



Company name of Bidder:

BID NO: 11/2022 (RE-INVITE)

**HOLSLOOT DIVERSION WORKS (RE-INVITE): REHABILITATION AND
LANDSCAPING IN THE HOLSLOOT RIVER, RAWSONVILLE**

JUNE 2022

**This document is not for sale. Any entity that requests payment must be reported at the
contact person indicated in this tender.**

BID AMOUNT
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GENERAL REQUIREMENTS

A service provider with proven knowledge and expertise as a rehabilitation and landscaping contractor, specifically in riparian zones, is required to execute rehabilitation work in accordance with the approved rehabilitation plan for the Holsloot Construction site, the Botanical assessment and the Compliance Notice from DEA&DP.

It needs to be noted that this rehabilitation work is done under instruction from DEA&DP, and thus needs to start implementation by 30 June 2022. The prospective bidder must be willing to start work within 14 days of appointment.

Conditions that may pose a risk: (Summary of Risk analysis)

Flood conditions may arise in the river. Sandy ground conditions can be expected and the construction site is situated on a slope. Security for materials and equipment must be supplied. The Contractor must put all necessary precautions in place to work under these conditions and prepare the site with the correct falls.

The scope of works will include:

1. Alien clearing on the disturbed areas on the Holsloot Project, as specified in the Rehabilitation Plan and Compliance Notice.
2. Rehabilitation of the nine (9) zones as specified in the Rehabilitation Plan and Compliance Notice.

Documents are available for the bidder to download from the following website address under the specific tender - <https://casidra.co.za/tenders/>

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Documents for the purpose of this bid include:

1. Conditions to Submit Bid (Form CBD 2.1 (Lump Sum) or Standard Conditions of Contract can be viewed on the **Casidra** website at [www. Casidra.co.za](http://www.Casidra.co.za)
2. Price Form, Bill of Quantities and Schedules (Form CBD 3.1 (Lump Sum))
3. Scope of Works (Form CBD 4)
4. PPP Evaluation Form (Form CBD 5.1 (80/20))
5. Bank Entity Form (Form CBD 7), unless the banking details of the company indicate “verified” on the Central Supplier Database (CSD).
6. Registration on the CSD for all suppliers is compulsory and registration numbers must be supplied.
7. Rehabilitation Plan
8. Botanical Assessment
9. Compliance Notice issued by DEA&DP

In accordance with Casidra’s Preferential Procurement Policy, this bid as further indicated in CBD 5.1 is subject to:

- ***a functionality compliance test;***
- ***B-BBEE certified bids will receive preferential scores;***

The successful bidder will be required to fill in and sign a written Contract Form (CBD 8). Included are a penalty clause of R 500/calendar day that apply for late completion of works and a 10% retention fee for 3 months not bearing interest.

BID DEADLINE: The closing date for the bid is **10 June 2022 strictly at 12H00.**

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SUBMISSION OF BIDS

Bids must be submitted in a sealed envelope with the name of the bidder and the inscription **“HOLSLOOT DIVERSION WORKS (RE-INVITE): REHABILITATION AND LANDSCAPING IN THE HOLSLOOT RIVER, RAWSONVILLE – BID NO. 11/2022”** and placed in the bid box available at Reception of **Casidra’s** Head Office, 22 Louws Avenue, Southern Paarl. No faxed, emailed, counter-to-counter courier or posted bids will be accepted.

The following documents (including fully completed and signed **CBD** forms numbered 1 to 7 as supplied) must be **valid for a period of 90 calendar days** after closure of the bid and submitted as a bid packet:

Document number	Document description	Action required/comment	Mark √
CBD 1	General requirements	Signed	
CBD 2.1	Conditions to submit bid	Signed	
CBD 3.1	Price form (lump sum)	Complete, sign	
CBD 3.1 Experience	Proof of previous work and contact details of three work-related references that are qualified to comment on work.	Compulsory	
CBD 3.1 Rates	Unit rates for the works on the forms as supplied	Compulsory	
CBD 3.1 Changes	Indication if any changes are proposed in scope of works and cost implication.	If required	
CBD 3.1 Plant	List of machinery and plant available	Compulsory	
CBD 3.1 Project Manager CV	Proof of competency of a Project Manager by submission of detailed CV.	Valid/ compulsory	
CBD 4	Scope of works	Signed	
CBD 5.1 (80/20)	PPP Evaluation form	Complete, sign	
CBD 7	Bank Entity form (Not needed if “verified” on CSD)	Complete, bank stamp	
TCC of principle and sub-contractors	Registration and verification of Tax Clearance on CSD.	Compulsory	
BEE	B-BBEE Certificate or Sworn Affidavit (as applicable, see CBD 5 for detail)	Original affidavit or certified copy certificate/Valid/not compulsory	
Company profile	Detailed company profile including the core competencies of personnel and subcontractors	Compulsory	
COIDA	Letter of good standing of the Contractor in terms of COIDA	Valid/ compulsory	
OHS Plan	Occupational Health and Safety Plan approved by the Client	Valid/ Proof after appointment	

All technical enquiries can be referred to **Mr Michael Pienaar at (021) 863 5000 or 082 387 0119.**

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Compliance with the Occupational Health and Safety Act and regulations apply. It is the responsibility of the Contractor to perform all services accordingly.
Take Note: Compliance in terms of the regulations will be strictly enforced and no lenience allowed.

Tenderers to note changes in Health & Safety specification which must take into account COVID 19. Tenderers to allow for provision of additional Health & Safety measures in their bid price.

For definition of Construction works, see the Construction Regulations 2014 and definitions as in CBD 2.1

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TAX CLEARANCE CERTIFICATE REQUIREMENTS

It is a condition of bid that the taxes of the successful bidder **MUST** be in order, or that satisfactory arrangements have been made with the South African Revenue Service (SARS) to meet the bidder's tax obligations.

In order to meet this requirement, bidders must ensure that they are registered on the CSD and their tax status on the CSD are indicated as compliant. If a discrepancy exist between the CSD and the SARS eFiling of the supplier, then a printed version of the Tax Clearance Certificate must be supplied by the supplier and the eFiling PIN number for verification of authenticity by **Casidra** on the SARS website.

Foreign suppliers with no tax obligation in South Africa must request from **Casidra** and complete a form SBD1 that will be submitted to SARS for verification and issuing of a Confirmation of Tax Obligation letter.

Where Consortia / Joint Ventures / Sub-Contractors are involved, each party must submit a separate Tax Clearance Certificate.

COIDA REQUIREMENTS

The aim of the COID Act is to provide for compensation in the case of disablement caused by occupational injuries and diseases, sustained or contracted by employees in the course of their employment, or death resulting from such injuries and diseases; and to provide for matters connected therewith.

Workers who are injured on duty or obtain an occupational disease can claim compensation for temporary or permanent disablement. If workers die as a result of an injury on duty, their dependants will also be entitled to claim compensation. Employers that registered their employees are protected against civil claims in this regard. The COIDA basically prevents employees covered by the act from suing their employers for damages in terms of common law.

Please note that the following employers are exempted and do not have to pay assessment fees:

- National and provincial state departments;
- Certain local authorities
- Employers insured by a company other than the Compensation Fund like Mutual Associations. There are currently two approved mutual associations:
 - Federated Employers Mutual Assurance (FEMA), for the building industry; and
 - Rand Mutual Assurance Company (RMA), for the mining industry.

According to prescription, anyone who employs one or more part- or full-time workers **must register** with the Compensation Fund and pay annual assessment fees. The Compensation Fund is a trust fund that is controlled by the Compensation Commissioner and employer contributes to the Compensation Fund. The Commissioner is appointed to administer the Fund and approve claims lodge by employees or their dependants. This means that the Fund will compensate the employee or their dependants and not the employer.

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Where a service provider does not have any personnel in employment at time of tender, an official tender letter for the respective bid from the Department of Labour must still be submitted indicating this status. A period of 14 days will be allowed after tender award for registration.

No other documents other than stated above, will be accepted.

CONSTRUCTION MANAGER

OHSA Construction regulations: Clause 8 (1) Management and supervision of construction work

A principal contractor must in writing appoint one full-time competent person as the **construction manager** with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the principal contractor.

"competent person" means a person who—

a) has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training;(Training and registration only applicable from August 2015) and

b) is familiar with the Act and with the applicable regulations made under the Act;

"construction manager" means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site.

CENTRAL SUPPLIER DATABASE

National Treasury indicated during 2015 the development and future use of the Central Supplier Database (CSD) as a way of simplifying the process of doing business with government.

The CSD will be the source of all supplier information for all organs of state and will reduce the exchange of compliance documents in paper form, eliminate multiple registrations with different organs of state and ultimately reduce the cost for both business and government by enabling electronic registration and verification process.

The CSD will interface with SARS to verify tax clearance certificates and the Companies and Intellectual Property Commission (CIPC) for business registration and business ownership information. The CSD will furthermore verify supplier information with the register for tender defaulters and database of restricted suppliers. (Please see Fact Sheet and CSD pamphlets.)

From 1 September 2015 prospective suppliers should self-register on the CSD website www.csd.gov.za. Apart from registering and capturing supplier information on the CSD, suppliers currently on any database of organs of state need to maintain their records through the existing supplier systems for the period 1 September 2015 to 31 March 2016. This period will be referred to as the Interim Period. During the Interim Period suppliers that register on the CSD must provide their CSD supplier number and unique security code that will be communicated to them as well

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as any other relevant documentation (not yet electronically verified by the CSD) to the organs of state they want to do business with. **Casidra** urges all their suppliers to please comply with the request.

During the transitional period until 31 March 2016 **Casidra** will migrate our current supplier database to CSD to ensure accuracy and validation of information prior to mandatory implementation of the database.

For more information please contact National Treasury ocpo.treasury.gov.za (http://ocpo.treasury.gov.za/Suppliers_Area/Pages/Central-Supplier-Database.aspx) or [Central Supplier Database for Government](https://secure.csd.gov.za/) (<https://secure.csd.gov.za/>).

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CONDITIONS TO SUBMIT BID (LUMP SUM)

Definitions:

In this Agreement, unless the context clearly indicates a contrary intention, the following words will have the following meanings and cognate expressions will have corresponding meanings:

The “Contractor” means the company or person appointed under this bid for the purposes of delivering the service for this Project to the Client as described in the Scope of Works (**CBD 4**). For the purposes of this document, the terms “Contractor” and “Service Provider” are assumed to have the same meaning.

“Project Manager” means an official appointed and in charge of coordinating the project at **Casidra** SOC Ltd. in accordance with the provisions of these terms and conditions.

“Project” means “**Rehabilitation and Landscaping of the disturbed areas in the Holsloot River riparian zone**” as further identified under the project name as above.

“Service level” means the stipulated criteria applicable to the indicated project, including any set of criteria relating to the performance of the Contractor.

“Project Team” or “Steering Committee” means the people appointed by the Client and identified to guide the project and approve achievements.

“Client” or “the Client” means **Casidra** SOC Ltd.

“Employee” means a person employed in the public administration including persons contemplated in section 12A of the Public Service Act (advisors to executive authority) and a person performing similar functions in a municipality or a provincial public entity, whether permanently or temporarily.

“Family member” means a spouse (partner in marriage, customary union according to indigenous law or a relationship in which the parties live together in a manner resembling a marital partnership), child, parent, brother or sister, whether such relationship results from birth, marriage or adoption.

“Construction work” means any work as defined in the Construction regulations 2014 under the definitions

- Construction work including working at heights
- Excavation work

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- Structure including demolition
- Temporary works

Unless the context clearly indicates a contrary intention, any word denoting any gender includes the other gender, the singular includes the plural and vice versa, natural person includes artificial persons and vice versa and insolvency includes provision or final sequestration, liquidation or judicial management.

“Acceptable tender/bid” means any tender which, in all respects, complies with the specifications and conditions of tender as set out in the tender document.

1. Lump Sum Bid / Measured

These documents are for a **lump sum** bid for all labour and material as set out in the Scope of Works. For the purposes of variation orders, the hourly or unit rates rate of the services should also be given if requested on the form **CBD 3.1**.

No unit rate price adjustment of whatever nature, except for decreases or increases in the Value-Added Tax (VAT) and / or Variation Orders, will be applicable in this contract. The bidder shall make provision in his bid price for possible fluctuations in costs.

2. Premises in Occupation

The premises for the works **will be** in occupation during the contract period. Approval to access the premises must be obtained from the land owner.

3. Fixed Price Bids

3.1 No contract price adjustment of whatever nature, except for decreases or increases in the Value-added Tax (VAT) and / or Variation Orders, shall be applicable in this contract. The Contractor will make provision in his bid for possible fluctuations in costs.

3.2 If the instruction / appointment for the construction of certain phases is done after the validity of the bid has expired, prices may, on request, be updated or re-negotiated within the reasonable norms of escalation.

4. Project Manager

The person appointed by the Client to act as the Project Manager is **Michael Pienaar** and is responsible for the project management of this contract and can be reached at **082 387 0119**, email address is mpienaar@casidra.co.za.

5. Acceptance of Bids

The Client is not bound to accept the lowest bid nor is it required to give reasons for selecting one Contractor in favour of another.

6. Expenses in Preparation of Bid

The Client will not be responsible for, subject to the Preferential procurement regulations, nor pay any expenses for losses which the bidder may incur in preparation of this bid.

7. Value Added Tax

The total quoted price must **include** Value Added Tax (VAT).

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8. Contract Period

The contract period for the completion and delivery of all the work in this contract is as follows:

- **12 months – Rehabilitation**
- **24 months – Watering**
- **36 months – Follow up alien clearing**

All work commencing **14 (fourteen) days** after the date of appointment of the Contractor and shall include all statutory and building industry holidays to reach “the completion date”.

9. Inspection of Site

Bidders must familiarise themselves with the local conditions, the accessibility of the site, the full extent and nature of the work to be done and the conditions affecting the execution and pricing of the bid. Claims on the grounds of lack of knowledge in such respects or otherwise will not be entertained.

If a site meeting is held, notice of attendance must be forwarded to the contact person.

Only information given in writing to the Contractor by the Engineer during the tender period will be regarded as binding on the Contract. Verbal information, given during the site inspection or at any other time prior to the award of the Contract, will not be regarded as binding on the Contract.

10. Site

The site to be occupied will be clearly pointed out to the Contractor at the site handover. The Contractor will not be allowed to extend his operations beyond the boundaries of the site.

11. Water for the Works

The Contractor may use water free of charge / pay for use at a tariff agreed with the Land Owner from the existing supply **if available**. He will obtain permission from the Representative / Land Owner before any connection to or extension of the existing supply is made, which will be executed, removed and made good on completion of the works at the Contractor's own expense.

12. Electricity & Lighting for the Works

The Contractor may use the existing power supply free of charge pay for use at a tariff agreed with the Land Owner from the existing supply **if available**. He will obtain permission from the Representative / Land Owner before any connection to or extension of the existing supply is made, which shall be executed, removed and made good on completion of the works at the Contractor's own expense.

The Contractor will allow for the risk of failure in the electrical supply or in case of an insufficient supply, in which case he will make his own arrangements and all costs that may arise shall be for his own account.

13. Scaffolding & Hoisting Equipment

The Contractor will provide for the supply, erection and removal of scaffolding and / or hoisting equipment as required.

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14. Tools, Equipment & Machinery

The Contractor will provide all his own tools and equipment as well as facilities and transport for this project. Machinery should be sufficient to complete the works in the allocated time.

15. Existing Services

If the Contractor encounters any existing services such as cables, pipes or sewers during the execution of the works, he must immediately notify the Client, halting all work in the vicinity thereof, until instructions to proceed have been given by the Project Manager.

Electric wires, telephone wires, pipes, etc. will not be interfered with during the course of the contract but if it should be necessary to disconnect or cut any such wires or pipes, the Client will be advised thereof and his instruction awaited.

16. Accounts and Payments

Payment of accounts received by the Client in terms of the works completed, shall be effected within 30 days after receipt of a correctly completed and approved invoice for the work module. The Client does not accept responsibility for delays in payment due to faulty accounts or paperwork.

Payments will be done maximum on a **monthly** basis and will only be made for services rendered.

17. Responsibility of the Client

The Client will:

- 17.1 Ensure that payments are done in accordance with the agreed payment schedule.
- 17.2 Not unnecessarily and for an unreasonable period delay any approvals or directives that are needed for the project to proceed.
- 17.3 If applicable: Provide the Contractor with a Occupational Health and safety baseline risk assessment.
- 17.4 If applicable: Prepare a site specific health & safety specification based upon the risk assessment.

18. Responsibility of the Contractor

The Contractor will:

- 18.1 Ensure all building and construction works are executed within the requirements as stipulated in the Occupational Health and Safety Act, No. 85 of 1993.
 - The Contractor must sufficiently made provision for Occupational Health and Safety requirements in his bid.
 - The Contractor must have and provide proof of sufficient resources to carry out the work safely as required by the Occupational Health and Safety Act.
 - The Contractor must have and provide proof of the necessary personnel that is qualified and has suitable experience, competencies, skills and training to do work safely and meet the requirements of the Occupational Health and Safety Act and regulations.
 - For construction works - The Contractor must ensure and provide proof that all personnel have a valid medical certificate of fitness specific to construction and operate construction vehicles and mobile plant.

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- For construction works - The Contractor must provide proof, as part of the bid documents, a letter of good standing in terms of COIDA. Failure to submit will result in invalidation of the bid.
- 18.2 Have all the necessary equipment and qualified personnel to execute the works successfully.
- 18.3 **Wage rates**
- Be responsible for all the sub-Contractors appointed by him to complete the works. A minimum of 75% of local labour must be incorporated in the project and all **workers must be SA citizens.**
 - The following guidelines should be considered when setting rates of pay for workers:
 - The rate set should take into account wages paid for comparable unskilled work in the local area per sector, if necessary
 - The rate should be an appropriate wage to offer an incentive for work, to reward effort provided and to ensure a reasonable quality of work.
 - It should not be more than the average local rate to ensure people are not recruited away from other employment and jobs with longer-term prospects.
 - Men, women, disabled persons and the aged must receive the same pay for work of equal value.
 - Provision should be made in the tender for value for payment of UIF and COIDA statutory levies.
- 18.4 Will provide and demonstrate a suitable and sufficiently documented Health & Safety Plan, which will be applied from the date of commencement of and for the duration of the contract. If the risks involved in the project are of such nature, based on the severity and probability, that safety is compromised, and/or the Contractor is not meeting the requirements of this Clause, the Client reserves the right to appoint an Occupational Health and Safety Officer at the cost of the Contractor.
- 18.5 Will be required to keep an attendance register, which meets certain criteria, of all employees who work at the project and submit this information on a bi-weekly basis to the Client who, in return, will submit a report to the funder / donor.
- 18.6 The Contractor's supervisor, who shall be identified in writing to the Client's representative and empowered to act on his / her behalf, shall constantly be present in meetings. The supervisor shall attend to any problems or complaints that may arise and directives given to him / her by the Client's representative shall be deemed to be given to the Contractor. The supervisor must be contactable at all reasonable times, preferably to be equipped with a cellular phone.
- 18.7 Conform to all Laws, Regulations or By-Laws of any Department of State, Provincial Administration or Local Authority which may be applicable hereto.
- 18.8 Be responsible for the travelling, accommodation, work tools and management of its services.
- 18.9 Keep a site instruction book with numbered pages on site where all the events and instructions for the works are documented. This book must be completed in triplicate, one copy to the Contractor, one copy to the Client and the 3rd copy always kept in the book as reference.

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19. General

- 19.1 Under no circumstances must the Contractor accept that he has been appointed without the completed documentation as described hereafter.
- 19.2 The successful Contractor will be given notification in writing / by means of an appointment letter and the signing of **CBD 8**, together with this document, will form the contract.
- 19.3 Late bids will only be considered on the recommendation of the Adjudicating Committee.
- 19.4 The Contractor is responsible to complete all the work according to the quoted price.
- 19.5 The Contractor must be able to give a one (1) year guarantee – if not, this must be indicated on the quotation on the page named **“Changes Made By Bidder”**.
- 19.6 According to the evaluation of the bid it can be insisted that an interview be conducted with the Contractor to test his knowledge on the subject, or to give further information on its product, service or pricing.
- 19.7 If the above-mentioned requirements are not met, a motivation together with the quotation must be submitted and indicated on the page named **“Changes Made By Bidder”**.
- 19.8 The attached form, **CBD 5.1**, “PPP – Evaluation Criteria of the Contractor”, **MUST** be completed, signed and handed in as part of the bid documents by the Contractor.
- 19.9 The Contractor must provide all details of any references of previous work of a similar nature or that demonstrates the ability of the Contractor to perform a task of this nature (refer “PPP – Evaluation Criteria: References of previous work”).
- 19.10 The Client retains the right to conduct a “credit reference check” as part of the appointment conditions.
- 19.11 The Contractor **must include** all relative information and documents that will not be available on the CSD (e.g. copy of B-BBEE certificate, company profile and CVs of employees if requested) with the quotation in order to successfully complete the application.
- CSD registration and Tax clearance is compulsory for the principle and all sub-contractors**
- 19.12 The Client retains the right to partially or completely amend the quotation to award or cancel the bid.
- 19.13 NO TIPP-EX may be used to rectify mistakes.
- 19.14 The Client retains the right to amend financial / accounting calculations and to accept the amended amount as the new bid amount.

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19.15 The outcome of the bid will **not be made public, but each bidder will be informed on the outcome of the bid**. Enquiries on the bidder's own evaluation and score can be made to project manager as to improve the bidder's competitiveness, ensure correct and complete bids for future reference.

20 Cancellation of the project

The Client retains the right to partially or completely, amend, award or cancel this project before appointing any Contractor.

21 Evaluation of the bid

The awarding of bids is dependent on the special evaluation criteria as set out in the policies of **Casidra**. The evaluation criteria of this Preferential Procurement Policy is based on the **"Preferential Procurement Policy Framework (Act 5 of 2000)"** and related Regulations and updates.

Further detail on the application of these regulations is as in document **CBD 5.1**. Awarding of the bid is dependent on a preferential points system, and every presentation is measured against the specific evaluation criteria as indicated. The completion and signing of this document is thus a prerequisite to qualify as a service provider.

22 Declaration of interest

Public Administration Management Act 11 of 2014, Section 8(2):

An "employee" may not – (a) conduct business with the State or (b) be a director of a public or private company conducting business with the State.

Public Service Proclamation Act 103 of 1994 – Section 30: Directive

"Conflict of interest" as a conflict between the public duties and private interests of an employee, in which the employee has private interest which could improperly influence him/her, and/or negative impact... on the public interest.

Prevention and Combating of Corrupt Activities Act 12 of 2004, Section 17:

Any public officer who, ... acquires or hold a private interest in any contract, agreement or investment emanating from or connected with the public body in which he or she is employed or which is made on account of that public body, is guilty of an offence.

Public Service Regulations 2016 – Code of conduct:

Paragraph 13(b): *(An employee shall) – not engage in any transaction or action that is in conflict with or infringes on the execution of his or her official duties;*

Paragraph 13(c): *(An employee shall) – not conduct business with any organ of state or be a director of a public or private company conducting business with an organ of state, unless such employee is in an official capacity a director of a company listed in schedule 2 and 3 of the PFMA;*

Paragraph 13 (d): *- will recuse himself or herself from any official action or decision-making process which may result in improper personal gain, and this should be properly declared by the employee;*

In view of possible allegations of favouritism, it is required that the bidder declare his/her position in relation to the Client. The bid may be disregarded if that bidder or its directors have abused the Client's supply chain management system, committed fraud or any other improper conduct in relation to such system.

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23 Construction Insurance

Proof of construction insurance for planned work must be submitted by the successful contractor. If you do not have insurance, for smaller (less than R100 000) projects, **Casidra** can put it under its insurance portfolio for your own costs (0.5% of the contract value). We must be given enough prior notice regarding this.

24 Inspections, tests and analysis

- 24.1 All pre-bidding testing will be for the account of the contractor.
- 24.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the contractor shall be open, at all reasonable hours, for inspection by a representative of the Client or an organization acting on behalf of the Client.
- 24.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the Client shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 24.4 If the inspections, tests and analyses show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the Client.
- 24.5 Where the supplies or services do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the contractor.
- 24.6 Supplies and services which do not comply with the contract requirements may be rejected.
- 24.7 Any contract supplies may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the contractor who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the contractors cost and risk. Should the contractor fail to provide the substitute supplies forthwith, the Client may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the contractor.
- 24.8 The provisions of clauses 24.4 to 24.7 shall not prejudice the right of the Client to cancel the contract on account of a breach of the conditions thereof, or to act in terms of the conditions of contract.

25 Warranty

- 25.1 The contractor warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract.

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The contractor further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Client's specifications) or from any act or omission of the contractor, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

- 25.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise.
- 25.3 The Client shall promptly notify the contractor in writing of any claims arising under this warranty.
- 25.4 Upon receipt of such notice, the contractor shall, within the period specified and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the Client.
- 25.5 If the contractor, having been notified, fails to remedy the defect(s) within the period specified, the Client may proceed to take such remedial action as may be necessary, at the contractor's risk and expense and without prejudice to any other rights which the Client may have against the contractor under the contract.

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BID NO: 11/2022 (RE-INVITE)

HOLSLOOT DIVERSION WORKS (RE-INVITE): REHABILITATION AND LANDSCAPING IN THE HOLSLOOT RIVER, RAWSONVILLE

The total price for this service must include all labour and material required for the proper execution of the work as described in the Scope of Works and as per the Engineer's drawings.

Take note: This tender will be evaluated on the criteria for a market related price. The full cost of the service and/or works must be indicated and may not be discounted or cross subsidised against another service, project, transaction or sale of goods. Such contributions discounted against the total project cost must be specified, itemised, priced and clearly indicated in the bid.

These prices must be valid for a period of **90** days from the date of closure of the bid to allow for evaluation and appointment.

The completion period of this service is **12 months for rehabilitation, 24 months for watering, 36 months for alien clearing and follow-up alien clearing**, starting from the day of appointment.

- | | |
|--|---------|
| 1. Preliminaries and General | R _____ |
| 2. Alien Clearing (refer to Rehabilitation Plan) | R _____ |
| 3. Rehabilitation Area 1 | R _____ |
| 4. Rehabilitation Area 2 | R _____ |
| 5. Rehabilitation Area 3 | R _____ |
| 6. Rehabilitation Area 4 | R _____ |
| 7. Rehabilitation Area 5 | R _____ |
| 8. Rehabilitation Area 6 | R _____ |
| 9. Rehabilitation Area 7 | R _____ |
| 10. Rehabilitation Area 8 | R _____ |

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11. Rehabilitation Area 9

R _____

12. Other

R _____

SUB-TOTAL

R _____

Add 10% contingency to the subtotal

R _____

Value-Added Tax (VAT)

R _____

GRAND TOTAL

R _____

Are you registered in terms of sections 23(1) of 23(3) of the Value-added Tax act 1991(Act No. 89 of 1991) (Please circle your answer)

YES NO

If yes, provide your VAT registration number:

Signature:

Date:

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BILL OF QUANTITIES – LUMP SUM

NB. These quantities are given as a guideline for the bid and for the purposes of unit rates and will in no way be used as a measured bid. This is a **lump sum** bid.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL
1.	Preliminary and General				
1.1	Site Establishment/De-establishment	event	2		
1.2	Health and Safety management and inspections	month	12		
1.3	Preparation of Health and Safety plan	event	1		
1.4	On site storage and safety facility	month	12		
1.5	First aid kit and Qualified Person	month	12		
1.6	Other				
				TOTAL	
2.	Alien Clearing				
2.1	Alien Clearing	ha	2.48		
2.2	Removal of biomass	event	1		
2.3	Follow-up and removal of biomass every 6 months	event	6		
2.4	Maccaferri Biomac (or similar)	m²	Rate Only		Rate Only
2.5	Maccaferri Cior Logs (or similar)	m	Rate Only		Rate Only
				TOTAL	
3.	Area 1				
3.1	Pelargonium cucullatum	plant	350		
3.2	Osteospermum moniliferum	plant	300		
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3.3	Dodonaea angustifolia	plant	350		
3.4	Elegia capensis	plant	30		
3.5	Restio paniculatus	plant	30		
3.6	Prionium serratum	plant	30		
3.7	Cyperus textilis	plant	30		
3.8	Seeding	m ²	7500		
3.9	Other				
				TOTAL	
4.	Area 2				
4.1	Pelargonium cucullatum	plant	120		
4.2	Osteospermum moniliferum	plant	150		
4.3	Dodonaea angustifolia	plant	150		
4.4	Seeding	m ²	0		
4.5	Other				
				TOTAL	
5.	Area 3				
5.1	Pelargonium cucullatum	plant	60		
5.2	Osteospermum moniliferum	plant	60		
5.3	Dodonaea angustifolia	plant	60		
5.4	Aristea capitata	plant	60		
5.5	Elegia capensis	plant	15		
5.6	Restio paniculatus	plant	15		
5.7	Prionium serratum	plant	20		
5.8	Cyperus textilis	plant	15		
5.9	Seeding	m ²	450		
5.10	Other				
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				TOTAL	
6.	Area 4				
6.1	Pelargonium cucullatum	plant	250		
6.2	Osteospermum moniliferum	plant	250		
6.3	Dodonaea angustifolia	plant	300		
6.4	Aristea capitata	plant	250		
6.5	Elegia capensis	plant	40		
6.6	Restio paniculatus	plant	40		
6.7	Pronium serratum	plant	40		
6.8	Cyperus textilis	plant	60		
6.9	Seeding	m ²	3800		
6.10	Other				
				TOTAL	
7.	Area 5				
7.1	Pelargonium cucullatum	plant	220		
7.2	Osteospermum moniliferum	plant	220		
7.3	Dodonaea angustifolia	plant	220		
7.4	Aristea capitata	plant	200		
7.5	Elegia capensis	plant	40		
7.6	Restio paniculatus	plant	40		
7.7	Pronium serratum	plant	40		
7.8	Cyperus textilis	plant	50		
7.9	Seeding	m ²	2100		
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7.10	Other				
				TOTAL	
8.	Area 6				
8.1	Pelargonium cucullatum	plant	170		
8.2	Osteospermum moniliferum	plant	170		
8.3	Dodonaea angustifolia	plant	170		
8.4	Seeding	m ²	600		
8.5	Other				
				TOTAL	
9.	Area 7				
9.1	Seeding	m ²	7200		
9.2	Other				
				TOTAL	
10.	Area 8				
10.1	Pelargonium cucullatum	plant	270		
10.2	Osteospermum moniliferum	plant	270		
10.3	Dodonaea angustifolia	plant	270		
10.4	Aristea capitata	plant	250		
10.5	Seeding	m ²	2600		
10.6	Other				
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				TOTAL	
11.	Area 9				
11.1	Pelargonium cucullatum	plant	250		
11.2	Osteospermum moniliferum	plant	250		
11.3	Dodonaea angustifolia	plant	250		
11.4	Aristea capitata	plant	250		
11.5	Elegia capensis	plant	25		
11.6	Restion paniculatus	plant	25		
11.7	Pronium serratum	plant	25		
11.8	Cyperus textilis	plant	50		
11.9	Seeding	m ²	3100		
11.10	Other				
				TOTAL	
12.	Other (Specify)				
12.1					
				TOTAL	

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CHANGES MADE BY BIDDER

If the bidder wishes to make any changes to any of the bid conditions or specifications, or if he wishes to qualify his bid in any way, he must clearly set out his suggestions below. If he makes **ANY** changes and do not list them below, his bid will be disqualified.

If no changes or amendments are made, please indicate it below by writing **NONE** in the space below.

NB. Any changes made by the bidder outside the scope of works, resulting in not meeting pre-qualifying conditions or compulsory subcontracting, may influence the functionality of the end product and may result in the bid being disqualified.

Item	Suggested Change

If more space is required, please add a separate page.

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SCHEDULE: PROOF OF RELEVANT EXPERIENCE & REFERENCES

The following is a summary of works that have been completed successfully by bidder. In order to be compliant for this bid, the following detail **MUST** be included:-

- Supply at least three different references with contact numbers.
- The description of work must be relevant to the nature of this contract. For e.g., do not list fencing projects completed when the scope of works is a rehabilitation project
- Elaborate on project description. For example; do not state environmental work – Be specific as to the works executed in the contract to support relevant experience.

Employer (include contact information)	Description	Value of Work	Completed

If more space is required, please add a separate page.

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SCHEDULE: PLANT AND EQUIPMENT TO BE USED FOR THE WORKS

The following is a list of main items of equipment, plant and tools that we:

- (a) have available immediately, or
- (b) will purchase / hire if our bid is accepted.

Quantity	Description (Size, Capacity, etc.)	(a) or (b) as above

If more space is required, please add a separate page.

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SCHEDULE: PROJECT MANAGER COMPETENCY

The contractor must attach to this page **DETAILED & COMPREHENSIVE** proof of competency of the proposed project manager.

Please also supply this particular person's experience regarding construction health & safety regulations (OHS Act).

If more space is required, please add a separate page.

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SCHEDULE: DETAILED COMPANY PROFILE

The contractor must attach to this page a **DETAILED & COMPREHENSIVE** company profile including core competencies of personnel. The company profile must summarize information about your organisation.

In order for a company profile to be compliant for this bid, the following detail **MUST** be included in the company profile.

- Company core business activities – Describe your products and services and markets in which you operate
- Company background – State number of years in business, location, history of company, etc
- Company resources – Number of employees, core competencies of personnel, structure of company - organogram

If more space is required, please add a separate page.

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COIDA LETTER OF GOOD STANDING

The contractor must attach to this page a copy of the current letter of good standing

If more space is required, please add a separate page.

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BID NO: 11/2022 (RE-INVITE)

HOLSLOOT DIVERSION WORKS (RE-INVITE): REHABILITATION AND LANDSCAPING IN THE HOLSLOOT RIVER, RAWSONVILLE

Scope of works

REHABILITATION AND LANDSCAPING ON HOLSLOOT RIVER:

This project consists of the following elements:

- A. Alien clearing of 2.165 ha of alien vegetation.
- B. Rehabilitation of nine (9) rehabilitation zones as per the Rehabilitation Plan
- C. Allow for irrigation of planting in summer for a period of two (2) years as specified in the Rehabilitation Plan.
- D. Allow for no-entry signage around the rehabilitated zones, as specified in the Rehabilitation Plan.
- E. **Planted vegetation will need to be watered twice per week during the summer for a period of two years.**
- F. Erosion protection blankets and logs may be required. The specifications should be similar or equal to the specifications attached to this tender document.

The following aspects are critically important:

- All work executed to be done in line with the Rehabilitation Plan, Botanical Assessment and the Compliance Notice issued by DEA&DP.
- All plants and seeds will need to be locally sourced, to prevent genetic contamination.
- The volume of topsoil available in the areas that need to be rehabilitated is not determined.
- Log sheets and photos will need to be supplied of seeds and plants collected for rehabilitation.
- The seed specified per ha is clean seed, and the weight in the report is considered to be the weight of clean seed.
- Payment for the rehabilitated areas will be done as follows:

Plant/Seed collection: 10%

Plant/Seed storage: 20%

Plant Seed planting: 30%

50% success rate (3 months after planting): 30%

Retention 2 years after planting: 10%

- Payment for alien clearing and erosion protection will be done on the basis of works completed.

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END OF WORK TO BE DONE

For Casidra office use only:

<u>TIMELINE</u>			
<u>ACTION</u>	<u>START DATE</u>	<u>END DATE</u>	<u>DURATION (WEEKS)</u>
Administrative and tender preparation	2022/06/02	2022/06/03	1
Tender runtime/sourcing of quotes	2022/06/03	2022/06/10	7
Adjudication and award of bid	2022/06/10	2022/06/11	1
Time to activate delivery	2022/06/11	2022/06/30	19
Construction time/delivery completed	2022/06/30	2025/06/30	1096
Total duration			1124

Bid documents technically clarified by:

NAME	TITLE

SIGNATURE	DATE

Head of Department sign off:

NAME	TITLE

SIGNATURE	DATE

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FINANCIAL REGULATIONS SECTION 22

BID NO: 11/2022 (RE-INVITE)

SUPPLY CHAIN MANAGEMENT – PREFERENTIAL PROCUREMENT POLICY – EVALUATION CRITERIA (PPP – EVALUATION CRITERIA)

ONLY FOR USE OF BIDS FROM R30 000 TO THE MAXIMUM VALUE OF R50 MILLION

Casidra, as a Schedule 3D development and implementation agent for the Western Cape Provincial Government underwrites, and complies to, the Provincial and National developmental initiatives and administers funds on behalf of donors. Within this context, and because of the specific requirements of the donors for the application of the funds, the awarding of bids is dependent on the special evaluation criteria as set out in the policies of **Casidra**. The evaluation criteria of this Preferential Procurement Policy is based on the “**Preferential Procurement Policy Framework (Act 5 of 2000)**” and related Regulations.

Awarding of the bid is dependent on preferential points system, and every presentation is measured against the specific evaluation criteria as shown. **The completion and signature of the document is thus a pre-requisite to qualify as a service provider.**

GENERAL DETAILS: <i>(Please print clearly)</i>	
Registered Company Name	
Trading Name / Individual Full Name	
Company Reg Number / ID Number	
VAT Number	
CSD Supplier Number *	
CSD Unique Registration Ref Number *	
Postal Address	<div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px;"></div>
Postal Code	

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Physical Address			
Postal Code			
CONTACT DETAILS			
Representative Name			
Telephone Number			
Cell Phone Number			
Fax Number			
Email Address			
Website Address			
OTHER DETAILS			
Main Business Type (<i>Please tick</i>)		Consultants & Professionals	
Tools & Equipment (Hardware)		Clothing & Textiles	
Office Supplies & Furniture		Accommodation & Transport	
Training & Mentorship		Printing & Advertising	
Event Services (Catering, Venue Hire)		Irrigation & Water Services	
Earthmoving & Heavy Machinery		Other Production Inputs	
Seed, Fertilizer, Chemicals		Livestock & Animal Production	
Construction Services		Repairs & Maintenance	
Vehicles & Implements		Municipal & Bulk Services	
Other (Please Specify)			
* Note that you HAVE to register on the Central Supplier Database (CSD) (www.csd.gov.za) before we can use you as a service provider.			

Joint Ventures

Joint ventures are eligible to submit tenders provided that:

1. Every member of the joint venture is registered with the CIDB;
2. The lead partner has a contractor grading designation in the (above indicated) class of construction work;
3. The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with Table 9 of the Construction Industry Development Regulations.

Further Joint Venture criteria

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- Tenders to note that if a joint venture is submitted, a JV cidb contract must accompany this bid.
- The joint Venture must clearly state the percentage split of responsibilities and also list all the responsibilities / duties of each member of the Joint Venture.
- The work and obligations making up the contract must be broken down into discrete elements, or sections, usually on the basis of locality, the nature of the work, or the capabilities and resources required.
- Each element is assigned to a specific member of the joint venture who assumes full responsibility for its execution, under the direction of the joint venture must be indicated

Failure to submit above information, if submitting a Joint Venture bid, will mean disqualification of the bid.

• Section D – Designated Sectors – Local Content

The following sectors in this bid are subject to a stipulated minimum threshold for local production and content:

Sector	Minimum Threshold (%)
NA	-

If Section D is applicable, **Form SBD 6.2** must be completed and signed as well as **Annex C Local Content Declaration – Summary Schedule**, and must be handed in as part of the bid documentation.

• Proof of competency of Project Manager

(The level of competency needed with reference to specific person CV is to have experience in rehabilitation and landscaping, but also all aspects of health and safety regarding construction works)

Sub-contracting

Excluding any subcontracting requirements as a condition of tender, as indicated in CBD 1, the following general condition apply:

A Maximum of 25% of the value of the contract may be subcontracted without proof of the subcontractor B-BEE status:

- unless with proof of a subcontractor with equal or better B-BBEE points
- unless the subcontractor is an exempted micro enterprise with the capacity and ability to execute the subcontract.

In event of the above, full disclosure by the contractor must be made in the bid documents to **Casidra** with full details on the subcontractor as well as proof of the capacity and ability of the subcontractor to execute the work. Subcontracting a portion of the tender, without disclosure and approval by **Casidra**, the Contractor can be penalised up to 10% of the value of the contract.

Will any portion of the contract be sub-contracted? YES / NO (delete which is not applicable)

If YES, indicate:

- (i) what percentage of the contract will be subcontracted?
- (ii) The name of the sub-contractor?
- (iii) The B-BBEE status level of the sub-contractor?

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- (iv) Whether the sub-contractor is an EME? YES / NO (Attach B-BBEE certificate / an **original** sworn affidavit as proof)

Final points awarded to bid = (B) Price Max 80% + (C) B-BBEE Max 20%

Section A – Functional Requirements

Functional refers to: A service or product that is designed to be practical, useful, working or operating, taking into account factors like quality, reliability, viability, and durability and the technical capacity (time and resources) and ability (knowledge and skills) of the bidder to execute the works.

An offer that does not obtain the minimum score for each functionality criterion or the minimum weighted average for functionality as indicated, is not an acceptable tender. Is this bid subject to the evaluation of functional requirements? **YES / ~~NO~~** (Casidra to indicate)

If “**YES**”, the following criteria will be used for evaluation:

No	Evaluation criteria	Weight (A)	Score (B)	Minimum score required	Total (A x B)
1	Experience of similar work	40%	For office use	4	For office use
2	References of previous work	40%	For office use	4	For office use
3	Rehabilitation equipment available for contract	20%	For office use	3	For office use
TOTAL SCORE - A minimum score of 76% is required for functional requirements for this bid to be considered for further evaluation				% = Total / 5	For office use

Functional Item	1 Poor: Non-compliant	2	3	4	5 Excellent: Fully compliant
References from clients on similar nature related previous work	No refences or very poor rapport by all three references	Some minor problems experienced by all three references	Moderately good by all three references	Recommended by all three references	Highly recommended by all three references
Construction equipment available for contract	Has no equipment resources at all	Has insufficient in-house equipment available to execute works & has to hire most of the	Has basic in-house equipment available to execute works but also has to hire externally	Has sufficient in-house equipment available to execute works	Has more than sufficient in-house equipment available to execute works
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		plant externally			
Experience of similar work – (refer to company CV)	No experience	Limited exposure to work at hand	Not similar, but related	Similar work	High level similar work

Section B – Formula for Awarding of Price Points (Only to be considered if Section A has met the minimum requirement)

Unconditional discounts offered will be taken into account for determining the following point:

$$\text{Point} = 80 \left[1 - \frac{\text{Price} - P_{\min}}{P_{\min}} \right] \quad \text{where } P_{\min} \text{ is the lowest acceptable bid}$$

Section C – B-BBEE Contribution

An **EME** must submit a valid, fully completed, **original, certified, dated and signed sworn affidavit** (no photostat copies of certification allowed) confirming annual turnover and level of black ownership or an affidavit issued by Companies Intellectual Property Commission (accounting officer for a Closed Corporation).

If a **start-up EME**, a **clear, originally certified copy**, of B-BBEE certificate issued by the CIPC for EME-s only is accepted.

A **QSE that is less than 51% (50% or less) black owned** must be verified in terms of the QSE scorecard issued via Government Gazette and submit a **clear, valid, originally certified copy** of a B-BBEE Verification Certificate issued by SANAS.

A **QSE that is at least 51% black owned (51% or higher)** must submit an **original, certified, dated and signed sworn affidavit** confirming turnover and level of black ownership as well as declare its empowering status or an affidavit issued by Companies Intellectual Property Commission.

A **large enterprise** must submit a **clear, valid, originally certified copy** of a B-BBEE Verification Certificate issued by a verification agency accredited by SANAS.

A **trust, consortium or joint venture**, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.

A **trust, consortium or joint venture** (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE status level verification certificate for every separate tender.

Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

Bids of non-compliant contributors (no certificate) will be considered, but no points will be awarded for B-BBEE status.

The generic threshold for EME are R10 million, but depending on the sector, the threshold as set in the BEE charter for that sector will apply. (Tourism R2.5mill and Construction R1.5 mill)

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B-BBEE Status level of contributor	Number of points	Points awarded	BEE recognition level
1	20	EME & QSE 100% Black owned For office use	135%
2	18	EME & QSE 51% + Black owned For office use	125%
3	14	For office use	110%
4 and EME	12	EME 51% < Black owned For office use	100%
5	8	For office use	80%
6	6	For office use	60%
7	4	For office use	50%
8	2	For office use	10%
Non-compliant contributor	0	For office use	0%

Market related pricing

If the bidder, whose tender has been compliant, and that received the highest overall points, do not offer a market related price, the offer may be negotiated with that bidder to be market related.

Are you willing to negotiate your offer? YES / NO (delete which is not applicable)

If a market related price cannot be negotiated, the offer for negotiation will be extended to the second highest point scoring bidder, then the third highest scoring bidder, where after, failing to reach any agreement, the tender will be cancelled.

Declaration of interest and Bidders past supply chain management practices

In terms of section 22 of the **CBD 2.1** Conditions of Tender document:

Are any family member, trustee, director, shareholder or member of the bidder in any way connected to the State?

and/or

Do any potential conflict of interest exist, where the public duties (like being part of an approval or adjudication process) and private interests of the bidder, could improperly influence or lend inside trading information to the bidder?

and/or

Do the bidder have any relationship with a person that may be involved with the evaluation or adjudication of this bid? In view of possible allegations of favouritism, it is required that the bidder declare his/her position in relation to the Client.

If so, furnish particulars:

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The bid may be disregarded if that bidder or its directors have abused the Client's supply chain management system, committed fraud or any other improper conduct in relation to such system.

- (i) Is the bidder or any of its directors;
- listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (www.treasury.gov.za, follow the link at the bottom of the home page);
 - Listed on the register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act;
- (ii) Was the bidder or any of its directors;
- convicted by a court of law (including a court outside of the RSA) for fraud or corruption during the past five years?
 - contract with any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?
- (iii) The contractor is not known to be insolvent, in receivership, bankrupt or being wound up, or has its affairs administered by a court or a judicial officer, has suspended its business activities, or is subject to legal procedures in respect of any of the foregoing.

If so, furnish particulars:

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IMPORTANT NOTES

Casidra reserves the right to:

- disregard any bids where the declaration (below) has not been signed;
- change the point system of the policy without prior notification;
- negotiate prices based on market related pricing before award of the bid;
- accept parts of the bid items or split bids based upon item prices
- disclose the results of the points awarded on request;
- evaluate and award points according to the documentation supplied and evaluate functionality at its own discretion;
- award the bid to the qualifying Contractor with the highest number of points scored, unless the prices are not market related or on the basis of objective criteria stated in the tender documents, like fairness, safety, public interest and international suppliers;
- to award the bid to a Contractor which does not necessarily have the lowest price.

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Other Notes:

- Final points scored will be rounded off to the nearest 2 decimal places
- In the event of equal scores, the offer with the highest B-BBEE score will be successful. If scores are still equal, and where functionality is part of the bid, the offer with the highest functionality score will be successful. If the scores are still equal, the drawing of lots will determine the outcome.

The bid may be cancelled if:

- all the bid offers received are higher than R50 million;
- circumstances change and there is no longer a requirement for this service;
- funds are no longer available or if there are insufficient funds available in the budget for the work;
- no acceptable bids and/or market related prices are received;
- there is a material irregularity in the tender process;
- false information were supplied by the bidder.

Cancellation of bid will be placed in the same media as initially advertised.

Bids which are suspected to supplied false information will be subjected the *alteram partem* rule. If proven that false information was supplied, disqualify the tender or terminate the contract, without payment and/or claims for damages incurred by such cancellation.

The Contractor will be liable for the recovery of all costs and damages suffered as a result of the misconduct or cancellation of the bid or less favourable conditions affecting the award of the bid.

Exclusion of the Contractor and its directors, who acted fraudulently, from any business with an organ of state for a period not exceeding 10 years after has been applied.

Declaration by the company submitting the bid:

I, _____

as the authorised representative of the company / CC / business hereby declare that, to the best of my knowledge the abovementioned information is true and correct and that I am duly authorized as a signatory of this bid. On behalf of my business I accept the terms and conditions as set out in this document. I will supply documentary proof of any information supplied herein on request and to the satisfaction of **Casidra**.

In terms of the POPI Act I further give consent that my contact and company details as will be captured on the **Casidra** database may be shared with the role players/funders involved in the project and be used by **Casidra** for the purpose of further procurement.

Signature

Date

SUPPLY CHAIN PERFORMANCE MEASUREMENT

In order for **Casidra** to measure its supply chain efficiency and effectiveness, please assist us by answering the following questions:

For office use only	Version no: 11.12	Date: 25 August 2021
To be initialled by bidder		<i>Initial here</i>

- What were the source that made you became aware of this bid being available.

Mark with X

Personal Email invite to bid:	
Via a friend or business partner:	
National Government E-Tender website:	
Local Newspapers:	
Casidra own website:	
CIDB website	

Other: Specify.....

- Was the time allowed to date of closure sufficient for you to compile an offer.

No – too short	Yes - Sufficient	No - Too long
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For office use only	Version no: 11.12	Date: 25 August 2021
To be initialled by bidder		<i>Initial here</i>



BANK ENTITYFORM

1. DETAILS OF COMPANY / INDIVIDUAL: <i>(Please print clearly)</i>	
Full Name	
ID Number	
Company Reg Number	
VAT Number	
Postal Address	
Postal Code	
Physical Address	
Postal Code	
2. BANKING DETAILS	
Name of Bank	
Name of Branch	
Branch Code	
Account Number	
Type of Account	
3. CONFIRMATION BY BANK	
We hereby confirm that the bank details under paragraph 2 of this form belongs to the individual / company under paragraph 1.	
Date Stamp of Bank	BANK OFFICIAL
	Print Name:
	Signature:

For office use only:			
To be signed upon appointment of winning bidder to form the agreement between the parties			
Signature for Casidra		Signature for Contractor	

**BID NO: 11/2022 (RE-INVITE)****HOLSLOOT DIVERSION WORKS (RE-INVITE): REHABILITATION AND
LANDSCAPING IN THE HOLSLOOT RIVER, RAWSONVILLE****JUNE 2022****BASELINE RISK ASSESMENT REPORT**

A baseline risk assessment focuses on the identification of risk that applies to the whole project. The purpose of conducting a baseline risk assessment is to establish a risk profile.

This is an initial risk assessment that focuses on a broad overview in order to determine the risk profile to be used in subsequent risk assessments. It is performed to obtain a benchmark of the types and size of potential hazards, which could have a significant impact on the whole project and all stakeholders.

The stakeholders need to identify the major and significant risks, then prioritise these risks and evaluate the effectiveness of current systems for risk control.

The risks for the above project which have been identified have been highlighted under the following categories:

1. Scope of work (what is being built?)

- A. Alien clearing of 2.165 ha of alien vegetation.
- B. Rehabilitation of nine (9) rehabilitation zones as per the Rehabilitation Plan
- C. Allow for irrigation of planting in summer for a period of two (2) years as specified in the Rehabilitation Plan.
- D. Allow for no-entry signage around the rehabilitated zones, as specified in the Rehabilitation Plan.
- E. **Planted vegetation will need to be watered twice per week during the summer for a period of two years.**

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BASELINE RISK ASSESMENT

- F. Erosion protection blankets and logs may be required. The specifications should be similar or equal to the specifications attached to this tender document.

2. Location of site and elements specific to the location (municipal by-laws, weather factors, geographical factors)

Location

The site is located along the Holsloot river near Rawsonville.

Weather

Weather always poses a risk to any construction project. Therefore, the below information is important to manage this risk item accordingly.

Rawsonville:

The climate in Rawsonville is warm and temperate. In winter, there is much more rainfall in Rawsonville than in summer. February is the warmest month of the year. The temperature in February averages 28.3 °C. In August, the average temperature is 5.1 °C. It is the lowest average temperature of the whole year.

3. Geo- technical risks (conditions of the soil, raise any concerns that may hinder the project progress)

The selected site is situated on one side of the river in aquatic and undulating conditions, or on an island. The density and growth of biomass varies from dense to sparse, large too small.

The riparian zone is just coming out of its winter season, so certain soil conditions could be waterlogged and muddy underfoot causing access to and on site impossible. There is the possibility of the river flooding if weather conditions are abnormal and

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BASELINE RISK ASSESMENT

large amounts of rain is present and/or dams releasing large quantities of water into the river.

There are access roads to the site, however they belong to individual landowners and need their consent and approval.

Steep river banks will increase the risk of equipment and people falling in the river.

4. Environmental risks (This is the actual or potential threat of adverse effects on living organisms and environment by effluents, emissions, wastes, resource depletion, etc. involved in the construction phase)

The environmental risks associated with this site are as follows:

The nature of the construction work will take place directly in the riparian zone one side of the Holsloot River. Within this habitat there are indigenous plants/trees which have to be protected, as well fauna which is present in this riparian zone. A high volume of bird life is present.

Due to the site being in an environmental area there is always the risk for soil, groundwater and surface water pollution and contamination when using mechanical plant, fuel and pesticides. It will also not be allowed to dispose of any kind of waste by burying it on site.

Biomass not removed also poses a major threat, as this material just ends up in the river again and further exacerbate the current problem.

Movement of vehicles on farm access roads creates dust which in turn sits on farmers crops affecting their quality of produce.

Disturbance of ground and biomass increases the possibility of personell being attacked by snakes.

5. Risk assessments based on scope of work (Is this a high rise building in a built up area? Is it working in a flood plain and/or river with eroded soil conditions?)

Cutting logs at rivers edge also is evident and this restricted access poses risk to both the method of felling of tree and resources used in this operation.

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BASELINE RISK ASSESMENT

Access to biomass invariably means making access through landowners' farms through windbreaks, orchards, etc. This has to be managed so as to cause the least damage to infrastructure. Access to sites will mean using farmer's roads on their land. This will need to be coordinated as to where the impact is minimal on both farming operations and infrastructure.

Also, all the farms/resorts are working farms/resorts, so farm /resort workers and implementation is at risk regarding both transport and biomass removal.

6. Equipment Risks.

The equipment risks associated with this project is as follows:

This will be a mechanised job with large numbers of mechanised earth moving equipment in close proximity to people, infrastructure, and surrounding environment. This earth moving equipment has to gain access in limited space areas with treacherous ground conditions being stable and at times unstable.

7. Material Risks.

The following could pose risks associated with the project:

- Shortages of herbicide from DEAD&P.
- Obtaining of herbicide from farmers
- Flammable materials such as diesel/petrol in a highly flammable environment
- Hazardous substances as pesticides and herbicides will have to be used

8. Ergonomic Risks (Ergonomic hazards refer to workplace conditions that pose the risk of injury to the musculoskeletal system of the worker).

The ergonomic risks associated with the above project are as follows:-

- Severe injury/death from falling trees
- Severe injury/death from mechanical plant
- Asphyxiation due to smoke inhalation if burning of biomass is done.
- Drowning due to falling in river.
- Humidity could be high working under canopy with high heat expected.

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BASELINE RISK ASSESSMENT

9. Controls specific to client requirements (two day induction, pink overalls, entrance to existing premises, etc.).

The list of client requirements applicable to this project is:

- Collection of data
- Complete removal of biomass to identified area of the river

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RISK OVERVIEW CHART FOR PROJECT:

RISK CATEGORY	RISK FACTOR	ASSOCIATED RISK	RISK PROBABILITY FACTOR (1-5) 1 being low 5 being very high
LOCATION	High temperatures	Heat exhaustion of personnel	5
	Rain	Worsen conditions underfoot & raise river level	2
GEOGRAPHICAL	Soil conditions aquatic and undulating	Difficult conditions to operate heavy machinery in to remove biomass.	4
ENVIRONMENTAL	Dust pollution	Dust will affect neighboring farmers crops	3
	Indigenous plants	Risk of damaging indigenous vegetation	2
	Soil contamination	Risk of pollution to ground & river by contaminants	4
	Snakes	Risk of being bitten by snakes	5
SCOPE OF WORK	Submerged logs in river	Difficulty in removing biomass from river regarding access and difficulty of extraction	4
	Access to biomass	Access routes through various farm owners and access to riparian zone also difficult	3
	Water over & in water	Dangerous working in flowing river for personnel & equipment	4
EQUIPMENT	Mechanized earthmoving	Working in difficult terrain and in close proximity to personnel	5

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BASELINE RISK ASSESMENT

	equipment		
MATERIAL	Herbicide	Needs to be managed as without herbicide cannot cut logs	3
	Flammable material and pesticides	Dangerous to work with and to store	3
ERGONOMIC	Falling trees	Injury or even loss of life can occur if safety measures are not in place during felling operations	5
	Drowning	Injury or even loss of life can occur if safety measures are not in place while working near or in river.	5
	Asphyxiation	Injury or even loss of life can occur when unplanned fires are started. Damage to infrastructure is a high probability	4
CLIENT REQUIREMENTS	Data collection	Inaccurate data places project at risk as needed for database for Environmental affairs	4

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Signature for Casidra		Signature for Contractor

BASELINE RISK ASSESMENT

Please find below risk assessment template which can be used by the contractor to manage the above identified risks.

Risk assessment							
Title:							
Company name:			Date assessment was carried out:				
Assessment carried out by:			Date of next review:				
Risk assessment Activity or area	What are the hazards?	Who might be harmed and how?	What are you already doing?	What further action do you need to take?	Who needs to carry out the action?	When is the action needed by?	Done

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Signature for Casidra		Signature for Contractor	



BID NO: 11/2022 (RE-INVITE)

HOLSLOOT DIVERSION WORKS (RE-INVITE): REHABILITATION AND LANDSCAPING IN THE HOLSLOOT RIVER, RAWSONVILLE

JUNE 2022

In terms of the Construction Regulations 2014 Regulation 5, a baseline risk assessment for the intended works is required to be done by the Client for each specific construction site.

This risk assessment will inform the site-specific Occupational Health and Safety specifications that must be supplied to the designer, who will supply any design specifications to be added and then supplied to the prospective Contractor (Bidder) as part of the tender documents. This specification must be translated into actions and preventative risk management measures by the Contractor that will form part the Occupational Health and Safety Plan of the Contractor.

This specification forms an integral part of the contract, and the Contractor is required to use it at pre-tender phase to make sufficient provision for related costs for risk management and after award of tender for the purpose of drawing up its project-specific construction phase health and safety plan.

It is the responsibility of the Contractor in the bidding process to:

- ensure that he include adequate provision for the cost for health and safety measures in his bid and
- Provide proof and include in his cost the necessary competencies and resources to perform the work safely.

The risks for the above project which have been identified, evaluated and resulted in the following specifications that are highlighted under the following categories:

This specification does not replace the requirement of the Contractor to comply with all relevant legislation and the regulations of the Occupational Health and Safety Act, but just highlight the specific identified and relevant risk factors that need special mention and attention by the Contractor in his bid.

1. General administrative requirements

DESIGNATION	NAME	CONTACT NO's	ADDRESS	RESPONSIBLE PERSON
Project Client	CASIDRA	021 863 5000 (tel)	22 Louws Avenue Paarl South Paarl	Joshua Brady (Project Manager)
Department of Labour	Department of Labour, Worcester	023 346 5200 (tel)	Durban street, Worcester Central	N/A
Municipality	Breede Valley	023 348 2600 (tel)	30 Baring Street, Worcester	N/A
Project Funder	WCDoA	021 808 5111 (tel)	Elsenburg	Jody Wentzel

2. Scope of work (what is being built?)

- A. Alien clearing of 2.165 ha of alien vegetation.
- B. Rehabilitation of nine (9) rehabilitation zones as per the Rehabilitation Plan
- C. Allow for irrigation of planting in summer for a period of two (2) years as specified in the Rehabilitation Plan.
- D. Allow for no-entry signage around the rehabilitated zones, as specified in the Rehabilitation Plan.
- E. **Planted vegetation will need to be watered twice per week during the summer for a period of two years.**
- F. Erosion protection blankets and logs may be required. The specifications should be similar or equal to the specifications attached to this tender document.

3. Location of site and elements specific to the location (municipal by-laws, weather factors, geographical factors)

What is the risk?	Heat and rain
Hazard Identification?	High temperatures together with high humidity.
Who will be injured & mechanism of injury?	All personnel working on site. Possible injury will vary from heat exhaustion and or broken ankles from muddy soil.
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
<ul style="list-style-type: none"> Monitor weather for worsening soil conditions on daily basis. When conditions underfoot do not assist with mechanical and/or personnel, call site off until conditions improve 	Risk reduction/ control

<ul style="list-style-type: none"> • Ensure for shade and sufficient water onsite for high temperatures. • Ensure temperature is monitored and call site off with WGT of 40 and higher 	
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4. Geo- technical risks (conditions of the soil, raise any concerns that may hinder the project progress)

What is the risk?	Soil conditions
Hazard Identification?	Difficult terrain
Who will be injured & mechanism of injury?	Infrastructure damage, damage to earthmoving equipment and personnel injury will vary from dislocation, broken bones to death
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
<p>This is specialized work that requires competent human resources that are adequately skilled in working with heavy and dangerous machinery in aquatic and undulating conditions.</p> <p>Guidelines and practical advice to all work operations to ensure effective and proper management of high risk areas must be in place. The contractor is hereby directed to the Casidra website to gain access to Working for Water Health & Safety Plan. This must be implemented as part of the contractors Health & Safety plan. The document name is:-</p> <ul style="list-style-type: none"> • WfW Health & Safety Doc on website www.casidra.co.za 	Risk control

5. Environmental risks (This is the actual or potential threat of adverse effects on living organisms and environment by effluents, emissions, wastes, resource depletion, etc. involved in the construction phase)

What is the risk?	Dust pollution
Hazard Identification?	Dust affects neighbour's crops
Who will be injured & mechanism of injury?	Farmers infrastructures resources and both farm workers and personnel working on farm and site
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
The Contractor is to take appropriate measures to minimise the generation of dust as a result of construction works, to the satisfaction of the Project Manager. A water truck must be on standby at all times to assist with this operation. Daily liaison must be done with the landowner to discuss vehicle movements in relation to dust pollution on crops.	Risk reduction

What is the risk?	Indigenous plants
Hazard Identification?	Risk of damage to environment
Who will be injured & mechanism of injury?	Plants trees, shrubs can be damaged and destroyed by mechanical equipment
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
Due to the sensitive biodiversity within the riparian zone of the White River, the use of any equipment which has the potential to cause extensive damage to the river banks and indigenous flora may not be used. No firewood or plant material to be collected from natural veld.	Risk avoidance

What is the risk?	Soil contamination
Hazard Identification?	Risk of pollution to ground and river by its contaminants
Who will be injured & mechanism of injury?	Environment and this invariably falls over to communities, which then in affect the members of the public
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
<p>Maintenance and service areas should be demarcated during site establishment and all maintenance and service activities contained so as to avoid any contamination of soil and / or water. All vehicles, equipment, fuel and petroleum services and tanks should be maintained in a good condition that prevents leakage and possible contamination of soil or water supplies. Refuelling areas should be bunded and lined to prevent spilled fuels and oils from contaminating the ground or water. It is suggested that as a minimum, sandbags should be placed surrounding the bulk fuel supply tank. The floor of the area is to be lined with plastic and a layer of sand of approximately 50mm is placed on top of the plastic. Automatic shut-off nozzles are recommended on all dispensing units.</p> <p>The park and service area should be treated with a suitable hydrocarbon absorption or remediation product. Absorbent spill mop-up products should be on hand. All servicing should be done with a drip tray present to prevent accidental spillage of oils and fuels. A suitable leak proof container for the storage of oiled equipment (filters, drip tray contents and oil changes, etc.) should be established. All spills to be immediately contained, reported to the Project Manager, and dealt with.</p>	Risk control/ reduction

What is the risk?	Snakes
Hazard Identification?	Being bitten by snakes
Who will be injured & mechanism of injury?	Personnel working on site
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
As the work entails working in dense brush and biomass areas, the risk of disturbing a snake is very high. Make sure that all personnel are made aware of the increased risk of the presence of snakes.	Risk reduction/control/ avoidance

<p>Wear proper protective clothing to protect against snake bites. An increased awareness and alertness is the best protection, the snake will not be looking for you, so watch for it. If a snake is seen or reported on site, note the area of the snake and work in this area stops until the hazard is removed. DO NOT approach, attack or otherwise provoke the snake as 95% of those bitten have done this. REMEMBER - IF PROVOKED IT WILL STRIKE.</p> <p>If bitten, the following procedures should apply:</p> <ol style="list-style-type: none"> 1. Immediately apply a broad firm bandage around the limb and on the bitten area. It should be as tight as one would bind a sprained ankle. As much of the limb should be bandaged as possible. Bind from below upwards. Crepe bandages are ideal, but any flexible material can be used, eg tear up clothing or old towels into strips. Panty hose is satisfactory. 2. Keep the limb and the victim as still as possible. Splint the limb. 3. Bring transport to the victim if possible. 4. Leave the bandage and splint on until medical care is reached. <p>Don't cut or excise the bitten area.</p> <p>Don't apply an arterial tourniquet.</p> <p>Don't wash the bitten area. The snake involved may be identified by the detection of venom on the skin.</p>	
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**6. Risk assessments based on scope of work (Is this a high rise building in a built up area?
Is it working in a flood plain and/or river with eroded soil conditions?)**

What is the risk?	Water
Hazard Identification?	Dangerous medium to work both in/on with mechanized equipment boats & personnel
Who will be injured & mechanism of injury?	Damage to equipment and personnel injury will vary from dislocation, drowning, broken bones to death. Boats that can capsize and people drown.
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
<p>As with all work activities, working over, on, or near water needs to be carried out in a safe and healthy manner adopting appropriate control measures to minimize risks and mitigate the effects of any incident. General controls that may need to be adopted when work is carried out over, on, or near water include provision of appropriate platforms and gangways; safety nets and safety harnesses; illumination; first aid equipment; personal protective equipment and clothing, including personal buoyancy equipment; suitable means of access to and egress from the location; and suitable rescue equipment and procedures.</p> <p>No river work should be carried out by someone working alone. Inspections from the bank may be permitted, but lone working procedures should apply with a short call-in period to the monitoring base. A frequent check that a good telephone signal is available should be made, and the monitoring base should</p>	Risk reduction/control

<p>be informed of the location (including which bank) and the direction of travel of any lone worker.</p> <p>Boats and personnel on boats must be highly controlled to prevent overloading and dangerous working conditions. The operator of a boat should be licensed and supplied with safety equipment as well as the boat registered at the relevant authority and have a buoyancy and safety inspection certificate. A buoyancy aid should be worn by all personnel on or close to the water edge. In determining the risk at each site, it is important to:</p> <ul style="list-style-type: none"> • assess how quickly water levels can rise; • prepare an evacuation procedure that will ensure that all personnel – if not equipment – are out of the river before conditions become hazardous. 	
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What is the risk?	Access to Biomass
Hazard Identification?	Environmental impacts
Who will be injured & mechanism of injury?	Infrastructure
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
Site access should be monitored and controlled and all access routes should be clearly demarcated in order to minimise environmental impacts. A constant regard must be taken to safety and dangerous areas and should be adequately cordoned off to prevent accidental injury	Risk avoidance

What is the risk?	Submerged logs
Hazard Identification?	Dangerous work due to river constraints and heavy weight of logs
Who will be injured & mechanism of injury?	Damage to earthmoving equipment and personnel injury will vary from dislocation, broken bones to death
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
<p>This is specialized work that requires competent human resources that are adequately skilled in working with heavy and dangerous machinery in aquatic and undulating conditions.</p> <p>Guidelines and practical advice to all work operations to ensure effective and proper management of high risk areas must be in place. The contractor is hereby directed to the Casidra website to gain access to Working for Water Health & Safety Plan. This must be implemented as part of the contractors Health & Safety plan. The document name is:-</p> <ul style="list-style-type: none"> • WfW Health & Safety Doc on website www.casidra.co.za 	<p>Risk reduction</p> <p>Risk control</p>

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7. Equipment Risks

What is the risk?	Mechanized earthmoving equipment
Hazard Identification?	Collision of mechanized plant in difficult overgrown terrain & environmental damage
Who will be injured & mechanism of injury?	Infrastructure damage, damage to earthmoving equipment and personnel injury will vary from dislocation, broken bones to death
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
<p>This is specialized work that requires competent human resources that are adequately skilled in working with heavy and dangerous machinery in aquatic and undulating conditions.</p> <p>Guidelines and practical advice to all work operations to ensure effective and proper management of working with mechanical plant must be in place. Toolbox talks MUST make all personnel aware of the dangers. Equipment must be checked for proper working controls such as reverse warning sirens, etc.</p> <p>The contractor is hereby directed to the Casidra website to gain access to Working for Water Health & Safety Plan. This must be implemented as part of the contractors Health & Safety plan. The document name is:-</p> <ul style="list-style-type: none"> WfW Health & Safety Doc on website www.casidra.co.za 	Risk Control

8. Material Risks.

What is the risk?	Herbicide material
Hazard Identification?	Working with toxic/hazardous material
Who will be injured & mechanism of injury?	Personnel working with herbicide and surrounding eco environment
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
<p>Personal injury, spillage, wastage and defective equipment can cause serious damage if not managed properly. Guidelines and practical advice to work operations to ensure effective and proper management of herbicide must be in place. The contractor is hereby directed to the Casidra website to gain access to Working for Water Health & Safety Plan. This must be implemented as part</p>	Risk control

of the contractors Health & Safety plan. The document name is:-	
<ul style="list-style-type: none"> WfW Health & Safety Doc on website www.casidra.co.za 	

What is the risk?	Flammable material
Hazard Identification?	Dangerous to work with and store for prevention of fires
Who will be injured & mechanism of injury?	Infrastructure damage and injury or death to all persons
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
<p>Fuels and flammable materials should be stored in suitably equipped storage areas demarcated within the Contractor's camp. These areas must comply with general fire safety requirements. No fuel may be stored within drainage lines or areas. Impervious lining materials should be used in these storage areas to prevent contamination of the ground in the event of spillages or leaks, and automatic shut-off nozzles should be used on all dispensing units. Quantities of fuels and flammable/hazardous materials stored on site should be appropriate to the requirement for these substances on site.</p> <p>Fuels and oils should be safely located out of harm's way from the elements. No fuel / oil containers may be left unattended within drainage areas. All open containers containing used oil, etc., should be kept under roof or have adequate water tight lids. All spills to be immediately contained, reported to the Project Manager and dealt with.</p> <p>Adequate firefighting equipment should be available on site, in good working order, and according to the fire hazard present during construction activities of at least one type ABC all-purpose 12.5kg extinguisher and a water cart with a minimum capacity of 1000 litres for the duration of the contract. Any welding, gas cutting or cutting of metal should only be permitted inside the demarcated working areas for this purpose and these areas should be approved by the Project Manager.</p>	Risk control

9. Ergonomic Risks (Ergonomic hazards refer to workplace conditions that pose the risk of injury to the musculoskeletal system of the worker).

What is the risk?	Drowning, Asphyxiation & felling
Hazard Identification?	On-site injuries due to physical alien biomass clearing taking place
Who will be injured & mechanism of injury?	Personnel injury will vary from dislocation, broken bones to death
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
Guidelines and practical advice to all work operations to ensure effective and proper management of high risk areas must be in place. The contractor is hereby directed to the Casidra website to gain access to Working for Water	Risk reduction/transfer/control/avoidance

Health & Safety Plan. This must be implemented as part of the contractors Health & Safety plan. The document name is:-	
<ul style="list-style-type: none"> WfW Health & Safety Doc on website www.casidra.co.zsa 	

10.Controls specific to client requirements (two day induction, pink overalls, entrance to existing premises, etc.).

What is the risk?	Data Collection
Hazard Identification?	Inaccurate or incomplete data
Who will be injured & mechanism of injury?	Project will suffer as information is needed for budgeting for future projects and reporting against job creation
Preventative action recommended	
Description	Category: Reduction/transfer/ control/avoidance
Ensure that all data records are kept on site in a file, and that information is distributed on a weekly basis so as to ensure that the capturing is done and that on-site activities are measured.	Risk control

11.Personal Protective Equipment (PPE) and Clothing

The principal contractor and other contractors shall ensure that all workers are issued with protective clothing free of charge and make use of the equipment and protection provided such as to wear hard hats, protective footwear, overalls, etc. The Principal Contractor and all Contractors shall make provision and keep adequate quantities of SABS approved PPE on site at all times. The Principal Contractor shall clearly outline procedures to follow when PPE or Clothing is:

- ☐ Lost or stolen;
- ☐ Worn out or damaged

The above procedure applies to Contractors and their Sub-contractors, as they are all employers in their own right, as per section 37 (2) of the Act.

(The general PPE requirements are attached under Annexure A to this document as well as an additional list of PPE for biomass removal is also attached as Addendum B to this specification).

12.Occupational Health and Safety signage

The Contractor shall provide and maintain adequate on-site OHS signage. Including but not limited to: 'no unauthorised entry', 'report to site office', 'beware of overhead work', 'hard hats, overalls, safety boots, respirators, etc.'. Signage shall be posted up at all entrances to site as well as on site in strategic locations e.g. access routes, stairways, entrances to structures and buildings, scaffolding, and other potential risk areas/operations

13.Fences and access

Construction sites in built-up areas or adjacent to public roads must be suitable and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorised persons.

14.Admittance to site

A notice must be posted up at every entrance to a building site prohibiting the entry of unauthorised persons to such workplace and no person shall enter such a site without the permission of the employer or user as the case may be. In no circumstances may the wording "Enter at Own Risk" be used

15.Speed Restrictions, construction vehicles and Protection

The Principal Contractor shall ensure that all persons in its employment, all Contractors, and all those that are visiting the site are aware and comply with the site speed restriction(s) and route identification for construction vehicles only. Separate vehicle and pedestrian access routes shall be provided, maintained, controlled, and enforced.

16.Hazardous Chemical Substances (HCS)

The Principal Contractor and other relevant Contractors shall provide the necessary training and information regarding the use, transport, and storage of HCS. The Principal Contractor shall ensure that the use, transport, and storage of HCS is carried out as prescribed by the HCS Regulations. The Contractor shall ensure that all hazardous chemicals on site have a Material Safety Data Sheet (MSDS) on site and the users are made aware of the hazards and precautions that need to be taken when using the chemicals. The First Aiders must be made aware of the MSDS and how to treat HCS incidents appropriately.

The below acts are relevant regarding the transporting, storage and application of these agricultural chemicals:-

- Fertilizers, farm feeds, agricultural remedies and stock remedies act, 1947 (Act no. 36 of 1947)
- Hazardous Substances Amendment Act, No. 53 of 1992
- The South African National Pesticide registration authority registrar: Act no. 36 of 1947

17.Public and Site Visitor Health and Safety

The Principal Contractor shall ensure that every person working on or visiting the site, as well as the public in general, shall be made aware of the dangers likely to arise from site activities, including the precautions to be taken to avoid or minimise those dangers. Appropriate health and safety notices and signs shall be posted up, but shall not be the only measure taken.

The Principal Contractor has a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the construction activities.

Site visitors must be briefed on the hazards and risks they may be exposed to and what measures are in place or should be taken to control these hazards and risks. A record of these 'inductions' must be kept on site in accordance with the Construction Regulations.

18.Occupational Hygiene

Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational exposure is a major problem and all contractors must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, absorption, and noise induction.

Contractor must identify site-specific health risks for construction. e.g. cement dust, wet cement, wood-dust, noise, etc.

19.Welfare Facilities

The Principal Contractor must supply the following clean, hygienic and maintained facilities:

- Shower facilities, after consultation with employees or employee representative (1 shower for every 15 persons).
- Sufficient toilets (1 toilet per 30 workers) and hand washing facilities. Separate toilets needed for both males and females. Toilet paper must be provided.
- Changing facilities for each sex
- Sheltered eating areas
- Waste bins must be strategically placed and emptied regularly.

Workers who are far removed from their homes, reasonable and suitable living accommodation for the workers must be provided and adequate transportation between sites and homes where suitable living accommodation is not available.

20.Alcohol and other Drugs

No alcohol and other drugs will be allowed on site. No person may be under the influence of alcohol or any other drugs while on the construction site. Any person on prescription drugs must inform his/her superior, who shall in turn report this to the Principal Contractor forthwith. Any person suffering from any illness/condition that may have a negative effect on his/her safety performance must report this to his/her superior, who shall in turn report this to the Principal Contractor forthwith. Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry. A full disciplinary procedure must be followed by the Contractor concerned and a copy of the disciplinary action must be forwarded to the Principal Contractor for his records.

21.Other compliance requirements

Notwithstanding the Occupational Health & Safety Act, the contractor must also confirm to the following acts:

- Basic conditions of employment act 75 of 1997
- National Road Traffic Act 93 of 1996

- National Environmental Management: Biodiversity Act, no 10 of 2004
- National Veld and Forest Fire Act, no 101 of 1998.
- Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Amendment act.

22.Specialized training

If the proposal to remove logs from the river via boats, your personnel will have to undergo water survival training.

23.Management control measures and review

Risk assessment of the site must be reviewed at least every 30 days. Based on the effectiveness of the existing measures, the safety plan must be adjusted to meet the new or existing identified deficiencies.

24.Electrical Safety

All persons who carry out or arrange for work of any description for **Casidra** in connection with electrical apparatus shall make themselves acquainted with the Occupational Health and Safety Act (Act 85 1993) with particular reference to the Electrical Machinery Regulations, Regulations 1 to 23 inclusive.

The works performed under this contract shall comply in every respect with the latest relevant rules and regulations including following:

- Occupational Safety and Health Act (OSH Act)
- The South African Bureau of Standards Code of Practice SANS 10142
- Normal requirements laid down by Eskom.
- The latest requirements of the IEC and the British Standard Institute, where no SANS codes of practice exist.
- All rules and regulations issued by local and other authorities having jurisdiction over the contract.

NOTE:

The Electrical Installation Regulations clause 6 (2) require electrical contractors to register annually.

“(2) Any person who does electrical installation work as an electrical contractor shall register annually in the form of Annexure 3 with the chief inspector or a person appointed by the chief inspector “

In terms of the OHS Act Electrical Installation Regulations, a Certificate of Compliance (CoC) must be issued by a registered person, defined as “a person registered as an electrical tester for single phase, an installation electrician, or a master installation electrician”. Registered

persons may be the owners or employees of electrical contractors. They must be currently registered with the Department of Labour (DoL), and registrations must be renewed annually, bi-annually or every three years depending on the application. No company may do electrical contracting work unless they have a permanently employed registered person as part of the company.

Department of Labour stating the certification as either 'single phase tester', "installation electrician" or "master installation electrician" with a unique licence number

Safety equipment

The following equipment required for working on electrical installations and distribution systems, must be maintained in good order and repair and must be made available:-

Safety belt, overalls, hard hat, safety shoes or boots, rubber gloves, "Men Working" notice boards, locks for locking off switches, buss bar shutters in truck-type switchgear, isolators or earthing links, rubber sheet and length of rope with short circuiting earthing-chains, earthing sticks and testing/phasing sticks rated for the voltage of the equipment to be tested.

Under no circumstances shall work be carried out on electrical apparatus unless the proper safety equipment is used

With regard to overhead linesmen, no work shall be carried out unless use is made of a non-metallic ladder and the appropriate safety belt, rubber gloves, overalls, hardhat and safety shoes or boots are worn. The buddy system must also be implemented.

Earthing

Always safety test before applying earths

Risk assessment of the site must be reviewed at least every 30 days. Based on the effectiveness of the existing measures, the safety plan must be adjusted to meet the new or existing.

At completion of the electrical installation work in the tender, a test as required must be performed to ensure safe operation of the equipment and a signed original CoC be supplied to the client.

25.Asbestos

Under no circumstances shall any work of any nature whatsoever on any **ASBESTOS** material be undertaken unless the work is entrusted and mandated to a "**REGISTERED ASBESTOS CONTRACTOR**" in terms of the Asbestos Regulations

ADDENDUM A – GENERAL MINIMUM PPE REQUIREMENTS

Subject	Requirement
*PPE needs analysis	Need for PPE identified and prescribed in writing. PPE remain property of Employer, not to be removed from premises GSR 2(4)
*Head Protection	All persons on site wearing Safety Helmets including Sub-contractors and Visitors (where prescribed)
*Foot Protection	All employees on site wearing Safety Footwear including Gumboots for concrete / wet work and non-slip shoes for roof work. Visitors to wear same upon request or where prescribed
*Eye and Face Protection	<u>Eye and Face (also Hand and Body) Protection</u> (Goggles, Face Shields, Welding Helmets etc.) used when operating the following: <ul style="list-style-type: none"> * Jack/ Kango Hammers * Angle / Bench Grinders * Electric Drills (Overhead work into concrete / cement / bricks * Explosive Powered tools * Concrete Vibrators / Pokers * Hammers & Chisels * Cutting / Welding Torches * Cutting Tools and Equipment * Guillotines and Benders * Shears * Sanders and Sanding Machines * CO2 and Arc Welding Equipment * Skill / Bench Saws * Spray Painting Equipment etc.
*Hearing Protection	<u>Hearing Protectors</u> (Muffs, Plugs etc.) used when operating the following: <ul style="list-style-type: none"> * Jack / Kango Hammers * Explosive Powered Tools * Wood/Aluminium Working Machines e.g. saws, planers, routers
*Hand Protection	<u>Protective Gloves</u> worn by employees handling / using: <ul style="list-style-type: none"> * Cement / Bricks / Steel / Chemicals * Welding Equipment * Hammers & Chisels * Jack / Kango Hammers etc.
*Respiratory Protection	Suitable/efficient prescribed <u>Respirators</u> worn correctly by employees handling / using: <ul style="list-style-type: none"> * Dry cement * Dusty areas * Hazardous chemicals * Angle Grinders * Spray Painting etc.
*Fall Prevention Equipment	Suitable <u>Safety Belts</u> / Fall Arrest Equipment correctly used by persons working on / in unguarded, elevated positions e.g.: <ul style="list-style-type: none"> * Scaffolding * Riggers * Lift shafts * Edge work * Ring beam edges etc. Other methods of fall prevention applied e.g. catch nets
*Protective	All jobs requiring protective clothing (Overalls, Rain Wear, Welding

Clothing	Aprons etc.) Identified and clothing worn.
*PPE Issue & Control	<p>Identified Equipment issued free of charge.</p> <p>All PPE maintained in good condition. (Regular checks).</p> <p>Workers instructed in the proper use & maintenance of PPE.</p> <p>Commitment obtained from wearer accepting conditions and to wear the PPE.</p> <p>Record of PPE issued kept on H&S File.</p> <p>PPE remain property of Employer, not to be removed from premises GSR 2(4)</p>

ADDENDUM B – WORKING FOR WATER ADDITIONAL PPE REQUIREMENTS

Job Description	Recommended PPE Equipment
DRIVER - LABOUR CARRIER (LDV or MDV with or without a trailer)	Approved hard hat when required, overall / two piece, raincoat and safety boots / shoes with steel toecap
CHAINSAW OPERATOR	Hard hat with visor and certified earmuffs (SABS or EU), high visibility top, operator gloves, raincoat, FESA approved chainsaw pants (eleven layers) with broad belt or braces, safety boots with steel toecap and bomb bandage.
BRUSH-CUTTER OPERATOR	Hard hat with hearing protectors and visor, thorn proof trousers, high visibility top, overalls, leather gloves, rainwear, leg protectors and safety boots with steel toecap.
HERBICIDE APPLICATOR	<p><u>Handling and Mixing of Concentrate</u> Hard hat, eye protection, elbow length PVC gloves, high visibility clothing, rain suit as per label, waterproof safety boots with steel toecap, respirator / face mask, PVC apron as per label, soap and water.</p> <p><u>Application of Diluted Herbicide</u> Hard hat, eye protection, wrist length PVC gloves, high visibility clothing, rain suit as per label, waterproof safety boots with steel toecap, respirator / face mask as per label and PVC apron as per label.</p> <p><u>Hack and Squirt or Inject</u> Hard hat, eye protection, wrist length PVC gloves, high visibility clothing, rain suit as per label, safety boots with steel toecap, respirator / face mask as per label and leg protection.</p>
FIELD WORKER	<p><u>Hand pulling, hoeing</u> - Hard hat, gloves, high visibility overalls / vest, safety boots with steel toecap.</p> <p><u>Cutting, coppice brashing, frilling and ring-barking</u> – Hardhat, eye protection, high visibility overalls / vest, gloves, safety boots with steel toecap, shin guards, foot guards.</p>
FIRE PROTECTION	Labourers – Approved head protection, eye protection, high visibility overall, gloves, safety boots with steel toecap.
CAMPING	Overalls, high visibility clothing, rain suit as per label, safety boots with steel toecap (where applicable) and warm clothes.
HIGH ALTITUDE – STEEP/ELEVATED AREAS WORK	Close fitting one piece overalls with reflector strips, climbing boots with steel toe cap/PVC moulded, 3 point chinstrap climbing helmet, safety goggles, face shield, mask, half hand safety gloves with reinforce leather palm, warm clothes and <u>Rope Access Equipment</u> : Ascenders, chest ascenders, back up devices, descenders, belay devices, karabiners, maillons, static ropes, dynamic ropes, rope clamp, full body climbing harness, pulleys, slings, wire sling/strops, rope protectors, connectors, anchor devices and life jacket if required
FIRST AID	Latex gloves, eye protection, CPR mouth piece, mask, overalls, high visibility clothing, safety boots with steel toecap (where applicable).

**ADDENDUM TO HEALTH
AND SAFETY
SPECIFICATION TO
INCLUDE COVID 19
HEALTH & SAFETY
MEASURES**

FOREWORD

Due to the Global Health Crisis, the South African Government has outlined new Occupational Health & Safety requirements for workplaces to function during the various alert stages of the lockdown. Since the onset of the Health Crisis, government has published various notices, gazettes and amendments to existing legislation which include but are not limited to the following:

- Covid-19 Occupational Health and Safety Measures in Workplaces Covid-19 (C19 OHS), 2020,
- Directive by the Minister of Employment and Labour in terms of Regulation 10 (8) of the regulations issued by the Minister of Cooperative Governance and Traditional Affairs in terms of Section 27 (2) of the Disaster Management Act, 2002 (Act no. 57 of 2002),
- Notice on Compensation for Occupationally- Acquired Novel Corona Virus Disease (Covid -19) and the Compensation for Occupational Injuries and Diseases Act, 1993 (No. 130 Of 1993) as Amended
- Risk Adjusted Strategy Regulations 2020 issued by the Minister of Cooperative Governance and Traditional Affairs in terms of Section 27 (2) of the Disaster Management Act, 2002 (Act no. 57 of 2002)

All contractors must familiarize themselves with all new COVID 19 legislation and guidelines from the Department of Employment & Labour in order to ensure mitigation on the spread of COVID 19.

COVID 19 Legislation and guidelines are to be read in conjunction with all existing OHS legislation.

Note: It is important for contractors to provide the following, to comply to all COVID-19 Legislation and the Department of Labour COVID 19 standard checklist:

1. Workplace Plan
2. Risk Assessment and a Health Risk Assessment (as per DoL checklist)
3. Complete the Annexure: A (Page 15) – Summary of mandatory requirements attached to this document prior to commencement on site.

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1. HAZARD IDENTIFICATION AND RISK ASSESSMENT

Mitigating the Spread of COVID-19 (coronavirus)

A key theme of all COVID 19 notices and legislation is that all employers must conduct risk assessments which include at their workplace to determine areas of high risk and provide adequate controls to mitigate such risk.

2. COVID-19 DIRECTIONS ISSUED IN TERMS OF REGULATION SECTION 27(2)(F) OF THE DISASTER MANAGEMENT ACT, 2002 (ACT NO. 57 OF 2002)

The Principal Contractor and their contractors must provide control measures regarding COVID 19 and must comply with all amended Legislation and must include but not limited to:

To ensure and maintain a safe and healthy working environment for employees and members of the public, the Principal Contractor and their contractors must assess the workplace risks posed by the COVID-19 pandemic, giving due consideration to the response measures announced by Government.

The Principal Contractor and their contractors must therefore determine mitigation measures to minimize risk as far as reasonably practicable, allowing work to continue safely and without harm to all relevant stakeholders, including Clients, Employees, Contractors, Suppliers, Manufacturers and all interested and affected parties.

2.1 Mitigation Measures

2.2.1 Administrative Measures

The Principal Contractor must establish the following administrative measures on site:

- Conduct a risk assessment considering the specific circumstances of the workplace.
- Submit a record of its risk assessment together with a written policy concerning the protection of the health and safety of its employees from COVID-19 as contemplated in section 7(1) of Occupational Health and Safety Act 85/1993
- Appoint a Manager (in terms of Section 16 (5) and a,
- COVID-19 Compliance Officer in terms of Regulation 16 (6)(a) of the Disaster Management Act 2002
- Risk assessments must be monitored and reviewed as the risk changes
- Records to be kept of all employee screening and self-assessments
- The following registers must be kept and completed:
 - Routine Cleaning Register (Facility and vehicles)
 - PPE Issue Register
 - Training Register
 - Workplace Plan in terms of Annexure E

2.1.2 Symptom Screening

The Principal Contractor must ensure that all employees and visitors are screened prior to entering the site.

Screening must include,

- Hand Wash
- Infrared Thermometer Testing (< 38°C is acceptable)
- Self-Assessment (Questionnaire)

If a worker presents any symptoms associated with COVID-19, namely fever, cough, sore throat, redness of eyes or shortness of breath (or difficulty in breathing); or advises the employer of these symptoms, the employer must –

- not permit the worker to enter the workplace or report for work; or
- if the worker is already at work immediately-
- isolate the worker, provide the worker with a FFP1 surgical mask and arrange for the worker to be transported in a manner that does not place other workers or members of the public at risk either to be self-isolated or for a medical examination or testing;
- assess the risk of transmission, disinfect the area and the worker's workstation, refer those workers who may be at risk for screening and take any other appropriate measure to prevent possible transmission.
- ensure that the worker is tested or referred to an identified testing site.

2.1.3 Sanitizers, disinfectants and other measures

The Principal Contractor and their contractors must ensure that hand wash/sanitizers are compulsory on site and that workers use hand wash facilities prior, during and after each activity irrespective of how long or short the activity is.

Hand sanitizer must be one that has at least 70% alcohol content and is in accordance with the recommendations of the Department of Health.

2.1.4 Surfaces

The Principal Contractor must ensure that all work surfaces and equipment are disinfected before work begins, regularly during the working period and after work ends.

- The Principle Contractor and Contractors to prepare and maintain a cleaning schedule for all facilities.

2.1.5 PPE

For the reasons underlying the Department of Health's requirement, the Principal Contractor must –

- provide each of its employees, free of charge, with a minimum of two cloth masks, which comply with the requirement set out in the Guidelines issued by the Department of Trade, Industry and Competition.
- require any other worker to wear masks in the workplace.

- Provide as a minimum a cloth mask unless otherwise prescribed as per the risk assessment.
- Every employer must ensure that workers are informed, instructed, trained and instructed as to the correct use of cloth masks.
- where a risk assessment indicates that PPE is required, those categories of workers must be provided with the accredited PPE in accordance with Department of Health guidelines and COVID 19 risk assessments .

One of the Western Cape Department of Health's top priorities is to ensure that our Front-Line Healthcare Workers, who are caring for those with COVID-19, have the required N95 respirators and/or medical masks so that they are protected when undertaking their duties and helping us save lives.

PPE spotters required to monitor the usage of PPE throughout the site.



2.1.6 Ventilation

The Principal Contractor must –

- keep the workplace well ventilated by natural or mechanical means to reduce the SARS-CoV-2 viral load.

2.1.7 Waste Management

The Department of Health published a guideline on the management of COVID-19 (coronavirus) or Health Care Waste. The document defines two types of waste which are applicable to the pandemic.

Infectious Waste

Means waste which is suspected to contain pathogens; and which normally causes or significantly contributes to the cause of increased morbidity or mortality of human beings.

Isolation Waste

Means waste containing discarded materials contaminated with excretion, exudates, or secretions from humans or animals who or which are required to be isolated (by the infection control staff, the attending physician or surgeon, the attending veterinarian, or the local health practitioner) in order to protect others from highly communicable or zoonotic diseases.

In compliance with the guideline published by the Department of Health; employers must ensure the following:

- All waste management plans, classifications and procedures to include COVID 19 waste/Isolation Waste/Health Care Waste.
- A designated area to be made available for the storage of COVID- 19 waste
- Should an Employee display known symptoms of COVID- 19, the medical waste of that person may be kept in the isolation room established on site.
- All corona virus waste shall be treated as isolation waste and must be double bagged in preferably red plastic inside of 50 L or 142 L single use boxes and must be labelled "SUSPECTED COVID- 19" whilst the employees' status is not confirmed. The double bagged waste can remain in the isolation room for collection.
- Should the suspected patient tested as negative; the waste must be handled as health care waste.
- All employees working with isolation waste shall be provided with PPE as outlined in the highest risk category above (gloves, face shield, mask etc.)
- Arrange with our municipal environmental health Practitioners for the collection of the waste at your facility.
- A separate waste register must be implemented to record all COVID-19 waste removed from the facility.
- All COVID 19 waste must be disposed at a registered Health Care Risk Waste Facility (searchable on google maps).

2.1.8 Social Distancing

The Principal Contractor must arrange the workplace to ensure minimal contact between workers and as far as reasonably practicable ensure that there is a minimum of 1.5metres between workers while they are working, for example, at their workstations. Depending on the circumstances of the workplace or the nature thereof, the minimum distance may need to be longer. Reducing the number of workers present in the workplace at any time in terms by means of rotation, staggered working hours, shift systems or remote working arrangements

- Supervisors should consider in their daily planning to avoid close contact with persons where possible.
- It is important that employee representatives are elected and appointed to ensure workers can raise anonymous issues to them instead of discussing site issues in large groups for management to address.
- It is recommended that traditional contractual site/progress meetings be conducted through online media platforms such as Webex/skype conference calling etc. instead of grouping on site where possible, provision of sufficient internet services should be available on sites to accommodate this.

2.1.9 Measures in respect of workplaces to which Public have access

The Principal Contractor must ensure that where reasonably practicable given the nature of the workplace, every employer must –

- Ensure that adequate social distancing is always maintained
- Provide compliance with relevant legislation and risk assessment

2.1.10 Awareness:

The Principal Contractor must ensure that the relevant signage is clearly displayed on site, employees are kept informed and up to date with the latest news regarding COVID 19.

- Awareness Training in small groups
- Providing workers with up-to-date education and training on COVID-19 risk factors and protective behaviours (e.g. cough etiquette and care of PPE).

2.1.11 Returning to work after being Infected with COVID 19

The Principal Contractor must ensure that the following is implemented after an employee has been infected and is returning to work.

If a worker has been diagnosed with COVID-19 and isolated in accordance with the Department of Health Guidelines, an employer may only allow a worker to return to work on the following conditions:

The worker has undergone a medical evaluation confirming that the worker has been tested negative for COVID-19.

- the employer ensures that personal hygiene, wearing of masks, social distancing, and cough etiquette is strictly adhered to by the worker; and
- the employer closely monitors the worker for symptoms on return to work.

2.1.12 Procedure: Suspected Infection Case on project

The Principal Contractor must ensure that if a worker has been diagnosed with COVID-19 that:

- the Department of Health and the Department of Employment and Labour is informed.
- investigate the cause including any control failure and review its risk assessment to ensure that the necessary controls and PPE requirements are in place.
- give administrative support to any contact-tracing measures implemented by the Department of Health.

In addition.

- No person may refuse to be screened or tested if suspected that, that person has COVID19 like symptoms as per the Amended Disaster Management Act 2002.
- As per the Disaster Management Act 2002, no person that has been clinically or by a laboratory, confirmed as having COVID-19, or who is suspected of having contracted COVID-19, or who has been in contact with a person who is a carrier of COVID–19, may refuse self-quarantine or quarantine by a health establishment.
- Once identified through screening a person under investigation (PUI) needs to be moved to an isolated area on site that has been disinfected and access controlled.
- It is important to note that once an employee has been diagnosed with the symptoms of COVID19 and it has been clinically confirmed as positive by a Laboratory and this employee has been on site or at office.
- **Note:** the entire site/office must be evaluated for the COVID19 virus by a Health Establishment as a precaution.

3. COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT (COIDA) 130 OF 1993.

Principle Contractor must ensure that a separate register containing the details of confirmed or suspected COVID 19 cases are kept on file and made available for inspection by any approved government authority as required by the National Disaster Act 57 of 2002.

All cases of occupationally acquired COVID 19 to be reported to the department of labour in accordance with General Administrative Regulation 8 and Section 6 of the Notice (CF/03/2020) on Compensation for Occupationally-Acquired Novel Corona Virus Disease (COVID 19).

Occupationally- acquired COVID -19 is a disease contracted by an Employee as defined in the COID Act arising out of and in the course of his or her employment.

Reporting:

The following documentation should be submitted to the Compensation Commissioner or the employer individually liable or the mutual association concerned:

- a) Employer's Report of an Occupational Disease (W CL.1)
- b) Notice of an Occupational Disease and Claim for Compensation (W.CL.14)
- c) Exposure and Medical Questionnaire
- d) First Medical Report in respect of an Occupational Disease (W.CL 22) indicating U07.1 as the ICD -10 code for Covid -19
- e) Exposure History (W.CL. 110) and /or any other appropriate employment history which may include any information that may be helpful to the Compensation Commissioner.
- f) A medical report on the employee's symptoms that details the history, establishes a diagnosis of COVID -19 and laboratory results and chest radiographs where appropriate or any other information relevant to the claim.
- g) For each consultation, a Progress Medical Report (W.CL. 26).
- h) Final Medical Report in respect of an Occupational Disease (W.CL.26) when the employee's condition has reached Maximum Medical Improvement (MMI).
- i) An affidavit by the employee if employer cannot be traced or will not timeously supply a W.CL.1, where applicable.

AMENDED BASELINE RISK ASSESSMENT

Activity	Control Measure	Responsible Person
1. Access Control	<ul style="list-style-type: none"> Security personnel to be trained on the COVID 19 access control procedures. Have sufficient hand sanitizers/soap and water for use to employees and visitors prior to entering the site. Visitors/Employees to sign in and out. No biometric systems to be used. Limit all access points (one access and egress point). 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
2. Screening	<ul style="list-style-type: none"> Screening team shall be issued with the relevant personal protective equipment (Full face shield/screen, N95 Mask/ 3-layer surgical mask, latex gloves etc. Screening Team to keep safe distance when screening employees and visitors. Screening team to ensure where high temperature (above 38°C) is registered, possible Infected person will report his/her symptoms to his/her construction manager who will contact the NICD hotline on 080002999. A suspected infected person must be moved to the isolation room immediately with minimal interaction/contact with other persons on site. Should the suspected infected person be able, they will drive themselves to a hospital/doctor. Should this person be unable to transport themselves, a household member must be contacted to transport the employee. a A suspected infected person will only be allowed to return to site after being examined by Doctor and being given certificate that clears him/her from COVID 19. 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
3. Visitors & Employees entering site (including deliveries)	<ul style="list-style-type: none"> All visitors to be escorted to site office, be inducted and receive COVID 19 awareness training with proof of attendance. Comply with all relevant Legislation COVID 19 team to familiarise themselves with the latest legislation and guidelines that has been issued by the relevant authorities and ensure that all persons are adequately informed. All employees/persons to be screened as required by Department of Health a Guidelines. Security to control attendance register/book alone to avoid double handling and possible spread of virus. 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators

Activity	Control Measure	Responsible Person
	<ul style="list-style-type: none"> • All employees & visitors who previously been screened and tested positive shall provide a Medical Certificate indicating that he/she has been declared fit for work and Coronavirus Free. • Non-contact Temperature testing to be conducted by responsible trained persons to all employees/visitors prior to entering the site with records kept. • Employees/Persons who indicates any signs of COVID 19 based on completion of the checklist and shall be escorted to the isolation room and be provided with a mask (should they not have any). • Report all incidents and suspected COVID 19 cases/employees to site management and the respective COVID 19 /team / Compliance Officer/Coordinators • All persons delivering material must have PPE- Face Masks compulsory 	
4. Off-loading of Material/ Deliveries	<ul style="list-style-type: none"> • Limit all access points • Relevant signage to be provided and displayed • All persons delivering material must have PPE- Cloth Masks are compulsory • Drivers to remain in vehicles where possible, should they be required to offload manually the site employees must maintain a distance of at least 2 meters. 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
5. Washing/Sanitizing of Hands and disinfectant of surfaces.	<ul style="list-style-type: none"> • Workers to be trained and instructed on how to wash their hands. • Sufficient hand Wash Bays and Soap to be at site entrance. • Workers to ensure that hands are washed prior and after every activity. • No sharing of stationary or utensils. • Using at least 70% alcohol-based hand sanitizer. • Use disposable towels. • Display handwashing signs in all areas. • All work areas, eating facilities and ablution facilities to be cleaned/disinfected prior, during and after work. • Sufficient waste bins with lids and must be emptied regularly 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
6. Working on Site/ Site Inspections	<ul style="list-style-type: none"> • Comply with all relevant legislation and restrictions • Appoint a COVID Compliance officer persons to coordinate COVID 19 activities with daily feedback to management. 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators

Activity	Control Measure	Responsible Person
	<ul style="list-style-type: none"> • Employees who are elderly and/or have existing respiratory ailments or are currently sick must remain at home until further notice from the President. • All persons with general flu like symptoms to be encouraged to stay at home or seek medical attention • PPE to be worn at all times- Cloth Masks are compulsory • No sharing of PPE • Spotters to be on site monitoring use of PPE and or unusual behaviour of employees • Alternate/stagger Working Hours • Designated isolation room/areas to be provided for all possible COVID 19 cases and must be decontaminated as needed • Provide and display Emergency & Counselling Contact Numbers • Provide designated bins for all used PPE and dispose safely • Alternate Lunch and Tea Breaks to be considered to avoid any gathering of persons on site. 	
7. Operating of Mobile/Small Plant and Tools	<ul style="list-style-type: none"> • One operator to be assigned per mobile plant • Daily Inspections to be conducted prior to use of plant and tools • Cabin to be disinfected prior, during and after use • Good hygiene to be implemented 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
8. Conducting & Attending Safety Awareness Sessions & Inductions including progress/site meetings.	<ul style="list-style-type: none"> • Ensure that sufficient Sanitisers are available at all entrances/work areas and office. • Use loudspeaker/loudhailer to be used if possible. Avoid sharing the same loud hailer • Avoid physical contact, no shaking of hands • Make use of technology/media • If not possible then adequate and sufficient space is required with smaller groups. • Alternate awareness session schedules and inductions • Employees to be informed regarding Section 14 of the OHS Act 85/1993 and all relevant legislation. • Avoid any meetings held on site in a confined space. • Use of media networks to conduct remote meetings, Zoom, Skype, Microsoft Teams for meetings where necessary. 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators

Activity	Control Measure	Responsible Person
9. Using Ablution Facilities (Toilets) and cleaning thereof	<ul style="list-style-type: none"> • Provide additional facilities (toilets) • Use flushable toilets as far as reasonably practicable • Ensure that sufficient Sanitisers/ Soap & Water are available • Wash Hands (before and after use) when using facilities • Use your own hand towel/ paper towel to dry your hands. • Clean Ablution facilities at least twice per day as agreed/risk assessment • Decontaminate Portable Toilets daily or at appropriate intervals • Additional Signage to be displayed • Register required for cleaning relevant areas. • Outsource cleaning of portable toilets if possible, where this is not possible the following must apply but is not limited to, 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
10. Transportation of Employees	<ul style="list-style-type: none"> • Daily vehicle inspections and disinfecting to be conducted • Limit number of employees as per the relevant legislation • Driver to monitor this process • All employees/persons must complete a Self-Assessment/checklist prior to them entering the vehicle/plant. • Employees/Persons who indicates any signs of COVID 19 based on completion of checklist or screening and shall be escorted to the isolation room and be provided with a mask (should they not have any). Such a person must be requested to contact their Doctor or The COVID 19 helpline and leave site. • Adequate Ventilation required 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
11. Treating of Injuries on Site	<ul style="list-style-type: none"> • Competent First Aider to attend to all reported cases and follow all COVID 19 protocols and emergency procedures. • First Aider to be provided with the relevant PPE (disposable overall) • Assess the injured person with caution and discretion. • Temperature of injured person to be taken immediately or prior to assessment if possible • Additional PPE Required but is not limited to, E.g. approved Medical Masks, N-95 or N-99 Masks or similar, suitable gloves, and Face and eye protection • Decontaminate area and equipment if area has been contaminated 	CR 8.1 & COVID 19 Compliance Officer/ Coordinators

OCCUPATIONAL HEALTH & SAFETY SPECIFICATION

Activity	Control Measure	Responsible Person
	<ul style="list-style-type: none"> • A register to be provided of All persons who has been screened and tested positive • Note, this must be done in a dignified and confidential manner. All COVID 19 statistics to be provided to the department of Health • Emergency procedures and tracking register to be provided for infected persons 	
12. Waste Management	<ul style="list-style-type: none"> • All corona virus waste shall be treated as isolation waste and must be double bagged in preferably red plastic inside of 50 L or 142 L single use boxes and must be labelled "SUSPECTED COVID- 19" whilst the employees' status is not confirmed. • Place the bags in the designated Health Care Waste Staging area. • A Separate Waste Register to be provided 	

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Signature for Casidra		Signature for Contractor

OCCUPATIONAL HEALTH & SAFETY SPECIFICATION

5. **ANNEXURE A: COVID 19 OCCUPATIONAL HEALTH & SAFETY PRE-START CHECKLIST**

Item	Compliant (Yes, No)	Comments
1. The date the business will open and the hours of opening.		
2. The timetable setting out the phased return -to -work of employees, to enable appropriate measures to be taken to avoid and reduce the spread of the virus in the workplace		
3. The steps taken to get the workplace COVID -19 ready.		
4. A list of staff who can work from home: staff who are 60 years or older; and staff with comorbidities who will be required to stay at home or work from home		
5. Sanitary and social distancing measures and facilities at the entrance and exit to the workplace.		

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OCCUPATIONAL HEALTH & SAFETY SPECIFICATION

6. The attendance -record system and infrastructure		
7. The work -area of employees		
8. Canteen/eating facilities and bathroom facilities.		
9. Testing facilities (for establishments with more than 500 employees);		
10. Staff rotational arrangements (for establishments where fewer than 100% of employees will be permitted to work).		
11. Arrangements for the public/visitors, including sanitation and social distancing measures.		
12. The steps taken to get the workplace COVID -19 ready.		
13. A list of staff who can work from home: staff who are 60 years or older; and staff with comorbidities who will be required to stay at home or work from home:		
14. All the required permits in place to resume work. Form 2		
15. Details regarding transport to site		
16. Arrangements regarding site access		
17. Details regarding screening on site (persons must queue outside the site)		
18. Risk Assessments		

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OCCUPATIONAL HEALTH & SAFETY SPECIFICATION

19. COVID-19 emergency procedures		
20. Procedures for welfare, washing and sanitising and disinfection facilities		
21. All site personnel issued with PPE based on the COVID 19 Risk Assessments		
22. Supervision and monitoring of safety protocols		
23. Updated Waste Management Procedure (Including COVID 19 waste)		
a. Separate waste manifest register for all COVID 19 waste disposed		
24. Procedure for investigation of COVID-19 cases		
25. COVID-19 Compliance Officer details and appointment(s)		
26. COVID-19 Compliance Manager details and appointment		
27. Arrangements for visitors or members of the public, including sanitation, PPE and social distancing measures.		
28. List of high-risk staff with underlying medical conditions		
29. COVID 19 Notices and Signage displayed		
30. Provisions made for an adequate isolation room		
31. Awareness training (inductions, toolbox talks, procedure communications)		
32. Provisions for soap and water/sanitizer (70 % alcohol)		

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Signature for Casidra		Signature for Contractor

THE CONSTRUCTION OF A WEIR, DIVERSION WORKS AND PIPELINE ALONG THE HOLSLOOT RIVER NEAR RAWSONVILLE, WESTERN CAPE

REHABILITATION REPORT

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May 2022



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1. INTRODUCTION

Casidra on behalf of the Department of Agriculture undertook the construction of a weir within the Holsloot River as well as the construction of a pipeline along the western bank of the river, the demolition of three temporary rock weirs and the placement of riprap scour protection downstream of the weir.

Guillaume Nel Environmental Consultants were appointed to compile a rehabilitation report to re-introduce endemic species to these disturbed sections.

The disturbed areas have been identified and divided into the follow areas that will be discussed individually.

They include:

- Site camp area;
- Embankment along the Stettyns Road;
- Upstream of weir, left embankment;
- Downstream of weir, right embankment;
- Downstream of weir, left embankment;
- Western tributary of the Holsloot River;
- Water pipeline route;
- Stockpile area along the western tributary; and
- Area at the river crossing.

The proposed rehabilitation will:

- Prevent erosion and siltation towards the Holsloot River;
- Positively contribute to the ecological and biodiversity value of the existing degraded areas (Both Flora and Faunal);
- Prevent/minimise further invasive vegetation infestation as the disturbed areas will be rehabilitated with endemic species; and
- Enhance the visual and aesthetic appearance of the previously disturbed areas.

2. SITE LOCATION AND STUDY AREA

The site is located within the Holsloot River, within a valley between the Du Toits and Stettyns Mountains about 9 km south of Rawsonville

Please refer to the Locality Map below in Figure 1.



FIGURE 1: LOCALITY MAP OF HOLSLOOT WEIR

3. VEGETATION

According to the SA Vegetation Map (Mucina and Rutherford 2006) the proposed pipeline is located within an area that originally comprised Breede Alluvium Fynbos vegetation which is endangered, with Hawequas Sandstone on the adjacent mountain foothills. The proposed pipeline is located on the edge of a terrestrial CBA and falls within the buffer area of an aquatic CBA (Holsloot River)

Please refer to Vegetation Map below in Figure 2.

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3.1 EXISTING CONDITIONS OF VEGETATION WITHIN THE STUDY AREAS

The areas to be rehabilitation is mostly bare due to disturbance during construction activities. Some of the areas show signs of natural seed germination. Although this is a positive sign, additional rehabilitation of all the disturbed areas is critical for successful rehabilitation with a diversity of species.

Area 1: Site Camp



FIGURE 3: DISTURBED AREA AT THE SITE CAMP

Area 2: Embankment along Stettyns Road



FIGURE 4: EMBANKMENT ALONG STETTYNS ROAD

Area 3: Upstream of weir; left embankment.



FIGURE 5: UPSTREAM OF WEIR, LEFT EMBANKMENT

Area 4: Downstream of weir; right embankment.



FIGURE 6: DOWNSTREAM OF WEIR, RIGHT EMBANKMENT

Area 5: Downstream of weir, left embankment.



FIGURE 7: DOWNSTREAM OF WEIR, RIGHT EMBANKMENT

Area 6: Western tributary of the Holsloot River.



FIGURE 8: WESTERN TRIBUTARY OF THE HOLSLOOT RIVER

Area 7: Water pipeline route.



FIGURE 9: WATER PIPELINE ROUTE

Area 8: Area along the western tributary; stockpile area:



FIGURE 10: STOCKPILE AREA ALONG THE WESTERN TRIBUTARY

Area 9: Area at the pipeline crossing:



FIGURE 11: AREA AT THE PIPELINE CROSSING HOLSLOOT RIVER

4. REHABILITATION MEASURES

The following rehabilitation measures will be discussed within the rehabilitation section:

- ALIEN CLEARING MANAGEMENT PLAN;
- MANAGEMENT MEASURES DURING ALIEN CLEARING AND REHABILITATION ACTIVITIES
- REHABILITATION PROPOSAL PER AREA
- MANAGEMENT MEASURES POST REHABILITATION
- MANUAL LABOR
- PREPARATION OF SOIL PRIOR TO PLANTING
- NO GO AREAS
- TIMING OF REHABILITATION

4.1. ALIEN CLEARING MANAGEMENT PLAN

During a site visit conducted it was noted that effort is being made to eradicate invasive species within the areas to be rehabilitated. In general the areas is well managed with a few invasive species establishing in certain areas that need to be eradicated to prevent the spread of invasive vegetation throughout the site.

It is recommended that the following alien clearing practises be conducted prior to rehabilitation within the areas to be rehabilitated.

This alien clearing management plan can be used for future alien clearing and maintenance within the rehabilitated areas.

Invasive plant species identified within the study area to be removed:

- Pennisetum clandestinum (Kikuyu lawn grass)
- Acacia mearnsii
- Melianthus major

The following alien clearing practices should be implemented on site:

4.1.1 CUTTING AND PAINTING OF MEDIUM SIZE INDIVIDUALS

Medium size trees and shrubs are trees that can easily be lopped or hand sown. These trees need to be cut leaving a stem of 10cm. The remaining stem needs to be painted using a brush with a systemic herbicide. The systemic herbicide needs to be coloured to ensure that all the cut stems be treated. Care should be taken not to spill systemic poison when painting the stems. The systemic poison will infiltrate the stem killing the roots, and prevent the invasive tree from re-sprouting again.

Cut down invasive trees needs to be removed form site for the following reasons:

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- To prevent the spread of invasive seeds;
- To prevent contamination of natural areas;
- Invasive vegetation left on site is a fire hazard; and
- Invasive vegetation left on site inhibit the germination and growth of natural vegetation.

Systemic Poison; Glyphosate.

The systemic poison needs to be prepared at a two percent solution.



FIGURE 12: EXAMPLE OF A CUT DOWN STEM TREATED WITH COLOURED SYSTEMIC HERBICIDE

4.1.2 HAND PULLING

Hand pulling is the most environmentally friendly method to use for smaller individuals.

Hand pulling needs to be done when:

- Invasive vegetation is small enough for easy removal;
- The area is too ecological sensitive for spot spraying with an herbicide; and
- The invasive plant to be removed is surrounded by dense endemic vegetation.



FIGURE 13: EXAMPLE OF INVASIVE VEGETATION THAT CAN BE REMOVED BY HAND

4.1.3 SPOT SPRAYING

Spot spraying only allowed to control *Pennisetum clandestinum* “Kikuyu Grass”.

Kikuyu grass needs to be treated with a systemic poison to infiltrate the Kikuyu grass and kills the sods and roots, as Kikuyu grass tends to re-shoot with a contact poison.

Systemic Poison; Glyphosate.

The systemic poison needs to be prepared at a two percent solution.

Spot spraying of Kikuyu grass can only be done when:

- The Kikuyu grass is not surrounded by endemic vegetation;
- Surrounding endemic vegetation will not be impacted by the draft;
- The Kikuyu grass is not within the watercourse, as spraying within a watercourse will not be allowed;
- There is dense growth of Kikuyu grass that cannot be manually removed due to the density or the difficulty to successfully remove the grass without leaving sections that will re-shoot;
- In absolute wind still condition to prevent herbicide draft negatively impacting upon adjacent areas; and

- On a sunny day, when the invasive vegetation dry and not wet from morning dew or rain.

4.1.4 PROTECTIVE GEAR

Alien clearing working/protective gear:

Alien clearing needs to be done by a professional well-trained team with the necessary safety procedures and protective wear in place.

- Safety boots, steel cap;
- Safety gloves;
- Face mask to prevent herbicide inhalation;
- Safety glasses for eye protection;
- Protective clothes for chainsaw operators;
- Reflector vests to ensure visibility; and
- Necessary chainsaw operating certificate and training.

4.1.5 FREQUENCY OF ALIEN CLEARING

An alien clearing management plan must be implemented for at least three years after rehabilitation to manage the aliens that might germinate in the rehabilitated areas. Follow-up alien clearing practices must be conducted every 6 months for three years after rehabilitation.

Reasons for follow up:

- Due to the disturbance of the soil during the initial clearing activities, invasive seeds within the seedbank of the soil will start to germinate. These germinated species needs to be removed before they produce seed to prevent ongoing infestation.
- Cut down and treated stems also tend to re-sprout. A 2nd application of herbicide will be necessary for these species.
- Kikuyu grass is a strong grower, and tends to re-shoot. A few clearings are recommended.

4.1.6 STORAGE AND REMOVAL OF ALIEN VEGETATION

- During alien eradication an area needs to be identified for temporary stockpiling of the invasive vegetation;
- Only one area to be identified to prevent the spread of seeds;
- The area identified should not be in close proximity to the watercourse to prevent seeds from entering the watercourse and spreading;
- No invasive vegetation to be left on site;
- All invasive vegetation to be removed immediately from site ones clearing has been completed;

- No burning of vegetation on site allowed;
- Removed invasive vegetation to be disposed to the nearest licensed landfill site; and
- Alien vegetation to be transported in preferably a closed truck to prevent the seeds from spreading along the road, alternatively the alien vegetation can be covered with a bidden material during transport.

4.2. MANAGEMENT MEASURES DURING ALIEN CLEARING AND REHABILITATION ACTIVITIES

The following management measures must be implemented during the rehabilitation phase:

- Alien clearing practices to be done by a professional registered company;
- Existing endemic plants need to be identified within the area to be rehabilitated and protected;
- The contractor needs to make sure that excessive quantities of sand and silt do not enter the wetland habitat from the study area or as a result of the soil profiling and alien clearing activities;
- The contractor needs to take cognisance of weather forecast. No clearing activities allowed during times of high rainfall;
- Areas outside the alien clearing and planting footprint must be clearly seen as a no go area; and
- All potential pollutants should be kept away from the river/wetland habitat including:
 - Oil, diesel or petrol used for machinery during alien clearing activities.
 - Any chemicals for the control of alien vegetation.
 - Sanitation structures.

4.3. REHABILITATION PROPOSAL PER AREA

Plants for rehabilitation have been carefully selected using the following criteria:

- An on-site survey has been conducted to identify the locally indigenous vegetation naturally occurring on site and surrounding areas
- The national vegetation Book (Mucina et al. 2005, Mucina & Rutherford 2006) has been consulted and species carefully selected for rehabilitation which naturally occur in the specified vegetation type.
- The Botanical and Freshwater Impact Assessment Report has been consulted.

Area 1: Site Camp



FIGURE 14: SITE CAMP AREA TO BE REHABILITATED

Site conditions:

This area has been dedicated as a site camp during construction activities and completely stripped from all natural vegetation.

This area is mainly dry during summer, and tends to flood during times of high rainfall in the winter.

The idea is to seed the entire area with species suitable to tolerate both these conditions.

To ensure immediate vegetation result it is recommended that this area be planted with x8 pockets of endemic vegetation naturally spread over the entire disturbed area. The proposed sizes of these pocket will be 15mx15m.

The water edge also need to be planted with endemic wetland vegetation.

The site camp area need to be rehabilitated to:

- Ensure immediate vegetation results;

- Prevent/minimise downslope erosion;
- Prevent/minimise invasive vegetation infestation; and
- Improve the ecological and biodiversity value of the area.

Disturbance area to be rehabilitated:

Approximately 7500m²

List of endemic seed to be sown in this disturbed area:



FIGURE 15: *EHRHARTA CALYCINA*



FIGURE 16: *EHRHARTA VILLOSA*



FIGURE 17: *ERAGROSTIS CURVULA*



FIGURE 18: *ATHANASIA TRIFURCATA*



FIGURE 19: *ATHANASIA TOMENTOSA*



FIGURE 20: *STOEBE PLUMOSA*



FIGURE 21: *SEARSIA ANGUSTIFOLIA*



FIGURE 22: *BERZELLIA LANUGINOSA*



FIGURE 23: *DIOSPYROS GLABRA*

List of endemic species proposed for the pocket planting:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 24: *OSTEOSPERMUM MONILIFERUM* (X1 PLANT PER SQUARE METER)



FIGURE 25: *PELARGONIUM CUCULLATUM* (X1 PLANT PER SQUARE METER)



FIGURE 26: *DODONAEA ANGUSTIFOLIA* (X1 PLANT PER SQUARE METER)

List of endemic species proposed to be planted at the water edge:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 27: *ELEGIA CAPENSIS* (X1 PLANT PER SQUARE METER)



FIGURE 28: *RESTIO PANICULATUS* (X1 PLANT PER SQUARE METER)



FIGURE 29: *PRIONIUM SERRATUM* (X1 PLANT PER SQUARE METER)



FIGURE 30: CYPERUS TEXTILIS (X1 PLANT PER SQUARE METER)

Area 2: Embankment along Stettyns Road.



FIGURE 31: BARE EMBANKMENT ALONG STETTYNS ROAD

Site conditions:

This newly shape embankment is very dry.

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This embankment need to be planted to:

- Soften the slope;
- Ensure immediate vegetation results;
- Prevent/minimise downslope erosion;
- Prevent/minimise invasive vegetation infestation;
- Improve the ecological and biodiversity value of the embankment; and
- Act as barrier between Stettyns Road and Site Camp area to be rehabilitated.

Disturbance area to be rehabilitated:

Approximately 720m²

List of endemic species proposed to be planted:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 32: *OSTEOSPERMUM MONILIFERUM* (X1 PLANT PER SQUARE METER)



FIGURE 33: *PELARGONIUM CUCULLATUM* (X1 PLANT PER SQUARE METER)



FIGURE 34: *DODONAEA ANGUSTIFOLIA* (X1 PLANT PER SQUARE METER)

Area 3: Upstream of weir, left embankment.



FIGURE 35: UPSTREAM OF WEIR, LEFT EMBANKMENT

Site conditions:

This area has been disturbed during the construction of the weir and completely stripped of endemic vegetation.

The area to be rehabilitated is dry, except the planting of the watercourse edge.

It is recommended to seed the entire area with a mix of endemic species.

To ensure immediate vegetation result it is recommended that the embankment and water edge be planted with endemic vegetation naturally spread over the entire disturbed area.

This embankment need to be planted to:

- Ensure immediate vegetation results;
- Improve the ecological and biodiversity value of the slope and
- Prevent/minimise downslope erosion; and
- Prevent/minimize invasive vegetation infestation.

Disturbance area to be rehabilitated:

Approximately 450m²

List of endemic seed to be sown in this disturbed area:



FIGURE 36: *ATHANASIA TRIFURCATA*



FIGURE 37: *ATHANASIA TOMENTOSA*



FIGURE 38: *STOEBE PLUMOSA*



FIGURE 39: *SEARSIA ANGUSTIFOLIA*



FIGURE 40: *DIOSPYROS GLABRA*



FIGURE 41: METALASIA Densa



FIGURE 42: LEUCANDENDRON SALIGNUM



FIGURE 43: PHAENOCOMA PROLIFERA



FIGURE 44: *PROTEA NITIDA*



FIGURE 45: *PROTEA REPENS*

List of endemic species proposed to be planted on dry embankment

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 46: *OSTEOSPERMUM MONILIFERUM* (X1 PLANT PER SQUARE METER)



FIGURE 47: *PELARGONIUM CUCULLATUM* (X1 PLANT PER SQUARE METER)



FIGURE 48: *DODONAEA ANGUSTIFOLIA* (X1 PLANT PER SQUARE METER)



FIGURE 49: *ARISTEA CAPITATA* (X1 PLANT PER SQUARE METER)

List of endemic species proposed to be planted at the water edge:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 50: *ELEGIA CAPENSIS* (X1 PLANT PER SQUARE METER)



FIGURE 51: *RESTIO PANICULATUS* (X1 PLANT PER SQUARE METER)



FIGURE 52: *PRIONIUM SERRATUM* (X1 PLANT PER SQUARE METER)



FIGURE 53: CYPERUS TEXTILIS (X1 PLANT PER SQUARE METER)

Area 4: Downstream of weir; right embankment.



FIGURE 54: DOWNSTREAM OF WEIR, RIGHT EMBANKMENT

Site conditions:

This area has been disturbed during the construction of the weir and completely stripped of endemic vegetation.

The area to be rehabilitated is dry, except the planting of the watercourse edge.

It is recommended to seed the entire area with a selection of endemic species.

To ensure immediate vegetation result it is recommended that this area be planted with x5 pockets of endemic vegetation naturally spread over the entire disturbed area. The proposed sizes of these pocket will be 15mx15m. The water edge also need to be planted with suitably wetland species.

This embankment and water edge need to be planted to:

- Ensure immediate vegetation results;
- Improve the ecological and biodiversity value of the area;
- Prevent/minimise downslope erosion and siltation to the watercourse; and
- Prevent/minimise invasive vegetation infestation.

Disturbance area to be rehabilitated:

Approximately 3800m²

List of endemic seed to be sown in this disturbed area:



FIGURE 55: *EHRHARTA CALYCINA*



FIGURE 56: *EHRHARTA VILLOSA*



FIGURE 57: *ERAGROSTIS CURVULA*



FIGURE 58: *ATHANASIA TRIFURCATA*



FIGURE 59: *ATHANASIA TOMENTOSA*



FIGURE 60: *STOEBE PLUMOSA*



FIGURE 61: *SEARSIA ANGUSTIFOLIA*



FIGURE 62: *BERZELLIA LANUGINOSA*



FIGURE 63: *DIOSPYROS GLABRA*



FIGURE 64: *PROTEA NITIDA*



FIGURE 65: *PROTEA REPENS*



FIGURE 66: *PHAENOCOMA PROLIFERA*



FIGURE 67: *LEUCADENDRON SALIGNUM*



FIGURE 68: METALASIA DENSA

List of endemic species proposed for the pocket planting:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 69: OSTEOSPERMUM MONILIFERUM



FIGURE 70: *PELARGONIUM CUCULLATUM*



FIGURE 71: *DODONAEA ANGUSTIFOLIA*



FIGURE 72: *ARISTEA CAPITATA* (X1 PLANT PER SQUARE METER)

List of endemic species proposed to be planted at the water edge:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 73: *ELEGIA CAPENSIS* (X1 PLANT PER SQUARE METER)



FIGURE 74: *RESTIO PANICULATUS* (X1 PLANT PER SQUARE METER)



FIGURE 75: *PRONIUM SERRATUM* (X1 PLANT PER SQUARE METER)



FIGURE 76: *CYPERUS TEXTILIS* (X1 PLANT PER SQUARE METER)

Area 5: Bare embankment; downstream of weir; left embankment.



FIGURE 77: DOWNSTREAM OF WEIR LEFT EMBANKMENT.

Site conditions:

This area has been disturbed during the construction of the weir and completely stripped of endemic vegetation.

The area to be rehabilitated is dry, except the planting of the watercourse edge.

It is recommended to seed the entire area with a mix of endemic species.

To ensure immediate vegetation result it is recommended that the dry embankment and water edge be planted with endemic vegetation naturally spread over the entire disturbed area.

This embankment need to be planted to:

- Ensure immediate vegetation results;
- Improve the ecological and biodiversity value of the slope;
- Prevent/minimise downslope erosion; and
- Prevent/minimize invasive vegetation infestation.

Disturbance area to be rehabilitated:

Approximately 2100m²

List of endemic seed to be sown in this disturbed area:



FIGURE 78: *ATHANASIA TRIFURCATA*



FIGURE 79: *ATHANASIA TOMENTOSA*



FIGURE 80: *STOEBE PLUMOSA*



FIGURE 81: *SEARSIA ANGUSTIFOLIA*



FIGURE 82: *DIOSPYROS GLABRA*



FIGURE 83: *PROTEA NITIDA*



FIGURE 84: *PROTEA REPENS*



FIGURE 85: *PHAENOCOMA PROLIFERA*



FIGURE 86: *LEUCADENDRON SALIGNUM*



FIGURE 87: *METALASIA Densa*

List of endemic species proposed to be planted on dry embankment.

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 88: *OSTEOSPERMUM MONILIFERUM* (X1 PLANT PER SQUARE METER)



FIGURE 89: *PELARGONIUM CUCULLATUM* (X1 PLANT PER SQUARE METER)



FIGURE 90: *DODONAEA ANGUSTIFOLIA* (X1 PLANT PER SQUARE METER)



FIGURE 91: *ARISTEA CAPITATA* (X1 PLANT PER SQUARE METER)

List of endemic species proposed to be planted at the water edge:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 92: *ELEGIA CAPENSIS* (X1 PLANT PER SQUARE METER)



FIGURE 93: *RESTIO PANICULATUS* (X1 PLANT PER SQUARE METER)



FIGURE 94: *PRIONIUM SERRATUM* (X1 PLANT PER SQUARE METER)



FIGURE 95: CYPERUS TEXTILIS (X1 PLANT PER SQUARE METER)

Area 6: Western tributary of the Holsloot River.



FIGURE 96: WESTERN TRIBUTARY OF THE HOLSLOOT RIVER

Site conditions:

The embankments of the tributary to the Holsloot River are very harsh due to high volumes of river rock. These embankments do not have a lot of topsoil therefore the reason of lower volumes of vegetation on the embankments. (Natural occurrence)

Areas on the embankments have been identified where additional planting will be possible to increase the amount of vegetation on the embankments.

Due to the harsh condition of these embankments the main focus of vegetation will be drought resistant groundcovers.

It is recommended that the entire area been seeded with a selection of endemic species to increase the vegetation diversity.

Disturbance area to be rehabilitated:

Approximately 600m²

List of endemic seed to be sown;



FIGURE 97: EHRHARTA CALYCINA



FIGURE 98: *EHRHARTA VILLOSA*



FIGURE 99: *ERAGROSTIS CURVULA*



FIGURE 100: *ATHANASIA TRIFURCATA*



FIGURE 101: *ATHANASIA TOMENTOSA*



FIGURE 102: *STOEBE PLUMOSA*



FIGURE 103: *SEARSIA ANGUSTIFOLIA*



FIGURE 104: *BERZELLIA LANUGINOSA*



FIGURE 105: *DIOSPYROS GLABRA*



FIGURE 106: *PROTEA NITIDA*



FIGURE 107: *PROTEA REPENS*



FIGURE 108: *PHAENOCOMA PROLIFERA*



FIGURE 109: *LEUCADENDRON SALIGNUM*



FIGURE 110: *METALASIA Densa*

List of endemic species proposed to be planted on dry embankment

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 111: *PELARGONIUM CUCULLATUM* (X1 PLANT PER SQUARE METER)



FIGURE 112: *OSTEOSPERMUM MONILIFERUM* (X1 PLANT PER SQUARE METER)



FIGURE 113: *DODONAEA ANGUSTIFOLIA* (X1 PLANT PER SQUARE METER)

Area 7: Water pipeline route.



FIGURE 114: WATER PIPELINE ROUTE

Site conditions:

This area has been disturbed during the installation of the pipeline and depleted of natural vegetation.

The area to be rehabilitated is dry. The disturbed section is bounded by an agricultural road used by farm vehicles on a daily basis.

It is recommended that the entire pipeline route be seeded with a mix of endemic species.

This pipeline route needs to be planted to:

- Ensure immediate vegetation results;
- Prevent/minimize erosions;
- Prevent/minimize invasive species infestation; and
- Improve the ecological and biodiversity value of the slope.

Disturbance area to be rehabilitated:

Approximately 7200m²

List of endemic seeds to be sown:



FIGURE 115: *EHRHARTA CALYCINA*



FIGURE 116: *EHRHARTA VILLOSA*



FIGURE 117: *ERAGROSTIS CURVULA*



FIGURE 118: *ATHANASIA TRIFURCATA*



FIGURE 119: *ATHANASIA TOMENTOSA*



FIGURE 120: *STOEBE PLUMOSA*



FIGURE 121: *SEARSIA ANGUSTIFOLIA*



FIGURE 122: *DIOSPYROS GLABRA*



FIGURE 123: *PROTEA NITIDA*



FIGURE 124: *PROTEA REPENS*



FIGURE 125: *PHAENOCOMA PROLIFERA*



FIGURE 126: *LEUCADENDRON SALIGNUM*



FIGURE 127: *METALASIA Densa*

Area 8 Stockpile area along the western tributary.



FIGURE 128: STOCKPILE AREA ALONG THE WESTERN TRIBUTARY

Site conditions:

This area has been disturbed as it has been used as a stockpile area during construction and completely stripped of endemic vegetation.

The area to be rehabilitated is dry.

It is recommended to seed the entire area with a selection of endemic species. .

To ensure immediate vegetation result it is recommended that this area be planted with x5 pockets of endemic vegetation naturally spread over the entire disturbed area. The proposed sizes of these pocket will be 10mx10m.

This area need to be planted to:

- Ensure immediate vegetation results;
- Improve the ecological and biodiversity value of the area;
- Prevent/minimise erosion of the bare area; and
- Prevent/minimise invasive vegetation infestation.

Disturbance area to be rehabilitated:

Approximately 2600m²

List of endemic seed to be sown in this disturbed area:



FIGURE 129: *EHRHARTA CALYCINA*



FIGURE 130: *EHRHARTA VILLOSA*



FIGURE 131: *ERAGROSTIS CURVULA*



FIGURE 132: *ATHANASIA TRIFURCATA*



FIGURE 133: *ATHANASIA TOMENTOSA*



FIGURE 134: *STOEBE PLUMOSA*



FIGURE 135: *SEARSIA ANGUSTIFOLIA*



FIGURE 136: *DIOSPYROS GLABRA*



FIGURE 137: *PROTEA NITIDA*



FIGURE 138: *PROTEA REPENS*



FIGURE 139: *PHAENOCOMA PROLIFERA*



FIGURE 140: *LEUCADENDRON SALIGNUM*



FIGURE 141: *METALASIA Densa*

List of endemic species proposed for the pocket planting:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 142: *OSTEOSPERMUM MONILIFERUM*



FIGURE 143: *PELARGONIUM CUCULLATUM*



FIGURE 144: *DODONAEA ANGUSTIFOLIA*



FIGURE 145: *ARISTEA CAPITATA* (X1 PLANT PER SQUARE METER)

Area 9 Area at the river crossing.



FIGURE 146: PIPELINE CROSSING WATERCOURSE

Site conditions:

This area has been disturbed during the installation of the pipeline and completely stripped of endemic vegetation.

The area to be rehabilitated is dry, except the planting of the water edge.

It is recommended to seed the entire area with a selection of endemic species. .

To ensure immediate vegetation result it is recommended that this area be planted with x5 pockets of endemic vegetation naturally spread over the entire disturbed area. The proposed sizes of these pocket will be 10mx10m.

This embankment and water edge need to be planted to:

- Ensure immediate vegetation results;
- Improve the ecological and biodiversity value of the area;
- Prevent/minimise downslope erosion and siltation to the watercourse; and
- Prevent/minimise invasive vegetation infestation.

Disturbance area to be rehabilitated:

Approximately 3100m²

List of endemic seed to be sown in this disturbed area:



FIGURE 147: *EHRHARTA CALYCINA*



FIGURE 148: *EHRHARTA VILLOSA*



FIGURE 149: *ERAGROSTIS CURVULA*



FIGURE 150: *ATHANASIA TRIFURCATA*



FIGURE 151: *ATHANASIA TOMENTOSA*



FIGURE 152: *STOEBE PLUMOSA*



FIGURE 153: *SEARSIA ANGUSTIFOLIA*



FIGURE 154: *DIOSPYROS GLABRA*



FIGURE 155: *PROTEA NITIDA*



FIGURE 156: *PROTEA REPENS*



FIGURE 157: *PHAENOCOMA PROLIFERA*



FIGURE 158: *LEUCADENDRON SALIGNUM*



FIGURE 159: *METALASIA Densa*



FIGURE 160: *BERZELLIA LANUGINOSA*

List of endemic species proposed for the pocket planting:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 161: *OSTEOSPERMUM MONILIFERUM*



FIGURE 162: *PELARGONIUM CUCULLATUM*



FIGURE 163: *DODONAEA ANGUSTIFOLIA*



FIGURE 164: *ARISTEA CAPITATA* (X1 PLANT PER SQUARE METER)

List of endemic species proposed to be planted at the water edge:

Sizes of the plant; Standard 4 Litre Bag.



FIGURE 165: *ELEGIA CAPENSIS* (X1 PLANT PER SQUARE METER)



FIGURE 166: *RESTIO PANICULATUS* (X1 PLANT PER SQUARE METER)



FIGURE 167: *PRIONIUM SERRATUM* (X1 PLANT PER SQUARE METER)



FIGURE 168: *CYPERUS TEXTILIS* (X1 PLANT PER SQUARE METER)

4.4. MANAGEMENT MEASURES POST REHABILITATION

It is recommended that once the rehabilitation measures have been implemented, periodic maintenance must be undertaken for the rehabilitated areas to ensure ongoing ecological and hydrological functioning. Specific mention is made to alien invasive plant control and ensuring basal vegetation reinstatement. The following must be adequately managed for at least 2 years post reinstatement:

- Sediment removal – may be required after a heavy rainfall where sediment from the study area gets washed into the rehabilitated area. This will need to be carefully removed by hand.
- Monitoring of indigenous vegetation growth.

This include:

- Site walk through surveys should be applied as the preferred method of monitoring (at specified frequencies) with specific focus on:
- Erosion monitoring (for the duration of the raining season);
- Sedimentation (for the duration of the raining season); and
- Alien and invasive vegetation proliferation (at the start and end of the growing season).

4.5. MANUAL LABOUR

For rehabilitation activities:

Manual labour is recommended for rehabilitation. No machinery allowed within the wetland habitat and watercourse

Heavy machinery will:

- Lead to compaction of soil, which will inhibit natural seed germination and the sprouting of sods and rhizomes;
- Create tracks and change the embankments profile;
- Change the natural contour and drainage lines of the site; and
- Negatively impact on faunal species within the wetland/river habitat.

4.6. PREPARATION OF SOIL PRIOR TO REHABILITATION

Prior to planting and seeding all the disturbed and affected areas, soil preparation is crucial for effective rehabilitation.

Ripping and shaping:

All compacted areas need to be ripped, protected topsoil need to be spread, and areas need to be shaped in such a way that it blends in with the natural contour and drainage lines of the site.

[This has taken place on site.](#)

By the time rehabilitation will be conducted the ripped and loosened surfaces will be compacted again. When seeding need to be done as part of the rehabilitation process, the compacted areas need to be carefully ripped by hand, to ensure that no damage is done to the endemic species naturally germinating within the topsoil. Seeding on compacted areas will not yield the required results.

Ripping and shaping will ensure:

- That all compacted areas be loosened and aerated;
- Effective infiltration of seeded seeds;
- Will ensure better infiltration of precipitation and less erosion;
- Will make planting during rehabilitation easier;
- Will stimulate natural rehabilitation by means of seed germination; and
- Will positively contribute to the visual and aesthetic value of the site.

4.7. NO GO AREAS

After planting, the rehabilitated sections need to be clearly seen as a No Go Areas. Unnecessary and illegal access to the rehabilitated areas will lead to damage and disturbance.

These areas need to be demarcated by erecting No Go Signs. The No Go Signs need to clearly state that this is a rehabilitated area, and entrance to this area is prohibited.

The use of danger tape not allowed as tape tends to blow around on site during times of strong wind, leading to contamination of the area.

4.8. TIMING OF REHABILITATION

Planting:

The best time for planting will be at the beginning of the rainy season. This will help the plants to settle and preparing them for the summer to follow. All plants (even water wise plants) need water in the establishment phase. Should planting be done during the summer months (not advised) the planted areas need to be watered on a regular basis.

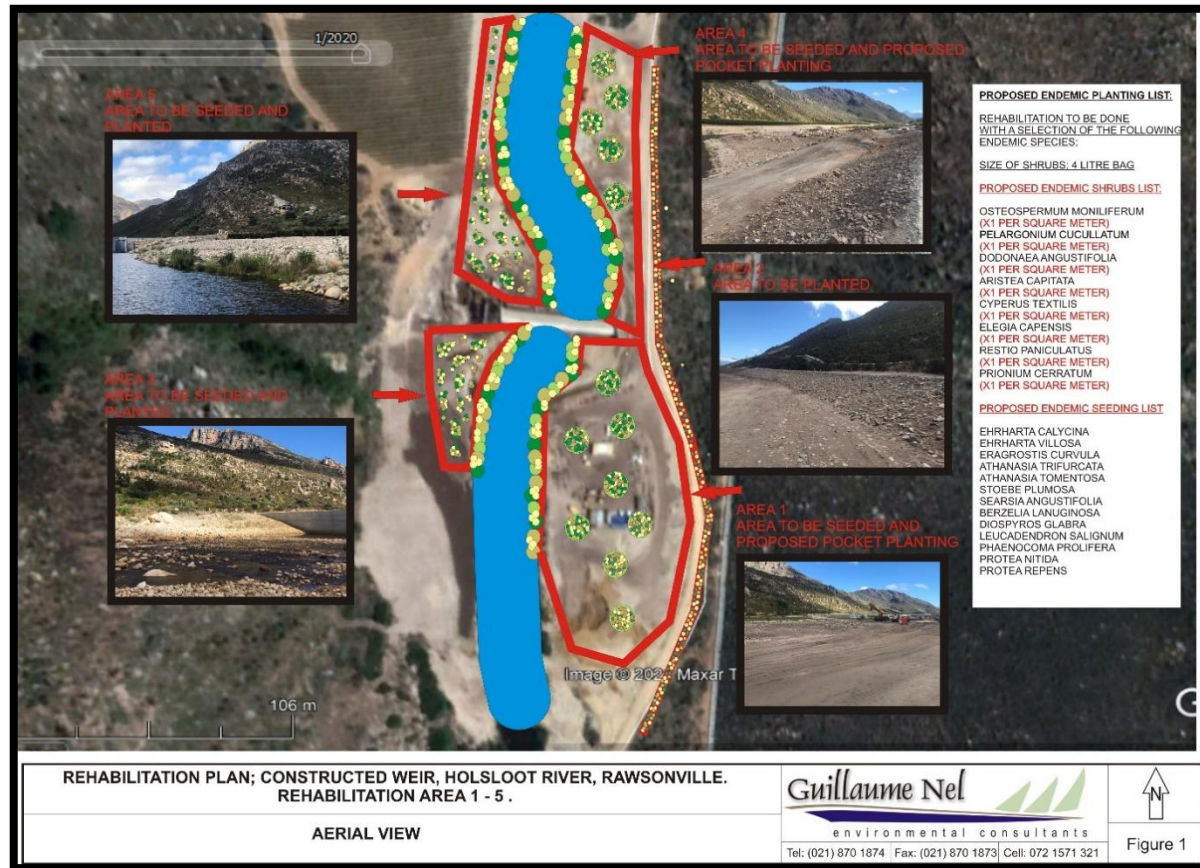
According to the Environmental Authorisation the Holsloot Water Users Association has established rights to abstract water from the Holsloot River for irrigation purposes.

Seeding:

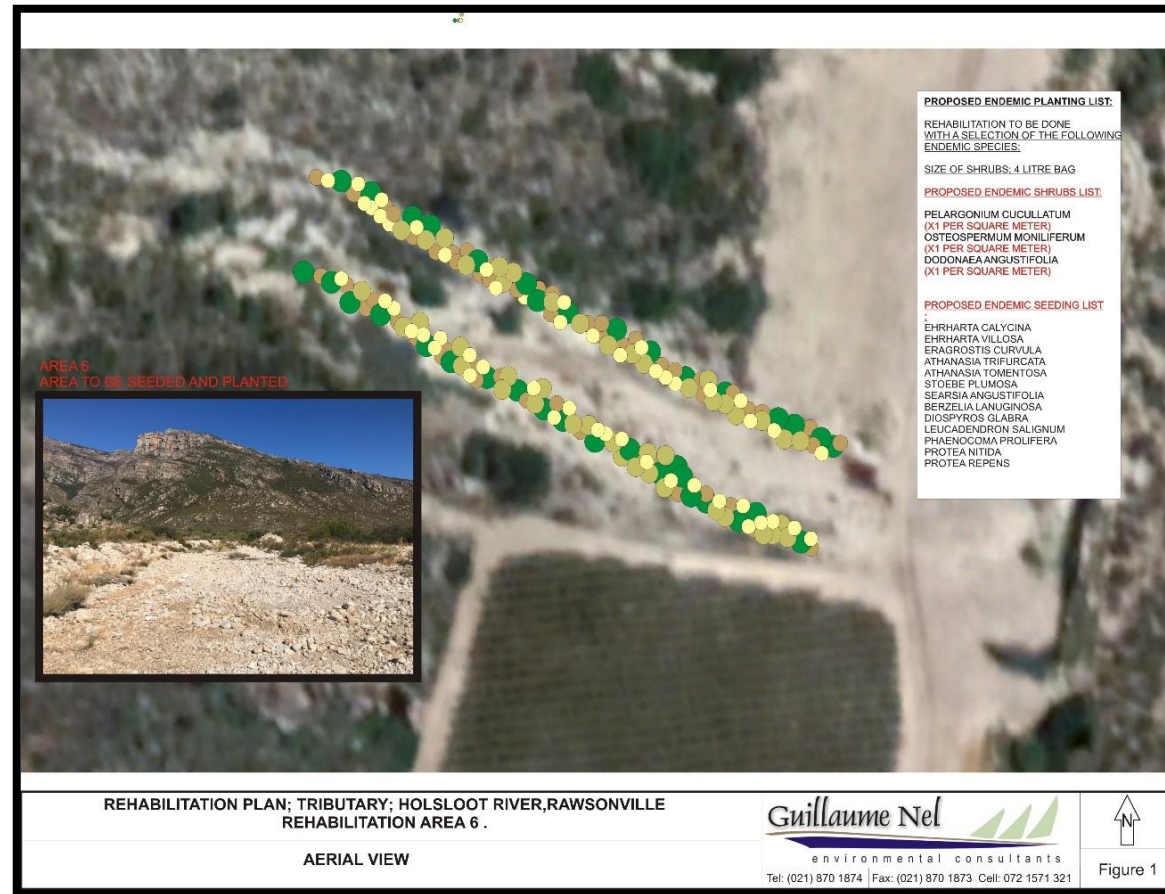
When seeding need to be done as part of the rehabilitation process, the compacted areas need to be carefully ripped by hand, to ensure that no damage is done to the endemic species naturally germinating within the topsoil. Seeding on compacted areas will not yield the required results.

Seeding needs to be done during late Summer to Autumn (January to March). The seeds will start to germinate in time to receive the winter rain to strengthen and preparing them for the following summer to follow.

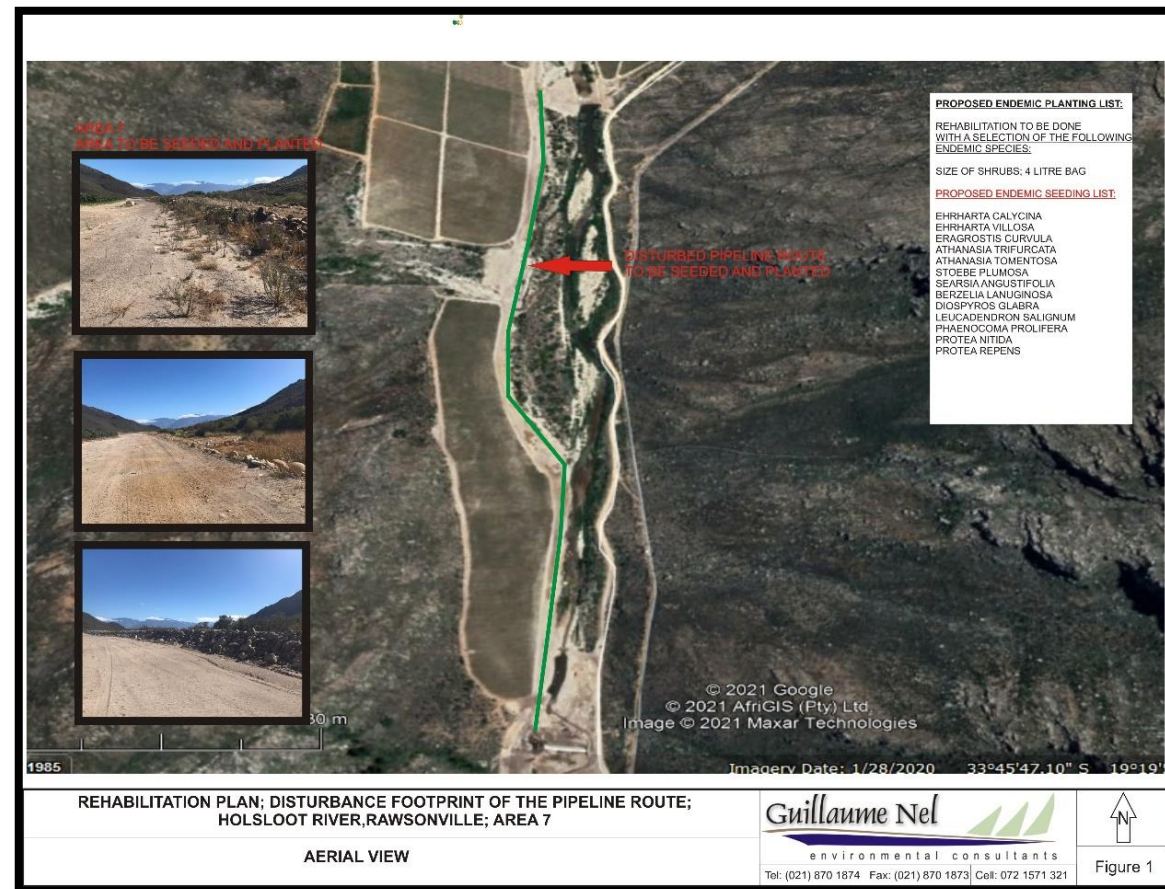
5. REHABILITATION PLAN AREA 1 – 5



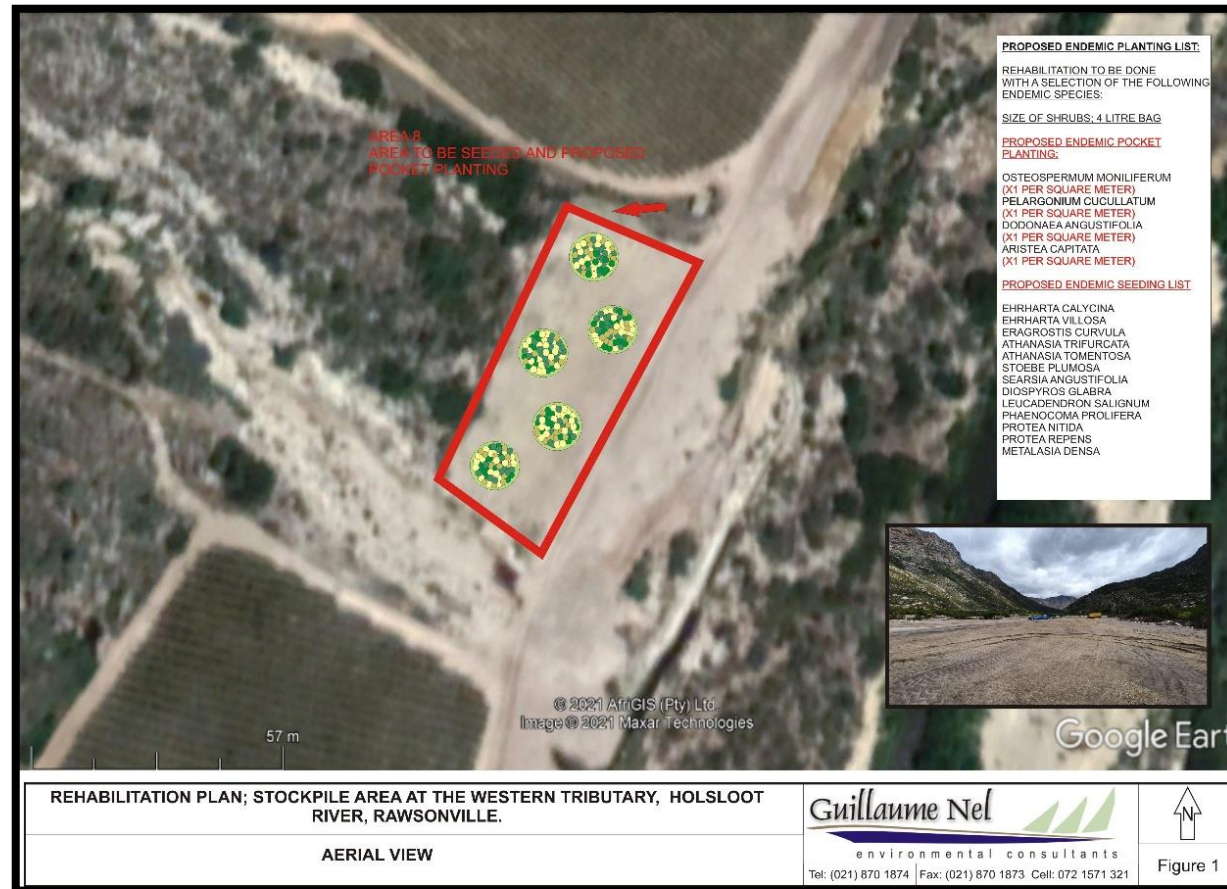
6. REHABILITATION PLAN, AREA 6



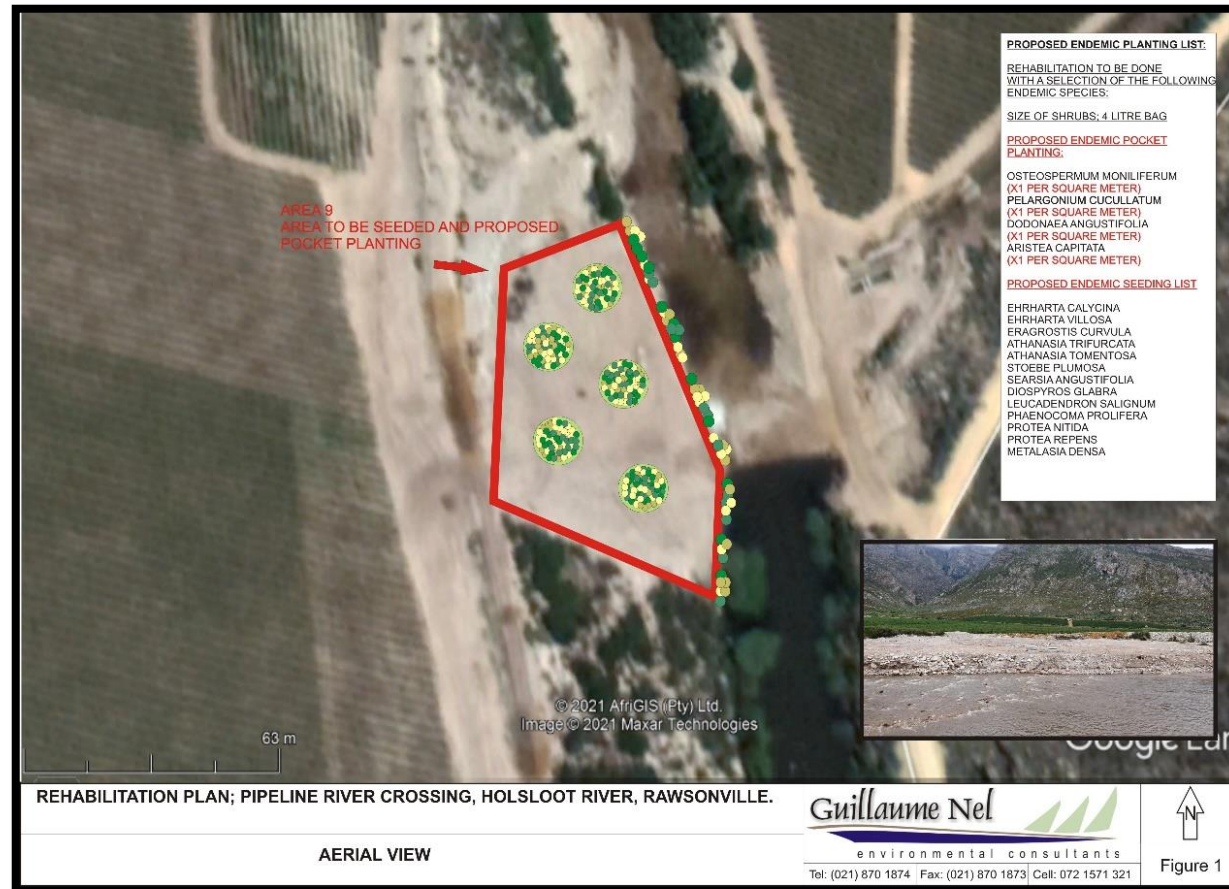
7. REHABILITATION PLAN, AREA 7



8. REHABILITATION PLAN, AREA 8



9. REHABILITATION PLAN, AREA 9



10. WATERING REQUIREMENTS

According to the Environmental Authorisation the Holsloot Water Users Association has established rights to abstract water from the Holsloot River for irrigation purposes.

Short-term irrigation of planted areas are required over at least two full summers following establishment of plants.

Methods to consider:

- 1) Manual watering. The plants need to be watered at least two times a week during the drier summer months. The plants need to be watered once a week during the winter months depending on the rain.
- 2) Installation of temporary irrigation.

11. QUANTITIES OF PLANTS REQUIRED PER AREA

Area 1: Site Camp.

- X 350 Pelargonium cucullatum
- X 300 Osteospermum moniliferum
- X 350 Dodonaea angustifolia
- X 30 Elegia capensis
- X 30 Restio paniculatus
- X 30 Pronium serratum
- X 30 Cyperus textilis

Area 2: Embankment along Stettyns Road.

- X 120 Pelargonium cucullatum
- X 150 Osteospermum moniliferum
- X 150 Dodonaea angustifolia

Area 3: Upstream of weir; left embankment.

- X 60 Pelargonium cucullatum
- X 60 Osteospermum moniliferum
- X 60 Dodonaea angustifolia
- X 60 Aristea capitata

X 15 ELEGIA capensis

X 15 Restio paniculatus

X 20 Prionium serratum

X 15 Cyperus textilis

Area 4: Downstream of weir; right embankment.

X 250 Pelargonium cucullatum

X 250 Osteospermum moniliferum

X 300 Dodonaea angustifolia

X 250 Aristeia capitata

X 40 ELEGIA capensis

X 40 Restio paniculatus

X 40 Prionium serratum

X60 Cyperus textilis

Area 5: Bare embankment; downstream of weir; left embankment.

X 220 Pelargonium cucullatum

X 220 Osteospermum moniliferum

X 220 Dodonaea angustifolia

X 200 Aristeia capitata

X 40 ELEGIA capensis

X 40 Restio paniculatus

X 40 Prionium serratum

X 50 Cyperus textilis

Area 6: Tributary of the Holsloot River.

X 170 Pelargonium cucullatum

X170 Dodonaea angustifolia

X170 Osteospermum moniliferum

Area 7: Water pipeline route.

Only seed

Area 8: Stockpile are, along western tributary.

X 270 Pelargonium cucullatum

X 270 Osteospermum moniliferum

X 270 Dodonaea angustifolia

X 250 Aristea capitata

Area 9:

X 250 Pelargonium cucullatum

X 250 Osteospermum moniliferum

X 250 Dodonaea angustifolia

X 250 Aristea capitata

X25 Elegia capensis

X25 Restion paniculatus

X25 Prionium serratum

X50 Cyperus textilis

12. QUANTITIES OF SEEDS REQUIRED

Total area to be seeded: 24 800m²/ 2.480ha

Grasses:

- To be sown at: 40kg/ha;
- 80kg grass seed required
- Grass mix including all three grasses.
- Grasses required as per report:
 - *Ehrharta calycina*
 - *Ehrharta villosa*
 - *Eragrostis curvula*

Endemic shrubs:

- To be sown at: 25kg/ha

- 50kg endemic shrubs seed required.
- Endemic seeds required as per report:
 - *Athanasia trifurcate/tomentosa*
 - *Stoebe plumosa*
 - *Searsia angustifolia*
 - *Diospyros glabra*
 - *Metalasia densa*
 - *Leucadendron salignum*
 - *Phaenocoma salignum*
 - *Protea nitida*
 - *Protea repens*
 - *Berzellia lanuginosa*

Area 1: Site Camp.

Size of Area: 7 500m²

Selection of:

- *Ehrharta calycina*
- *Ehrharta villosa*
- *Eragrostis curvula*
- *Athanasia trifurcate*
- *Athanasia tomentosa*
- *Stoebe plumose*
- *Searsia angustifolia*
- *Berzelia lanuginosa*
- *Diospyros glabra*

Area 2: Embankment along Stettyns Road.

No Seed

Area 3: Upstream of weir; left embankment.

Size of Area: 450m²

Selection of:

- *Athanasia trifurcate*
- *Athanasia tomentosa*

- *Stoebe plumose*
- *Searsia angustifolia*
- *Diospyros glabra*
- *Metalasia densa*
- *Leucadendron salignum*
- *Phaenocoma prolifera*
- *Protea nitida*
- *Protea repens*

Area 4: Downstream of weir; right embankment.

Size of Area: 3 800m²

Selection of:

- *Ehrharta calycina*
- *Ehrharta villosa*
- *Eragrostis curvula*
- *Athanasia trifurcate*
- *Athanasia tomentosa*
- *Stoebe plumose*
- *Searsia angustifolia*
- *Berzelia lanuginosa*
- *Diospyros glabra*
- *Protea nitida*
- *Protea repens*
- *Phaenocoma prolifera*
- *Leucadendron salignum*
- *Metalasia densa*

Area 5: Bare embankment; downstream of weir; left embankment.

Size of Area: 2 100m²

Selection of:

- *Athanasia trifurcate*
- *Athanasia tomentosa*
- *Stoebe plumose*

- *Searsia angustifolia*
- *Diospyros glabra*
- *Protea nitida*
- *Protea repens*
- *Phaenocoma prolifera*
- *Leucadendron salignum*
- *Metalasia densa*

Area 6: Western tributary of the Holsloot River.

Size of Area: 600m²

Selection of:

- *Ehrharta calycina*
- *Ehrharta villosa*
- *Eragrostis curvula*
- *Athanasia trifurcate*
- *Athanasia tomentosa*
- *Stoebe plumose*
- *Searsia angustifolia*
- *Berzelia lanuginosa*
- *Diospyros glabra*
- *Protea nitida*
- *Protea repens*
- *Phaenocoma prolifera*
- *Leucadendron salignum*
- *Metalasia densa*

Area 7: Water pipeline route.

Size of Area: 7 200m²

Selection of:

- *Ehrharta calycina*
- *Ehrharta villosa*
- *Eragrostis curvula*
- *Athanasia trifurcate*

- *Athanasia tomentosa*
- *Stoebe plumose*
- *Searsia angustifolia*
- *Diospyros glabra*
- *Protea nitida*
- *Protea repens*
- *Phaenocoma prolifera*
- *Leucadendron salignum*
- *Metalasia densa*

Area 8: Stockpile area along western tributary.

Size of Area: 2 600m²

Selection of:

- *Ehrharta calycina*
- *Ehrharta villosa*
- *Eragrostis curvula*
- *Athanasia trifurcate*
- *Athanasia tomentosa*
- *Stoebe plumose*
- *Searsia angustifolia*
- *Diospyros glabra*
- *Protea nitida*
- *Protea repens*
- *Phaenocoma prolifera*
- *Leucadendron salignum*
- *Metalasia densa*

Area 9: Pipeline river crossing.

Size of Area: 3 100m²

Selection of:

- *Ehrharta calycina*
- *Ehrharta villosa*
- *Eragrostis curvula*

- *Athanasia trifurcate*
- *Athanasia tomentosa*
- *Stoebe plumose*
- *Searsia angustifolia*
- *Diospyros glabra*
- *Protea nitida*
- *Protea repens*
- *Phaenocoma prolifera*
- *Leucadendron salignum*
- *Metalasia densa*

13. CONCLUSION

GNEC, in our professional capacity as rehabilitation specialist, strongly feel that the above-mentioned rehabilitation will:

- Improve the ecological and biodiversity value of the previously disturbed areas;
- Act as natural areas for faunal species;
- Prevent/minimise further invasive vegetation infestation as the disturbed and degraded areas will be rehabilitated with endemic species;
- Prevent/minimise erosion of the disturbed areas as these areas will be rehabilitated with endemic species; and
- Enhance the visual and aesthetic appearance of the previously disturbed areas.

***POST EX FACTO* BOTANICAL IMPACT ASSESSMENT: CONSTRUCTION OF A WEIR AND PIPELINE IN THE HOLSLOOT RIVER, NEAR RAWSONVILLE**

September 2021



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DECLARATION OF INDEPENDENCE

I Mark Gerald Berry, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I:

- in terms of the general requirement to be independent:
 - **other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity**; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- in terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared or to be prepared as part of the application; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the Specialist:



Name of Company:

Mark Berry Environmental Consultants

Date:

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- 1989-1990** Nature Conservation Officer in the South African Air Force, based at Langebaan Road Air Force Base
- 1997-2005** Employed as principal environmental specialist at Planning Partners, a multi-disciplinary consultancy specialising in town and regional planning, environmental planning and landscape architecture. Duties included the conducting of EIA's, compiling EMPr's, ECO duties, biodiversity surveys and status quo environmental assessments for spatial development frameworks.
- 2000-2006** Examiner for the Board of Control for Landscape Architects (BOCLA), responsible for the setting up and marking of the Environmental Planning Section of exam paper.
- 2005-current** Started Mark Berry Environmental Consultants in June 2005. Responsibilities include office management, seeking tenders, conducting EIA's, compiling EMPr's, construction site environmental audits, biodiversity surveys, etc. A relationship is maintained with previous employer, and, among other, undertook land-use surveys and reporting for the Eskom's site safety reports for three proposed nuclear power plants in the Western and Eastern Cape Provinces.

QUALIFICATIONS

- BSc (1988) University of Stellenbosch
- BSc-Hons in Botany (1991) University of Stellenbosch
- MSc in Botany (1993) Nelson Mandela University
- PhD in Botany (2000) Nelson Mandela University.

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REFERENCES

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Andrew Cleghorn (civil engineer and branch manager at Knight Piesold (Pty) Ltd)

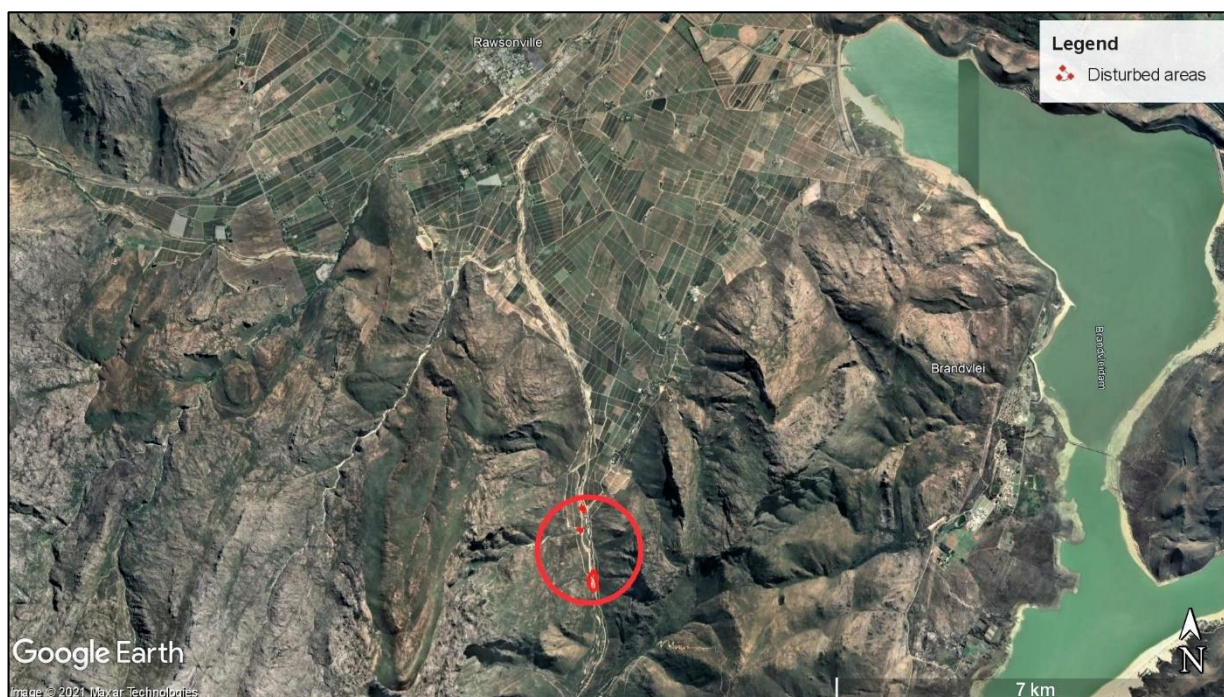
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1 INTRODUCTION

This report investigates the biodiversity aspects of three areas alongside the Holsloot River, which were damaged during the construction of the Holsloot weir and pipeline to the south of Rawsonville (see Map 1). The agency responsible for the construction activity has now been instructed to rehabilitate the disturbed areas. In addition, the Department of Environmental Affairs & Development Planning (DEA&DP) has requested for a botanical assessment to assess/quantify the impact. Mark Berry, an independent biodiversity specialist, has been appointed by the EAP (Guillaume Nel Environmental Consultants) to perform the latter assessment. In brief, the project is located inside a mainly Hawequas Sandstone Fynbos environment, with the riverine area itself best described as an aquatic/riverine scrub. It is the latter that was mostly affected by the construction work. This report should be read in conjunction with the botanical impact assessment report for the weir and pipeline (Krige 2016).



Map 1 Satellite photo showing the position of the disturbed areas (encircled in red) next to the Holsloot River.

2 DESCRIPTION OF ACTIVITIES

Three main areas have been disturbed during the construction of the weir and pipeline (see Map 2). It is tricky to delineate the exact areas of disturbance due to the land use (farming) history of the adjacent areas and what was allowed/not allowed during the construction phase. Note that the above areas do not necessarily match up exactly with proposed rehabilitation areas in the Rehabilitation Report, prepared by Guillaume Nel Environmental Consultants. The

areas cleared/damaged during the construction phase are as follows:

- **Site 1:** The area (3.68 ha) around the new weir, which was significantly modified. This area also accommodated the contractor's camp during the construction phase.
- **Site 2:** Small stockpile area (0.23 ha) downstream from the weir next to a tributary. This area was used as a stockpile area during the construction period, but has subsequently been cleared.
- **Site 3:** Another cleared area (0.48 ha) further away downstream where the pipeline crosses the river.



Map 2 Satellite photo showing the positions of the cleared/disturbed areas.

The following details regarding the project and rehabilitation process have been obtained from the Rehabilitation Report. The Holsloot Water Users Association developed a diversion weir and off-take structure within the Holsloot River, as well as an associated pipeline directing water towards an existing irrigation canal about 1.5 km downstream of the diversion weir.

The disturbed areas have been identified and divided into the follow areas:

- Embankment along the Stettyns Road;
- Site camp area;
- Upstream of weir, embankment on the left;
- Downstream of weir, embankment on the right;
- Downstream of weir, embankment of the left;
- Tributary of the Holsloot River; and
- Water pipeline route.

The proposed rehabilitation will:

- Prevent erosion and siltation towards the Holsloot River;
- Positively contribute to the ecological and biodiversity value of the existing degraded areas (both flora and faunal);
- Prevent/minimise further invasive vegetation infestation as the disturbed areas will be rehabilitated with endemic species; and
- Enhance the visual and aesthetic appearance of the previously disturbed areas.

3 TERMS OF REFERENCE

- Identify and describe the affected vegetation, biodiversity patterns at a community and ecosystem level (vegetation types and threatened/vulnerable ecosystems), at species level (Species of Conservation Concern, protected species, presence of alien species) and in terms of significant landscape features;
- Map the extent of disturbance;
- Extrapolate and quantify the situation on site prior to clearing, with the emphasis on biodiversity;
- Review the relevant biodiversity plans compiled in terms of the National Environmental Management Biodiversity Act (Act 10 of 2004); and
- Adhere to the NEMA, Department of Environmental Affairs & Development Planning (DEA&DP), CapeNature and Brownlie's (2005) guidelines for biodiversity studies in the Western Cape.

4 METHODOLOGY

A botanical survey of the site was undertaken on 7 September 2021 by Mark Berry, an independent biodiversity specialist (see CV attached). An assessment of the cleared areas was undertaken, while the adjacent vegetation was also investigated in order to extrapolate the type and condition of the cleared vegetation, and possible presence of Species of Conservation Concern (SCC). Plant species not identified in the field, were collected and/or photographed and identified at the office and Compton (Kirstenbosch) Herbarium. The 2018 South African Vegetation Map, online biodiversity network information and latest floristic taxonomic literature and reference books were used for the purpose of this specialist study. Any plants classified as rare or endangered in the Red List of South African Plants online database are highlighted. The assessment follows the NEMA, CapeNature and other relevant guidelines for biodiversity assessments.

The following information was recorded during the site visit:

1. The extent and nature of clearing that took place.
2. Type and species diversity of the vegetation adjacent to the cleared areas. This refers to the numbers of different indigenous plant species occurring on site.
3. Species of Conservation Concern (SCC), as well as protected species found in the adjacent vegetation. This would include rare, vulnerable, endangered or critically endangered species, and protected tree species.

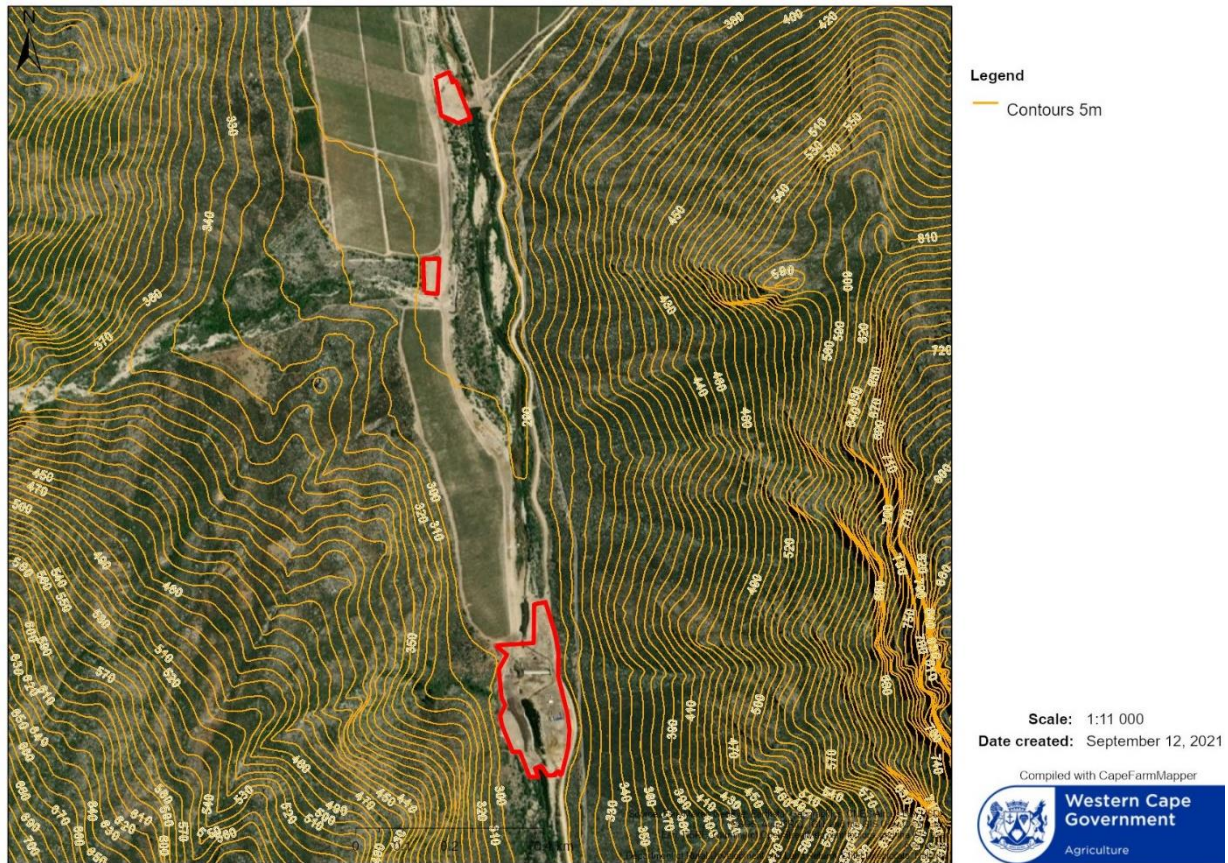
5 LIMITATIONS TO THE STUDY

Fieldwork was carried out in the spring season, which is considered the optimal time for botanical surveys in the Western Cape. However, flowering plants that only flower at other times of the year (e.g. summer to autumn), such as certain bulbs, may have been missed. The overall confidence in the completeness and accuracy of the botanical findings is considered to be good and no follow-up survey is considered necessary to aid decision making. A summer-autumn survey should add to the recorded species.

6 LOCALITY & BRIEF SITE DESCRIPTION

The study site is located in the mouth of the Stettynskloof, 8 km south of Rawsonville (see Map 3). It is flanked by the Dutoitsberge on western side and the Brandvleiberg on eastern side, which rise to over 1600 masl (Klein-Sneeukop). The clearing of vegetation took place alongside the Holsloot River, a perennial river and tributary of the Breede (see Photo 1). Its source is the Stettynskloof Dam, which lies deeper into the valley to the southwest. Other disturbances/land uses noted in the area are a gravel road, cultivated areas (vineyards) and another pipeline above the road on eastern side (see Photos 2 & 3).

The disturbed areas are all located alongside or inside a mapped NFEPA (National Freshwater Ecosystem Priority Area) wetland associated with the Holsloot River (see Map 4). The Holsloot is shown as a perennial river with several non-perennial streams coming in from the sides. The mapped wetland corresponds with the riparian zone and associated species as discussed below.



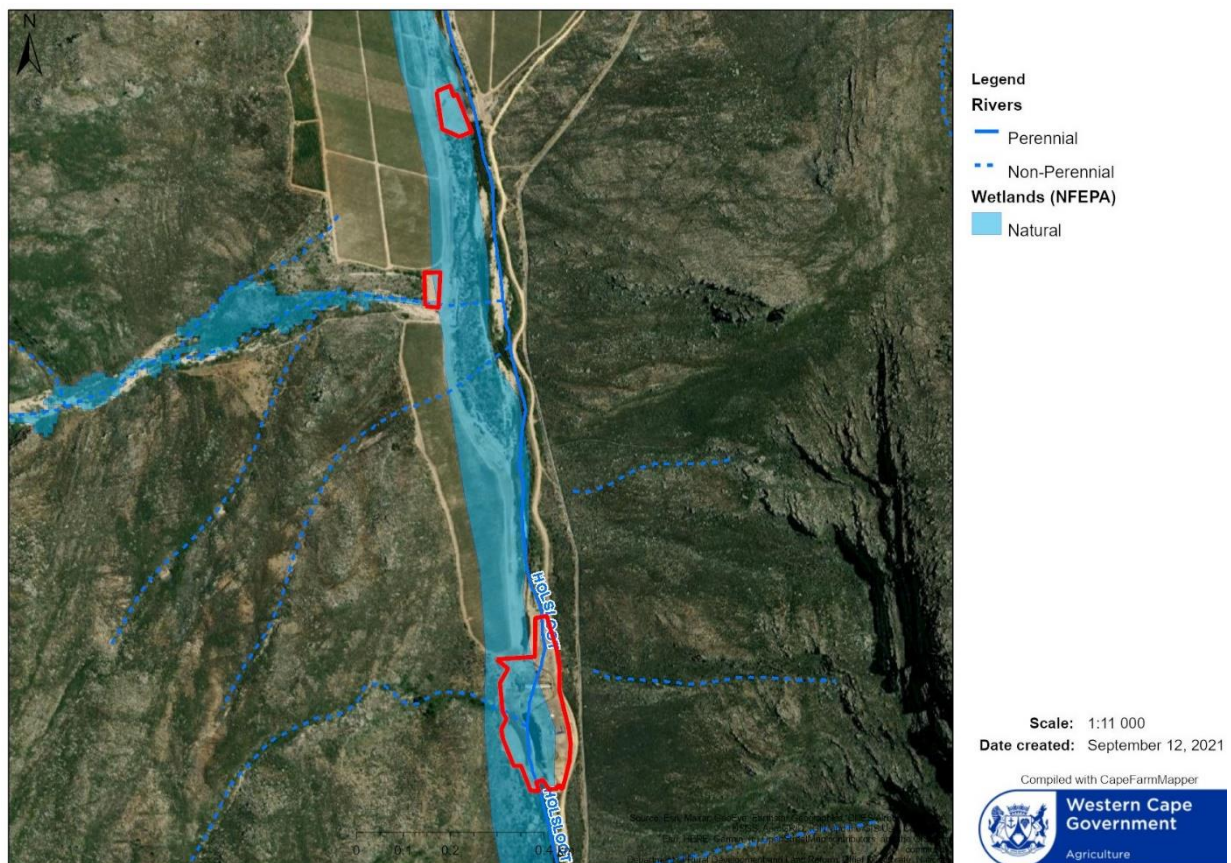
Map 3 Topographical (contour) map. The disturbed areas are outlined in red.



Photo 1 Cleared area on the upstream side of the weir.



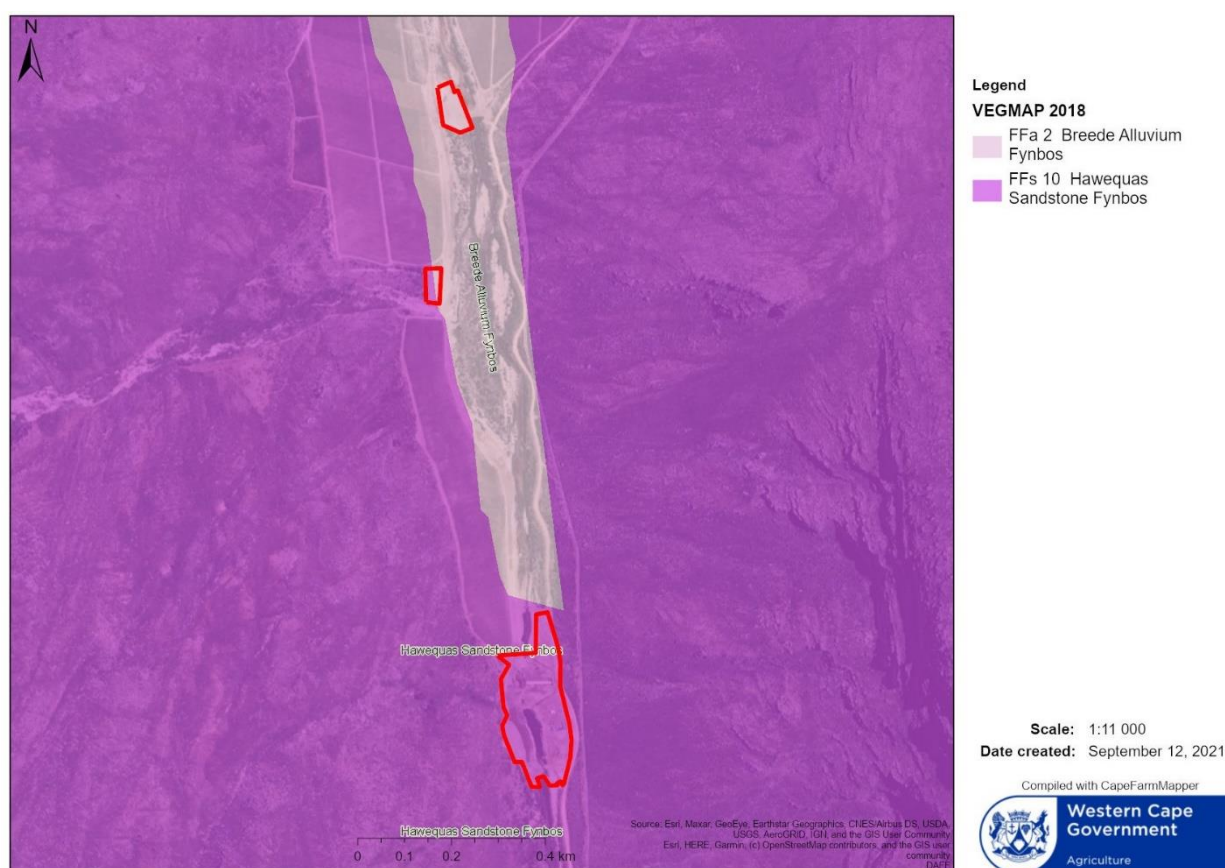
Photo 2 View across the vineyard between Sites 1 and 2, with the Holsloot River behind.



Map 4 Hydrological map. The disturbed areas are outlined in red.

7 BIOGEOGRAPHICAL CONTEXT

The study area is located inside the Fynbos Biome, with typical fynbos species observed in the area, such as *Protea nitida*, *P. laurifolia* and *Restio paniculatus*. According to the 2018 South African Vegetation Map, the main vegetation types found on site are Hawequas Sandstone Fynbos and Breede Alluvium Fynbos (see Map 5). The former transitions into Breede Alluvium Fynbos downstream from the weir site where the mountain slopes give way to the alluvial flats of the Breede River Valley. The actual vegetation clearing took place mainly inside riparian and semi-riparian vegetation. It is distinguished from typical fynbos by its lush growth and suite of typical riparian species, such as *Metrosideros angustifolia*, *Cliffortia strobilifera*, *Morella integra* and *Restio paniculatus*. For further biogeographical details on the affected vegetation types, see Krige (2016).



Map 5 Extract of the 2018 SA Vegetation Map, showing the disturbed areas (outlined in red) mainly inside Hawequas Sandstone Fynbos, but also inside Breede Alluvium Fynbos.

8 VEGETATION & FLORA

Site 1 (weir site)

The new weir was established inside riparian vegetation associated with Hawequas Sandstone Fynbos (see Map 5 & Photos 1 & 3). The area is still mostly bare, with little groundcover. The

undisturbed riparian vegetation adjacent to the cleared area presented the following indigenous species: *Metrosideros angustifolia*, *Morella integra*, *Cliffortia strobilifera* and *Restio paniculatus*. Several weedy species have already established on the cleared areas, including *Acrotis scabra*, *Oftia africana*, *Euryops* sp, *Lampranthus* sp, *Indigofera capillaris*, *Pelargonium hispidum*, *P. alchemilloides* and *Phytolacca octandra* (see Photo 4). The latter is an invasive weed. *Acacia mearnsii* (black wattle), which is a Category 2 invader in terms of the NEMBA Alien and Invasive Species List (2016), was also noted in the area. This is the area where most of the clearing/disturbance took place.



Photo 3 View of undisturbed riparian vegetation directly downstream of the weir.

Just outside the riparian zone (along the bypassing road), the following (mainly terrestrial) species were also noted, namely *Protea nitida*, *P. laurifolia*, *Leucadendron rubrum*, *Brabejum stellatifolium*, *Stoebe plumosa*, *Oedera* sp, *Athanasia trifurcata*, *Hymenolepis crithmifolia*, *Indigofera frutescens*, *Salvia chamelaeagnea*, *Cliffortia ruscifolia*, *Searsia angustifolia*, *Dodonaea viscosa* ssp *angustifolia*, *Asparagus lignosus*, *Freylinia lanceolata* and *Halleria elliptica*. Structurally, the riverine vegetation can be described as a mid-high (1-1.8 m) closed shrubland following Campbell's (1981) classification. Apart from the dirt road, another pipeline route on the slope above the road and cultivation (vineyards), no other disturbances or land uses were noted. No Species of Conservation Concern, regional endemics or protected species were recorded. All the species recorded are widespread and common.



Photo 4 *Oftia africana* regrowth on a cleared area on the left bank of river. Insert: *Arctotis scabra*

Site 2 (stockpile area)

A relatively small area (0.23 ha) was cleared during the construction phase to serve as a stockpile area. This appears to have taken place also inside riverine scrub (see Photos 5 & 6). Shrub species recorded adjacent to the cleared area include *Hymenolepis crithmifolia*, *Searsia undulata*, *S. angustifolia*, *Diospyros glabra*, *Colpoon compressum*, *Dodonaea viscosa* ssp *angustifolia*, *Anthospermum spathulatum* and *Oftia africana*. Two geophytes were also recorded, namely *Haemanthus sanguineus* and *Gladiolus alatus*. The alien weeds *Lupinus angustifolius* (blue lupin), *Phytolacca octandra* (inkbessie) and *Acacia saligna* (port jackson) were recorded on or in the immediate vicinity of cleared area. Both *Phytolacca octandra* and *Acacia saligna* are listed Category 1b invaders. Structurally, the undisturbed vegetation next to the cleared area can be described as a mid-high to tall (1-3 m) closed shrubland following Campbell's (1981) classification.



Photo 5 Site 2 with significant regrowth of mainly herbaceous species.



Photo 6 Riverine scrub directly adjacent to Site 2.

Site 3 (river crossing)

Further downstream a 0.5 ha area was disturbed where the new pipeline crosses the river. According to the SA Vegetation map, the disturbance took place inside Breede Alluvium Fynbos (see Photos 7 & 8). It is clear from the species recorded that there is a greater presence of typical sand fynbos species, such as *Diospyros glabra*, *Cliffortia ruscifolia* and the Cape reed *Willdenowia incurvata*. Other species recorded in the adjacent vegetation include *Hymenolepis crithmifolia*, *Eriocephalus africanus*, *Othonna parviflora*, *Psoralea aphylla*, *Searsia angustifolia*, *Dodonaea viscosa* ssp *angustifolia*, *Crassula* cf *atropurpurea*, *Carpobrotus edulis*, *Ruschiella argentea*, *Anthospermum spathulatum*, *Freylinia lanceolata*, *Hebenstretia* sp, *Montinia caryophyllacea* and the riparian grass *Prionium serratum*. The geophyte *Gladiolus alatus* was also in full bloom on the disturbed site. Structurally, the vegetation adjacent to the disturbed site can be described as a mid-high (0.4-2 m) closed shrubland following Campbell's (1981) classification.



Photo 7 View of Site 3 from the right (east) bank of the Holsloot River. Insert: *Gladiolus alata*



Photo 8 Undisturbed vegetation next to Site 3.

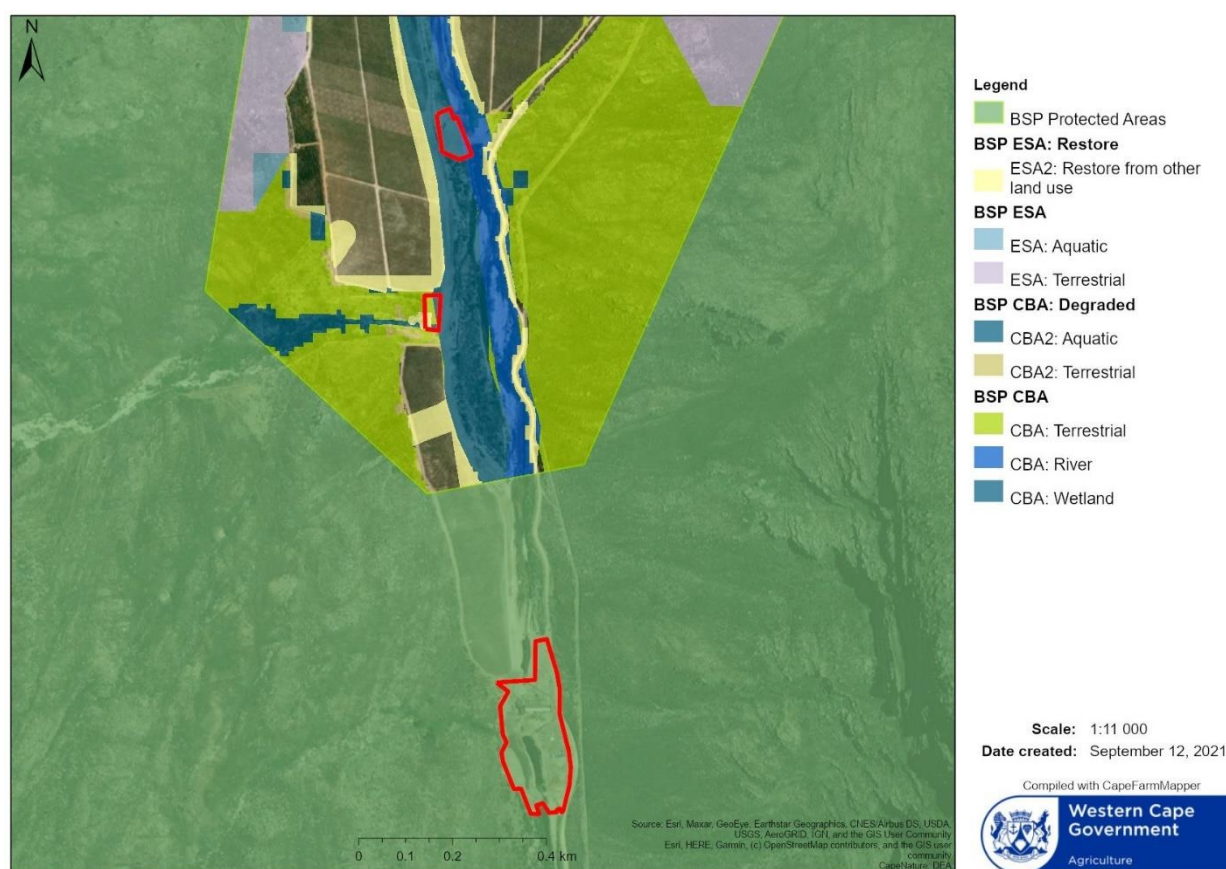
9 CONSERVATION STATUS & BIODIVERSITY NETWORK

More than 50% of Hawequas Sandstone Fynbos (see Map 5) is formally conserved in the Limietberg, Theewaters and Waterval Nature Reserves, with an additional 36% protected in the Hawequas Mountain Catchment Area (Mucina & Rutherford 2006). Only 4% has been transformed by cultivation and plantations (Mucina & Rutherford 2006; Skowno *et al.* 2019). It is therefore well represented and protected, and not considered to be threatened.

Breede Alluvium Fynbos, on the other hand, is over 60% transformed by cultivation, road construction and urban developments (Mucina & Rutherford 2006; Skowno *et al.* 2019). Mucina & Rutherford (2006) further noted that the area is “susceptible to transformation through long-term continuous grazing and repeated short-interval burning”. Small areas are formally conserved in the Fonteintjiesberg and Limietberg Nature Reserves, as well as in the Matroosberg and Hawequas Mountain Catchment Areas (Mucina & Rutherford 2006). Breede Alluvium Fynbos is a threatened and poorly protected vegetation type and currently listed as Endangered in the 2018 National Biodiversity Assessment (Skowno *et al.* 2019). It is also listed as Endangered in the National List of Threatened Ecosystems (DEA 2011).

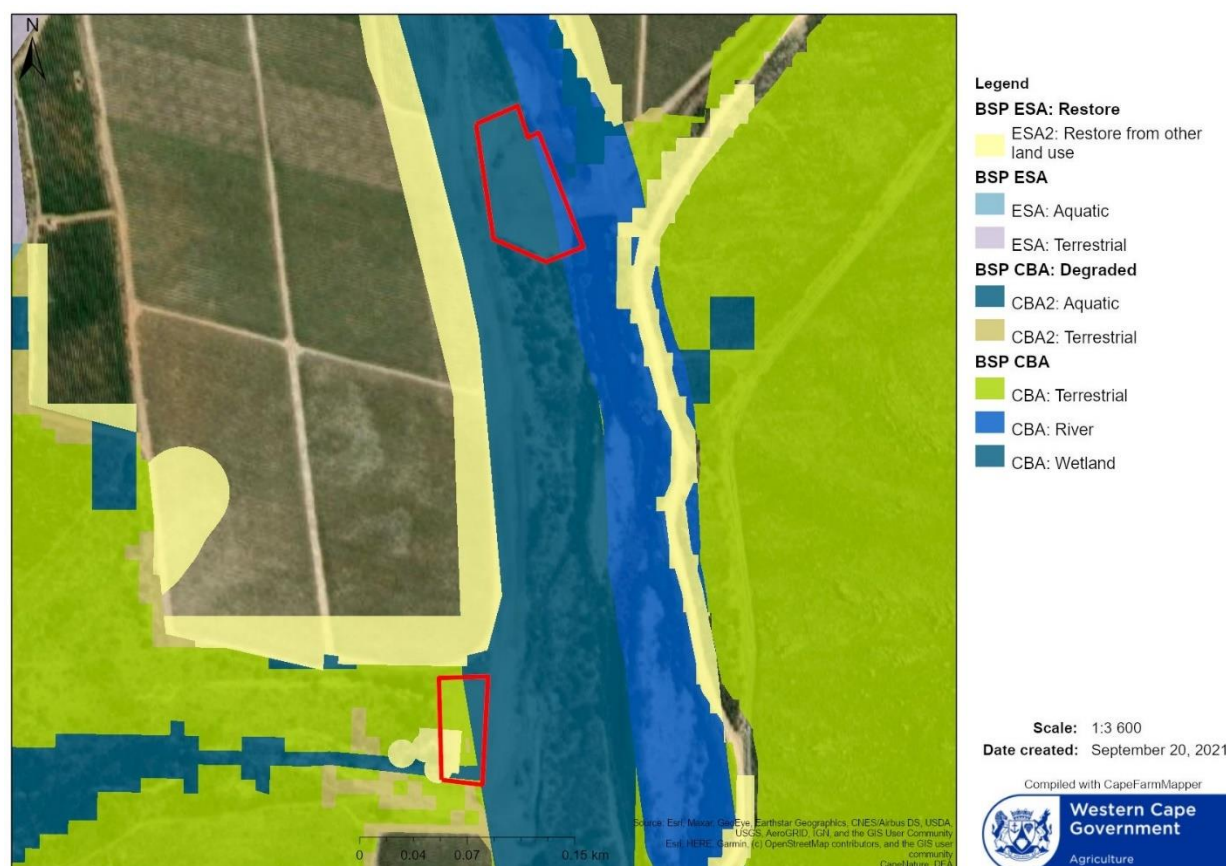
The study area forms part of the Breede River Valley biodiversity network and is situated on the

edge (a recessed part) of the Hawequas Mountain Catchment Area (see Maps 6 & 7). Site 1 actually falls inside the Mountain Catchment Area, a protected environment, while Sites 2 and 3 are located on private (farm) land mapped as aquatic and terrestrial critical biodiversity areas (CBA's), and a small area (in Site 2) mapped as an ecological support area (ESA2). These areas are clearly associated with the Holsloot River and remaining vegetation between the cultivated areas and Mountain Catchment Area. The reasons for the mapped CBA and ESA units for Sites 2 and 3 include the presence of ecological processes, a river/water resource, an endangered vegetation type (Breede Alluvium Fynbos), Cape Mountain Zebra habitat and a channelled valley bottom wetland.



Map 6 Biodiversity network map of the larger area, with the cleared/disturbed areas outlined in red.

CBA's are defined as areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure (Pool-Stanvliet *et al.* 2017). These sites are selected for meeting national targets for species, habitats and ecological processes (Pool-Stanvliet *et al.* 2017). Many of these areas support known occurrences of threatened plant species, and/or may be essential elements of designated ecological corridors. Loss of designated CBA's is therefore not recommended. ESA's, on the other hand, are supporting zones required to prevent the degradation of CBA's and Protected Areas. With the cleared areas affecting certain ESA's, one can expect an impact on the network.



Map 7 Close-up biodiversity network map of Sites 2 and 3 (outlined in red).

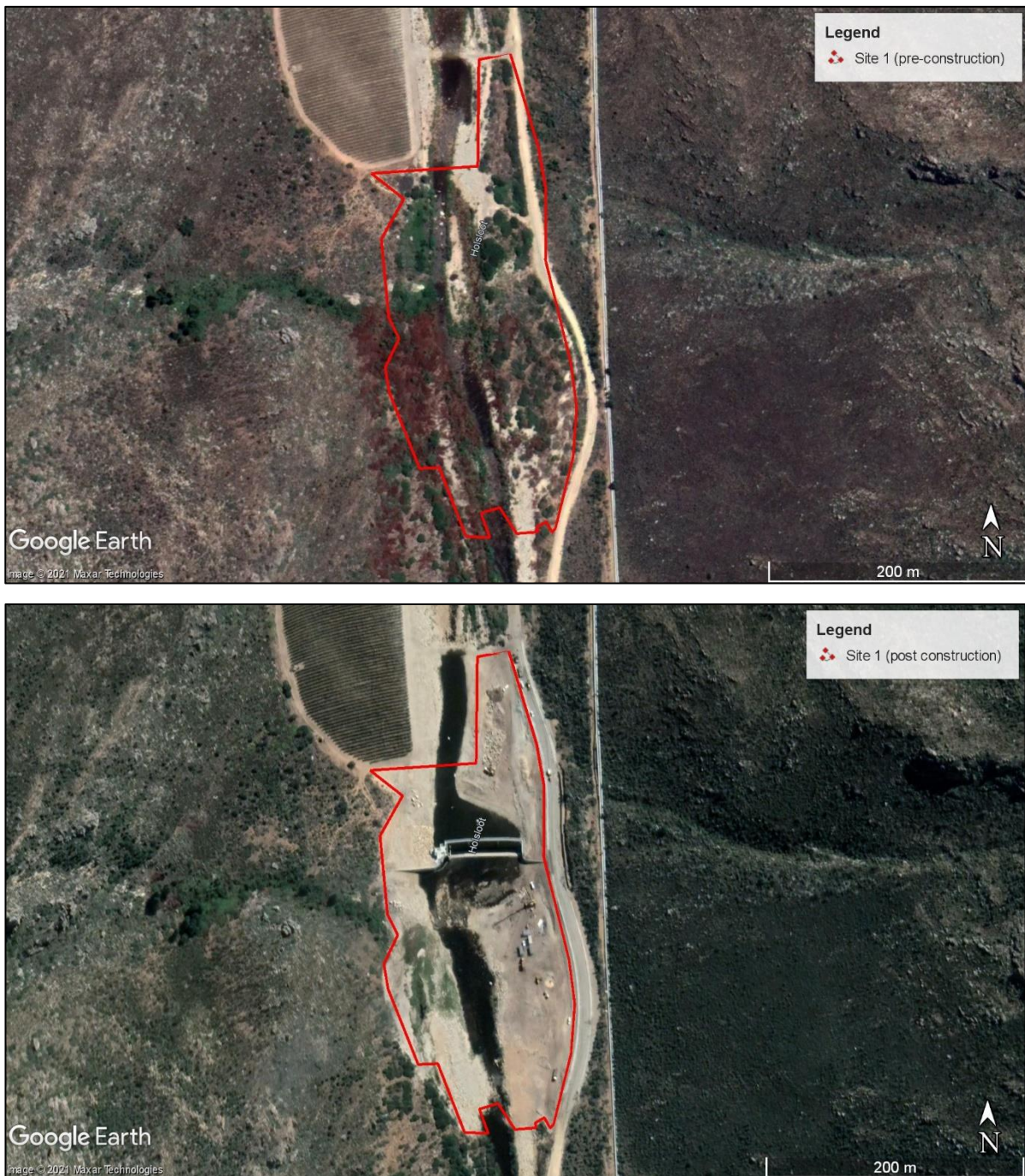
10 EX POST FACTO IMPACT ASSESSMENT

The impact on vegetation can be quantified by means of calculating the area of natural vegetation cleared. This is achieved by comparing Google Earth images of the sites before and after the construction phase (see Maps 8 & 9). While the total area modified at the three sites is estimated at 4.4 ha, about 4 ha or slightly less of vegetation was cleared. The modified areas also include the active river channel and areas previously disturbed by farming activities and farm tracks. As noted earlier, the greatest disturbance took place around the weir site (3.68 ha) as the river had to be coffered and an area was needed for a contractor's camp.

With regards to the type of vegetation disturbed, it is not easy (or possible) to allocate it to one or the other as all three sites are located in a riverine setting between Hawequas Sandstone Fynbos and Breede Alluvium Fynbos. It is probably best described as riparian scrub in a sandstone-alluvium fynbos transitional zone. Site 3 may have a slightly stronger alluvium fynbos component. The affected species recorded are all common and widespread riparian species. It is unlikely that any Species of Conservation Concern (SCC), regional endemics or protected species were directly affected during clearing activities. No SCC were recorded.

Due to the location of the sites inside riverine scrub, one can further argue that the impact on

Hawequas Sandstone Fynbos (Least Concerned) and Breede Alluvium Fynbos (Endangered) *per se* is of a low to moderate concern. Impacts on the aquatic side is of greater concern, which relate to potential erosion problems, siltation, decrease in water quality, etc. Another spin-off impact is increased alien infestation. *Acacia mearnsii* and *A. saligna* are listed invasives present in the area, which thrive in disturbed areas. Alien control will be required as a long-term maintenance concern.



Map 8 Google Earth images illustrating the state of Site 1 before (Dec 2018) and after (Feb 2021) construction activities.



Map 9 Google Earth images illustrating the state of Sites 2 and 3 before (Dec 2018) and after (Feb 2021) construction activities.

Table 1 below presents an *ex post facto* impact assessment of the current situation compared to a scenario where mitigation measures are applied. Mitigation measures are also listed in the table. If rehabilitated, the residual impact of the clearance/disturbance will be insignificant at all three sites.

Table 1 Construction phase impacts (vegetation clearing) on vegetation type and species.

Mitigation	Extent	Duration	Intensity	Probability of occurrence	Significance	Confidence
Without mitigation (current situation)	Site & immediate surroundings	Med	High	High	Medium (-)	Med-high
With mitigation	Site & immediate surroundings	Med	High	High	Low (-)	Med-high

Mitigation:

- Rehabilitate the disturbed surfaces by selective planting, using only locally indigenous species appropriate to a riverine habitat. An affordable means of rehabilitation would be to harvest indigenous seed and seed-bearing material, such as cut branches, from the adjacent vegetation for placement on the disturbed surface.
- Where practical, demarcate the rehabilitation areas to prevent vehicular access. It was noted that large rocks were placed in a few areas to curb vehicular access. Appropriate signage (e.g. Rehabilitation Area, No Access) may also be needed.
- Implement erosion control where needed, such as stormwater cut-off trenches and logging on the steeper slopes.

With regards to the biodiversity network, the impact is considered to be of greater concern to the aquatic CBA component than the terrestrial one. Impacts in this regard include the increase in runoff (and erosion) due to vegetation clearing that took place, siltation problems downstream, decrease in water quality, etc. The Holsloot River is an important aquatic CBA link across the Breede River Valley between the Hawequas and the Breede River. It is of particular importance due to the sensitivity/scarcity of water resources in the larger area. However, with rehabilitation, the link can be restored with negligible residual impact. Of some concern of the current situation is the siltation threat posed by the exposed riverbanks, notably at Site 1. The impact is however not considered to be permanent. Table 2 below summarises the impact.

Table 2 Impairment (vegetation clearing) of the biodiversity (CBA) network.

Mitigation	Extent	Duration	Intensity	Probability of occurrence	Significance	Confidence
Without mitigation (current situation)	Site & immediate surroundings	Med	High	High	Medium-high (-)	Med-high
With mitigation	Site & immediate surroundings	Med	High	High	Low (-)	Med-high

Mitigation:

- Same mitigation measures as listed under Table 1.

As an indirect impact, soil disturbance caused by clearing activities will provide ideal conditions for the establishment of invasive alien species, such as *Acacia mearnsii* and *A. saligna*. As an operational phase impact, alien control will be required in and around the rehabilitation areas as an ongoing management concern. A further operational phase concern is the trampling of vegetation in the rehabilitated areas. Vehicles and unnecessary pedestrian traffic should be kept out of the rehabilitated areas by means of demarcation and signage. Erosion control is another concern that requires constant monitoring. Table 3 below summarises the operational phase impacts.

Table 3 Operational phase impacts (erosion problems, alien infestation, etc).

Mitigation	Extent	Duration	Intensity	Probability of occurrence	Significance	Confidence
Without mitigation (current situation)	Site & immediate surroundings	Med	High	High	Medium (-)	Med-high
With mitigation	Site & immediate surroundings	Med	High	High	Low (-)	Med-high
Mitigation: <ul style="list-style-type: none"> Control aliens (<i>Acacia mearnsii</i>, <i>A. saligna</i> and a few herbaceous species) as a long-term management requirement. It is recommended that control in this regard be exercised in the riverine corridor from a point of say 10 m upstream of Site 1 to 20 m downstream from Site 3. Keep vehicles and unnecessary pedestrian traffic out of rehabilitated areas by means of demarcation and signage. Erosion control. React quickly at the first signs of erosion and implement the necessary remediation, e.g. planting, cut-off trenches, logging, etc. 						

11 SUMMARY & RECOMMENDATIONS

By comparing Google Earth images of the sites before and after the construction phase it was estimated that about 4 ha of vegetation was cleared. The greatest disturbance was recorded at the weir site as the river had to be coffered and an area was needed for a contractor's camp. With regards to the type of vegetation disturbed, it is not easy (or possible) to allocate it to one or the other as the sites are located in a riverine setting between Hawequas Sandstone Fynbos and Breede Alluvium Fynbos. It is best described as a transitional form of riparian scrub. The affected species recorded are all common and widespread. No Species of Conservation Concern (SCC), regional endemics or protected species were recorded in the affected areas.

Due to the location of the sites inside riverine scrub, one can argue that the impact on Hawequas

Sandstone Fynbos (Least Concerned) and Breede Alluvium Fynbos (Endangered) *per se* is of a low to moderate concern. Impacts on the aquatic side, especially the aquatic CBA link, is of greater concern, which include potential erosion problems, siltation, decrease in water quality, increased alien infestation, etc. The Holsloot River is considered an important aquatic CBA link across the Breede River Valley between the Hawequas and Breede River. It is of particular importance due to the sensitivity/scarcity of water resources in the larger area. However, if rehabilitated, the residual impact of disturbance will be insignificant at all three sites.

The following recommendations should be considered in rehabilitating the disturbed areas:

- ❖ Rehabilitate the disturbed surfaces by selective planting, using only locally indigenous species appropriate to a riverine habitat. An affordable means of rehabilitation would be to harvest indigenous seed and seed-bearing material, such as cut branches, from the adjacent vegetation for placement on the disturbed surface.
- ❖ Commercially available grass species include *Ehrharta calycina*, *Eragrostis curvula* and *Themeda triandra*. The best time for sowing seed in this area would be immediately after the late summer-autumn rain.
- ❖ Where practical, demarcate the rehabilitation areas to prevent vehicular access and unnecessary pedestrian traffic. It was noted that large rocks were placed in a few areas to curb access. Appropriate signage (e.g. Rehabilitation Area, No Access) may also be needed.
- ❖ Implement erosion control where needed, such as stormwater cut-off trenches and logging on the steeper slopes. React quickly at the first signs of erosion and implement the necessary remediation, e.g. planting, logging, etc.
- ❖ Control aliens (*Acacia mearnsii*, *A. saligna* and a few herbaceous species) as a long-term management requirement. It is recommended that control in this regard be exercised in the riverine corridor from a point of say 10 m upstream of Site 1 to 20 m downstream from Site 3. Continually monitor the area for infestation. One-year old seedlings can be hand-pulled, preferably when soil is wet after a rainfall. If left to grow, removal becomes more difficult and costly. Alien seedlings should not be allowed to grow to a size that requires mechanical or chemical means of removal.
- ❖ Given the location of the disturbed sites, one would expect a fairly quick rehabilitation process, depending on the amount of intervention. 18 to 24 months (including one winter season) should be allowed for monitoring progress of rehabilitation. If rehabilitation is started immediately, one should start seeing good results after the next winter month.

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REFERENCE: 14/1/1/E2/2/2/3/0602/21

ENQUIRIES: Najah Ben Jeddou

BY EMAIL: pd@pokkraal.co.za

Board of Directors

Holsloot Water Users Association

P.O. Box 1153

Worcester

6849

Attention Mr. P.D.S. Le Roux

COMPLIANCE NOTICE

Dear Sir

COMPLIANCE NOTICE IN TERMS OF SECTION 31L OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998

1. The Department's Pre-Compliance Notice dated 26 June 2021, your Rehabilitation Plan ("RP") dated March 2021, compiled by Guillaume Nel Environmental Consultants, the Department correspondence dated 26 July 2021, the Botanical Impact Assessment, dated September 2021, compiled by Mark Berry Environmental Consultants, the Department's Directorate :Development management's("D:DM)"comment dated 13 August 2021, and the compliance audit and inspection conducted by the D:DM on 17 March

2022, and the internal Compliance with the Environmental Authorisation report from D:DM to this Directorate, dated 31 March 2022, have reference.

2. Having considered the above documentation and evidence before me, I, Achmad Bassier, in my capacity as an Environmental Management Inspector Grade 1, hereby issue Holsloot Water Users Association with a Compliance Notice in terms of section 31L of the National Environmental Management Act, 1998 ("NEMA").
3. This Compliance Notice relates to non-compliance with the provisions of section 24F of the NEMA, non-compliance with conditions of your Environmental Authorisation ("EA") Ref: 16/3/3/1/B2/21/1047/16, and to implement the approved Rehabilitation Plan and recommendations contained in the above-mentioned Botanical Assessment Report. No activity listed in the Environmental Impact Assessment ("EIA") Regulations Listing Notice 1 of 2014 may commence without environmental authorisation from the competent authority.

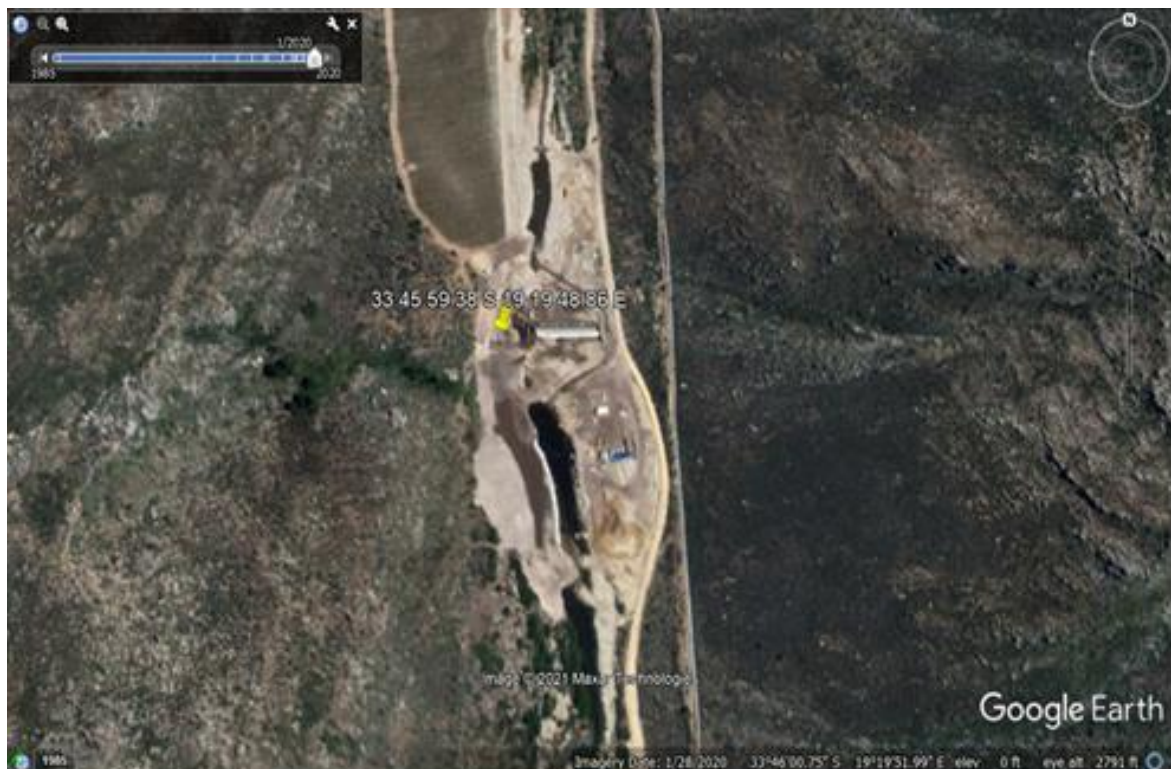
Details of conduct constituting non-compliance

4. During an investigation into allegations of the commencement of a listed activity in contravention of section 24F of the National Environmental Management Act, 1998 ("NEMA"), a site inspection was conducted at Farm No. 794, Rawsonville by Environmental Management Inspectors from the Department's Directorate: Environmental Law Enforcement on 24 March 2021, which confirmed that you have commenced with the clearance of more than 2ha of indigenous vegetation and infilled within a watercourse during activities relating to the construction of a weir within the Holsloot River on the property without environmental authorisation ("EA").
5. It was further confirmed during a compliance inspection conducted by officials from the D:DM in order to ascertain compliance with the EA, that you have failed to comply with Condition 4 and 13 of your EA, and the provisions of the Environmental Management Programme ("EMPr") approved on 26 March 2018, as per Condition 8 of the EA.

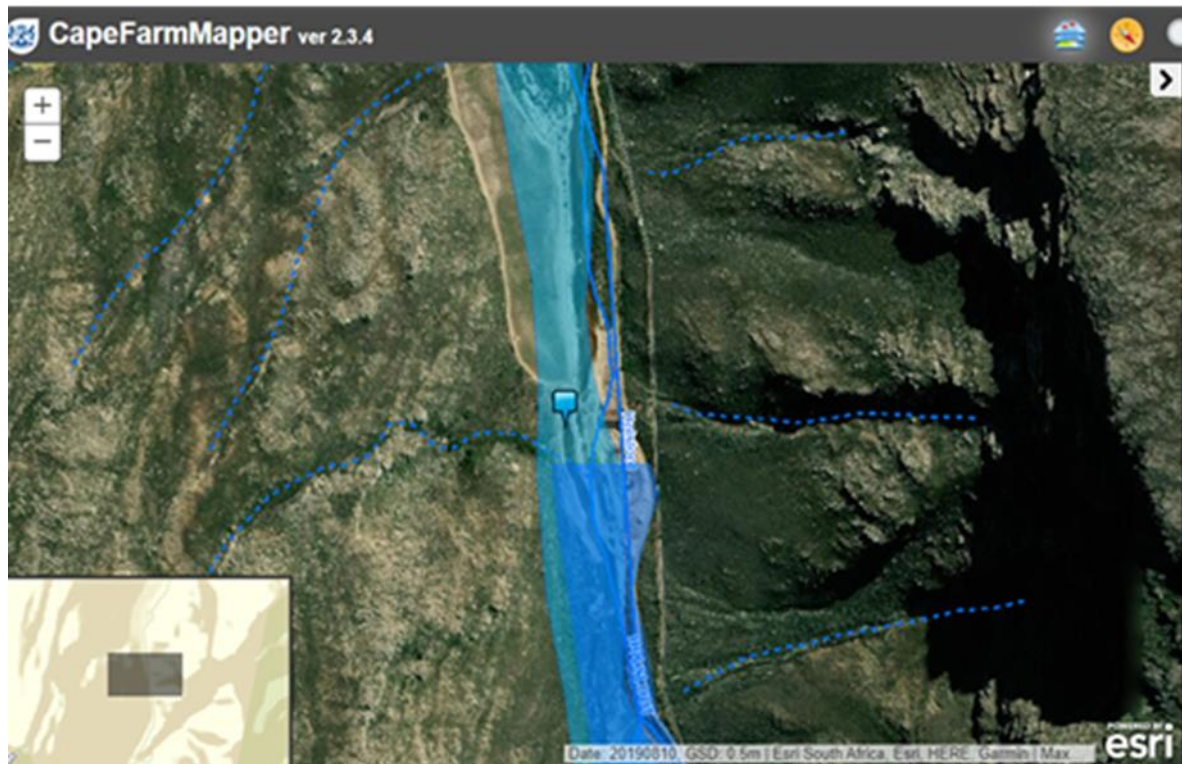
**33°45' 59.38"S 19°19'48.86" E; 33°45'32.67"S 19°19'42.58"E; 33°45'19.59"S
19°19'44.05"E**



Aerial map 1: showing the locations of the cleared and disturbed areas.



Aerial map 1: showing the development of the weir within the Holsloot River according to Google Earth Imagery 28/1/2020.



Aerial map 2: The weir and related developments were undertaken within the Holsloot River

6. On considering the evidence before me there are reasonable grounds to believe that you have commenced the following activities without environmental authorisation, and that you have failed to comply with the following conditions of your EA (Ref 16/3/3/1/B2/21/1047/16).

EIA Regulations Listing Notice 1 of 2014:

Activity no. 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.*

Activity no. 27:

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—

- (i) *the undertaking of a linear activity; or*
- (ii) *maintenance purposes undertaken in accordance with a maintenance management plan.*

And

Non-compliance with conditions of the EA

Condition no. 4: *Any changes to, or deviations from the scope of the alternative in Section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviation may be implemented. In assessing whether to grant such acceptance /approval or no, the Competent Authority may request information, in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.*

condition no.13: *In terms of Regulation 34 of the NEMA EIA Regulations, 2014, the holder must conduct environmental audits to determine compliance with the conditions of the Environmental I Authorisation, the EMPs and submit Environmental Audit Reports to the competent Authority. The Environmental Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014.*

The holder must submit an Environmental Audit Report for the construction phase within 3 months of completion of construction to the Competent Authority and thereafter, every 3 months for a period of one year. The final Environmental Audit Report must be submitted to the Competent Authority three months after commencement of operations.

The holder must, within 7 days of the submission of each of the above-mentioned reports to the Competent Authority, notify all potential and registered I&As of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).



Photo 1: Construction site offices located above the newly constructed weir and related infrastructure _not authorised in the approved EA



Photo 2: Area used for stockpiling material during the construction works which is currently being levelled _ the activity not authorised in the approved EA.



Photo 3: Alternate view of the infilling within the Holsloot River – digger loader used for the infilling and levelling of material (rocks).



Photo 4: Heavy machinery levelling the infilled area within the river- the activity is outside the scope of the approved footprint.

7. You are hereby instructed to:

- 7.1. Implement the remediation measures as outlined in the approved RP dated March 2021, and in the Botanical Assessment dated September 2021, within **14 (fourteen) calendar days** from the date of receipt of this notice;
- 7.2. Appoint a suitably qualified freshwater ecologist, in conjunction with a Botanist to supervise rehabilitation work, during and post rehabilitation of all affected areas.
- 7.3. Appoint a suitably qualified Environmental Control Officer (ECO) to supervise all rehabilitation work undertaken and monitor compliance during and post completion of the rehabilitation;

- 7.4. Confirm in writing to the Department **within 14 (fourteen) calendar days** from the date of receipt of this notice, the appointment of the Freshwater Ecologist and ECO who will be overseeing the rehabilitation.
- 7.5. Rehabilitate all 9 areas impacted, as listed in the RP. Any areas that are damaged / eroded / sedimented or compacted as a result of construction activities including riverbed and banks are to be rehabilitated to their pre-impact condition or better, to the satisfaction of an aquatic ecologist.
- 7.6. Rehabilitate the disturbed surfaces by selective planting, using only locally indigenous species appropriate to a riverine habitat. Means of rehabilitation would be to harvest indigenous seed and seed-bearing material, such as cut branches, from the adjacent vegetation for placement on the disturbed surfaces;
- 7.7. Remove *Carpobrotus edulis* from the list of plants mentioned in the RP;
- 7.8. Demarcate the rehabilitation areas to prevent vehicular access, and place the appropriate signage (e.g. Rehabilitation Area, No Access);
- 7.9. Implement erosion control measures where needed. React quickly at the first signs of erosion and implement the necessary erosion control measures, such as stormwater cut-off trenches and logging on the steeper slopes.
- 7.10. The best time for sowing seed in this area would be immediately after the late summer-autumn rain.
- 7.11. Implement a long-term alien control management of alien species as a long-term management requirement. It is recommended that control in this regard be exercised in the riverine corridor from a point of say 10

m upstream of Site 1 to 20 m downstream from Site 3. (as recommended in the Botanica Assessment Report);

- 7.12. Continually monitor the area for infestation. One-year old seedlings can be hand-pulled, preferably when soil is wet after a rainfall.
- 7.13. Alien seedlings should not be allowed to grow to a size that requires mechanical or chemical means of removal.
- 7.14. Monitoring should be carried out for three growing seasons (3 years) following implementation of the rehabilitation to determine whether restoration interventions are being effective.
- 7.15. Submit an Audit Report for the implementation of rehabilitation measures every 3 months for a period of one year.
- 7.16. Comply with condition 4 and 13 of the EA.
- 7.17. Notify this Department once the rehabilitation work has been completed and submit a status quo audit report **within 30 (thirty) calendar days** from the date of completion of the rehabilitation; and
- 7.18. Submit a final audit report **3 (three) months after the date of completion of the rehabilitation**, which assesses the effectiveness of the remediation measures implemented.

Varying this Compliance Notice

- 8. If you would like me to vary this Compliance Notice or extend the period to which it relates, you may make representations to me, in writing, to do so.

Failure to comply with this Compliance Notice (section 31N of the NEMA) and related offences in terms of the NEMA

9. In terms of section 49A(1)(a) of the NEMA it is an offence to commence a listed activity without environmental authorisation. A person convicted of such an offence is liable to a fine not exceeding R10 million or to imprisonment for a period not exceeding 10 years, or to both such fine and such imprisonment.
10. In terms of section 49A(1)(c) of the NEMA it is an offence to fail to comply with or contravene a condition of an environmental authorisation granted for a listed activity or specified activity. A person convicted of such an offence is liable to a fine not exceeding R10 million or to imprisonment for a period not exceeding 10 years, or to both such fine and such imprisonment.
11. Furthermore, failure to comply with a Compliance Notice is an offence in terms of section 49A(1)(k). A person convicted of such an offence is liable to a fine not exceeding R5 million or to imprisonment for a period not exceeding 5 years, and in the case of a second or subsequent conviction to a fine not exceeding R10 million or to imprisonment for a period not exceeding 10 years, and in both instances to both such fine and such imprisonment.
12. Any non-compliance with the Compliance Notice must be reported to the Minister, who may:
 - 12.1. revoke any permit or authorisation to which this Compliance Notice relates; and/or
 - 12.2. take any steps necessary to ensure compliance with the provisions of the law, permit or authorisation to which this Compliance Notice relates and recover from you the cost of doing so.

Procedure for lodging an objection to this Compliance Notice (section 31L and 31M of the NEMA)

13. If you wish to lodge an objection to this Compliance Notice, you may do so by making representations, in writing, to the Provincial Minister of Environmental Affairs and Development Planning ("the Minister") within 30 days of receipt of this Compliance Notice.
14. You may also make representations, in writing, to the Minister to suspend the operation of this Compliance Notice pending finalisation of the objection.
15. The objection must be in writing and forwarded to the Appeal Administrator, Mr Marius Venter at the contact details below and must be accompanied by a statement detailing the grounds of the objection and supporting documentation, if any.

By post: Western Cape Ministry of Local Government, Environmental
Affairs and Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174

By hand: Attention: Mr Marius Venter (Tel: 021 483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

By email: DEADP.Appeals@westerncape.gov.za

16. Irrespective of any representations you may make to me or to the Minister, you must comply with this Compliance Notice within the time period stated in the Compliance Notice, unless the Minister agrees to suspend the operation of this Compliance Notice.



Achmad Bassier

Director: Environmental Law Enforcement

Grade 1 Environmental Management Inspector

Date: 13/05/2022

Cc:

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| (1) Divan Opperman (Guillaume Nel Environmental Consultants) | Email: divan@gnec.co.za |
| (2) Michael Pienaar (casidra) | Email: mpienaar@casidra.co.za |
| (3) Dmitri C Matthews (DEA&DP: D:DM) | Email: dmitri.matthews@westerncape.gov.za |
| (4) Jacques Swanepoel (casidra) | Email: jswanepoel@casidra.co.za |
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