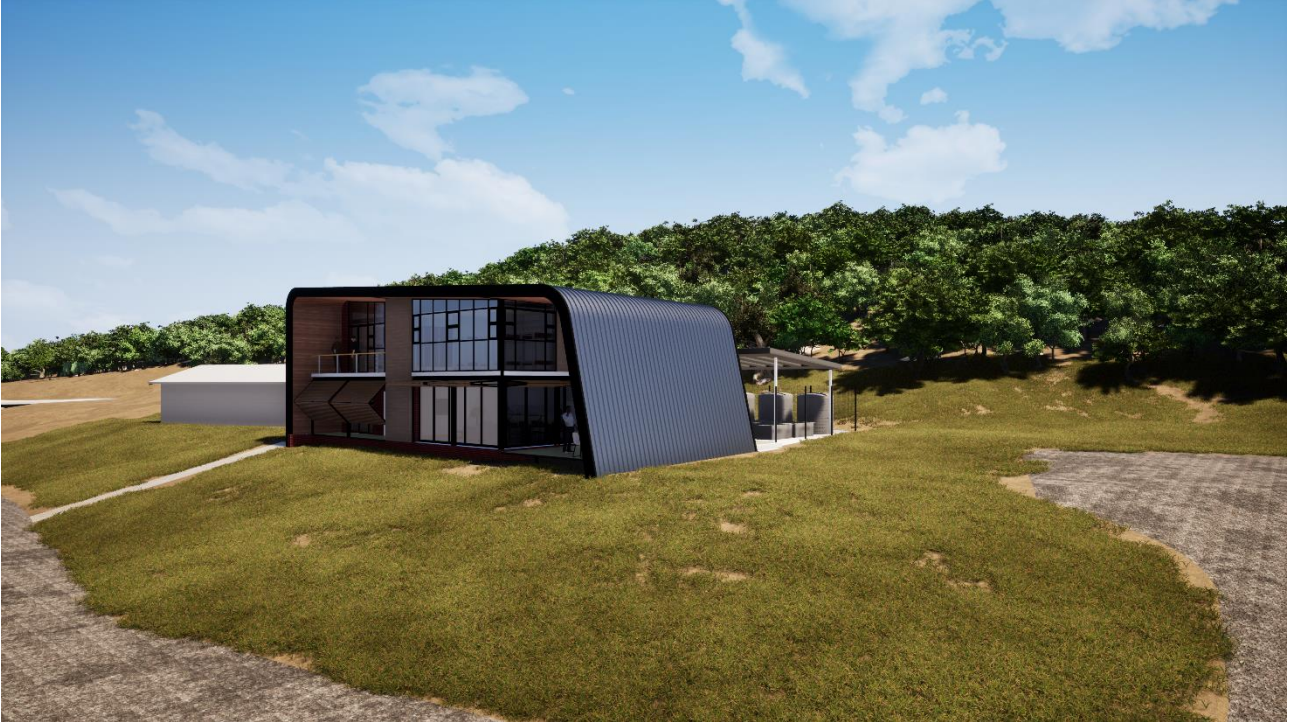


**BACKGROUND INFORMATION DOCUMENT AND INVITATION TO COMMENT**

**WALTER SISULU UNIVERSITY UPGRADE TO THE MARINE RESEARCH  
FACILITY LOCATED IN THE DWESA NATURE RESERVE**



**Return address for comments:**

**CES**

**Environmental & Social Advisory Services**

Dr Alan Carter

P.O Box 8145

Nahoon, 5210

Tel: (043) 726 7809

Cell: (083) 379 9861

Email: [a.carter@cesnet.co.za](mailto:a.carter@cesnet.co.za)

## AIM OF THIS DOCUMENT

Walter Sisulu University (WSU) proposes to make upgrades to the existing Marine Research Facility located in the Dwesa Nature Reserve near Ngomana village in the Mbhashe Municipal area. Figure 1.1 below shows the inadequate existing research facility.



**Figure 1: Existing Walter Sisulu University (WSU) Research Facility in the Dwesa Nature Reserve.**

In terms of the National Environmental Management Act (No. 107 of 1998; NEMA, as amended) certain listed activities require environmental approval and requires that a **Basic Assessment Report (BAR)** be conducted.

The purpose of this document is to ensure that people interested in or affected by the proposed upgrade to the **Walter Sisulu University Marine Research Facility in the Dwesa Nature Reserve**, are provided with information about the proposed project, the application for Environmental Authorisation (EA), the process being followed, and an opportunity to be involved in the BAR process.

Registering as an **Interested and/or Affected Party (I&AP)** allows individuals or groups the opportunity to contribute ideas, issues, and concerns regarding the project. I&APs also have an opportunity to review all reports and submit comments on those reports. All comments received are included in the reports submitted to the Competent Authority (The Department of Economic Development, Environmental Affairs and Tourism, DEDEAT: Amathole Region) that will decide whether or not to issue the Environmental Authorisation.

## PROJECT DESCRIPTION

### Background to the project

As a background to the WSU's upgrade of the Dwesa Marine Research Facility, the major project is embedded within it is the "WSU Coastal Livelihoods Project" which seeks to empower rural coastal communities pertaining to marine resources. This project talks to the:

- United Nation's Agenda 2030;
- SANDP: Vision 2030; and
- Eastern Cape Vision 2030 Provincial Development Plan.

This project specifically talks to UN SDGs 4, 11 and 14 hence the facility will act as a site for pilot studies that help to train rural coastal communities to keep marine species for future use.



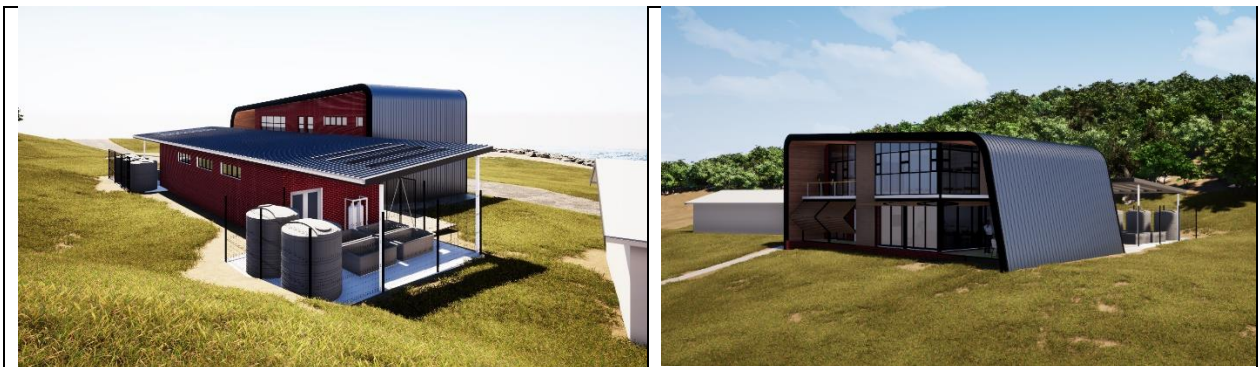
**Figure 2: Location of the proposed Upgrade to WSU Dwesa Research Facility.**

### Project Location and Description

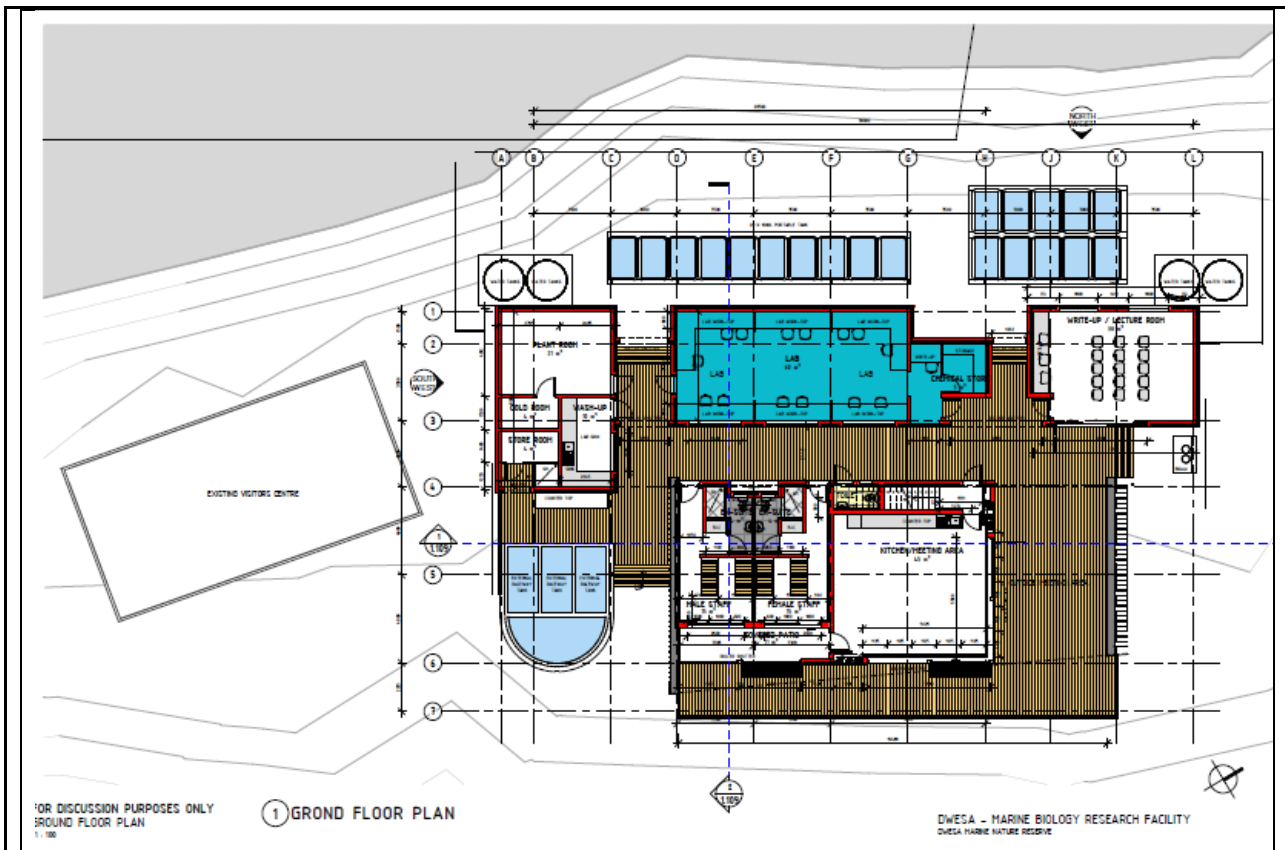
#### PROJECT DESCRIPTION

The proposed upgrades to the Marine Research Facility will include the following:

- Accommodation for 15 students and 5 researchers
- Lecture room
- Research laboratories and culture facilities
- Water storage
- Septic tank replacement
- Seawater intake pipeline and storage



**Figure 3: Architects impression of the proposed WSU Marine Research Facility.**



**Figure 4: Layout plan of the proposed WSU Marine Research Facility.**

### SEWAGE UPGRADE

There is currently no access to a bulk sewer connection and hence various on-site systems have been investigated.

Based on the demand, a water borne sewer system with flush latrines, hand basins, digester, grease trap and a soak away is proposed. It is a simple system with very little maintenance requirements. The digester might need emptying by honey sucker once every 8 to 10 years.

The new septic tank will be located in the same position of the existing system.

### WATER SUPPLY AND STORAGE

The current municipal water supply is non functional. To reduce the reliance on the municipal supply or rainwater harvesting only, a combination of the two sources is proposed where rainwater is collected in smaller tanks at the building and be pumped to a high-level reservoir. The high-level reservoir must also be connected to the municipal supply and must gravity feed to the Research Centre.

The topography allows for a reservoir to be constructed at an elevation that can supply water to the buildings at an acceptable pressure. Based on 150 litre per person per day for 20 people and 48 hours storage, the reservoir size needs to be at least 6 kl. For future expansion and the difficulty of onsite construction due to the remoteness of the site, it is proposed that a 20 to 50kl steel reservoir be erected.

Water reuse options and water conservation measures (such as low flush and low flow showers) will also be investigated.



Septic tank



Rainwater storage tank

**SEAWATER ABSTRACTION**

Seawater is required for maintaining living animals in holding tanks for research purposes.

Standard PVC pipes (e.g. 160 – 250 mm) can be used as their main purpose is to transport water from a rocky gully or channel in the intertidal zone ocean into the Jojo reservoir tanks at the facility. From the Jojo tanks to the individual square animal holding tanks, smaller pipes (e.g. 90 – 140 mm) can be used.

With regards to the pumps, we need a pump to pull the water from the sea when the Jojo tanks are empty. This pump will also assist in discharging the water to the ocean. The pump does not necessarily need to be a permanent pump. A smaller pump could be installed for water circulation among the animal holding tanks and for aerating the tanks.

The projected water volume will be less than 5000 litres per month as most of the water will only be pulled once the Jojo reservoir tanks are empty. The water will recirculate within the system as much as possible. Tanks with seaweed will act as biofilters to absorb most of the nutrients generated by the faeces from the animals. Filter feeding organisms such as barnacles, mussels, anemones and mussels might be introduced to further purify the water. It is aimed to achieve a maximum of 25% water discharge per month.

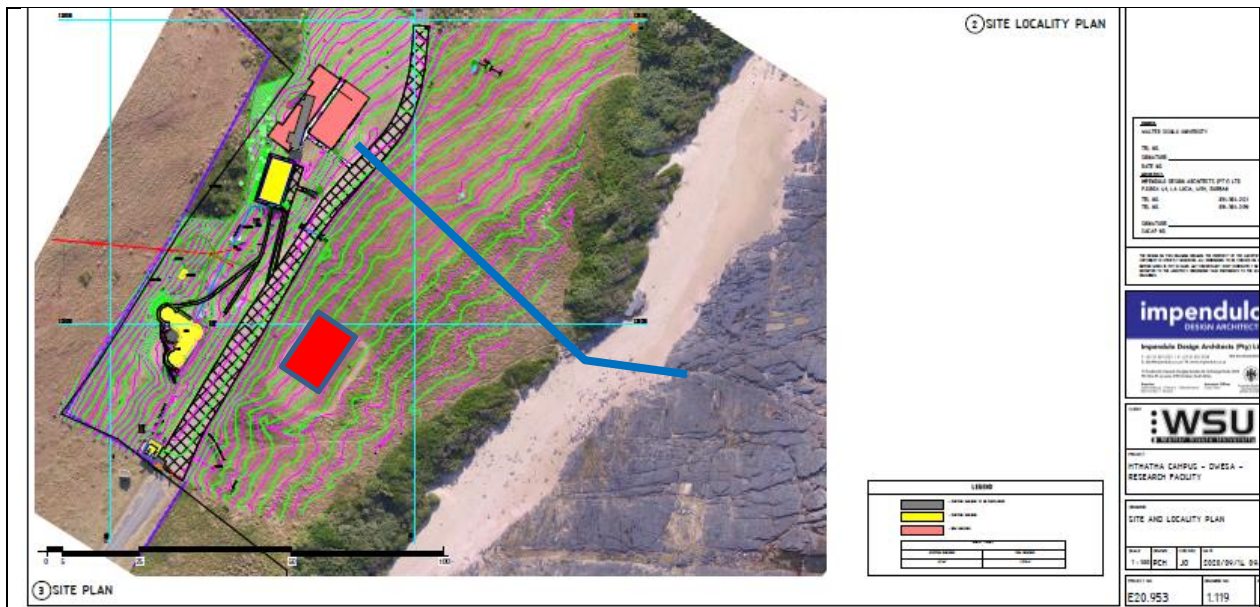


Figure 5: Map showing location of seawater abstraction pipeline and new septic tank (red).

**Co-ordinates**

The centre point co-ordinate for the proposed site is: **32°18'15"S 28°50'3"E**

## ENVIRONMENTAL IMPACT ASSESSMENT PRACTITIONER

CES was established in 1990 as a specialist environmental consulting company and has considerable experience in terrestrial, marine and freshwater ecology, the Social Impact Assessment (SIA) process, State of Environment Reporting (SOER), Integrated Waste Management Plans (IWMP), Environmental Management Plans (EMPs), Spatial Development Frameworks (SDF), public participation, as well as the management and co-ordination of all aspects of the Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) processes. CES has been active in all of the above fields, and in so doing have made a positive contribution towards environmental management and sustainable development in the Eastern Cape, South Africa and many other African countries. We believe that a balance between development and environmental protection can be achieved by skilful, considerate and careful planning.

## ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

WSU is submitting an application for Environmental Authorisation (EA) to the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT). An application may also need to be submitted for a coastal lease in terms of the Integrated Coastal Management Act (No, 28 of 2008).

According to the EIA regulations (2014, as amended) promulgated under the National Environmental Management Act (No.107 of 1998, NEMA) the potential impacts on the environment should be assessed in terms of the listed activities. The proposed development triggers the following NEMA listed activities which will require a Basic Environmental Impact Assessment process:

### NEMA Listed Activities

The proposed activities that require an Environmental Authorization (EA) in terms of the NEMA EIA Regulations 2014 as amended, and Section 39 (12) of the Transkei Environmental Conservation Decree 9 of 1992, are provided below:

Listed activity	Activity description
GN 327 – 15 The development of structures in the coastal public property where the development is bigger than 50 square metres.	The upgrade of the WSU Marine Research Facility is located in coastal public property where the footprint of the upgraded building, new septic tank and seawater abstraction infrastructure will exceed 50 square metres.  No exclusions apply.
GN 327 – 17 Development: (i) Within the littoral active zone; (v) Within a distance of 100 metres inland of the high water mark of the sea.  In respect of: (f) infrastructure or structures with a development footprint of 50 square metres or more.	The upgrade of the WSU Marine Research Facility is located within the littoral active zone and within 100 metres inland of the high water mark of the sea, where the footprint of the upgraded building, new septic tank and seawater abstraction infrastructure will exceed 50 square metres.  No exclusions apply.

Listed activity	Activity description
<p>GN 327 – 19A</p> <p>The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles, or rock of more than 5 cubic metres from:</p> <p>(i) The seashore;</p> <p>(ii) The littoral active zone, an estuary or 100 metres inland of the high water mark of the sea or an estuary, whichever distance is the greater.</p>	<p>The upgrade of the WSU Marine Research Facility is located within the littoral active zone and within 100 metres inland of the high water mark of the sea, where the excavation of more than 5 cubic metres of soil and sand will be necessary for the upgrading of the building and new septic tank and installation of the seawater abstraction infrastructure.</p> <p>No exclusions apply.</p>
<p>GN 324 – 6:</p> <p>The development of resorts, lodges; hotels, tourism or hospitality facilities that sleeps 15 people or more:</p> <p>(a) Eastern Cape</p> <p>(iii) Outside urban areas.</p> <p>(aa) A protected area identified in terms of NEMPAA.</p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</p> <p>(hh) Areas seawards of the development setback line or within 1 km of from the high water mark of the sea if no such setback line has been determined.</p>	<p>The upgrade of the WSU Marine Research Facility will include the provision of accommodation for 15 students and five researchers where the facility is located:</p> <ul style="list-style-type: none"> <li>• Within the Dwesa Nature Reserve.</li> <li>• Within a Critical Biodiversity Area.</li> <li>• Within 1 km of the high water mark of the sea.</li> </ul> <p>No exclusions apply.</p>

## APPROACH TO THE BASIC EIA PROCESS

The process required for the project is **Basic Environmental impact Assessment**. This process serves primarily to inform the public and relevant authorities about the proposed project and to determine any impacts.



## POTENTIAL IMPACTS AND BENEFITS

CES will investigate the receiving environment in order to assess the nature of the impacts. Impacts to be assessed include operational impacts of the facility and environmental failure and risks of the “no-go” alternative.

## HOW CAN YOU BE INVOLVED

A Public Participation Process (PPP) is being conducted as part of the EIA process. The aim of the PPP is to allow everyone who is interested in, or affected by, the WSU Marine Research Facility upgrade, to provide input into the process.

The Public Participation Process will include:

- Advertisement in the Daily Dispatch;
- Notice Board on site;
- Circulation of the BID (this document) to all I&APs and stakeholders
- Review of all reports by registered I&APs and stakeholders.

If you consider yourself an **interested and/or affected person/party**, it is important that you become and remain involved in the PPP. In order to do so please **follow the steps below** in order to ensure that you are continually informed of the project developments and will ensure your opportunity to raise issues and concerns pertaining to the project.

**STEP 1:** Please register by responding to our notification and invitation, with your name and contact details (details provided on cover page and below). As a registered I&AP you will be informed of all potential meetings, report reviews and project developments throughout the EIA process.



**STEP 2:** Register by returning the slip at the back of this document to CES, or simply use the contact details provided below in order to register.

CES is required to engage with all private and public parties that may be interested in and/or affected by the proposed WSU Marine Research Facility upgrade, in order to distribute information for review and comment in a transparent manner.

It is important for I&AP's to note the following:

1. In order for CES to continue engaging with you, please ENSURE that you register on our database by contacting the person below.
2. As the EIA process is regulated by specific review and comment timeframes, it is your responsibility to submit your comments within these timeframes.

**Who to contact for enquiries and/or comments:**

Dr Alan Carter  
CES Environmental & Social Advisory Services  
P.O Box 8145, Nahoon, 5210  
Tel: (043) 726 7809/8313  
Cell: (083) 379 9861  
Email: a.carter@cesnet.co.za

**I hereby wish to register as an Interested and Affected Party (I&AP) for the  
WSU Marine Research Facility Upgrade EIA Process**

Name: \_\_\_\_\_

Organisation: \_\_\_\_\_

Postal address: \_\_\_\_\_

Email: \_\_\_\_\_

Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

My initial comments, issues or concerns are:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Other individuals, stakeholders, organisations or entities that should be registered are:

Name: \_\_\_\_\_

Organisation: \_\_\_\_\_

Postal address: \_\_\_\_\_

Email: \_\_\_\_\_

Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Please return details to:  
**Dr Alan Carter**  
**CES Environmental & Social Advisory Services**  
P.O. Box 8145, Nahoon, 5210  
Phone: (043) 726 7809  
Cell: (083) 379 9861  
Email: a.carter@cesnet.co.za