="list-style-type: none"> <li>• Regular testing of treated effluent quality .</li> <li>• External/Independent monitoring and testing</li> <li>• Interpretation/interrogation of test results to ensure the standards are being met i.e. staff to demonstrate a thorough understanding.</li> <li>• Emergency Response Plan to divert effluent not meeting the quality and prevent distribution.</li> <li>• Adequate training of staff to manage effluent quality and emergency responses.</li> <li>• Communication strategy in the event that quality does not meet standards and effluent cannot be supplied.</li> </ul>		
<b>Evidence</b>	<ul style="list-style-type: none"> <li>• Test results and analysis with interpretation reports.</li> <li>• Emergency Response Plan</li> </ul>		

The positive impacts related to the operational phase are presented below. This includes recommendations for enhancing/maintaining the positive nature of the impacts.

POSITIVE IMPACTS			
Impact	Recommendations	Responsible person(s) to implement recommendations	ES Safeguard Standard
<b>Climate Change Adaption:</b> <ul style="list-style-type: none"> <li>Transition to a low carbon emission pathway</li> <li>Climate change mitigation</li> <li>Resilience</li> </ul>	<ul style="list-style-type: none"> <li>Monitor and report on climate adaption criteria of sub-projects</li> <li>Skills training to ensure awareness and understanding amongst operators and beneficiaries of sub-projects e.g.. municipalities.</li> </ul>	Municipality/ WRP	<ul style="list-style-type: none"> <li>Standard 1: General Overview: Assessment and Management of Environmental and Social Risks and Impacts</li> <li>Standard 2: Stakeholder Engagement and Information Disclosure</li> <li>Standard 7: Community Health and Safety</li> <li>Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>
<b>Gender Impact</b>	<ul style="list-style-type: none"> <li>Apply quotas to female participation in sanitation policies for water committee members, Boards and agencies.</li> <li>Integrating a monitoring system with gender monitoring indicators.</li> <li>Ensuring a 30-40% target for the beneficiaries of the program to be women.</li> <li>Raising Public awareness campaigns aimed at creating an appreciation and understanding of the benefits of water reuse.</li> <li>Enabling all water stakeholders—from the implementing agencies to the beneficiaries to build requisite skills and knowledge for gender-sensitive services and management.</li> <li>Compliance with the GAP</li> <li>Strategies will be needed to implement greater gender balance at Senior Management level in Municipalities by putting the Employment Equity Act into practice with</li> </ul>	WRP	<ul style="list-style-type: none"> <li>Standard 3: Gender Mainstreaming</li> </ul>

POSITIVE IMPACTS			
Impact	Recommendations	Responsible person(s) to implement recommendations	ES Safeguard Standard
	<p>accompanying set targets and top-level oversight to monitor progress.</p> <ul style="list-style-type: none"> <li>• Workshops will be required to create greater awareness of women's rights and equality amongst municipal staff and operator.</li> <li>• Community groups to be integrated into education and awareness initiatives and campaigns with regards to climate change and responsible water resource use.</li> </ul>		
<b>Ecological Infrastructure</b> <ul style="list-style-type: none"> <li>• Ecosystem impact and ecosystem services impacts</li> <li>• Access to resources and shared benefits</li> <li>• Effective use of land resources and capability</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure sub-projects comply with the Do No Harm Principle</li> <li>• Long term rehabilitation of wetlands and watercourses with a net positive impact on catchments.</li> <li>• Training to include EI aspects as well as catchment management.</li> <li>• Completion of DBSA Development Results Template to monitor</li> <li>• Compliance with the ESMP, ESMFP and GAP.</li> </ul>	DBSA/WRP	<ul style="list-style-type: none"> <li>• Standard 9: Biodiversity Conservation and Sustainable Management of Living Natural Resources and Resilience</li> <li>• Standard 10: Resource Efficiency and Pollution Prevention and Management</li> </ul>

## 7.4 DECOMMISSIONING

This section provides high-level and generic requirements to be taken into consideration should any sub-project be decommissioned. Each sub-project will require a closure plan with the roles and responsibilities as outlined below. The Closure Plan will be developed using the sub-project ESIA and ESMP as guidance, but ultimately is guided by the objectives and vision set out in the Closure Plan.

The decommissioning requirements that should be included as a minimum are as follows:

1. A facility to be discontinued, for whatever reasons, must be rehabilitated to the satisfaction of the Local and Provincial Authority, as applicable and legislative requirements.
2. A decommissioning plan may be required by the competent authority
3. A closure and a rehabilitation plan for the facility, including the indication of end-use of the area may be required to be developed and submitted to Local and/or Provincial Authority (as applicable) for approval.
4. The site must be rehabilitated according to the closure and the rehabilitation plan approved by the Competent Authority.
5. The rehabilitation plan shall consider and address the EI impacts of decommissioning and ensure no activities have a negative impact. Decommissioning to result in a nett positive impact.
6. All equipment must be removed from the site, unless motivation is provided for the equipment to remain with proof that it will not have the potential to cause environmental impacts and is required for subsequent use of the site.
7. The Local Municipality and/or the facility manager will remain responsible for any adverse impacts on the environment, even after operations have ceased.
8. The facility owner must also identify and inform the Local and/or Provincial Authority (as applicable) of the future end use of the site.
9. Should the land be contaminated as a result of the activities, the owner of the facility must comply with all relevant legislation dealing with remediation of contaminated land.
10. In the advent of change of ownership, the registered owner of the facility must notify the Local and/or Provincial Authority (as applicable) in writing, within one month of such change.

The objectives of the rehabilitation, decommissioning and closure plan are to:

- provide the vision, objectives, targets and criteria for final rehabilitation, decommissioning and closure of the sub-project;
- explain the risk assessment approach and outcomes and link closure activities to risk rehabilitation;
- detail the closure actions that clearly indicate the measures that will be taken to mitigate and/or manage identified risks and describes the nature of residual risks that will need to be monitored and managed post closure;

- commit to a schedule, budget, roles and responsibilities for final rehabilitation, decommissioning and closure of each relevant activity or item of infrastructure;
- detailing the full closure costs for the life of sub-project; and
- outlining monitoring, auditing and reporting requirements.

#### 7.4.1 ROLES AND RESPONSIBILITIES

The activity will also require the services of an independent ECO to ensure that the Closure Plan is being complied with during the closure phase. Formal responsibilities and accountability are necessary to ensure that the Closure Plan is effectively implemented during this critical phase.

##### Responsibility of the DBSA

As AE the DBSA will be responsible for overseeing the closure and decommissioning of sub-projects through the WPO and as such will ensure that Closure Plans are adhered to during this important stage, as such the DBSA will ensure that all measures to mitigate and manage environmental and social risks and impacts and to improve outcomes are implemented, monitored and continuously improved. In addition, the DBSA will through the WPO ensure that the progress and performance are monitored and reported to GCF and its stakeholders throughout the closure of the GCF-financed activities, in accordance with the monitoring and accountability framework and allowing GCF or GCF-authorized third-party verification of such reports.

Key activities of DBSA will include:

- Ensuring the inclusion of relevant analysts in the completion monitoring team and prepare completion reports,
- Undertake desktop audits for select sub-projects, and
- Undertake evaluations of select sub-projects dependent on the scale of impact and levels of associated risk.

From this the DBSA will produce a sub-project Completion Report, desk-based Audit Reports for select sub-projects, and will commission external independent evaluation reports for selected sub-projects.

##### Responsibility of the WRP WPO

The WRP WPO is required to adopt, support and comply with the Closure Plan and ensure that the closure and decommissioning of sub-projects is aligned to the Closure Plan, is consistent with GCF and DBSA environmental and social safeguards and policies, and is compliant with the required environmental and social regulations. The WPO will undertake compliance checks to ensure processes are in accordance with the Closure Plan and the various regulatory requirements.

Importantly, the WPO has an essential oversight role to ensure that Closure Plans, and all measures to mitigate and manage environmental and social risks and impacts and to improve outcomes are implemented, monitored and continuously improved. Equally, the WPO will ensure that the progress and performance are monitored and reported to GCF and its stakeholders throughout the closure of the GCF-financed activities, in accordance

with the monitoring and accountability framework and allowing GCF or GCF-authorized third-party verification of such reports.

### **Role of the Sub-project Beneficiary**

The Sub-project Beneficiary/Target Municipality is required to be familiar with the contents of the Closure Plan, adopt, support and comply with the Closure Plan and oversee the sub-project closure process. As such they will produce the sub-project closure report that will outline all steps taken to ensure long-term environmental and social safety and that in there are not ongoing impacts upon both environment and society. This will include long term monitoring protocols including participative monitoring approaches that will enable communities, stakeholders and civil society organisations to provide inputs and comments on aspects of sub-project closure.

### **Role of the Resident Engineer**

The RE is required to technically oversee the closure process and will provide inputs into the sub-project closure reports based upon this oversight role. Tasks include:

- Be familiar with the contents of the Closure Plan with regards to sub-project closure and the longer-term implications to environment and society;
- Liaise with the ECO regarding environmental management and provide the ECO with all relevant documentation and plans;
- Assist the ECO to ensure that the conditions of the Closure Plan are being adhered to and are implemented during sub-project closure;
- Assist the ECO in making decisions and finding solutions to environmental problems that may arise during closure;
- Communicate to the Contractor the advice of the ECO and the contents of the ECO reports and issue site instructions giving effect to the ECO requirements, where applicable;
- Communicate to the ECO any infringements of the environmental conditions;
- Discuss with the ECO the application of any penalties and other possible enforcement measures, when necessary;
- Advise and engage with the social and gender officer with regards to possible societal implications from sub-project closure;
- Facilitate communication between all role-players in the interest of effective environmental and social management; and
- Monitor the compliance of the Contractor through the ECO reports.

### **Sub-project Social and Gender Oversight Officer**

The Sub-project Social and Gender Oversight Officer will be responsible for monitoring, reviewing and verifying compliance with the Closure Plan by the Contractor during sub-project closure. The officer must conduct audits in terms of the Closure Plan during the sub-project closure. A minimum of one site inspection must be undertaken per month, for the duration of the closure activities.

Duties in this regard will include the following:

- Monitor and verify that the Closure Plan and programme policies are adhered to at all times and recommending necessary action if the specifications and mitigation measures are not followed;

- Monitor and verify that social and gender impacts are kept to a minimum;
- Must obtain, examine and approve Method Statements to overview processes;
- Assist the Contractor in finding socially responsible solutions to problems during sub-project closure;
- Report back on the social and gender issues at the site meetings and other meetings that may be called regarding environmental matters, if required;
- Monitor and review the Site Diary of all activities / incidents / complaints concerning the social and gender aspects on Site, during the closure process;
- Inspect the Site and surrounding working areas regarding compliance with the Closure Plan;
- Be reachable by the public regarding matters of social and gender concerns as they relate to the sub-project closure process;
- Recommend corrective actions to the RE and the Contractor where closure activities are not in compliance with the Closure Plan;
- Inform the RE immediately of the occurrence of non-compliances and recommend appropriate measures of rectification.
- Ensure that activities on Site comply with legislative and regulatory requirements; and
- Undertake monthly site visits, compile and submit monthly reports to the Beneficiary, WPO, RE and Contractor.

## Environmental Control Officer

The ECO must be independent and have expertise in conducting environmental compliance auditing, including knowledge of the environmental legislation and regulations, guidelines and policies related to environmental management. The ECO must conduct audits in terms of the ESMP for the sub-project, these will be undertaken on a quarterly basis. **A minimum of one site inspection must be undertaken per month**, for the duration of the closure activities.

The ECO will be responsible for monitoring, reviewing, and verifying compliance with the Closure Plan by the Contractor, in alignment with the requirements of this ESMFP. The ECO's duties in this regard will include the following:

- Monitor and verify that the Closure Plan is adhered to at all times and recommending necessary action if the specifications and mitigation measures are not followed;
- Monitor and verify that environmental impacts are kept to a minimum during the closure process;
- The ECO, along with the RE, must obtain, examine and approve Method Statements;
- Assist the Contractor in finding environmentally responsible solutions to problems during sub-project closure;
- Report back on the environmental issues at the site meetings and other meetings that may be called regarding environmental matters, if required;
- Monitor and review the Site Diary of all activities / incidents / complaints concerning the environment on Site;

- Inspect the Site and surrounding working areas regarding compliance with the Closure Plan;
- Be reachable by the public regarding matters of environmental concerns as they relate to the sub-project closure
- Provide environmental awareness training for site personnel concerning long term aspects of sub-project closure;
- Recommend corrective actions to the RE and the Contractor where construction activities are not in compliance with the Closure Plan;
- Inform the RE immediately of the occurrence of non-compliances and recommend appropriate measures of rectification, e.g. issuing of fines.
- Ensure that activities on Site comply with legislation of relevance to the environment;
- Keep a photographic record of progress on Site from an environmental perspective; and
- Undertake monthly site visits, compile and submit monthly reports to the Beneficiary, WPO, RE and Contractor.

## Contractor

The Contractor has the responsibility to:

- Be familiar with the contents of the Closure Plan and sub-project closure processes;
- Designate a responsible person for monitoring site activities against the Closure Plan on a daily basis.
- Communicate to the ECO, at least ten working days in advance, any proposed actions, which may have negative impacts on the environment;
- Designate all working areas and remain within working areas at all times;
- Comply with the environmental conditions contained in this ESMFP;
- Ensure that all sub-contractors are aware of and adhere to the requirements of the Closure Plan at all times in consultation with the Designated Environmental Officer (DEO);
- Compile the required Method Statements in accordance with the Closure Plan;
- Notify the ECO and RE immediately in the event of any accidental infringements of the Closure Plan to enable appropriate remedial action to be taken;
- Undertake rehabilitation of all areas affected by the sub-project to restore to the original states, as determined by the ECO and in accordance with the Closure Plan; and
- Maintain a site diary.

## Designated Environmental Officer

The appointed Contractor will be required to appoint a competent individual as the Contractor's on-site DEO. The DEO could be the same person monitoring Health and Safety aspects on site as long as they have sufficient environmental management experience. The selected DEO must fully familiarise him-/herself with the contents of the Closure Plan and understand the various environmental and social implications of sub-project closure. The DEO should furthermore possess the necessary skills to confer environmental

management to all personnel involved in the sub-project closure process. The DEO's duties in this regard will include the following:

- Monitor and oversee the Contractor's internal compliance with the Closure Plan and sub-project closure requirements and ensure that the environmental specifications are adhered to;
- Keep a record of all on-site environmental related incidents and how these incidents were dealt with;
- Monitor and verify that environmental impacts are kept to a minimum throughout the closure process;
- Inspect the Site and surrounding areas on a daily basis regarding compliance with the Closure Plan and sub-project closure requirements;
- Compile and maintain an incidents and complaints register with regards to environmental issues;
- Accompany the ECO during monthly site visits; and
- Ensure all issues identified by the ECO are rectified on site in a timely manner.

#### 7.4.2 REPORTING

The Contractor / DEO will during the sub-project closure process maintain the Environmental File for the sub-project that must be handed over to the sub-project owner once the sub-project is formally closed. This file will not only contain all environmental related information, as well as a record of all closure processes. This would include such aspects as:

- Copy of ESMP; and any other authorisations or permits;
- Proof / signed attendance register of all environmental training sessions;
- Method Statements;
- Emergency contact numbers;
- Complaints Register;
- Copies of monthly ECO Reports;
- Waste manifests and Safe Disposal Slips;
- Any internal environmental compliance checklists;
- Record of any incidents on site, outlining remediation undertaken;
- Record of processes to close the sub-project (including site clearance, removal of equipment, waste disposal, re-grading of land, vegetation replanting etc) and ensure long-term minimisation of impacts on environment and society; and
- Guidance on site maintenance requirements into the future

The sub-project owner will submit a sub-project closure report to the WPO. An outline of the Closure Report is provided in **Annexure M**.

## 8 CONCLUSIONS

The WRP will work synergistically with other critical water management interventions in the Master Plan and the National Water Conservation and Water Demand Management Programme, its primary focus is to support climate change adaptation through water reuse.

This will significantly improve resource use efficiencies by promoting climate smart designs that result in improved services to vulnerable communities, and the optimising of scarce water resources especially in light of South Africa's drier future and increase likelihood of multi-year droughts.

The proposed Programme will have an overall positive impact on the environment in terms of more sustainable water resource management, climate adaption and provide municipalities with a more resilient water and climate future. The negative impacts can be addressed and mitigated by implementation and compliance with the requirements of the ESMFP and ESMP, as well as through the gender actions plan and the SEAH management plan. The negative impacts could include:

- Potential to hold or channel water and alter natural water pathways on the landscape
- Deliver sediment to streams,
- Impact on local surface water quality;
- Impact groundwater quality;
- Alter habitats and influence biodiversity;
- Impact on soil structure and soil chemistry;
- Present safety hazards to humans and animals; and
- Increased opportunities for SEAH.

### 8.1 GENDER AND SOCIAL CONCLUSION

The Programme as a whole is identified as a GEM2 in terms of the UNCT GEM Requirements as the overall intent is that gender equality is significantly mainstreamed into the broader work planned, as detailed in the GAP. As such the GAP outlines approaches and actions are outlined at both programme and sub-project levels, with efforts at the programme level providing the broader overarching: framework and mechanisms for gender integration and the management of SEAH across the WRP, while at sub-project level ensuring that gender and SEAH is mainstreamed and managed within sub-projects and localities identified. Baseline assessments at the initiation of sub-projects will be essential and will provide the basis for interventions. Noting that the WRP is aiming to address local vulnerabilities and water insecurity these assessments and supporting due diligence reviews will be an essential part of monitoring and evaluation for the programme.

The activities outlined in the GAP for the Programme aim to address the current social and gender inequalities that will impact upon the success of the Programme. Some of the initiatives include:

- Applying quotas in female participation in sanitation policies for water committee members, Boards and agencies.
- Integrating a monitoring system with gender monitoring indicators, include gender responsive budgeting.
- Ensuring a 30-40% target for the beneficiaries of the program to be women.
- Raising Public awareness campaigns aimed at creating an appreciation and understanding of the benefits of water reuse.
- Enabling all water stakeholders—from the implementing agencies to the beneficiaries to build requisite skills and knowledge for gender-sensitive services and management.

Ultimately, gender disparity is not only a challenge in South Africa but across the globe. Through programmes like the WRP, some of these issues can be intricately addressed while avoiding exacerbating existing social inequalities. As the WRP scales and evolves, greater in-depth research will need to be conducted to complement this current gender assessment report in the future.

As sub-projects are implemented, there are increased opportunities for SEAH. The appointment of a gender and social oversight officer who will lead the development of gender action plans and SEAH management plans in support of established GRM's will be an important prerequisite for all sub-projects. The support of the DBSA and WPO will in the first instance be essential to ensure that these instruments and mechanisms are in place. However, and secondly, the DBSA and WPO will play an essential monitoring and oversight role to ensure that implementation across all sub-projects is effective.

## 8.2 ENVIRONMENTAL CONCLUSION

As part of the response to South Africa's vulnerability to climate change, the WRP supports a low-carbon and climate adaptive development pathway. The core aims of the Programme are to:

- Encourage the scaled development of water reuse sub-projects at municipal level;
- Support municipalities with the scaling of their reuse sub-projects by providing support in the identification, conceptualization and prioritization of large-scale water reuse sub-projects, in the sub-project preparation and the development of implementation-ready plans, and in the development of blended finance options to fund implementation;
- Assist municipalities to develop diversified sub-projects that not only support water reuse but have extended beneficiation from aspects such as water reclamation through nature –based solutions, sludge management and beneficiation as well as energy generation from biogas.
- Create a new asset class around water reuse infrastructure.
- Assist municipalities to counter the adverse effects of climate change in the water and wastewater services sector.
- Ensure Climate adaptation as a principle objective of the programme.
- Mainstreaming climate resilience into the water use and reuse sector.

- Improve Ecological infrastructure for water security and to meet climate mitigation strategic objectives.

The proposed Programme will have an overall positive impact on the environment in terms of more sustainable water resource management, climate adaption and provide municipalities with a more resilient water and climate future. The negative impacts, as listed above, can be addressed and mitigated by implementation and compliance with the requirements of the ESMFP and ESMP, and in the longer-term in the sub-project Closure Plan.

The Programme will also provide indirect positive social impacts including job creation. The negative impacts, which have been described, will be mitigated in the planning, design, planning, construction and operation of the facilities.

### 8.3 OVERALL CONCLUSION

In terms of the safeguards, the sub-projects to be undertaken would be categorised as Category 2 sub-projects and the WRP will establish a dedicated WPO to manage the programme level compliance to GCF environmental and social standards.

The aim of the ESMFP is to avoid and minimise negative E&S impacts and to enhance positive aspects of the Programme. The proposed Programme will have an overall positive impact on the environment in terms of more sustainable water resource management, climate adaption and provide municipalities with a more resilient water and climate future.

The Programme will also provide indirect positive social impacts including job creation. The negative impacts, which have been described, will be mitigated in the planning, design, planning, construction and operation of the facilities by implementation and compliance with the requirements of the ESMFP and ESMP.

The WRP will contribute to South Africa's efforts on climate change adaptation and accelerate the transition to climate-resilient sustainable development. The interventions undertaken in the WRP will support the implementation of South Africa's National Climate Change Adaptation Strategy.

## APPENDIX A EXCLUSION LIST

The following types of sub-projects will not be financed under this Programme:

1. Sub-projects that contravene the Constitutional Rights of South Africans and in particular Indigenous Peoples rights,
2. Sub-projects that undermine Indigenous Peoples' community rights to land, natural resources, language and indigenous knowledge,
3. Natural forest harvesting or plantation development that will involve conversion or degradation of critical forest areas or related critical natural habitats, and
4. Sub-projects that will significantly convert or degrade critical natural habitats, including forests, and
5. Sub-projects that contravene applicable national and international laws.
6. No new marine outfalls or expansion of existing ones. Need to find alternatives to marine outfalls.
7. Category 1 Sub-projects as defined by ESS policy – Sub-projects with the potential for diverse, unique, irreversible or otherwise significant adverse environmental or social impacts.
8. Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements.
9. Production or trade in ozone depleting substances subject to international phase out.
10. Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale use of hazardous chemicals.
11. Sub-projects located within a critical biodiversity area or any other natural area that has been designated for conservation may only be considered if there is existing infrastructure and the development footprint will not be increased and the sub-project results in an improvement and restoration as well as a nett positive impact on the catchment and ecological infrastructure.
12. Sub-projects that require fundamental changes in social arrangements in order for benefits to be realized.
13. Sub-projects that negatively affect specific socio-economic groups such as ethnic groups, women, minorities, etc., their basic needs (e.g. reducing income and food supply) and strategic needs (e.g. limiting agency and decision-making power). This would include sub-projects listed as GEM0.
14. Sub-projects that are likely to intensify discriminatory practices particularly against women, including gender-based violence.
15. Sub-projects that involve harmful or exploitive forms of forced and/or child labour.
16. Sub-projects with high biodiversity risk that potentially result in irreparable damage to terrestrial, soil and aquatic biodiversity including identified threatened species and habitats;
17. Sub-project with high social risk that potentially result in significant socio-economic impacts, that result potential for loss, conflict or societal instability.

## APPENDIX B DRT COMMON INDICATORS

These DRT Common Indicators are colour coded and are an example of DBSA indicators to use as a guide noting this is regularly updated

	Applicable to green bond metric requirements for best alignment with DBSA Green Bond Policy. Sometimes not all of these will be relevant but most of the time most of them will be
	Indicators may in some form even adjusted form be applicable
	All other indicators may or may not be relevant depending on sub-project itself

Location			National	
Link to GIS				
Total Sub-project Value	(EUR '000)			
DBSA Contribution				
Average DBSA Funding %				
Contribution of other IDFC members		(EUR '000)		
Contribution of non-IDFC members (specify if its public or private)				
Sector Breakdown ('000)			Total	DBSA
	Energy: Municipal transmission			
	Energy: Municipal distribution			
	Energy: Non municipal			
	Oil and gas			
	Water services: Bulk (Municipal/WBs)			
	Water services: Reticulation (Municipal/WBs)			
	Water resource development			
	Sanitation: Municipal bulk/outfalls			
	Sanitation: Municipal reticulation			
	Roads and drainage: Municipal			
	Roads and drainage: Non-municipal			
	Commercial			
	Communications			
	Education			
	Information Analysis and Advice			
	Institution Building			
	Policy			
	Residential Facilities			
Social Infrastructure				
Transportation				
Investment Type		Select		
Environmental social institutional and climate principle and strategic objectives				
DEVELOPMENT IMPACT INDICATOR (DII)				

MANDATORY INDICATORS		Anticipated Total Sub-project Target		Anticipated DBSA Contribution Target	
		Source of Information	Target	Source of Information	Target
<b>1. Employment opportunities created/sustained (FTEs)</b>					
1.1 Total No. of direct construction jobs created					
1.1.1 No. of women employed					
1.1.2 No. of youth employed					
1.2 Total No. of direct operational phase jobs created/sustained					
1.2.1 No. of women employed					
1.2.2 No. of youth employed					
<b>2a. Households benefitting from reticulation services (Number):</b>					
2.1 Water services					
2.2 Sanitation services	New				
2.3 Electricity services	New and refurbishment				
2.4 Roads and drainage	New				
Total number of households in municipality					
<b>2b. Households benefitting from bulk services (Number):</b>					
2.1 Water services					
2.2 Sanitation services	New				
2.3 Electricity services	New and refurbishment				
2.4 Roads and drainage	New				
		Anticipated Total Sub-project Target		Anticipated DBSA Contribution Target	
<b>3. Broad Based Black Economic Empowerment (BBBEE)</b>					
3.1 Percentage of black women shareholder in the transaction					
3.2 Client's BBBEE spend on empowering black suppliers (%) / R '000					
3.3 Client's BBBEE spend on empowering suppliers that are women-owned (%) / R '000					
3.4 Value of Debt to Local community trust and SMMEs (Rand)					
3.5 Value of Subordinated Debt leveraged to Local community trust (Rand)					
4.1 Funding spent on climate mitigation activities ('000)					
4.2 Funding spent on climate adaptation activities ('000)					
4.3 Funding allocated to both mitigation and adaptation not accounted for above ('000)					
4.4 Funding allocated to other environment activities ('000)					
Total Green Climate Finance ('000)	0%				

Funding allocated to biodiversity activities related to Rio-markers ('000)			
Green Climate and Biodiversity mapping completed			
Is this a GCF, CFF or Green Bond sub-project?	GCF		
Is this a GEF sub-project?			
Is this sub-project partially or fully allocated to a line of credit?			
If yes, indicate which one?			
Does the technology choice meet green infrastructure standards?			
If yes, indicate which?			
<b>5. Impact on GDP (Modelled) (EUR '000)</b>			
5.1 Direct impact			
5.2 Direct and indirect			
<b>6. Impact on household income (Modelled) (EUR '000)</b>			
6.1 Low income households			
6.2 Total income to households			
<b>SUB-PROJECT-SPECIFIC INDICATORS</b>		<b>Anticipated Total Sub-project Target</b>	<b>Anticipated DBSA Contribution Target</b>
<b>WATER:</b>			
Increase in water yield (Mm <sup>3</sup> /a)			
Additional capacity of bulk water mains (Ml/day)			
Increase in water storage capacity (Ml)			
Increased capacity of water treatment works (Ml/day)			
Number of new water standpipes served			
Number of new water connections			
Number of new households served with water			
Length of water mains installed (new/refurbished/replaced/upgraded) (km)	Select		
Reduction in household water backlog (No.)			
Water savings - decrease in the annual absolute (gross) water use (Ml/day)			
Reduction in non-revenue water (%)			
Number of people with access to clean drinking water			
<b>SANITATION:</b>			
Additional capacity of outfall sewers (Ml/day)			
Increased capacity of wastewater treatment works (Ml/day)			
Number of new sewer connections/households served			
Reduction in household sanitation backlog (No.)			

Households connected to on-site sanitation (VIPs, septic tanks, etc.) (No.)		
Length of sewers installed (new) (km)		
Length of sewers installed (replaced/refurbished) (km)		
Length of sewers installed (upgraded) (km)		
Additional capacity of treated effluent (Ml/day)		
Annual absolute (gross) amount of raw/untreated sewage sludge that is treated and disposed of (%)		
Annual absolute (gross) amount of raw/untreated sewage sludge that is treated and disposed of (tonnes)	0	0
Annual absolute (gross) amount of sludge that is reused (%)		
Annual absolute (gross) amount of sludge that is reused (tonnes)		
Percentage increase in the annual absolute (gross) amount of wastewater treated, reused or avoided	Select	
Increase in the annual absolute (gross) amount of wastewater treated, reused or avoided (Ml/day)	Select	
<b>WASTE:</b>		
Capacity of landfill created (km <sup>2</sup> )		
Waste to landfill avoided (tonnes p.a.)		
Waste to landfill recycled (tonnes p.a.)		
Waste to landfill reused (tonnes p.a.)		
<b>ENERGY:</b>		
Number of new electricity connections (No.)		
Energy Generated (MVA)		
Reduction in household electricity backlog (No.)		
Length of power lines constructed (km)		
Length of power lines rehabilitated (km)		
Length of electricity network constructed (km)		
Length of electricity network rehabilitated (km)		
Reduction in electricity losses p.a. (R)		
Renewable energy installed capacity (MW)		
Renewable energy plant capacity rehabilitated (MW)		
Annual renewable energy production in MWh (electricity)		
Total energy savings (KWh)		
Energy production (MWh/annum)		
<b>OIL AND GAS:</b>		
Oil reserves (barrels of oil / bbl)		
Quantity of oil extracted (barrels p/d)		
Gas reserves (m <sup>3</sup> p/d)		
Quantity of gas extracted (m <sup>3</sup> )		

Length of oil pipeline constructed (km)			
Capacity of oil pipeline constructed (diameter in meter)			
Length of gas pipeline constructed (km)			
Capacity of gas pipeline constructed (diameter in meter)			
<b>TRANSPORT, ROADS &amp; DRAINAGE:</b>			
Length of tarred roads constructed (km)			
Length of tarred roads resurfaced (km)			
Length of tarred roads rehabilitated (km)			
Length of gravel roads surfaced (km)			
Passenger capacity added (number)			
Cargo capacity added (TEU per annum)			
Number of people switched to a lower carbon intensive transport mode			
Number of additional passengers using low-carbon transport			
<b>EDUCATION:</b>			
Number of student residences constructed/rehabilitated (No.)			
Number of new on-campus student beds (No.)			
Transport cost savings to the university p.a. (R)			
<b>SOCIAL AND GOVERNANCE:</b>			
Are the following effective environmental and social governance mechanisms in place?			
ESMP/F as applicable			
Legal compliance as applicable			
Grievance redress mechanism applicable			
Management system			
Sub-project steering committee or similar as applicable			
NQF credit-bearing training opportunities provided (No.)			
NQF credit-bearing training opportunities for women (No.)			
NQF credit-bearing training opportunities for youth (No.)			
Noncredit-bearing training opportunities provided (No.)			
Noncredit-bearing training opportunities for women (No.)			
Noncredit-bearing training opportunities for youth (No.)			
Improved gender diversity - % of women beneficiaries (direct)			
Improved gender diversity - % of women at senior management level			
Value of funds to Local community trust and SMMEs (Rands)			
<b>ENVIRONMENTAL:</b>			
Carbon emissions screening categories (tonnes CO2 e.)			
Carbon emissions for sub-projects > 20 000 tonnes of CO2 e.			
Annual GHG emissions reduced/avoided in tonnes of CO2 equivalent	Select		
Annual energy savings in MWh (electricity)	Select		

Ecosystems restored, under new protection measures and/or improved sustainable management systems (Ha's)			
Hectares of land or forests under improved and effective management that contributes to CO2 emission reductions			
Marine, ground/surface water catchment systems restored or under new protection measures and/or improved sustainable management practices (Mm³/a)			
Number of people benefiting from measures to <i>mitigate</i> the consequences of climate change (e.g. access to renewable energy)			
Number of people benefiting from measures to <i>adapt</i> to the consequences of climate change (e.g. extreme weather - e.g. drought, heat waves, floods, coastal erosion, fires, etc)			
Number of enterprises/institutions benefiting from improved environmental and social management capacity - structures, policies, plans and management systems			
Number of people benefiting from environmental and social management processes/activities	Select		
Number of males reached by [or total geographic coverage of] climate related early warning systems and other risk reduction measures established/strengthened			
Number of females reached by [or total geographic coverage of] climate related early warning systems and other risk reduction measures established/strengthened			
Number of males made aware of climate threats and related appropriate responses			
Number of females made aware of climate threats and related appropriate responses			
Number of Sub-projects approved under the programme			
Number of Sub-projects approved under the programme (Solar PV)			
Number of Sub-projects approved under the programme (Wind)			
Total value of Funding Approved for the Programme (excluding GCF) (USD)			
Value of Funding Approved for the Programme, Solar PV (excluding GCF) (USD)			
Value of Funding Approved for the Programme, Wind (excluding GCF) (USD)			
Financing leveraged through the facilities (USD)			
Value of subordinated debt provided to sub-sub-projects (including GCF) – Component 1 (USD)			
<b>Mitigation performance</b>			
<b>Fund-level Impacts</b>			

<b>Sub-project/Programme Outcomes</b>		
Number of technologies and innovative solutions transferred or licensed to support low-emission development as a result of Fund support.		
Change in the percentage of low-emission power supply in a jurisdiction or market		
MWs of low emission energy capacity installed, generated and/or rehabilitated as a result of GCF support		
<b>Adaptation performance</b>		
<b>Fund-level Impacts</b>		
Change in expected losses of lives due to the impact of sub-project addressing the extreme climate-related disasters in the geographic area		
Change in expected losses of economic assets (US\$) due to the impact of sub-project addressing extreme climate-related disasters in the geographic area		
Percentage change in expected losses of economic assets due to the impact of the sub-project addressing extreme climate-related disasters in the geographic area		
Number of people benefiting from the adoption of diversified, climate resilient livelihood options (including fisheries, agriculture, tourism, etc.)		
Number of Fund funded sub-projects/programmes that supports effective adaptation to fish stock migration and depletion due to climate change		
Number of people benefiting from introduced health measures to respond to climate-sensitive diseases		
Number of food-secure households (previously at risk in areas/periods of climate change impacts)		
Number of people with year round access to reliable and safe water supply despite climate shocks and stresses		
Value of physical assets made more resilient to climate variability and change, (tech note consider human benefits) (US\$)		
Value (US\$) of ecosystem services generated or protected in response to climate change		
Number of technologies and innovative solutions transferred or licensed to promote climate resilience as a result of GCF support.		
<b>OTHER:</b>		
Economically displaced individuals		

## APPENDIX C: DRAFT OUTLINE OF E&S SCOPING REPORT

A Scoping Report must be prepared by the Sub-project Owner managing the process. The Scoping process commences at the start of the environmental assessment process and focuses on a broad range of issues.

The Scoping Report must provide sufficient information to facilitate an understanding of these issues.

### Contents of the Scoping Report

The National Regulations (National Environmental Management Act, Act 107 of 1998) stipulate that the Scoping Report must include the following:

- Details and expertise of the Environmental Assessment Practitioner who prepared the report.
- A description of the proposed activity.
- A description of feasible and reasonable alternatives including the advantages and disadvantages that the proposed activity and the alternatives may have on the environment.
- A description of the property on which the activity is to be undertaken and the location of the activity. If it is a linear activity then a description of the route should be detailed.
- A description of the environment that may be affected by the proposed activity and the manner in which the various aspects of the environment may be impacted.
- All legislation and guidelines that have been considered in the preparation of the report.
- A description of environmental issues and potential impacts, including cumulative impacts that have been identified.
- Details of the public participation process that has been conducted including:
  - the steps taken to notify I&APs.
  - proof of noticeboards, advertisements and notices notifying I&APs.
  - a list of all persons, organisations and organs of state who were registered as I&APs in relation to the application.
  - a summary of the issues raised by the I&APs and the responses of the EAP.
- A description of the need and desirability of the proposed activity.
- A description of any identified alternatives and the advantages and disadvantages that these and the proposed activity may have on the environment and community.
- Any representations or comments received in respect of the Scoping Report.
- The minutes of any meetings held by the EAP with I&APs and other role-players which record the views of the participants and the associated responses of the EAP.

- A plan of study for EIA which includes:
- A description of the tasks to be undertaken as part of the EIA process including any specialist studies.
- An indication of the stages at which the CA will be consulted.
- A description of the proposed method of assessing the environmental issues and alternatives.
- Particulars of the Public Participation Process that will be conducted during the EIA process.
- Any specific information required by the CA.

## APPENDIX D: DRAFT OUTLINE OF ESIA REPORT

Annotated Table of Contents is provided below.

Item	Brief description
0	Executive summary
1	Introduction
	Purpose of the report
	Structure of the report
2	Presentation of the proposed sub-project
	Brief introduction of the Applicant / Beneficiary
	Brief presentation of the sub-project, introducing the technical elements proposed as investments
	Brief description of sub-project area of influence, including sub-project boundaries and limitations
3	Regulatory and policy framework
	National legislation and environmental permitting process
	3.1. Environmental
	Brief presentation of environmental and social safeguards applicable for this sub-project – DBSA and GCF
	3.2. Social (including gender)
	Identify gaps between National legislation and DBSA / GCF safeguards
4	ESIA methodology
	Briefly describe the methodology for:
	- screening
	- data collection
	- assessing impacts, their significance, magnitude, etc, cumulative impacts
	- engagement of relevant stakeholders during ESIA, disclosure of ESIA package
	- risks and uncertainties
5	Assessment of potential alternatives
	Brief description of
	Alternative 0 – no sub-project
	Alternative 1. Other investments
	Alternative 2. The sub-project
	Methodology of alternative analysis
	Outcomes of the assessment – brief justification why the sub-project investment are needed
5	Environmental conditions
	Introduce the environmental conditions in the sub-project area
	- air quality

		<ul style="list-style-type: none"> <li>- water quality</li> <li>- soil</li> <li>- groundwater</li> <li>- geology</li> <li>- hydrology</li> <li>- Biodiversity</li> <li>- climate change indicators</li> <li>- etc.</li> <li>- also to introduce the current environmental performance of the waste management system at municipal level</li> </ul>
6.	Socio-economic conditions	<p>Introduce the socio-economic conditions in the sub-project area:</p> <ul style="list-style-type: none"> <li>- Population</li> <li>- Waste management practices and level of access to service</li> <li>- land use</li> <li>- public infrastructure available in the sub-project area</li> <li>- employment</li> <li>- livelihood – sources of incomes</li> <li>- public health</li> <li>- cultural heritage</li> <li>- indigenous groups – if any</li> <li>- social disadvantaged groups</li> <li>- gender gap analysis (this could be a sub-chapter and could reference the stand alone document – Gender Assessment – that needs to be prepare)</li> <li>- stakeholder analysis – briefly present the main stakeholders relevant for the sub-project</li> <li>- etc.</li> <li>- also to introduce the current environmental performance of the waste management system at municipal level</li> </ul>
7	Environmental impact assessment (including climate change mitigation and adaptation assessment)	<p>For both, environmental and social impact assessment we could use a tabular format where to describe:</p> <ul style="list-style-type: none"> <li>- positive impacts</li> <li>- negative impacts</li> <li>- mitigation measures envisaged for negative impacts (including gender actions)</li> </ul>
8	Social impact assessment (including gender assessment – this could be a sub-chapter – this could be a summary of the stand-alone document Gender	<ul style="list-style-type: none"> <li>- residual impacts , if any</li> <li>- cumulative impacts , if any</li> </ul>

	assessment that needs to be prepared)	
9	Consultation, disclosure and grievance mechanism	<p>Briefly introduce what has been done during national EIA procedure in terms of engagement, consultations, disclosure</p> <p>Brief description of engagement during ESIA disclosure – outcome of public disclosure session – to be filled in the end of the process</p> <p>Introduce further actions that are needed during sub-project implementation process , including actions for gender mainstreaming (cross-reference here with the stand alone document – Gender Action Plan – that needs to be prepared)</p>
10	Conclusions	Summarising the main impacts and how to address them

## APPENDIX E: DRAFT OUTLINE OF ESMP REPORT

Annotated Table of Contents is provide below.

Item	Brief description
1	<p>Introduction</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the sub-project</p>
2	<p>Approach to environmental and social management</p> <p>National, regional , local regulations and management systems applicable to this sub-project</p> <p>International standards required for proper:</p> <ul style="list-style-type: none"> <li>-Construction management</li> <li>-Operations management</li> </ul> <p>Priorities for this sub-project:</p> <ul style="list-style-type: none"> <li>- example: fair employment or gender balanced employment, health and safety regulations, SEAH etc.</li> </ul>
3	<p>Management of Environmental, Health and Safety and Social commitments</p> <p>Tabular format where we should present:</p> <ul style="list-style-type: none"> <li>- the mitigation measures identified in ESIA</li> <li>- actions which will help to implement the mitigation measures</li> <li>- responsible for implementing the mitigation measures</li> <li>- estimated costs</li> <li>- estimated timeframe for implementation</li> <li>- monitoring indicators</li> <li>- management plans that need to be further developed by sub-contractors / entities that will implement the sub-project</li> <li>- cross reference Gender Action Plan – since this is a Management Plan and is a standalone document</li> </ul>
4	<p>Environmental and Social monitoring</p> <ul style="list-style-type: none"> <li>- reporting requirements</li> <li>- frequency of monitoring</li> <li>- key performance indicators</li> </ul>
5	<p>Conclusions</p> <p>Summarising the main impacts and how to address them</p>

## APPENDIX F: DRAFT OUTLINE OF A STAKEHOLDER ENGAGEMENT PLAN

Annotated Table of Contents is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the sub-project and the importance of stakeholder engagement</p>
2	<p>Designing the Engagement Process</p> <p>Stakeholder engagement principles</p> <p>Outlining the types of engagement required</p> <p>Stakeholder mapping and analysis noting the differing levels of engagement required</p> <p>Current participative processes and platforms</p>
3	<p>Stakeholder Engagement Implementation Plan</p> <p>Structuring engagement</p> <p>Programming engagements</p> <p>Communications and awareness</p> <p>Budgeting for engagements</p>
4	<p>Reporting and monitoring</p> <p>Reporting requirements</p> <p>Feedback mechanisms</p> <p>Frequency of monitoring</p> <p>Stakeholder database management</p>
5	<p>Conclusions</p> <p>Summarising key steps to ensure effective engagement</p>

# APPENDIX G: DRAFT OUTLINE OF AN INDIGENOUS PEOPLES PLAN

Annotated Table of Contents is provided below.

Item	Brief description
1	<p>Introduction</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the sub-project and the importance of engaging with Indigenous People</p>
2	<p>Description of the Sub-project</p> <p>Purpose of the sub-project, providing objectives and outcomes</p> <p>Geographic location and spatial context</p> <p>Stakeholder mapping and analysis</p> <p>Current participative processes and platforms</p>
3	<p>Baseline Information</p> <p>Policy and legal frameworks</p> <p>Description of the Indigenous Peoples including a summary of the socio-economic, health, education and environmental profile of the indigenous community, their circumstances, livelihoods, capacities, natural resources, social norms, tangible and intangible cultural heritage.</p> <p>Include natural features or objects that embody cultural values, social and economic structures, mechanisms and institutions, political and/or administrative structures and procedures, the position of the indigenous community within society, its relations with government and with other communities in the area, and national laws relating to Indigenous Peoples</p> <p>The cost estimates and financing plan for the IPP</p>
4	<p>Consultation</p> <p>Processes undertaken to ensure engagement including outcomes from each engagement to date. Identify if Free, Prior and Informed Consent is required and if so, summarise FPIC results that led indigenous peoples to support the sub-project.</p> <p>Outline of ongoing engagement processes as the sub-project is undertaken</p>

		<p>Overview of findings from the engagement process and outline of how these will be addressed</p> <p>Where FPIC is required, a framework for ensuring FPIC with the affected Indigenous Peoples communities during sub-project implementation.</p>
5	Sub-project Impacts	<p>Overview of potential impacts and opportunities</p> <p>Agreed culturally appropriate measures to mitigate adverse impacts and enhance opportunities and benefits</p> <p>Develop plan with targets with interim milestones and an agreed schedule and responsibilities for implementation</p> <p>Outline of grievance redress mechanisms and response approaches</p> <p>Communications and awareness approaches</p>
5	Monitoring and Evaluation	<p>Outline of processes and procedures to monitor and report on the implementation of the plan</p> <p>Reporting frameworks and feedback to communities</p> <p>Evaluation process and approaches to ensure adaptive management</p> <p>Review processes including the frequency and timing of the plan review</p>

## APPENDIX H: DRAFT OUTLINE OF AN RESETTLEMENT ACTION PLAN

An outline of the contents of a resettlement action plan is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the sub-project</p>
2	<p>Sub-project Description and Impacts</p> <p>Identification of sub-project impacts and affected population</p> <p>Mapping, census and inventory of affected assets</p> <p>Socio economic assessment</p> <p>Consultation processes</p>
3	<p>Legal Framework</p> <p>Policy and legal frameworks</p> <p>Procedures for land acquisition</p>
4	<p>Valuation and Compensation Framework</p> <p>Valuation procedures</p> <p>Compensation approach</p> <p>Eligibility for assistance</p> <p>Responsibility and schedule for compensation payments</p>
5	<p>Resettlement Assistance and Livelihoods</p> <p>Selection and preparation of the resettlement site</p> <p>Influx management</p> <p>Relocation schedule and assistance</p> <p>Replacement of services and enterprises</p> <p>Livelihood restoration</p> <p>Treatment of cultural property</p> <p>Special assistance for women and vulnerable groups</p>

5	Budget and Implementation Schedule	Outline of processes and procedures to monitor and report on the implementation of the plan  Financial requirements
6	Organisational Responsibilities	Establishing structures and committees  Roles and responsibilities
7	Consultation and Engagement	Framework for structured engagement and feedback  Awareness creation and information exchange
8	Grievance Redress Mechanisms	Processes and procedures, as well as institutional arrangements  Mechanisms for adjudicating grievances  Approaches to monitor and report
9	Monitoring and Evaluation	Monitoring of performance against the plan  Evaluation and impact review  Final audit

## APPENDIX I: DRAFT OUTLINE OF A CULTURAL HERITAGE SITE MANAGEMENT PLAN

An outline of the contents of a cultural heritage site management plan is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the sub-project</p>
2	<p>Site Description</p> <p>Statement of site significance (including values)</p> <p>Site description, including environmental setting</p> <p>History of the site</p> <p>Present and past uses of the site</p> <p>Site condition and history of conservation, including SWOT analysis</p>
3	<p>Consultation and Engagement</p> <p>Framework for structured engagement and feedback</p> <p>Awareness creation and information exchange</p>
4	<p>Legal Framework</p> <p>Policy and legal frameworks</p> <p>Management context</p>
5	<p>Strategic Framework</p> <p>Guiding principles</p> <p>Objectives and strategies</p> <p>Action plan including impact management, site conservations and safety</p> <p>Alteration approvals and processes</p>
6	<p>Monitoring and Evaluation</p> <p>Monitoring of performance against the plan</p> <p>Evaluation and impact review</p>

## APPENDIX J: DRAFT OUTLINE OF A BIODIVERSITY ACTION PLAN

An outline of the contents of a biodiversity action plan is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Importance of conserving biodiversity</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the sub-project</p>
2	<p>Outline of the Biodiversity Action Plan Process</p> <p>Outline of policy and legal frameworks</p> <p>The biodiversity audit</p> <p>Evaluating and prioritising habitats and species</p> <p>History of the site</p> <p>Setting objectives, targets and indicators</p> <p>Implementation processes</p> <p>Monitoring, reporting and reviewing processes</p>
3	<p>Biodiversity Audit</p> <p>Introduction and approach</p> <p>Current plans</p> <p>Biodiversity audit boundary and method</p> <p>Sources of data (habitat and species)</p>
4	<p>Biodiversity Assessment</p> <p>Geology, hydrology and landscapes</p> <p>Nature conservation sites (national and local)</p> <p>Habitat audit summary</p> <p>Species audit summary</p>
5	<p>Implementation Plan</p> <p>Strategic goals objectives</p> <p>Action plan including budgets, targets, milestones and indicators</p>

6	Monitoring and Evaluation	Procedures and processes
		Roles and responsibilities
		Monitoring of performance against the plan, including reporting frameworks
		Evaluation and impact review

## APPENDIX K: ENVIRONMENTAL AND SOCIAL COMPLIANCE REPORT

An outline of the contents of an environmental and social compliance reporting format is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Importance of environmental and social compliance</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Brief description of the sub-project</p> <p>Sub-project Implementation Arrangements</p> <p>Sub-project Implementation Status</p>
2	<p>Summary of ESS and Regulatory Requirements</p> <p>Outline of Environmental and Social Safeguards</p> <p>Outline of Regulatory Requirements</p> <p>Summary of Monitoring Actions</p> <p>Reporting and reviewing processes</p>
3	<p>Compliance Progress and Actions</p> <p>GCF and DBSA Environmental and Social Safeguards</p> <p>Regulatory Requirements</p>
4	<p>Participative Monitoring</p> <p>Engagement Framework</p> <p>Summary of Engagements</p> <p>Comments Register</p> <p>Identified Corrective Actions</p>
5	<p>Recommendations</p> <p>Key Issues</p> <p>Prioritised Actions</p>

## APPENDIX L: SEXUAL EXPLOITATION, ABUSE AND HARASSMENT MANAGEMENT PLAN

An outline of the contents of a sexual exploitation, abuse and harassment (SEAH) management plan is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Importance of addressing SEAH and the associated policy, standard, and guidelines that underpin the approach.</p> <p>Sub-project Implementation Status and Arrangements</p> <p>Brief description of the sub-project context and associated risks</p> <p>Purpose of the plan</p> <p>Structure of the plan</p>
2	<p>Risk Assessment and Management</p> <p>Situation analysis to understand the external context</p> <p>Sub-project governance and accountability mechanisms</p> <p>Identification of SEAH risks, mitigations and institutional roles</p> <p>Risk Assessment and Register</p> <p>Summary of Oversight and Monitoring Actions</p> <p>Reporting and reviewing processes</p>
3	<p>Grievance Redress Mechanism</p> <p>Outline of legislative and policy requirements</p> <p>Outline of codes of conduct</p> <p>Scope of the Grievance Redress Mechanism</p> <p>Processes and procedures</p> <p>Reporting and monitoring</p>
4	<p>Management Plan</p> <p>Tabulated plans providing actions, timelines, milestones and indicators, roles for all identified risks in the register</p>

## APPENDIX M: SUB-PROJECT CLOSURE REPORT

An outline of the contents of a sub-project closure report is provided below.

<i>Item</i>	<i>Brief description</i>
1	<p>Introduction</p> <p>Background of the Sub-project</p> <p>Brief description of the sub-project</p> <p>Importance of environmental and social compliance</p> <p>Purpose of the report</p> <p>Structure of the report</p> <p>Sub-project Implementation Arrangements and Status</p>
2	<p>Outline of the Sub-project Works</p> <p>Site location and geographic aspects</p> <p>Overview of the Assets</p> <p>Plants design, capacity, flow regimes and loading dynamics</p> <p>Operational history</p> <p>Performance of the Asset in terms of Regulatory Requirements and Environmental and Social Safeguard Standards</p>
3	<p>Decommissioning Processes</p> <p>Description of the Future Use of the Site</p> <p>Overview of the Decommissioning Plan</p> <p>Decommissioning Process</p> <p>Site Plan and Status Post Closure</p> <p>Closure Adherence to Regulatory Requirements and Environmental and Social Safeguard Standards</p> <p>Record of Stakeholder Engagements and Comments</p>
4	<p>Environmental Impact</p> <p>Overview of Geology, hydrology, environment and landscapes</p> <p>Environmental Impacts from Sub-project Closure</p> <p>Outline of Future Long-Term Impacts</p>

		Environmental Impact Minimisation Plan
5	Social Impact	<p>Overview of Local Social Economy</p> <p>Social Impacts of Sub-project Closure</p> <p>Outline of Future Long-Term Impacts</p> <p>Social Impact Minimisation Plan</p>
6	Future Management and Monitoring	<p>Management and Maintenance Requirements</p> <p>Safety Plans</p> <p>Site Monitoring and Regulatory Compliance</p> <p>Reporting Requirements</p>

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