National Water Reuse Programme:
Programme Design and Preparation of a Full Funding Proposal to the Green Climate Fund

Appendix 9: Due Diligence Report

09 June 2023

CONTENTS

EXECUTIVE SUMMARY

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 ('DCOGTA') 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 ('AE') 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.

The project team has designed a WRP aimed at the scaled development of water reuse projects at municipal level. The purpose of the legal due diligence report is to provide a legal review of the WRP using a dual programmatic and project lens.

Despite the request to review the WRP using a dual lens at a programme and project level, the due diligence report revealed that the current focus of the WRP documentation was at a programme level. The team advised that the scope of the programme will continue to expand as the WRP progresses with further granularity on a project level required as the next step in the WRP.

The legal due diligence review focused on (1) a legal and policy review primarily focused on water license, resale and environmental issues and on a (2) implementation hurdle review primarily focused on the institutional structures, funding flows and risks.

A key issue in the policy and legal review of the WRP was the requirement of a water licence for water re-use (including the impact on flow returns). This is further complicated by the fact that some municipalities are authorised under water use licenses ('WUL'), but others are authorised under prior permits. The plan for addressing licensing requirements of these two different categories of municipalities should be set out.

In terms of the implementation hurdles, the view was that certain points could be expanded upon or clarified but the WRP has been comprehensive it its review of the hurdles. The critical implementation hurdles are focused on the proper identification and mitigation of all the risks of the WRP. A few potential risks were identified in this due diligence report which did not appear to be explicitly addressed by the WRP, but this could be reviewed and explained in an updated version of the deliverables.

List of Acronyms

AE	Accredited Entity
BFS	Blended Finance solution
BOT	Build-Operate-Transfer
DBO	Design Build Operate
DBSA	Development Bank of Southern Africa
DCOG	Department of Cooperative Governance
DFFE	Department of Forestry, Fisheries and Environment
DFI	Development Finance Institutions
DWS	Department of Water and Sanitation
E&S	Environmental and Social
ECO	Environmental Control Officer
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FATF	Financial Action Task Force
FICA	Financial Intelligence Centre Act
GCF	Green Climate Fund
HACCP	Hazard Analysis Critical Control Point
IBCF	Independent Blended Capital Facilitator
MISA	Municipal Infrastructure Support Agency
NEMA	National Environmental Management Act 107 of 1998
NWA	National Water Act 36 of 1998
NWPP	National Water Partnerships Program
O&M	Operation and maintenance
PICC	Presidential Infrastructure Coordination Council
PPP	Public-Private Partnerships
US	United States
WPO	Water Partnerships Office
WRP	Water Re-Use Programme
WSA	Water Services Authority
WSDP	Water Services Development Plan
WSDP IDP	Water Services Development Plan Integrated Development Plan
WSP	Water Service Provider
WUL	Water Use Licence
WWTW	Wastewater Treatment Works

1 INTRODUCTION

1.1 Project Context

The overall context of the WRP is to provide an innovative approach to support the development of sustainable water reuse infrastructure projects that will progressively strengthen water security, climate resilience and local economic development across South Africa.

1.2 Project Brief and Objectives

The purpose of the legal due diligence report is to provide a legal review of the WRP using a dual programmatic and project lens. The project brief is to deliver a summary legal due diligence report on two key areas: (1) the policy and legal review and (2) implementation hurdles.

The policy and legal review include an analysis of the following:

- Licensing, water use authorisations, impacts on return flows;
- Environmental and social governance safeguards; and
- Offtake agreements/resale of water.

The implementation hurdles include an analysis of the following:

- Implementation structures (institutional programme and project arrangements) including the establishment of the water partnerships office ('WPO');
- Funding flows including tax consequences; and
- Risks.

The overall purpose of the legal due diligence report is to provide some level of comfort that the matters above have been analysed on a programme and project level.

2 POLICY AND LEGAL REVIEW

2.1 Licensing, Water Use Authorisations, Impact on Return Flows

2.1.1 Water Use Authorisations

A municipality is a water services authority ('WSA') and is therefore a "water user" under the National Water Act 36 of ('NWA') which regulates the abstraction and discharge of water. A municipality's authority as a WSA is either in terms of a WUL under the NWA or based on older water permits issued under the Water Act 54 of 1956 before the NWA came into effect. As a water user, the municipality must also comply with the suite of environmental legislation including the National Environmental Management Act 107 of 1998 (‘NEMA’) and South Africa’s commitments in its Climate Response Strategy.

The WSA must develop and adopt a water services development plan (WSDP). The WSDP must address water services that the WSA will provide, specify water to be allocated for industrial use and include proposals on infrastructure required for water services. The WSDP informs the WSDP integrated development plan (‘WSDP IDP’) which is updated annually.

2.1.2 Water licence due diligence questions (including impact on flow returns)

The key risks identified for water licensing requirements were:

1. The lack of clarity in the NWA around whether treated wastewater is classified as ‘waste’ or a ‘water resource’, creating uncertainty about licensing requirements. This was addressed in a discussion with the DWS as specified in section 2.1.4 below.
2. The potential impact on the rights of downstream users to wastewater effluent flows in rivers (i.e., those impacted by a decrease in discharge into water resources due to recycling of water) is identified as potential risk to water reuse projects. A WUL should account for the return flows which are regarded as a resource and is important to ensuring the reserve is catered for.

2.1.3 Response to water licence due diligence questions

In the DBSA WRP D10 & D12 Procurement Plan and Guidelines dated 10 December 2021 (the ‘Procurement Plan’) it was indicated that a consultation with the DWS has taken place and these points were clarified:

1. Water discharged from a wastewater treatment works (‘WWTW’) by a WSA becomes a “water resource”.
2. Discharge must meet the WSA’s water authorisation conditions, which would include volume of discharge, where to discharge and at what quality.
3. If a WSA wants to change the way it discharges by diverting the discharge to a water re-use project, that would require a change to its existing water use authorisation conditions. In considering change, DWS would do an analysis of the implications – to the resource (environmental, reserve, sea discharge etc.); to the water balance of the water resource and implications for upstream users etc.
4. DWS would also need to authorise/ license the use of the WWTW discharge for re-use. The applicant to DWS would be the water user – either the WSA which would then theoretically decrease its need to access from the water resource if it is to reuse it in its WSP process, or water reuse project owner.

2.1.4 Additional due diligence questions for the WRP to address

The DBSA WRP D10 & D12 Procurement Plan and Guidelines (‘Procurement Plan’) identified some further issues based on the feedback of the DWS which should be flagged for the WRP to consider in the future:

1. If the reuse falls outside of the scope of the WSP or WSA function (where a WSP or a WSA can charge a tariff for rendering a municipal service) the Procurement Plan specified that it is not clear that the “Project”

per se will be allowed to "sell" the water to off-takers who use water other than for municipal water services delivery for example agricultural usage, irrigation, mining, industrial, thermoelectric power or aquaculture.

2. The argument is that the DWS, specifically the Minister of Water and Sanitation, is the national custodian of water and therefore water cannot be sold. Issues around the transfer of water use under section 25 of the NWA (if relevant) should be considered in further detail. It is also suggested that the recent case law on this matter be considered as it may be relevant, namely, *The South African Association for Water User Associations and others v Minister of Water and Sanitation and others* (71913/2018) [2020]; *CJ Lotter N.O. and others v The Minister of Water and Sanitation and others* 42072/2018 [2020]; *FGJ Wiid and others v The Minister of Water and Sanitation and others* (90498/2018 [2020] considered whether licensed water use can be transferred and/or sold in terms of the NWA. In reviewing the position, the court held that the sale or trading of water use entitlements is not permissible as it would allow the holders of water use entitlements to choose who the recipients of such water would be. The NWA also does not provide any basis for allowing the holder of water use entitlements to sell such to a third party, as it is ultimately the relevant Minister's responsibility to ensure that water is allocated equitably and used beneficially in the public interest. Although these cases refer to water use entitlements, and not the sale of water *per se*, they reflect a common law position that water is a public resource. Arguably as water scarcity increases, the ability to privatise the sale of water may become very limited. They may wish to reflect on the impact of this common law trend could have on the WRP.
3. There are thresholds where the DWS Regional Office can sign off on the water use license. Those mentioned were <250k m^3 abstraction can be approved by DWS Regional Office, >250k m^3 must go to DWS National for approval. DWS did mention that there are thresholds for discharge based on the discharge limits per annum. With recent institutional and strategic developments, this will require further discussion and engagement around the water use authorisations.
4. Some WSA do not have water use licenses but rather authorisations based on older permits. The programme will need to engage with DWS to acquire this clarification and map out steps to resolve it. This will need to be addressed as part of the project preparation process.

2.2 Environmental, Social and Governance Safeguards

2.2.1 Governance Safeguards Review

The Presidential Infrastructure Coordination Council ('PICC') endorsed the establishment of the National Water Partnerships Programme ('NWPP') under which the WRP will reside. The programme co-owners will be the DWS and the local DCOGTAs. They will take joint ownership of the NWP as per the approval of the PICC. In addition, this committee will have representation from National Treasury in its capacity as Programme funder and DBSA in its capacity as an AE and Programme implementing support. The Oversight Committee will be supported by an Advisory Committee to provide technical projects guidance and support. This will likely include Infrastructure South Africa and other relevant stakeholders. The Oversight Committee will also need to report into the Inter-Ministerial Committee established by the PICC.

In addition, the WRP will be implemented by the key institutional body of the WPO which is discussed in further detail in paragraph 3.1 below and in the environmental and social safeguards.

2.2.2 Governance safeguard due diligence questions

On a review of the governance safeguards in place, the following points should be examined by the WRP:

1. The DBSA as the AE will form part of the Oversight Committee and will also establish and institutionalise the WPO. The Oversight Committee is presumably supposed to have oversight over the projects and the WPO itself. It is noted that this could present a potential conflict of interest with DBSA's role in the Oversight Committee and in the WPO. This should be addressed by the WRP.
2. There is no mention of any independent audit process as to the spending on the WRP unless it is already part of the National Treasury process. Due to the intention to use a blended finance solution ('BFS') as part of the WRP it could be anticipated that the private funders may require enhanced audit measures to be applied to the WRP such as the use of independent external auditors.

2.2.3 Environmental and social safeguards review

Lack of application of environmental and social safeguards

While South Africa has a strong and well-structured environmental and water sector regulatory framework, but the implementation and associated compliance monitoring and enforcement can be problematic due to limited capacity and systems support. Again, application through projects is also sometimes deficient, particularly in the more poorly capacitated parts of the country, which are often where water and environmental hazards are also more significant. Nevertheless, there is established policy and practice to support ensuring that environmental and social ('E&S') safeguards are applied and that adequate consultation with vulnerable groups (including target municipalities, communities, women and youth) is undertaken through the WRP.

Meeting the GCF's environmental and social safeguard standards

Meeting the GCF's environmental and social safeguards is a critical factor for GCF funding approval. This is supported by the DBSA as AE, that also has a clear suite of environmental and social safeguards. In terms of these safeguards the projects to be undertaken would be categorised as Category 2 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.

The WRP will also establish a dedicated WPO to manage the programme level compliance to GCF environmental and social standards. The WPO will utilise standardised processes and guidelines that will ensure that every project undertaken will adhere to, and report against South African environmental safeguards and regulatory standards. The WPO will have clear procedures for baseline assessments and the monitoring of project development and implementation processes to ensure adherence. These will be developed in conjunction with the AE aligning with the ESMS policy framework.

Early engagement with the South African leading line ministries, including DWS, DCOGTA and the Department of Forestry, Fisheries and Environment, 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.

ESMF and ESMP

The Environmental and Social Management Framework ('ESMF') is thorough and includes measures to avoid and minimise negative E&S impacts and to enhance positive aspects of the Programme. In addition, Environmental and Social Management Plan ('ESMP') is a plan developed at project planning phase to outline proposed mitigation measures to address identified environmental risks and impacts throughout the project life cycle. 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.

2.2.4 Environmental and social safeguard due diligence questions

The DBSA WRP D11 Environmental and Social Management Framework and Plan dated 2 December 2021 ('Environmental Plan') is comprehensive and has already provided risk mitigation measures and safeguards to manage the potential environmental and social issues identified. There were a few points where further explanation is required:

1. Reference was made in the Environmental Plan to a "*dedicated WPO to manage the programme level compliance to GCF environmental and social standards*." This seems to indicate a separate WPO to the main WPO that is only committed to the programme level compliance to the GCF environmental and social standards. This should be clarified if the role will fall under the one and only WPO or if a separate WPO will also be formed.
2. The Environmental Plan refers to several roles in a project that will need to be fulfilled including a resident engineer, Environmental Control Officer (ECO), a contractor and a designated environmental officer (DEO). An indication of the costs associated with such positions may be useful and which entity (WPO or municipality) would bear those costs. Arguably these would be upfront costs for any project which may take a while for the municipality to recoup from any project.

2.3 Off-Take Agreements and Resale of Water

2.3.1 Water Entitlement Hurdles Due Diligence Questions

In terms of the NWA, the DWS is the custodian of water and therefore water cannot be sold. However, although water itself is free, WSAs and WSPs may still charge for the "sale" of water to recoup the costs of the treatment, storage and conveyance etc. of water. There is an indication that water reuse will be defined as a "water resource" and not as "water" but the documentation does not expressly clarify whether water reuse classified as a "water resource" can be sold. The DBSA WRP D10 & D12 Procurement Plan and Guidelines dated 10 December 2021 (the 'Procurement Plan') states that if the reuse falls outside of the WSP or WSA function (where the WSP or WSA can charge a tariff for rendering a municipal service) it is not clear that the "Project" will be allowed to "sell" the water to off-takers who use water other than for municipal water services delivery. However, there is an argument that that reused water if sold to consumers will merely off-set or replace existing water sources which can be then used for other purposes i.e. to cater for future demand or servicing of new areas. It is critical that this aspect is explored in further detail with the DWS to ascertain the financial implications of any projects and possible project structuring options.

2.3.2 PPP due diligence questions

The DBSA WAREU Market Study D3 Final dated 27 July 2021 ('Market Study') identified the Design-Build-Operate ('DBO') model or some form of public private partnerships ('PPP')-related contractual structure appears to be the preferred procurement and delivery model. Further, there does appear to be a general preference for the operations to be privately managed. There should perhaps be further detail on the various PPP models available such as the Build-Operate-Transfer ('BOT') and concession to understand which model may be preferred for the WRP or an explanation that a number of these models could be utilised depending on the project. Further details about how some of these models operate could provide useful insights for the WRP. However, this level of detail may be relevant at a later stage in the process when the review is conducted at project implementation level.

3 IMPLEMENTATION HURDLES

3.1 Implementation Structure (Institutional Programme and Project Arrangements)

3.1.1 Institutional Structure Due Diligence Review

A WSA, defined as any municipality responsible for ensuring access to water service in the Water Services Act, may perform the functions of a Water Service Provider ('WSP'), and may also form a joint venture with another water services institution to provide water services. In providing water services, a WSA must prepare a water service development plan ('WSDP') to ensure effective efficient, affordable and sustainable access to water services. The WSDP should be in line with the catchment management strategy of that water management area. The plan provides a linkage between water services provision and water resources management. Each WSDP is used to inform the WSA IDP and budgeting process and the Infrastructure Master Plan of a Municipality.

The main duty of a water service provider is to provide water services in accordance with the Constitution, the Water Services Act and by-laws of the water services authority and any specific conditions set by the WSA in a contract. The main objectives of the Water Services Act (Act 108 of 1997) incorporate providing for the right of access to basic water supply and sanitation necessary to secure sufficient water and an environment not harmful to human health or well-being. The Water Services Act also establishes the institutional arrangements for water services provision and sets out the responsibilities for each of the institutions. It is not clear from the analysis of the WSP, whether these are only public entities or whether they can be private entities. This will be need to be resolved on a case by case basis.

The WRP refers to municipalities as the WSA and potential holder of the WUL. It is noted that the additional role of Water Boards has not been addressed in the WRP and it is therefore assumed that they would be excluded from the WRP. However, some Water Boards do own and operate WWTW that may qualify for reuse opportunities. It is raised as a due diligence question whether the Water Boards should be incorporated or consulted in this process to ensure that there is no unnecessary opposition to the WRP from the Water Boards and that water reuse opportunities with Water Boards have been explored.

Due diligence assessments for the project owners/ counterparties will need to be a key component of the process prior to the signing of agreements with each project owners/ Municipality. The annual Auditor-General assessments are undertaken under the auspices of the Public Audit Act (Act 25 of 2004) and are performed on each Municipality. Financial and performance management and compliance with legislation are audited as part of the annual audit process. The auditor's report reflects an opinion or material findings on the following:

- The financial statements or similar financial reporting
- Compliance with specific matters in key legislation
- Reported performance information, if applicable
- Internal control deficiencies that resulted in:
    - modifications of the opinion on the financial statements,
    - findings on the reported performance of the auditee against,
    - predetermined objectives, and
    - findings on compliance with legislation.

The auditing standards applied are stipulated in the Public Audit Act and include the International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements issued by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC), as well as the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by IFAC's International Ethics Standards Board for Accountants (IESBA) are applied in the audits.

The auditor's report reflects material findings on compliance with relevant legislation in respect of the following subject matters:

- Annual financial statements, performance reports and annual reports

- Procurement and contract management – including procurement and contract management functions performed on behalf of another organ of state (e.g. as procurement or implementing agents)
- Expenditure management
- Transfer of funds
- Utilisation of conditional grants
- Revenue management
- Asset management
- Liability management
- Consequence management
- Strategic planning and performance management

Governance and oversight.The criteria used to evaluate the above subject matters are derived from the applicable legislation, with specific focus on the following:

- Public Finance Management Act, 1999 (Act No. 1 of 1999) (PFMA) and regulations and instructions issued in terms of the act
- Municipal Finance Management Act, 2003 (Act No. 56 of 2003) (MFMA) and regulations issued in terms of the act
- Financial Management of Parliament and Provincial Legislatures Act, 2009 (Act No. 10 of 2009) (FMPPLA) and regulations issued in terms of the act
- Continuing Education and Training Act, 2006 (Act No. 16 of 2006) and regulations issued in terms of the act
- Division of Revenue Act, 2020 (Act No. 4 of 2020) (DoRA)
- Appropriation Act, 2018 (Act No. 4 of 2018)
- Municipal Structures Act, 1998 (Act No. 117 of 1998) and regulations and instructions issued in terms of the act
- Municipal Systems Act, 2000 (Act No. 32 of 2000) (MSA) and regulations and instructions issued in terms of the act
- Municipal Property Rates Act, 2004 (Act No. 6 of 2004) and regulations and instructions issued in terms of the act
- Companies Act, 2008 (Act No. 71 of 2008) and regulations and instructions issued in terms of the act
- Public Service Act, 1994 (Act No. 103 of 1994) (PSA) and regulations issued in terms of the act
- Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000) and regulations and instructions issued in terms of the act
- Construction Industry Development Board Act, 2000 (Act No. 38 of 2000) and regulations issued in terms of the act
- State Information Technology Agency Act, 1998 (Act No. 88 of 1998) and regulations issued in terms of the act
- Prevention and Combating of Corrupt Activities Act, 2004 (Act No. 12 of 2004)

- Auditee-specific enabling legislation.

3.1.2 WPO Establishment Due Diligence Review

The WPO will be established by the AE i.e., DBSA and will be housed by the DBSA for the first five years while the DBSA is tasked with the responsibility of institutionalising that WPO. During this period the DBSA, together with the WRP Oversight Committee will assess the readiness for the WPO to become its own legal entity. This decision will need to be taken with the support of a Business Case that would need to outline the legal, financial, and governance implication. Hence, this five-year timeline is only indicative at this stage.

The WPO will provide functional support to the municipalities to address their capacity constraints. The WPO provides municipalities with a centralized pool of resources that will support water reuse project initiation, preparation, financial solutions and readiness planning. The WPO will aim to develop a phased and progressive/standardised approach that is built upon criteria and principles to ensure ongoing delivery.

It is clear that the WPO is the central institution for the implementation of the WRP and will be initially run by the DBSA. It may be helpful to provide some further insights from the DBSA as to the staffing requirements of the WPO, the criteria for potential candidates and where they will be sourced from. The WPO seems to cover a broad range of core functions including addressing policy, regulatory and institutional aspects, providing procurement support, provide project preparation support and facilitating best practice. The potential conflict of interest with the DBSA being on the Oversight Committee and establishing the WPO has already been discussed in paragraph 2.2.2.

3.2 Funding Flows

3.2.1 Funding Flows Review

The WRP has identified the following potential funding flows:

- During the first 3 years of establishment, the DBSA will be the Management Agent, and the WRP's Core Costs will likely be covered by grants.
- National Treasury will also supply grant funding.
- GCF funding on a project basis for projects within the programme that can demonstrate a material contribution towards the achievement of climate benefits and meeting GCF investment criteria.
- A range of co-investments that will underpin the differing components of the programme and provide the BDFS to support project implementation costs for Component 2 of the WRP.
- Approximately 60% (the initial total programme costs of USD1.47 bn) of the financial requirement will be dependent on securing senior debt from private debt capital partners and equity from private development partners.

3.2.2 Funding Flow Due Diligence Questions

The DBSA WRP D9 Financial Architecture (Financial Architecture) was comprehensive in the presentation of the funding and financial operations of the WRP. The due diligence points for further considerations in the Financial Architecture included:

1. The Financial Architecture document indicated that “equity” financing is less likely to be used for project than debt. The requirement that a municipality provides water and essentially owns the water re-use project means that it will be unlikely to privatise the investment into the WRP infrastructure itself. The municipality will have to own the water reuse infrastructure. It will therefore be important for projects investors to assess whether they will be able to take an equity stake in the water re-use infrastructure. Instead, debt financing is likely to be the predominant mode of funding that is available for the majority of the water reuse projects. The type of funding and associated risks is critical even at a review of the overall programme.

2. The Financial Architecture refers to the Independent Blended Capital Facilitator (‘IBCF’) which will be a separate entity appointed under contract and not established within the WPO. It may be helpful to indicate what type of pre-existing entity the IBCF would be to fulfil this role because it serves quite a critical role in the financing of the WRP.

3.2.3 Accounting and Tax Due Diligence Questions

The DBSA Accounting and Tax Opinion on embedded GCF Investment Programme dated 21 June 2019 (‘Accounting and Tax Opinion’) was reviewed in application to the funding of the WRP to provide additional relevant insights:

1. DBSA cannot recognise the GCF Loan as a financial liability on their books because (i) the view that DBSA is an agent in terms of this transaction and therefore cannot recognise the funds from the GCF as a financial liability within their books and (ii) the loan does not meet the requirements of IAS37 paragraph 10 i.e. no outflow of the entity’s resources embodying economic benefits. This may impact DBSA’s financial statements and tax liability.

2. The disbursement from GCF to DBSA must be refunded to the GCF immediately if not disbursed to sub borrowers by the DBSA. This may create problems in the timing of projects under the WRP because it implies that the DBSA should know which it will immediately disburse funds to before it accepts the disbursement from the GCF. Therefore, DBSA cannot retain the GCF funds for a long period of time and this consideration should be included in the WRP for planning purposes.

3. The GCF will not be exposed to any foreign exchange movements as they will disburse funds in United States (‘US’) dollars and receive the flow of funds back in US dollars. However, this may pose currency fluctuations issues to DBSA and the sub borrowers if the revenue from the projects is in South African Rands. This risk has already been addressed in the Financial Architecture and the DBSA WRP D5 Risk Report Final dated 25 November 2021 (‘Risk Report’) by the use of currency management mechanism.

4. It should also be noted that the GCF as a foreign entity may be subject to 10% withholding tax on interest in terms of the Double Taxation Treaty between South Africa and the Republic of Korea. The DBSA will include tax gross up provisions in the downstream agreements with the borrower.

5. It is noted that the Accounting and Tax Opinion is dated for 2019 and therefore the opinion may be required to be updated to ensure that the analysis is up to date.

3.3 Risks

3.3.1 Review of Key Risks in WRP

There were two "risk" identification sections in the due diligence documentation reviewed but there was limited consistency between the risk sections in the two different documents, namely: (1) the GCF Concept Note and (2) the Risk Report. It is therefore recommended that the risks identified in the GCF Concept Note and in the Risk Report are harmonised for consistency purposes and to emphasise the critical risks of the WRP. This is illustrated by a summary of the risk sections of the GCF Concept Note and the Risk Report using red blocks to indicate where the risk doesn't feature in the other risk section and green blocks to indicate where the risk features in both documents. The risks in the two different documents are summarised in the tables below.

Risk identified in GCF Concept Note

NO.	RISK	MITIGATION	IDENTIFIED IN RISK REPORT
1.	Tariff risk and cost recovery – only self-regulation for water tariffs	Only if independent water regulator	No
2.	High capital costs of water reuse projects vary depend on level of treatment and water quality required	Improved water waste treatment technologies	No
3.	Brine disposal – must municipalities do not permit it directly into sewerage lines	Identify offtakes for range of effluent types and qualities	Yes
4.	Treatment standards and testing – high regulatory standards on quality of water	WRP seek to support municipalities to meet requirements.	No
5.	Negative public perception on water reuse	Water reuse education programmes	Yes
6.	Awareness of stakeholder of technology is low		No
7.	Determination of downstream reserves and allocations to ecological reserve		No

8.	Physical risks of rising seas, fires etc.		No
9.	Limited participation by private sector	WRP create environment for private sector investment	No

Risks identified in Risk Report

NO.	RISK	RISK LEVEL	MITIGATION	IDENTIFIED IN GCF CONCEPT NOTE
1.	Oversight and governance. The structuring and delivery of water reuse projects within municipalities is complex, noting the various sector actors across the various spheres of government.	Medium	The Presidential Infrastructure Coordination Council (PICC) in May 2021 endorsed the establishment of the National Water Programme (NWP) under which the WRP will reside. The programme co-owners will be the national departments responsible for water (DWS) and local government (DCOG).	No
2.	Environmental & Social Safeguards. While South Africa has a well-structured environmental and water sector regulatory framework, the implementation and associated compliance monitoring and enforcement are often weak. The regulatory and legal frameworks regarding social impacts find root in the country's Constitution (Act 108 of 1996) but are less well conceived	Medium	Nevertheless, there is established policy and practice to support ensuring that social safeguards are applied and that adequate consultation with vulnerable groups (including target municipalities, communities, women and youth) is undertaken through the WRP.	No
3.	Generating project pipelines. Limits on municipality technical and operation capacity and ability to procure for bankable project pipelines.	Low	WRP will identify the projects and WPO shall provide support to municipalities.	No

4.	Negative public perception. See GCF Concept Note.	High		Yes
5.	Partner risk of municipalities having insufficient capacity as well as political interference that results in weak governance that can have impact on the financial status of the municipality as well as its ability to adhere to formal agreements	High	The municipalities will sign project funding agreements, as formal agreements between the project owners and the lenders. WRP and WPO to build up municipality capacity.	No
6.	Barriers to water re-use has limited scale of the project to only small, localised ones e.g.	Medium	Alignment of WRP with national plans and DWS, DCOG as partners in running this programme.	No
7.	**Sufficient co-investment to support GCF investment.** Approximately 60% (USD600 mil of the initial total programme costs of USD1 bn) of the financial requirement will be dependent on securing senior debt from private debt capital partners and equity from private development partners.	Medium	WRP needs to lower risk of investment by blending GCF funding with private funding.	No
8.	Project revenue and debt repayment risk. In the case of the projects developed within the WRP, the primary and sole source of income for the repayment of the debt provided by the funders/financers is the revenue generated by those projects.	High	Firm agreement on tariff rates and off-take agreements.	No
9.	Foreign exchange fluctuations of concessional financing which is in US Dollar denominated (USD)	Medium	Use of currency hedging derivatives.	No

	and financed in South African Rand (R)			
10.	Impact of Covid-19 on cost of funding and financing ability of co-investors.	Medium	The development of a Blended Finance solution will support in addressing these risks and will make use of: (a) pooled programmatic capital; (b) private capital through different instruments; and (c) credit enhancement instruments from Development Finance Institutions and others	No
11.	Compliance (AML/CFT) risk. Instances of fraud and other corrupt practices, as outlined in the GCF's Policy on Prohibited Practices, will undermine the programme's due diligence efforts as well as negatively impact upon the reputation of the GCF, the DBSA as Accredited Entity, and the Executing Entity as well as the creditability of the WRP	Low	The South African legislation, through the Public Finance Management Act (Act 1 of 1999) and Municipal Finance Management Act (Act 56 of 2003) provide for regulatory oversight and procedures to counter prohibited practices.	No
12.	Water reuse regulation. South Africa has strict legislative and regulatory standards in relation to environmental management, water resource management, and water service delivery. No ability to dispose of saline.	Medium	DWS is supportive of the WRP as this supports the implementation of the National Strategy for Water Reuse (DWS, 2011). The WRP will work with DWS, as part of the Oversight Committee and owner of the programme to resolve these broader regulatory challenges through the initial project pipeline. Technical support provided by WPO.	Yes Mention is made of saline disposal difficulty.

3.3.2 Comments On Risks Identified In WRP

Compliance (AML/CFT) risk

In terms of the compliance (AML/CFT) risk it should further be stated that South Africa is a member state of the Financial Action Task Force ('FATF') the inter-governmental body that sets the highest international standards aimed at preventing illegal money laundering and terrorist financing activities. Furthermore, the DBSA subscribes to compliance with the Financial Intelligence Centre Act 38 of 2001 ('FICA') which is the South African AML/CFT legislation and complies with the FATF standards.

3.3.3 Risk Due Diligence Questions

There were further potential risks that were not expressly addressed in the WRP. These may be relevant in other sections of the deliverables and could be included or expanded on in the WRP.

NO.	RISK	RISK LEVEL	MITIGATION
1.	Cost of water treatment. It should be noted that the current levels of water treatment by WWTP may not be up to sufficient standards and therefore further investment in the WWTP than normally expected may be the case.	High	Focus on areas/projects where the water treatment standards require less investment or improve WWTP processes in South Africa. There are additional environmental benefits to this.
2.	Cost and supply of electricity as an operational cost. Reference in the WRP was made to cost of capital but not to the electricity required to the projects which will be required for water reuse treatment. Also, points could be raised about the impact of the lack of supply of electricity due to unstable electricity supply in South Africa will have on the projects.	High	Consider using lower quality water (i.e., not drinking water) which will bring down the costs.
3.	Political risk of municipalities. Constant issue in water re-use project has been political stalling of opposition parties or that a new political party wins power of a municipality in a local election.	High	Extensive consultation process run by WPO of all political parties for each municipality to ensure buy-in.
4.	Inability for municipalities to charge cost reflective water tariffs. The WRP did refer to the provision of free supply of water and incremental water tariffs at various levels of water supply quantity. The population may be	High	The successful example of Cape Town municipality's ability to raise water tariffs during the Cape Town drought. There was some resistance from the local population

	resistant to paying any increased water tariffs based on historically low levels of water tariffs. This may impact the municipalities' ability to recoup water tariffs for the cost of the WRP. In addition, metering and billing of water tariffs in current unmetered areas would also pose a challenge. The inability to recoup water tariffs This would pose a significant hurdle for private investors.		was to the increased tariffs, but the municipality was able to maintain the high-water tariff levels and invest the additional funding in its own water programmes including WRP.

3.4 Additional Implementation Hurdles

Other possible implementation hurdles that were identified in the due diligence but not explicitly addressed by the WRP are outlined below. These hurdles would have more relevance at a project level and therefore may be reviewed and included at a later stage in the project review of the WRP.

NO.	HURDLE	DIFFICULTY LEVEL	MITIGATION
1.	The validation of the WRP results that is required for potable water re-use and can significantly add to the costs of potable water re-use project.	High	For potable water re-use the WRP could have explored how the WRP results would be validated. It is noted that some WRP send water samples internationally to be tested.
2.	Hazard Analysis Critical Control Point ('HACCP') principles for potable water re-use is the recommended international standard but it can significantly add to the costs of the potable water re-use project.	Medium	There is also a suggestion to use the HACCP programme indicated internationally as best practice for potable water re-use standards.
3.	Use of servitudes and construction for irrigation method. It was clear that irrigation, industrial and potable water re-use were all options that were available to the WRP. In the case of irrigation, the WRP cannot make use of the municipalities water distribution lines which is only available for potable water re-	Medium	The WRP could identify the risks and costs associated with the irrigation WRP. It is assumed that adequate financial models will be done on all possible WRP projects (including irrigation, industrial or

	use. In this case, a separate distribution method (pipeline and possible servitude risks) would become applicable and some of these hurdles could be identified.		potable water re-use) before investment in the project.

4 RECOMMENDATIONS

4.1 Policy and Legal Review

The following high-level recommendations were made in the policy and legal review:

- A key issue in the policy and legal review of the WRP was the requirement of a water licence for water re-use (including the impact on flow returns). This is further complicated by the fact that some municipalities are authorised under WUL, but others are authorised under prior permits and the plan for addressing licensing requirements of these two different categories of municipalities should be set out.
- The WRP could state that only municipalities can hold WUL or act as WSP (and not private entities) and sell water to its constituents if this is the case. This makes it difficult to fully privatise water re-use projects, but the assumption is that municipalities would still engage in a PPP. A private entity would design, build, and engage in the operation and maintenance (‘O&M’) of water re-use projects.
- The WRP could benefit from the inclusion of an independent audit review.
- The different types of PPP models including DBO, BOT and Concessions could be evaluated in further detail to decide which models might be appropriate for the WRP but this may be addressed at a project level.
- The water offtake and re-sale agreements for the private sale of water could be explored in further detail.

4.2 Implementation Hurdles Review

The following high-level recommendations were made on a review of the implementation hurdles:

- In terms of the implementing institutions, the role of the Water Boards (if any) should be discussed as these are pre-existing governmental institutions and the role of other stakeholders (e.g., unions or political parties) who might oppose the WRP.
- The potential conflict of interest in terms of DBSA’s role in the Oversight Committee of the WPO should be addressed in the WRP.
- An indication of the type of entity that will fulfil the role of the IBCF would be useful as this entity performs a critical role in the financing of the WRP.

- Minor amendments to the Financial Architecture are required to clarify certain funding points.
- There is scope to conduct an updated Accounting and Tax Opinion for the benefit of the GCF and the DBSA for the WRP.
- The financial risks to the WRP such as additional costs and issues with revenues should be highlighted and addressed in the documentation to provide comfort to investors in the WRP.
- The critical implementation hurdles are focused on the proper identification and mitigation of all the risks of the WRP. Several potential risks were identified in this due diligence report which did not appear to be explicitly addressed by the WRP, but this could be reviewed and explained in an updated version of the deliverables.

5 CONCLUSION

Extensive work and research have formed the basis of the WRP architecture and project design to ensure that it is a practical programme that can be implemented on a programme and on a project level. This also reflected in the GCF Concept Note. The due diligence questions have been addressed in the relevant documentation and all critical points have been comprehensively considered. The scope of the programme will continue to expand as the WRP progresses with further granularity on a project level required as the next step in the WRP.

APPENDIX A SCOPE OF DUE DILIGENCE

The following documents were reviewed:

1. DBSA Water reuse strategic case D2 final for issue dated June 2021
2. DBSA WAREU Market Study D3 Final dated 27 July 2021
3. DBSA WRP D4 Concept Note for GCF Review (v4) dated 7 July 2021
4. DBSA WRP D5 Risk Report Final dated 25 November 2021
5. DBSA WRP D9 Financial Architecture dated 8 October 2021
6. DBSA WRP D10 & D12 Procurement Plan and Guidelines dated 10 December 2021
7. DBSA WRP D11 Environmental and Social Management Framework (ESMF) and Plan dated 2 December 2021
8. GCF CN inputs – NWP and other water sector interventions dated 5 November 2021
9. DBSA Accounting and Tax Opinion on embedded GCF Investment Programme dated 21 June 2019

The following pieces of legislation were considered:

Water

1. Constitution of South Africa (Act 108 of 1996)
2. National Water Act (Act 36 of 1998),
3. Water Services Act (Act 108 of 1997)

Municipality

4. Municipal Structures Act (Act 117 of 1998)
5. Municipal Systems Act (Act 32 of 2000)
6. Municipal Finance Management Act (Act 56 of 2003)
7. Municipal bylaws

Resources and Environmental

8. Constitution of South Africa (Act 108 of 1996)
9. Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)
10. National Environmental Management Act, 1998 (Act 107 of 1998)
11. National Water Act (Act 36 of 1998),
12. National Heritage Resources Act (Act 25 of 1999)
13. National Environmental Management: Waste Act, 2008 (Act 59 of 2008)
14. National Environmental Management: Integrated Coastal Management Act, 2008 (Act 24 of 2008)

The following Acts also have an indirect bearing on the management of water in South Africa but were not discussed in the project in detail:

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.
vi. Water Act 54 of 1956.

The following policy documents were considered:

1. 2004 National Climate Change Response Strategy
2. Draft Green Finance Taxonomy
3. National Water Resource Strategy 2 (2013)
4. Climate Response White Paper (2011).
5. Strategic Framework for Water Services
6. National Water and Sanitation Master Plan
7. National Development Plan
8. National Infrastructure Plan