



agriculture & environmental affairs

Department:
Agriculture
& Environmental Affairs
PROVINCE OF KWAZULU-NATAL

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EIA File Reference Number:
NEAS Reference Number:
Waste Management Licence Number:
(if applicable)
Date Received:

DM/0013/2013
KZN/EIA/

BASIC ASSESSMENT REPORT:

THE PROPOSED UPGRADING OF THE EXISTING LIFEGUARD FACILITY, UMHLANGA ROCKS, KWAZULU-NATAL.

**Submitted in terms of the Environmental Impact Assessment Regulations, 2010
promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107
of 1998)**

This template may be used for the following applications:

- **Environmental Authorization** subject to basic assessment for an activity that is listed in Listing Notices 1 or 3, 2010 (Government Notices No. R 544 or No. R 546 dated 18 June 2010); or
- **Waste Management Licence** for an activity that is listed in terms of section 20(b) of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) for which a basic assessment process as stipulated in the EIA Regulations must be conducted as part of the application (refer to the schedule of waste management activities in Category A of Government Notice No. 718 dated 03 July 2009).

Kindly note that:

1. This **basic assessment report** meets the requirements of the EIA Regulations, 2010 and is meant to streamline applications. This report is the format prescribed by the KZN Department of Agriculture & Environmental Affairs. Please make sure that this is the latest version.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with text.
3. Where required, place a cross in the box you select.
4. An incomplete report will be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it will result in the rejection of the application as provided for in the regulations.
6. No faxed or e-mailed reports will be accepted.
7. The report must be compiled by an independent environmental assessment practitioner ("EAP").

Basic Assessment Report

8. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
9. The KZN Department of Agriculture & Environmental Affairs may require that for specified types of activities in defined situations only parts of this report need to be completed.
10. The EAP must submit this basic assessment report for comment to all relevant State departments that administer a law relating to a matter affecting the environment. This provision is in accordance with Section 24 O (2) of the National Environmental Management Act 1998 (Act 107 of 1998) and such comments must be submitted within 40 days of such a request.
11. **Please note that this report must be handed in or posted to the District Office of the KZN Department of Agriculture & Environmental Affairs to which the application has been allocated (please refer to the details provided in the letter of acknowledgement for this application).**

DEPARTMENTAL REFERENCE NUMBER(S)

File reference number (EIA):	DM/0013/2013
File reference number (Waste Management Licence):	

SECTION A: DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER AND SPECIALISTS

1. NAME AND CONTACT DETAILS OF ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Name and contact details of the EAP who prepared this report:

Business name of EAP:	Terratest (Pty) Ltd		
Physical address:	6 Pin Oak Avenue, Hilton		
Postal address:	PO Box 794, Hilton		
Postal code:	3245	Cell:	076 157 9602
Telephone:	033 343 6789	Fax:	033 343 6788
E-mail:	summersi@terratest.co.za		

2. NAMES AND EXPERTISE OF REPRESENTATIVES OF THE EAP

Names and details of the expertise of each representative of the EAP involved in the preparation of this report:

Name of representative of the EAP	Education qualifications	Professional affiliations	Experience at environmental assessments (yrs)
Magnus van Rooyen	BSc Hons; MPhil (Env. Man.)	IAIASA	9.5 Years
Imke Summers	BSc (Honours)	IAIASA	2.5 Years

3. NAMES AND EXPERTISE OF SPECIALISTS

Names and details of the expertise of each specialist that has contributed to this report:

Name of specialist	Education qualifications	Field of expertise	Section/ s contributed to in this basic assessment report	Title of specialist report/ s as attached in Appendix D
N/A				

Please note that due to the proposed project taking place on an existing site, no specialist studies have been conducted to date.

SECTION B: ACTIVITY INFORMATION

1. PROJECT TITLE

Describe the project title as provided on the application form for environmental authorization:

Upgrading and expansion of the existing Lifeguard Facility at Umhlanga Rocks, KwaZulu-Natal.

2. PROJECT DESCRIPTION

Provide a detailed description of the project:

The Umhlanga Main Beach has grown significantly in popularity and use over recent years. The increase in visitor numbers to the areas as well as additional and potential development has resulted in the current facilities being insufficient in nature. The Umhlanga Life Guard facility requires a substantial upgrade to cater for the growing demand on service delivery from this facility.

The proposed structural upgrades will include the expansion of the existing Life Guard Building by 245m² which will include facilities such as male and female bathrooms, a locker room, a function room/lounge and additional storage facilities. This will provide more, much needed, floor space for the various organisations which are housed within the existing structure.

3. ACTIVITY DESCRIPTION

Describe each listed activity in Listing Notice 1 (GNR 544, 18 June 2010), Listing Notice 3 (GNR 546, 18 June 2010) or Category A of GN 718, 3 July 2009 (Waste Management Activities) which is being applied for as per the project description:

GN. R 544 (Listing Notice 1)	18	<p><i>“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 or more than 5 cubic metres from:</i></p> <p style="margin-left: 40px;">(i) <i>the seashore;</i> (ii) <i>the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater,</i></p> <p><i>But excluding where such infilling, depositing, dredging, excavation, removal or moving;</i></p> <p style="margin-left: 40px;">a) <i>is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or</i> b) <i>occurs behind the development setback line.”</i></p> <p><u>The proposed activities will take place within 100 metres of the high-water mark of the sea and will not be deemed as maintenance, but rather “expansion” and “upgrading” which necessitates the completion of a Basic Assessment.</u></p>
GN. R 544 (Listing Notice 1)	45	<p><i>“The expansion of facilities in the sea, an estuary, or within the littoral active zone or a distance of 100 metres of the high-water mark of the sea or an</i></p>

	<p><i>estuary, whichever is the greater, in respect of-</i></p> <p>(v) <i>Buildings of 50 square meters or more; or where such expansion will result in an increase in the development footprint of such facilities.</i></p> <p><u>The proposed expansion covers a structural development footprint of 245m² and falls within 100m of the of the coastal high water mark. As such a Basic Assessment EIA process is triggered.</u></p>
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4. FEASIBLE AND REASONABLE ALTERNATIVES

“**alternatives**”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this report. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

<p>Preferred Layout (A1)</p>	<p>This application relates specifically to the need for the expansion of the existing facility which has reached capacity and is not able to serve the general public to the optimum capability. Due to limited land availability the proposed layout is the only layout available in terms of the expanded footprint size. Any footprint smaller in size will negate the need for an expansion as it shall not fulfil its need and desirability. Any footprint larger in size is not possible due to space constraints. As such, the layout proposed is the only layout available.</p>
<p>Alternate Layout (A2)</p>	<p>An alternative layout in terms of the entire construction footprint is not available for the reasons listed above. However the need may arise to change the internal layout of the building. If this is done, it will be done in consultation with the applicant and the relevant stakeholders after comment has been received in the draft Basic Assessment phase.</p>
<p>Property Location and Activity</p>	<p>The present property contains existing infrastructure and serves a very specific purpose (lifesaving). Therefore an alternative location and activity cannot be considered.</p>
<p>Operational Alternative</p>	<p>An operational alternative has not been considered as the option considered is the only and ultimate way to reach the intended objective which is to provide safety to bathers and</p>

	beach users.
No-Go Alternative	A no-go alternative has been included.

Sections B 5 – 15 below should be completed for each alternative.

5. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. List alternative sites were applicable.

	Latitude (S):			Longitude (E):		
Alternative:						
Alternative S1 ¹ (preferred or only site alternative)	29°	43'	29.15"	31°	05'	21.00"
Alternative S2 (if any)	0	€	"	0	€	"
Alternative S3 (if any)	0	€	"	0	€	"

In the case of linear activities:

Alternative:	Latitude (S):			Longitude (E):		
Alternative S1 (preferred or only route alternative)						
• Starting point of the activity	0	€	"	0	€	"
• Middle point of the activity	0	€	"	0	€	"
• End point of the activity	0	€	"	0	€	"
Alternative S2 (if any)						
• Starting point of the activity	0	€	"	0	€	"
• Middle point of the activity	0	€	"	0	€	"
• End point of the activity	0	€	"	0	€	"
Alternative S3 (if any)						
• Starting point of the activity	0	€	"	0	€	"
• Middle point of the activity	0	€	"	0	€	"
• End point of the activity	0	€	"	0	€	"

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 500m along the route for each alternative alignment.

No alternative localities can be considered as the application is for the upgrade of an existing, well-used community facility that has reached capacity and is in need of expansion.

6. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:

Alternative A1² (preferred activity alternative)

Size of the activity:

245 m²

¹ "Alternative S.." refer to site alternatives.

² "Alternative A.." refer to activity, process, technology or other alternatives.

Basic Assessment Report

Alternative A2 (if any)	m ²
Alternative A3 (if any)	m ²
or, for linear activities:	
Alternative:	Length of the activity:
Alternative A1 (preferred activity alternative)	36.35m long x 13.2m wide
Alternative A2 (if any)	m
Alternative A3 (if any)	m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	Size of the site/servitude:
Alternative A1 (preferred activity alternative)	245 m²
Alternative A2 (if any)	m ²
Alternative A3 (if any)	m ²

7. SITE ACCESS

Does ready access to the site exist?	YES
If NO, what is the distance over which a new access road will be built	m

Describe the type of access road planned:

Due to the fact that ready access to the site exists there is no need for any additional roads to be build.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

8. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this report.

The site or route plans must indicate the following:

- 8.1. the scale of the plan which must be at least a scale of 1:500;
- 8.2. the property boundaries and numbers/ erf/ farm numbers of all adjoining properties of the site;
- 8.3. the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 8.4. the exact position of each element of the application as well as any other structures on the site;
- 8.5. the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 8.6. walls and fencing including details of the height and construction material;
- 8.7. servitudes indicating the purpose of the servitude;
- 8.8. sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers, streams, drainage lines or wetlands;
 - the 1:100 year flood line (where available or where it is required by DWA);

Basic Assessment Report

- ridges;
 - cultural and historical features;
 - areas with indigenous vegetation including protected plant species (even if it is degraded or infested with alien species);
- 8.9. for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 8.10. the positions from where photographs of the site were taken.

9. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

10. FACILITY ILLUSTRATION

A detailed illustration of the facility must be provided at a scale of 1:200 and attached to this report as Appendix C. The illustrations must be to scale and must represent a realistic image of the planned activity/ies.

11. ACTIVITY MOTIVATION

11.1. Socio-economic value of the activity

What is the expected capital value of the activity on completion?

In excess of R 1.5 million

What is the expected yearly income that will be generated by or as a result of the activity?

N/A

Will the activity contribute to service infrastructure?

YES	
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Is the activity a public amenity?

YES	
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How many new employment opportunities will be created in the development phase of the activity?

N/A

What is the expected value of the employment opportunities during the development phase?

N/A

What percentage of this will accrue to previously disadvantaged individuals?

N/A

How many permanent new employment opportunities will be created during the operational phase of the activity?

N/A

What is the expected current value of the employment opportunities during the first 10 years?

N/A

What percentage of this will accrue to previously disadvantaged individuals?

N/A

11.2. Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

<p>The Umhlanga Rocks Lifeguard and Ski Boat Club Facility is located along the promenade above the Umhlanga Rocks Main Beach. The Club Facility currently</p>

provides various services to the public. These include; lifesaving over the main beach, ski boat storage, an informal restaurant for fundraising and a base for two charter companies. The facility also serves as the base for the Umhlanga Rocks Surf Lifesaving Club (URSLC). Accordingly, it is evident that the Club Facility provides important services to the Umhlanga Rocks Main Beach area and that it is important that it continue to provide these services.

The Umhlanga Rocks Main Beach has grown in popularity in recent years, particularly during the holiday periods. The increase in visitor numbers to the area surrounding the site, as well as additional and potential development has resulted in the current facilities being insufficient in nature. As is stated in the Coastal Policy Green Paper (1998), "Adequate public facilities shall be provided at appropriate coastal locations".³ Accordingly, the club will require substantial upgrade in order to cater for the growing demand on the services which it provides. Without this expansion the Club Facility will not be able to effectively provide its services to the people and swimmers on the Umhlanga Rocks Main Beach.

Active Club membership has expanded over the last ten to fifteen years from around 60 members to over 300 hundred members. At present the URSLC has 136 registered nippers, (aged from 8 to 14), and around 60 juniors and seniors with about 100 plus social members.

The current structure does not have enough space to house all the equipment (trailers, long boards, skis etc.) that is needed and some equipment has to be kept at private residences and brought to the club when necessary.

With regards to on site facilities, there are 6 shower heads downstairs in one shower area to cater for all the members (male, female, junior, senior and nipper). There are no separate showers for males or females. Locker facilities for 200 active members, are needed in the change room area, and are presently not catered for. There are no toilet facilities downstairs, there is only one ladies and one men's toilet upstairs.

Due to the increased membership numbers, the present administrative facility is insufficient. The following is proposed:

- A larger office with filing capacity be provided for the secretary,
- That a board room/meeting room be developed for meetings, training, lectures, tests etc.
- The existing kitchen be extended, a storage area be provided for comestibles and the bar and dining room be extended;
- Separate change room/toilet facilities be provided for males/females, boys and girls;
- Wheelchair access to be provided to all areas of the clubhouse (both floors).

Indicate any benefits that the activity will have for society in general:

Essential services in terms of health and safety provided by lifesaving and community cohesion and development through community activities and involvement.

Umhlanga is considered to be a Recreation and Tourism Node which provides opportunity for mixed investment and which services the surrounding area with respect to commercial and social services (Ethekwini Northern SDP, 2012/13). The Ethekwini Northern SDP lists the upgrading of life-saving facilities and emergency management support/first aid facilities as an important future development goal. In this way international safety and services standards, including professional lifeguards, emergency management, quality of supports facilities etc. will be achieved and maintained (Ethekwini Northern SDP, 2012/13). In addition, the facility will offer a base

³ Department of Environmental Affairs and Tourism, 1998: *Coastal Policy Green Paper "Towards Sustainable Coastal Development in South Africa"*.

http://www.polity.org.za/polity/govdocs/green_papers/src/costalqp03.html#Chapter_9 Accessed 04/09/2013

from which businesses can continue to operate, further contributing to the local economy, providing possible employment opportunities and additional services.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

Social Responsibility:

The expansion of the club facility will have a number of desirable outcomes; firstly, as mentioned above, the URSLC operates out of the current facility. The URSLC undertakes numerous social responsibility initiatives in the community, these include; provision of swimming lessons to historically disadvantaged children, raising water safety awareness, training lifeguards, and providing volunteer lifeguards to watch over the Main Beach.⁴ The expansion of the Club Facility will allow the URSLC to continue to successfully engage in these important social responsibility initiatives and further, it will allow the club to expand in order to cater for the growing demand for its services.

Tourism:

Planning documentation (Umhlanga Node Precinct Plan [2008], eThekweni North SDP [2012/13 etc.]) lists Umhlanga as a primary international and domestic Tourism and Recreation Node. Objectives therefore include reinforcing and enhancing Umhlanga rocks' role as a main tourism, holiday and recreation destination (domestic, international and business). The competitive edge for this node is to be a tourism destination of choice, meeting the needs and expectations of local and international visitors. The implementation of a number of projects, including existing infrastructure expansion and upgrades, is recommended to enhance the public realm, encourage a mix and range of activities and leisure opportunities, improve pedestrian movement, and improve the legibility and sense of place of Umhlanga.⁵ The upgrade of the existing lifeguarding facility will ensure the implementation of this objective is being embark upon.

Service Provision:

The correct implementation of expansion projects along the coastline will ensure that objectives listed in the Coastal Policy Green Paper⁶ will be achieved. This entails that adequate public facilities shall be provided at appropriate coastal locations to meet recreational needs and to ensure public health and safety. In the same instance, adverse impacts on coastal ecosystems shall be minimised.

Health and Safety:

The Northern Municipal Planning Region (NMPR), which stretches from the northern banks of the Umgeni River up to and including the town of Tongaat in the north, accounts for 26% (60,093 ha) of the area of eThekweni, and is home to roughly 31% (1, 15 million) of the metropolitan population of 3,510,000. It is anticipated that the population increase within eThekweni will increase by 1.1% per annum by 2030, necessitating the need to utilise and improve the capacity of the existing infrastructure to accommodate growth and provide best possible services to the general public.⁷

The highly fragile, but relatively intact, coastal assets of the northern coastal corridor (Umhlanga, Durban North, Umdloti and Tongaat Beach) should be vigorously protected and appropriately developed to provide a residential/recreation/ tourism corridor that provides a high quality natural coastal experience which complements the hard working urban beachfront of the central metropolitan area (eThekweni North SDP, 2012/13).

⁴Umhlanga Rocks Life Saving Club: <http://www.umhlangalifesaving.co.za/>. Accessed 04/09/2013.

⁵ ASM Consortium, 2008: *Umhlanga Node Precinct Plan*, http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Documents/U%20Node%20Final%20Complete%20Precinct%20Plan%20with%20annexures%2005-08.pdf Accessed: 04/09/2013

⁶ Department of Environmental Affairs and Tourism, 1998: *Coastal Policy Green Paper "Towards Sustainable Coastal Development in South Africa*. http://www.polity.org.za/polity/govdocs/green_papers/src/costalqp03.html#Chapter_9 Accessed: 04/09/2013

⁷ Futureworks, (2012/13 Review): *eThekweni North Spatial Development Plan*. http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Documents/NSDP_Final_Draft_2012_17_Oct_2012_Revision.pdf Accessed: 06/11/2013

Blue Flag Status:

Umhlanga is not presently listed as a Blue Flag beach, as it was in the past. However, it is expected that discussions presently undertaken with WESSA will yield a pilot project partnership in this regard, in future. A Blue Flag is an international award given to beaches that meet excellence in the areas of safety, amenities, cleanliness and environmental standards. The strict criteria of the programme are set by the international coordinators of the Blue Flag campaign in Europe, the FEE (Foundation for Environmental Education).⁸ Incidentally, it is expected that an upgraded and improved lifeguard facility will significantly improve the possibility of achieving Blue Flag status as well as the many economic and social benefits that are associated with Blue Flag status.

12. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES


List all legislation, policies and/or guidelines of any sphere of government that are relevant to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
<i>National Environmental Management Integrated Coastal Management Act (Act No. 24 of 2008)</i>	DEA	2008
<i>National Water Act (Act No 36 of 1998)</i>	Department of Water Affairs (DWA)	1998
<i>National Environmental Management Act (Act No 107 of 1998 [NEMA]) as amended</i>	DEA	1998
<i>National Water Act (Act No 36 of 1998)</i>	Department of Water Affairs (DWA)	1998
<i>National Heritage Resources Act (Act No 25 OF 1999)</i>	South African Heritage Resources Agency (SAHRA)/ Amafa AkwaZulu-Natali (Amafa)	1999
<i>National Environmental Management Protected Areas Act (Act No 57 OF 2003 [NEMPA])</i>	DEA	2003
<i>National Environmental Management Biodiversity Act (Act 10 of 2004)</i>	DEA	2004
<i>National Water Act (Act No 36 of 1998)</i>	Department of Water Affairs (DWA)	1998

13. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

13.1. Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	
	*4-6m ³

If yes, what estimated quantity will be produced per month?

**Please note that this value is an estimate and will depend directly on the phase of the construction period (i.e. site establishment, construction, site closure etc.) as well as the upgrading of the existing facility.*

How will the construction solid waste be disposed of? (describe)

Construction solid waste will be stored in designated skips, at the site camp, until such time as the volume accumulated is sufficient to be transported to a general landfill site.

Where will the construction solid waste be disposed of? (provide details of landfill site)

⁸ Blue Flag South Africa: <http://blueflag.org.za/index.php/about-blue-flag/blueflag-south-africa.htm> Accessed: 06/11/2013

Basic Assessment Report

Three registered landfill sites are located within the eThekweni Municipality. Of these three, the La Mercy (G:M:B+ Class 2) and Bisasar Road (G:L:B+) landfill sites are suitable sites due to the nature of the material they receive.⁹ It is however recommended that the La Mercy site be used for disposal as it is closer to the construction site and will entail less travelling.

Will the activity produce solid waste during its operational phase?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If yes, what estimated quantity will be produced per month?	m ³
How will the solid waste be disposed of? (provide details of landfill site)	
Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?	
If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine the further requirements of the application.	
Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	<input type="checkbox"/> YES <input type="checkbox"/> NO
If yes, contact the KZN Department of Agriculture & Environmental Affairs to obtain clarity regarding the process requirements for your application.	
Is the activity that is being applied for a solid waste handling or treatment facility?	<input type="checkbox"/> YES <input type="checkbox"/> NO
If yes, contact the KZN Department of Agriculture & Environmental Affairs to obtain clarity regarding the process requirements for your application.	

13.2. Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If yes, what estimated quantity will be produced per month?	m ³	
Will the activity produce any effluent that will be treated and/or disposed of on site?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If yes, contact the KZN Department of Agriculture & Environmental Affairs to obtain clarity regarding the process requirements for your application.		
Will the activity produce effluent that will be treated and/or disposed of at another facility?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If yes, provide the particulars of the facility:		
Facility name:		
Contact person:		
Postal address:		
Postal code:		
Telephone:	Cell:	
E-mail:	Fax:	
Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:		

13.3. Emissions into the atmosphere

⁹ <http://www1.durban.gov.za/durban/services/cleansing/gastoelec/disposal>

Basic Assessment Report

Will the activity release emissions into the atmosphere? YES NO

If yes, is it controlled by any legislation of any sphere of government? YES NO

If yes, contact the KZN Department of Agriculture & Environmental Affairs to obtain clarity regarding the process requirements for your application.

If no, describe the emissions in terms of type and concentration:

Emissions will take the form of dust and engine emissions that will result from the operation of vehicles and construction equipment on site. This will be limited to the construction phase of the project and will not continue during the operational phase. Mitigation measures for such emissions will be included in the site specific Environmental Management Programme (EMPr). See Appendix F for further details.

13.4. Generation of noise

Will the activity generate noise? YES NO

If yes, is it controlled by any legislation of any sphere of government? YES NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

Noise produced will be from vehicles and equipment and will be limited to the construction phase. No noise will be generated during the operational phase.

14. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

<input checked="" type="checkbox"/> municipal	<input type="checkbox"/> water board	<input type="checkbox"/> groundwater	<input type="checkbox"/> river, stream, dam or lake	<input type="checkbox"/> other	<input type="checkbox"/> the activity will not use water
------------------------------------------------------	--------------------------------------	--------------------------------------	-----------------------------------------------------	--------------------------------	----------------------------------------------------------

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month: litres

Does the activity require a water use permit from the Department of Water Affairs? YES NO

If YES, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this report.

15. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

No specific design parameters have been implemented with regards to energy efficiency. Energy used on site will be limited to electricity for lighting, powering kitchen units and office equipment, and powering geysers for the warming of water in the ablution facilities.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

It is a recommendation of the EAP that skylights be used wherever possible to encourage the use of natural lighting and limit the need for artificial lighting. This impact will however be negligible in terms of energy consumption.

SECTION C: SITE/ AREA/ PROPERTY DESCRIPTION

Important notes:

- For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No.
(e.g. A):

- Subsections 1 - 6 below must be completed for each alternative.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 1:20	-	1:20 1:15	-	1:15 – 1:10	1:10 1:7,5	-	1:7,5 – 1:5	Steeper than 1:5
------	--------------	---	--------------	---	-------------	---------------	---	-------------	---------------------

Alternative S2 (if any):

Flat	1:50 1:20	-	1:20 1:15	-	1:15 – 1:10	1:10 1:7,5	-	1:7,5 – 1:5	Steeper than 1:5
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Alternative S3 (if any):

Flat	1:50 1:20	-	1:20 1:15	-	1:15 – 1:10	1:10 1:7,5	-	1:7,5 – 1:5	Steeper than 1:5
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2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site (Please cross the appropriate box).

Alternative S1 (preferred site):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
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Alternative S2 (if any):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
-----------	---------	-----------------------------	---------------	-------------	-------	----------------------------	------	-----------

Alternative S3 (if any):

Ridgeline	Plateau		Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
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3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Has a specialist been consulted for the completion of this section?

NO

If YES, please complete the following:

Name of the specialist:

Basic Assessment Report

Qualification(s) of the specialist:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	
Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites?		NO	
If YES, specify and explain:			
Are there any special or sensitive habitats or other natural features present on any of the alternative sites?		YES	
If YES, specify and explain:		The facility is located along the Umhlanga Rocks beachfront, therefore presenting a sensitive seashore habitat. However, due to extensive development along the back shore, biodiversity can only be considered from the littoral/intertidal zone towards the sea, which will in no way be impacted upon by the development.	
Are any further specialist studies recommended by the specialist?		YES	NO
If YES, specify:			
If YES, is such a report(s) attached in Appendix D?		YES	NO
Signature of specialist:		Date:	

Is the site(s) located on any of the following (cross the appropriate boxes)?

	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):
Shallow water table (less than 1.5m deep)	NO	YES NO	YES NO
Dolomite, sinkhole or doline areas	NO	YES NO	YES NO
Seasonally wet soils (often close to water bodies)	NO	YES NO	YES NO
Unstable rocky slopes or steep slopes with loose soil	NO	YES NO	YES NO
Dispersive soils (soils that dissolve in water)	NO	YES NO	YES NO
Soils with high clay content (clay fraction more than 40%)	NO	YES NO	YES NO
Any other unstable soil or geological feature	NO	YES NO	YES NO
An area sensitive to erosion	YES*	YES NO	YES NO

***In terms of spring and high tide events, the seashore is prone to erosion. However suitable engineering design will largely mitigate the impact of any significant tidal event on the lifeguard facility.**

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUND COVER

Has a specialist been consulted for the completion of this section?	NO
If YES, please complete the following:	

Basic Assessment Report

Name of the specialist:			
Qualification(s) of the specialist:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	
Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites?	YES	NO	
If YES, specify and explain:			
Are there any special or sensitive habitats or other natural features present on any of the alternative sites?	YES	NO	
If YES, specify and explain:			
Are any further specialist studies recommended by the specialist?	YES	NO	
If YES, specify:			
If YES, is such a report(s) attached in <u>Appendix D</u> ?	YES	NO	
Signature of specialist:		Date:	

Please note that the entire site has been completely transformed due to the urban nature of the surrounding environment. The only indigenous nature found in close proximity to the site is as a result of horticultural and landscaping practices. It will however be a recommendation of the EMP that any vegetation planted on site in the post-construction rehabilitation phase will be indigenous, applicable vegetation.

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E
Sport field	Cultivated land	Paved surface	Building or other structure
			Bare soil

If any of the boxes marked with an "E" is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. LAND USE CHARACTER OF SURROUNDING AREA

Cross the land uses and/or prominent features that currently occur within a 500m radius of the site and give a description of how this influences the application or may be impacted upon by the application:

Land use character			Description
Natural area		NO	The existing lifeguard facility is situated on the Umhlanga Beach front. The indigenous dune vegetation is non-existent due to the surrounding urban environment. Development starts on the beach front and continues inland resulting in little to not natural area. However biodiversity can be considered from the littoral/intertidal zone towards the sea. However

Basic Assessment Report

			the development footprint will in no way encroach upon this area.
Low density residential		NO	
Medium density residential	YES		The direct surrounding area is dominated by medium density residential sites. These sites include The Pearls of Umhlanga and Cabana Beach which are complexes / high-rise buildings housing flats, apartments and hotels. Impacts expected to be felt by The Pearls or Cabana Beach can be expected to be felt exclusively during the construction phase and will relate to noise and possibly aesthetic impacts. These impacts will be mitigated against in the EMPr and are not expected to be significant. In addition the proposed building design will, as much as possible, entail an aesthetically pleasing design and a maximum height equal to the current lifeguard building.
High density residential		NO	
Informal residential		NO	
Retail commercial & warehousing	YES		The greater Umhlanga region consists of numerous business/landuse types typical of an urban environment. These sites will not be directly impacted on by the development but may be impacted indirectly as a result of increased traffic flow in Umhlanga during the construction phase.
Light industrial		NO	
Medium industrial		NO	
Heavy industrial		NO	
Power station		NO	
Office/consulting room		NO	
Military or police base/station/compound		NO	
Spoil heap or slimes dam		NO	
Quarry, sand or borrow pit		NO	
Dam or reservoir		NO	
Hospital/medical centre		NO	
School/ creche		NO	
Tertiary education facility		NO	
Church		NO	
Old age home		NO	
Sewage treatment plant		NO	
Train station or shunting yard		NO	
Railway line		NO	
Major road (4 lanes or more)		NO	
Airport		NO	
Harbour		NO	
Sport facilities		NO	
Golf course		NO	
Polo fields		NO	
Filling station		NO	
Landfill or waste treatment site		NO	
Plantation		NO	

Basic Assessment Report

Agriculture		NO	
River, stream or wetland		NO	
Nature conservation area		NO	
Mountain, hill or ridge		NO	
Museum		NO	
Historical building		NO	
Protected Area		NO	
Graveyard		NO	
Archaeological site		NO	
Other land uses (describe)	YES		The upgrade is situated on the Umhlanga Beach Front and is thus bordered to the east by the sea, to the north and south by seashore and to the west by The Pearls and Cabana Beach developments. Mitigation measures recommended in the BAR, the EMPr and by relevant organisations/departments/personnel will be implemented in the construction phase which will mitigate impacts as best as possible. Post-construction impacts are expected to be negligible.

6. CULTURAL/ HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or within 20m of the site?

NO

If YES, contact a specialist recommended by AMAFA to conduct a heritage impact assessment. The heritage impact assessment must be attached as an appendix to this report.

Briefly explain the recommendations of the specialist:

Will any building or structure older than 60 years be affected in any way?

YES

NO

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

YES

NO

If YES, please submit the necessary application to AMAFA and attach proof thereof to this report.

SECTION D: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—

Basic Assessment Report

- (i) the site where the activity to which the application relates is or is to be undertaken; and
- (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the local and district municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity (as identified in the application form for the environmental authorization of this project); and
 - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

An advert was placed in The Mercury on Friday 10 May 2013. Please see Appendix G for a copy thereof.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that an application for environmental authorization has been submitted to the KZN Department of Agriculture & Environmental Affairs in terms of the EIA Regulations, 2010;(ii)
 - (iii) a brief project description that includes the nature and location of the activity to which the application relates;
 - (iv) where further information on the application can be obtained; and

- (iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE PROCESS

The EAP must ensure that the public participation process is according to that prescribed in regulation 54 of the EIA Regulations, 2010, but may deviate from the requirements of subregulation 54(2) in the manner agreed by the KZN Department of Agriculture & Environmental Affairs as appropriate for this application. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate.

Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before this application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations (regulation 57 in the EIA Regulations, 2010) and be attached as Appendix E to this report.

6. PARTICIPATION BY DISTRICT, LOCAL AND TRADITIONAL AUTHORITIES

District, local and traditional authorities (where applicable) are all key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of this application and provided with an opportunity to comment.

Has any comment been received from the district municipality?

YES

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

Consolidated City Comment,

1. Ethekwini Water and Sanitation:

No objection to the proposal. However, the existing lifeguard building is located very close to existing sewer. Caution and protection thereof should be exercised during construction of this facility.

2. Environmental Planning & Climate Protection Department:

This Department requests that the following issues be addressed on the basic Assessment Report:

- Layout plans of proposed facility must be included in the Basic Assessment Report;
- All potential impacts on the receiving environment must be assessed; and
- An Environmental Management Programme (EMP) needs to be prepared. The EMP must also include details of any rehabilitation or landscaping to be required.

3. Durban Solid Waste:

DSW has no requirements for this proposal.

4. Ethekwini Traffic Authority: Transport Planning

Traffic Department has no comment.

5. Geotechnical Engineering:

No geotechnical objection to the expansion of the lifeguard facility.

The underlying rock is likely Vryheid Formation sandstone but could vary somewhat in depth along the length of the structure. This is seen by the layered hard and softer reefs off shore (and by inference, below the site). Given the potential for high energy erosive episodes depleting beach sands, the structure must be founded into rock at depth so a geotechnical founding investigation should be carried out to determine rock levels.

6. Disaster Management:

This proposal is of no concern to this Department.

Has any comment been received from the local municipality? YES NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

As no local municipality exists within the eThekweni Metropolitan Municipality, please see above.

Has any comment been received from a traditional authority? YES NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

N/A

7. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders? YES

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

Casea Charters, 7 May 2013

“We would like to retain their basic requirement: Existing launch ramp, wash bay, parking bay 3m x 3m set up area (with high visibility).

Casea Charters is a fishing charter/tourism business which has been operating from Grannies Pool for the past 15 years. We operate daily weather permitting. We have one parking bay and a designated area (approx. 3m x 3m) where we set up a gazebo in fair weather on the landing/parking area on the south side of the existing clubhouse.”

The Pearls of Umhlanga Development (Pty) Ltd, 10 May 2013

1. The Pearls directly faces the lifesaver’s club and the lifesaver’s club impacts on parts of the development.
2. The Pearls of Umhlanga contributed 1 million Rand towards the redecoration of the lifesavers building and accordingly, requests a meeting with role players responsible for the process before any decision is made.”

Owners of the Pearls of Umhlanga, 10 May 2013

No comment to include at this time.

Coastwatch KwaZulu-Natal, 17 May 2013

“We understand that the existing structure is constrained and expansion of such facilities is inevitable, however Coastwatch wishes to avoid the perpetuation of poor development practices along the KZN coastline. Given the information provided in the BID we wish to make the following preliminary statements:

1. The “artist’s sketch” shows significant intrusion of built structure onto the beach. Notably, the ‘beach environment’ in front of this structure is *defacto* intertidal zone, as the footing of the retaining wall is inundated during spring high water periods. We would recommend that there be no intrusion or obstruction at these points.
2. The “artist’s sketch” identifies the use of ‘waterloffel’ or retaining bricks. These are not suitable structures for sea defences under high energy wave inundation as noted from recent erosion events.

We would anticipate that the design of the new structure will show sound and innovative methods of addressing existing problems within the coastal zone and not exacerbate such problems.”

Ezemvelo KZN Wildlife, 23 May 2013

“Ezemvelo looks forward to receiving the Basic Assessment Report which should address, *inter alia*:

1. The potential for the property to be impacted upon by future coastal erosion events;
2. Proximity to the coastal erosion setback line, and the subsequent potential need for reinforcement or protection structures;
3. Climate change and effects of sea level rise;
4. The location of the proposed development in relation to Coastal Vulnerability Index (CVI).
5. Potential negative impacts on dune vegetation and dune hydrogeomorphology.

It is therefore strongly recommended that all sensitive features (including inter alia coastal erosion setback line, drainage lines, areas identified for rehabilitation and other areas of conservation significance, and their buffers) be superimposed upon the proposed layout plan, which must be overlaid onto an ortho-photograph (which should still be visible through the proposed layout, i.e. do not use solid colours in the layout) and included with the Basic Assessment Report to allow for informed decision making.

Please note that final comment will be provided upon receipt and review of the BAR and information requested above.”

Toni Torino, 30 May 2013

Mr Torino requested information concerning the ski-boat launch site. He wanted to know if the proposed construction would affect the launching site and whether there are any future plans for launching jet skis for fishing.

Charmain Klevansky, 30 May 2013

“With reference to upgrade process - do hope the club remains as simple and friendly, a special place to have a good meal and drink with family and friends, close to the sea and " No to residents of the towers of the Pearls - because it blocks their VIEW----- Thank you”.

Eskom, 3 June 2013

“We confirm that an investigation has been carried out the result of this investigation is that this is not within Eskom’s area of supply.”

Sterigerms SA, 14 June 2013

Robert Nienaber of Sterigerms SA questioned whether the municipality would add any additional services to the Facility as he had some suggestions in this regard.

Thabathi Taylor Consulting, 20 June 2013

Scott Taylor of Thabathi Taylor Consulting stated that he is the project manager for the development of the Club Facility and further stated that they had initiated discussions with the city to provide parking for the Clubs’ tractor.

Department of Water Affairs (DWA), 25 June 2013

“The Departments Water Quality Section has the following comments:

1. Management of solid waste generated during the construction phase and post construction phase.
2. Management of any hazardous waste material generated pre- and post-construction.
3. Stormwater management plan/system including prevention of erosion and sedimentation.
4. Spill contingency plans.
5. Environmental Management Plan.”

The department further points out that any construction activities which require licencing of consultation with DWA should follow the necessary procedure ascribed by the NWA.

Larson, Falconer, Hassan and Parsee Attorneys, 28 June 2013

“I represent the seller of a unit at the Pearls of Umhlanga.

A dispute has arisen between my client and a purchaser of their unit regarding the disclosure of the upgrade contained in the “Background Information Documentation” for the above named upgrade.

Firstly, the report calls for submissions before 14 May 2013, has that date been extended or are you still open to accepting submissions?

Was your report distributed? If so, to whom and when.

Have there been objections raised by third parties? If so, what is the process moving forward?”

Telkom SA Limited, 25 July 2013

Telkom stated, In reference to the Electronic Communications Act No. 35 of 2005, that no Telkom infrastructure will be affected. It also stated that the approval of the proposed construction is valid for six months. If construction has not yet commenced within this time period then the file must be resubmitted for approval. Any changes and deviations from the original planning during construction must be immediately communicated to Telkom.

Larson, Falconer, Hassan and Parsee Attorneys, 26 July 2013

“Our client has lost a purchaser for their property at the Pearls as a result of details mentioned in the EIA Report for the development of the Umhlanga Lifeguard House.

Please, per return, could you provide us with an approximate time line of the proposed Umhlanga Lifeguard house development so that our client can, in future, fully disclose these developments to respective purchasers to avoid the situation as they have recently experienced.”

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

Casea Charters, 7 May 2013

1. Would like to retain the same basic services they have at the existing facility.

Coastwatch KwaZulu-Natal, 17 May 2013

1. Wishes to avoid the perpetuation of poor development practices along the KZN coastline;
2. It is recommended that there be no intrusion or obstruction from the expanded structure, on the intertidal zone of the beach;
3. ‘Waterloffel’ or retaining bricks are not suitable structures for sea defences under high energy wave inundation;

Ezemvelo KZN Wildlife, 23 May 2013

1. The potential for the property to be impacted upon by future coastal erosion events;
2. Proximity to the coastal erosion setback line, and the subsequent potential need for reinforcement or protection structures;
3. Climate change and effects of sea level rise;
4. The location of the proposed development in relation to Coastal Vulnerability Index (CVI).
5. Potential negative impacts on dune vegetation and dune hydrogeomorphology.

Toni Torino, 30 May 2013

1. Will the proposed construction affect the launching site and are there any future plans for launching jet skis for fishing, at the site.

Sterigerms SA, 14 June 2013

1. Are any additional facilities being included in the expanded structure.

Department of Water Affairs (DWA), 25 June 2013

1. Management of solid waste generated during the construction phase and post construction phase.
2. Management of any hazardous waste material generated pre- and post-construction.
3. Stormwater management plan/system including prevention of erosion and sedimentation.
4. Spill contingency plans.
5. Environmental Management Plan.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached as Appendix E to this report):

Casea Charters, 7 May 2013

1. The necessary correspondence had been forwarded to the relevant personnel.

Coastwatch KwaZulu-Natal, 17 May 2013

1. Noted, your comment has been passed on to the Applicant. Where necessary, engineering design will take cognisance of storm surge events.
2. Noted.
3. Noted, your comment has been passed on to the Applicant.

Please note that the layout plan provided within the dBAR is simply a provisional and very basic layout plan. Further details will follow as the Environmental process continues.

Ezemvelo KZN Wildlife, 23 May 2013

1. Due to the function of the existing structure, its locality dictates that it is to be placed as close to the beachfront as possible. As such its current locality places it within the proposed future coastal erosion line (See Appendix A for map thereof). However it should be noted that the existing structure has had minimal impacts on it in terms of coastal erosion events, particularly in light of the storm surge events that took place in 2007/2008 along the KZN coastline. Mitigation measures in the form of suitable structural engineering are considered the best, most practicable solution to potential erosion events.
2. In light of the 2007/2008 storm surge events, Dr Andrew Mather Project Executive of Coastal Policy within the Ethekwini Municipality produced a coastal erosion setback line of 10m which was adopted based on the highest recorded wave run up levels in Ballito at 10,57m above sea level. Under this recommendation, the site falls within the coastal erosion setback line indicating that it will be prone to storm surge events. However as mentioned, damage to the structure was minimal as the structures piling and foundation was built to bedrock. As such suitable structural engineering measures should be implemented in the design phase. But it is not foreseen that hard engineering techniques such as the placing of seawalls, groynes, revetments etc. are needed.
3. As the rate of climate change and sea level rise is varied dependent on locations, models used, specialists etc., it cannot be determined at present what the impact on the receiving environment will be. It should however be noted that sea level rise can be expected, but the rate at which it will happen is unknown. "Recent observations from satellites, very carefully calibrated, are that global sea level rise over the last decade has been +3.3+/- 0.4 mm/y (Rahmstorf et al, 2007)). The IPCC AR4 Report (IPCC, 2007) concludes that anthropogenic warming and sea level rise would continue for centuries due to the timescales associated with climate processes and feedbacks, even if greenhouse gas concentrations were to be stabilised. Comparisons between about 30 years of South African tide gauge records and the longer term records elsewhere, show substantial agreement. A recent analysis of sea water levels recorded at Durban confirms that the local rate of sea level rise falls within the range of global trends (Mather, 2007). Present South African SLR rates are: west coast +1.87 mm.yr⁻¹, south coast +1.47 mm.yr⁻¹, and east coast +2.74 mm.yr⁻¹ (Mather et al. 2009)".¹⁰ As can be seen, sea level rise along the KwaZulu-Natal coastline is expected. As such, engineering

¹⁰ Mather, A. & Theron, A. 2012: *Recent Extreme Events Along the Coast of South Africa (Draft)*. <http://www.cfoo.co.za/docs/stormsurge/Item%203%20Extreme%20events%20AM%20et%20al%20revised.pdf>, Accessed: 11/11/2013

measures mentioned to date will be implemented in terms of providing a precautionary approach to the proposed impacts. However it should be noted that the service provided to the general public by the facility and its inhabitants is an integral, essential service, ensuring that the facility cannot be relocated, but that where possible, mitigation measures are implemented.

4. The Coastal Vulnerability Index (CVI) expresses the relative vulnerability of the coast to physical changes due to future sea-level rise. This method yields numerical data that cannot be equated directly with particular physical effects. It does, however, highlight areas where the various effects of sea-level rise may be the greatest. Variables used to determine the CVI include geomorphology, shoreline erosion/accretion rate, coastal slope, relative sea-level rise rate, mean wave height, and mean tide range.¹¹ The CVI for the Umhlanga shoreline has not been provided. However it can be assumed that the with studies undertaken relating to the storm surge events of 2007/2008 and mitigation measures that have been published, that the information provided to date will provide sufficient detail with regards to the potential events and impacts associated with physical change along the coastline.
5. Due to the completely transformed nature of the coastline along the stretch where the facility is located, no dunes are present and thus dune vegetation and hydrogeomorphology will not be impacted upon.

Toni Torino, 30 May 2013

1. The ski boat launch site may be affected during the construction phase of the project, but it is anticipated that ski-boat access will always be made available throughout the construction process. As far as is known, there has not been a proposal put forth that includes the launching of jet-skis for fishing, at the site.

Sterigerms SA, 14 June 2013

1. At this stage of the environmental process there are no definite plans in place to include any other business at the site. Sterigerms SA has been placed on the IAP register and comments submitted to the relevant departments.

Department of Water Affairs (DWA), 25 June 2013

1. The storage of construction waste is recommended to be placed at the site camp in an area that is not visible to the general public and which is shielded from site by shade cloth and netting where possible. It is recommended that all construction related waste be disposed of at the nearest registered landfill site. All solid waste generated during the post construction phase will be dealt with as previously stated. Waste generated during the operational phase will be linked into the current, existing waste stream.
2. It is not anticipated that any hazardous waste will be generated on site during the pre- and post-construction phases. However in the instance that it is, recommendations have been included in the EMPr, which will be strictly adhered to on site. These measures include the necessary provision of MSDS's for waste generated, the availability of spill kits, emergency spill response details, correct storage of hazardous material etc.
3. Stormwater management plan/system including prevention of erosion and sedimentation.
4. Measures to mitigate spills have been included in the EMPr. However a designated spill contingency plan is to be implemented by the Contractor at the commencement of the site establishment and construction phases.
5. An Environmental Management Programme has been developed and is included in Appendix F of this document.

¹¹ Coastal Vulnerability Assessment of Assateague Island National Seashore (ASIS) to Sea-Level Rise, USGS Open-File Report 2004-1020. <http://pubs.usgs.gov/of/2004/1020/html/cvi.htm> Accessed: 06/12/2013

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

A. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN PHASE

a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the planning and design phase:

Alternative S1 (preferred alternative)

<p><i>Direct impacts:</i></p> <ul style="list-style-type: none"> The current facility which is to be expanded is a well-established facility that has been in use since the 1980's, whilst the lifesaving club started in 1953.¹² As such it is not feasible for an alternative locality to be used for the lifesaving club. <p><i>Indirect impacts:</i> None</p> <p><i>Cumulative impacts:</i> None</p>

Alternative S2 (if any)

<p><i>Direct impacts:</i></p> <p><i>Indirect impacts:</i></p> <p><i>Cumulative impacts:</i></p>

No-go alternative (compulsory)

<p><i>Direct impacts:</i></p> <ul style="list-style-type: none"> The status quo would remain and the greater Umhlanga community, as well as patrons and holiday makers that visit the beach will not be serviced to a greater level as required and existing infrastructure will continue to serve the community at a substandard level. <p><i>Indirect impacts:</i></p> <ul style="list-style-type: none"> The status quo would remain and the greater Umhlanga community, as well as patrons and holiday makers that visit the beach will not be serviced to a greater level as required and existing infrastructure will continue to serve the community at a substandard level. <p><i>Cumulative impacts:</i></p> <ul style="list-style-type: none"> The status quo would remain and the greater Umhlanga community, as well as patrons and holiday makers that visit the beach will not be serviced to a greater level as required and existing infrastructure will continue to serve the community at a substandard level.

Indicate mitigation measures to manage the potential impacts listed above:

Alternative S1	Alternative S2
<p>There are no foreseeable impacts; therefore no mitigation measures are necessary.</p> <p>Should the no-go alternative prevail, the community of Umhlanga and the surrounding regions will continue to be serviced at a level which is beyond capacity and which does not fulfil its potential.</p>	

¹² Umhlanga Rocks Life Saving Club: <http://www.umhlangalifesaving.co.za/>. Accessed 04/09/2013.

Basic Assessment Report

b. Process, technology, layout or other alternatives

List the impacts associated with any process, technology, layout or other alternatives that are likely to occur during the planning and design phase (please list impacts associated with each alternative separately):

Alternative A1 (preferred alternative)

Direct impacts:

The following are direct impacts which will influence the planning and design of the expanded structure:

Planning/Architecture:

- As per the eThekweni draft IDP, serious consideration needs to be taken within areas that are susceptible to climate change and sea level rise, particularly coastal areas with land a few metres above the high water mark. A recommendation of the IDP is that Shoreline Management Plans (such as the Ohlanga-Tongati Local Area Plan and Coastal Management Plan) are required to determine what adaptation interventions if any are required now or in the future.¹³ It is imperative that the recommendations listed in planning documents such as these, be adhered to in the design of the expanded structure to ensure that precautionary measures are put into place with regards to extreme sea events.
- Best international practice regarding sea-level rise and changing coastal dynamics encourages managed retreat away from the shoreline as the best practicable option. However as the proposed development is the expansion of an existing facility, this is not possible. As such, suitable engineering design is to be implemented to ensure the expanded structure can cope with extreme sea events.
- Although significant events of the nature of the extreme sea events experienced in 2007 have not taken place within the last few years, it is predicted that events of this nature (in conjunction with tides, equinoxes etc.) take place approximately every 18 years. As such site specific planning and design is necessary for the longevity of the expansion of the existing facility.
- Beaches with badly planned, inappropriate and poorly maintained stormwater systems are often further prone to extreme sea events as the cohesiveness that was supplied by the groundwater has been lost. As such it is imperative that the stormwater management that is designed for the expanded structure is to take this into consideration.
- Within the DAEA Best Practice, Coastal Erosion Guide it notes that coastal amenities such as concrete lifesaving facilities that have been damaged should be replaced with more appropriate “softer” solutions, e.g. temporary wooden lifesaving towers.¹⁴ The appropriateness of this design is to be considered in conjunction with the project architects and the engineers.
- Due to the location of the structure along a shoreline which is dominated by up market hotels and accommodation, aesthetics will have to be considered in the architectural design of the structure.

Indirect impacts:

No indirect impacts noted.

Cumulative impacts:

No cumulative impacts noted.

Alternative A2 (if any)

Direct impacts:

Indirect impacts:

Cumulative impacts:

¹³ eThekweni Municipality: *Draft Integrated Development Plan 2012/13 to 2016/17*
http://www.durban.gov.za/City_Government/City_Vision/IDP/Documents/Final%20Adopted%20idp%2030%20May%202012.pdf

¹⁴ KZN DAEA, Coastal Biodiversity and Management Unit (2008): *Living with Coastal Erosion in KwaZulu-Natal: A short-term, best-practice guide*.
<http://www.kzndae.gov.za/Portals/0/Environment/Erosion%20strategy%20edoc.pdf> Accessed: 12/11/2013

No-go alternative (compulsory)

Direct impacts:

- The status quo would remain and the greater Umhlanga community, as well as patrons and holiday makers that visit the beach will not be serviced to a greater level as required and existing infrastructure will continue to serve the community at a substandard level.

Indirect impacts:

- The status quo would remain and the greater Umhlanga community, as well as patrons and holiday makers that visit the beach will not be serviced to a greater level as required and existing infrastructure will continue to serve the community at a substandard level.

Cumulative impacts:

- The status quo would remain and the greater Umhlanga community, as well as patrons and holiday makers that visit the beach will not be serviced to a greater level as required and existing infrastructure will continue to serve the community at a substandard level.

Indicate mitigation measures to manage the potential impacts listed above:

Alternative A1:

- Within the process/technology/layout phase it will have to be determined what design features will be implemented to mitigate the aforementioned issues. According to international convention, the following measures can be implemented:
 - Hard engineering techniques – Using permanent concrete and rock constructions to “fix” or consolidate the coastline and protect the inland assets. These techniques - usually in the form of seawalls, groynes, detached breakwaters or revetments - represent a significant share of protected shoreline (>70% in the case of Europe). (It should be noted that resorting to hard engineering solutions should only be undertaken in exceptional cases and only after a detailed environmental assessment and authorisation is obtained).
 - Soft engineering techniques – Building with natural processes in mind, relying on natural elements such as sand dunes, vegetation to prevent erosive forces from reaching the built environment, and the use of sandbags and beach nourishment schemes.
 - Managed retreat – Removal and relocation of houses and other infrastructure away from erosion prone areas.
- Suitable stormwater management design is to be implemented in the design phase.
- All relevant stakeholders are to be informed and made aware of the design process to ensure the expanded facility is in line with local planning documentation, the vision of the Umhlanga region, the current users and the surrounding landowners.

Alternative A2:

B. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION PHASE

a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the construction phase:

Alternative S1 (preferred site)

Direct Impacts:

Soils

During the construction phase, soils will be excavated and cleared for the construction of the expanded facility. Potential disturbances include compaction and potential pollution by hydrocarbons. Furthermore, if stormwater control measures are not implemented during the construction phase, soil erosion may occur.

Surface/ground water

Construction practices may increase surface runoff and as such, adequate stormwater measures will need to be implemented. Waste generated during the construction phase may enter the environment through surface water runoff. Hazardous waste (diesel, oils, cement) will be generated during the construction phase. Improper management of these wastes may result in the pollution of beach sand and sea through surface and sub-surface drainage.

Air quality and Noise Pollution

Air pollution related to particulate and dust generation will occur during construction, however, this is not considered to be significant. During the construction phase, the operation of machinery and equipment, as well as the construction vehicle traffic will increase noise levels.

Cultural and Historical

No heritage resources were observed within or adjacent to the proposed development area. Should any heritage resources, as defined in the National Heritage Resources Act 25 of 1999, be discovered during the course of development activities, the developer must cease all work immediately, and adhere to standard protocol.

Visual

Due to the location of the site in a popular tourism area as well as its location in relation to numerous up-market hotels and accommodation facilities the visual impact is considered significant if construction is to take place during the tourist "high season".

Marine Habitat

The Marine Habitat along the coastline is classified according to D'MOSS¹⁵ as rocky shores and sandy beaches. According to the D'MOSS layer the shoreline is not a protected area. However due to the sensitivity of the receiving environment, utmost care should be taken to ensure that under no circumstances are the flora and fauna negatively impacted upon by the construction. This includes the prevention of spillage, concrete runoff, general/construction/hazardous waste etc.

Traffic

The presence of heavy vehicle traffic (construction vehicles) will be limited to the construction period.

Socio-Economic

The expansion is expected to have a positive long term impact on the area and greater community as it will provide employment opportunities during the construction phase as well as improving the services rendered to members of the general public.

Waste

The volume of waste produced will increase in the construction phase. However if mitigation measures that are specified in the EMP are adhered to then impacts will be minimal to non-existent. Waste produced must be correctly disposed of at a registered

¹⁵ <http://citymaps.durban.gov.za/internetwebsite/index.html> Accessed: 13/11/2013

landfill site able to deal with the waste being disposed of.

Public Safety

During construction the work area will need to be cordoned off for the safety of the public.

Indirect impacts:

Soils

Insufficient stormwater control measures may result in localised levels of soil erosion, which may lead to decreased environmental health and water quality.

Cumulative impacts:

Soils

During the construction phase, soils will be excavated and cleared for the construction of the expanded facility. Potential disturbances include compaction and potential pollution by hydrocarbons. Furthermore, if stormwater control measures are not implemented during the construction phase, soil erosion may occur.

Surface/ground water

Construction practices may increase surface runoff and as such, adequate stormwater measures will need to be implemented. Waste generated during the construction phase may enter the environment through surface water runoff. Hazardous waste (diesel, oils, cement) will be generated during the construction phase. Improper management of these wastes may result in the pollution of beach sand and sea through surface and sub-surface drainage.

Air quality and Noise Pollution

Air pollution related to particulate and dust generation will occur during construction, however, this is not considered to be significant. During the construction phase, the operation of machinery and equipment, as well as the construction vehicle traffic will increase noise levels.

Cultural and Historical

No heritage resources were observed within or adjacent to the proposed development area. Should any heritage resources, as defined in the National Heritage Resources Act 25 of 1999, be discovered during the course of development activities, the developer must cease all work immediately, and adhere to standard protocol.

Visual

Due to the location of the site in a popular tourism area as well as its location in relation to numerous up-market hotels and accommodation facilities the visual impact is considered significant if construction is to take place during the tourist "high season".

Marine Habitat

The Marine Habitat along the coastline is classified according to D'MOSS¹⁶ as rocky shores and sandy beaches. According to the D'MOSS layer the shoreline is not a protected area. However due to the sensitivity of the receiving environment, utmost care should be taken to ensure that under no circumstances are the flora and fauna negatively impacted upon by the construction. This includes the prevention of spillage, concrete runoff, general/construction/hazardous waste etc.

Traffic

The presence of heavy vehicle traffic (construction vehicles) will be limited to the construction period.

Socio-Economic

The expansion is expected to have a positive long term impact on the area and greater community as it will provide employment opportunities during the construction phase as well as improving the services rendered to members of the general public.

¹⁶ <http://citymaps.durban.gov.za/internetwebsite/index.html> Accessed: 13/11/2013

Waste

The volume of waste produced will increase in the construction phase. However if mitigation measures that are specified in the EMP are adhered to then impacts will be minimal to non-existent. Waste produced must be correctly disposed of at a registered landfill site able to deal with the waste being disposed of.

Public Safety

During construction the work area will need to be cordoned off for the safety of the public.

Alternative S2 (if any)

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct Impacts:

- The communities involved will ultimately be served at a substandard level which is not in line with Government standards. This level may decrease further over time as infrastructure is not of sufficient capacity, resulting in the lifesavers not being able to fulfil their function with regards to community health and wellbeing.
- Opportunity cost in loss of short term employment.

Indirect impacts:

- The communities involved will ultimately be served at a substandard level which is not in line with Government standards. This level may decrease further over time as infrastructure is not of sufficient capacity, resulting in the lifesavers not being able to fulfil their function with regards to community health and wellbeing.

Cumulative impacts:

- The communities involved will ultimately be served at a substandard level which is not in line with Government standards. This level may decrease further over time as infrastructure is not of sufficient capacity, resulting in the lifesavers not being able to fulfil their function with regards to community health and wellbeing.
- Opportunity cost in loss of short term employment.

Indicate mitigation measures to manage the potential impacts listed above:

Alternative S1

Soil

- Topsoil/vegetation to be separated from subsoil, where still available within the construction footprint;
- Soil should be stockpiled in such a way as to minimize runoff;
- Erosion berms or alternative mitigation measures must be implemented where necessary;
- Care must be taken to ensure that in removing vegetation adequate erosion control measures are implemented;
- Exposed soils and material stockpiles shall be protected against wind erosion; and
- The location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors.

Vegetation and Fauna

- All construction areas should be demarcated prior to construction to ensure that the footprint of the impacts are limited (including areas where vehicles may traverse);
- All alien invasive species within the construction and development footprint should be removed and follow up monitoring and removal programmes should be initiated throughout the construction phase and once construction is

Alternative S2

complete;

- Reseed cleared areas with an indigenous grass seed mix to prevent soil erosion;

Waste Management and Pollution Prevention

- Demarcated areas including the location and layout of waste storage and treatment facilities, ablution facilities, stockpiling and spoil areas and hazardous material storage areas where waste can be securely contained during the construction phase should be established. When adequate volumes (not more than 1 month) have accumulated all waste is to be removed from site and disposed of at a licensed facility;
- Where possible, separate waste receptacles (for example glass, plastic, organic material etc.) shall be provided to allow for recycling;
- Waste is not to be buried on site;
- The Contractor shall submit a Method Statement detailing a solid waste control system (storage, provision of bins, site clean-up schedule, bin clean-out schedule and point of disposal as a minimum) to the ER for approval;
- Storage of waste volumes must not exceed those stipulated in NEM:WA, Schedule 1;
- Hydrocarbons should be stored in a bunded storage area;
- All hazardous materials including paints, turpentine and thinners must be stored appropriately to prevent these contaminants from entering the environment;
- Prior to removal, empty drums must be stored in a bunded area to prevent spillage;
- A spill-kit is to be available on site at all times.

Air Quality

- Heavy vehicles and machinery should be serviced regularly to minimise exhaust fume pollution;
- Soil stockpiles will be located in areas to limit the erosive effects of the wind, and to limit dust;
- Removal of vegetation will be avoided until such time as soil stripping is required, which will limit dust.
- Haulage distances should be at a minimum;
- Material loads shall be suitably covered and secured during transportation;
- Water should be sprayed onto unpaved roads when required;
- Environmentally friendly soil stabilisers may be used as additional measures to control dust on gravel roads and construction areas, where necessary;
- All equipment should be kept in good working order;
- Should excessive emissions be observed, the Contractor is to have the equipment seen to as soon as possible;
- Equipment should be operated within its specifications and capacity and should not be overloaded;
- All machinery/plant should be serviced and lubricated regularly to ensure a good working order;
- Ensure that the potential noise source will conform to the South African Bureau of Standards recommended code of practice, SANS Code 10103:2008, so that it will not produce excessive or undesirable noise when it is released;
- All the Contractors' equipment shall be fitted with effective exhaust silencers and shall comply with the South African Bureau of Standards recommended code of practice and the South African National Standard (SANS) Code 0103:1983, for

construction plant noise generation.

Cultural and Historical

- Should any heritage resources, as defined in the National Heritage Resources Act 25 of 1999, be discovered during the course of development activities, the developer must cease all work immediately, and adhere to the standard protocol as laid out in the aforementioned Act.

Traffic

- Provide sufficient area for the storage of heavy vehicles within the construction site;
- Ensure that all road diversions and closures are considered as part of the development footprint and do not add any unnecessary roads;
- Ensure that heavy / large load traffic is appropriately routed and appropriate safety precautions are taken to prohibit road collisions and traffic incidences;
- Ensure that vehicle operators are suitably licensed, have had appropriate environmental and safety induction, are aware of specific site procedures, and are well rested and cognisant when operating heavy or unsafe vehicles / machinery;
- Ensure that sufficient warning and safety signage has been erected throughout the construction site; and
- Where necessary, traffic calming measures need to be constructed to ensure the slow movement of vehicles and machinery.

Monitoring

The contractor must appoint an on-site Environmental Liaison Officer (ELO) who will manage the day to day compliance with the EMP. An independent Environmental Control Officer (ECO) must be appointed to conduct monthly site audits and monitoring of compliance to the EMP.

b. Process, technology, layout or other alternatives

List the impacts associated with process, technology, layout or other alternatives that are likely to occur during the construction phase (please list impacts associated with each alternative separately):

Alternative A1 (preferred alternative)

Direct impacts:

No other processes, technologies, layouts or alternatives have been considered as the end goal of the expansion will not be attained if this is considered. The most cost-effective, reliable and long term options have been considered in the process, technology and layout.

Indirect impacts:

No indirect impacts identified.

Cumulative impacts:

No cumulative impacts identified.

Alternative A2

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

Basic Assessment Report

- Should the expansion not be considered, optimum levels of community service provision will not be achieved.
- Continued community health and safety will be put in jeopardy as increased tourist numbers cannot be adequately protected/served.

Indirect impacts:

- Should the expansion not be considered, optimum levels of community service provision will not be achieved.
- Maintenance costs may increase as the current infrastructure ages with no upgrades or improvements.

Cumulative impacts:

- Should the expansion not be considered, optimum levels of community service provision will not be achieved.
- Maintenance costs may increase as the current infrastructure ages with no upgrades or improvements.
- Continued community health and safety will be put in jeopardy as increased tourist numbers cannot be adequately protected/served.

Indicate mitigation measures to manage the potential impacts listed above:

Alternative A1:

- As no impacts have been flagged in terms of the process, technology, layout or other alternatives associated with the construction phase, it is not expected that mitigation measures will need to be implemented.

Alternative A2:

C. IMPACTS THAT MAY RESULT FROM THE OPERATIONAL PHASE

a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the operational phase:

Alternative S1 (preferred alternative)

Direct impacts:

- Environmental impacts associated with the operational phase specifically with regards to the expansion of the existing facility are expected to be non-existent as the facility ties into existing municipal infrastructure in terms of waste management, effluent, electricity etc. As such, no environmental impacts stemming from the facility are expected.

Indirect impacts:

No indirect impacts identified.

Cumulative impacts:

- Impacts on the facility during the operational phase can be expected. However please note that the following risks are inherently associated with any development situated along the seashore. As such, suitable engineering and architectural measures have and will be implemented in the design phase to ensure that impacts associated with the operational phase are limited and are out of the control of the Applicant.

Inherent Risks ¹⁷	Specific	Associated	Associated	Secondary
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¹⁷ eThekweni Municipality, 2006: *Ohlanga-Tongati Local Area Coastal Management Plan (Draft)*.
http://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=2&ved=0CDAQFjAB&url=http%3A%2F%2Fwww.durban.gov.za%2FDocuments%2FCity_Government%2FDevelopment_Planning_Management%2FOhlanga%2520Tongati%2520LUMS%2520Guidelines%2520revised%2520Sept%25202008.pdf&ei=vyaCUv7QHlm2hQfa-oDYDg&usq=AFQjCNHMDXofJ-

Basic Assessment Report

	Threats	Primary Impacts	Impacts
<u>Sea Level Rise</u> (associated with global climate change)	Land-sea interface Estuaries / rivers	<ul style="list-style-type: none"> • Increased flood levels in estuaries / rivers • Flooding of low lying areas adjacent beach and estuaries /rivers • Undercutting of dune system • Undercutting of beachfront facilities and infrastructure 	<ul style="list-style-type: none"> • Loss of facilities, infrastructure and economic investment in flooded / undercut areas. • Loss of development potential in areas at risk. • Change in recreational potential of beaches and estuaries with steepening beaches, eroding dunes and estuary banks. • Loss / damage to environmental assets / biodiversity refuges. • Environmental risk / pollution risk associated with flooding / damage to waste management and stormwater infrastructure.
<u>Beach / Coastal Erosion</u> (ongoing natural process, not specifically associated with sea level rise)	Land-sea interface	<ul style="list-style-type: none"> • Undercutting of dune system • Undercutting of beachfront facilities and infrastructure 	<ul style="list-style-type: none"> • Loss of facilities, infrastructure and economic investment in undercut areas. • Ongoing costs of repair / stabilisation. • Environmental risk / pollution risk associated with damage to waste management and stormwater infrastructure. • Change in recreational potential of beaches with steepening beaches & eroding dunes
<u>Land Instability</u>	Primary, secondary & tertiary dune areas	<ul style="list-style-type: none"> • Dune blowouts, slumps, slips and landslides 	<ul style="list-style-type: none"> • Ongoing costs to remove windblown sand or repair damaged infrastructure. • Environmental risk / pollution risk associated with damage to waste management and stormwater infrastructure. • Loss / damage to environmental assets / biodiversity refuges. • Limited development potential in areas at risk (economic and social

Alternative S2 (if any)

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

Basic Assessment Report

- Optimum levels of community service provision will not be achieved.
- Continued community health and safety will be put in jeopardy as increased tourist numbers cannot be adequately protected/served.

Indirect impacts:

- Optimum levels of community service provision will not be achieved.
- Maintenance costs may increase as the current infrastructure ages with no upgrades or improvements.

Cumulative impacts:

- Optimum levels of community service provision will not be achieved.
- Maintenance costs may increase as the current infrastructure ages with no upgrades or improvements.
- Continued community health and safety will be put in jeopardy as increased tourist numbers cannot be adequately protected/served.

Indicate mitigation measures to manage the potential impacts listed above:

Alternative S1

Alternative S2

All mitigation measures included in the site specific EMPr will need to be adhered to in order to reduce environmental impacts. However, no significant operational impacts have been identified.

b. Process, technology, layout or other alternatives

List the impacts associated with process, technology, layout or other alternatives that are likely to occur during the operational phase (please list impacts associated with each alternative separately):

Alternative A1 (preferred alternative)

Direct impacts:

- The only foreseeable impact is that of routine maintenance checks and operations associated with any type of structural upgrade. Maintenance that will be undertaken is not environmentally intensive and will have little to no impact on the receiving environment.

Indirect impacts:

- The structural upgrade will have an improved lifespan as a result of regular maintenance procedures.

Cumulative impacts:

- Improved service provision for all the greater community.

Alternative A2

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

- Optimum levels of community service provision will not be achieved.
- Continued community health and safety will be put in jeopardy as increased tourist numbers cannot be adequately protected/served.

Indirect impacts:

- Optimum levels of community service provision will not be achieved.
- Maintenance costs may increase as the current infrastructure ages with no upgrades or improvements.

Cumulative impacts:

- Optimum levels of community service provision will not be achieved.
- Maintenance costs may increase as the current infrastructure ages with no upgrades or improvements.

Continued community health and safety will be put in jeopardy as increased tourist

numbers cannot be adequately protected/served.

Indicate mitigation measures to manage the potential impacts listed above:

Alternative S1

Alternative S2

All mitigation measures included in the site specific EMPr will need to be adhered to in order to reduce environmental impacts. However, no significant operational impacts have been identified.

D. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING OR CLOSURE PHASE

a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the decommissioning or closure phase:

Alternative S1 (preferred alternative)

The proposed expanded lifesaving facility will not be decommissioned, thus impacts have not been investigated.

Direct impacts:

None

Indirect impacts:

None

Cumulative impacts:

None

Alternative S2

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

The proposed expanded lifesaving facility will not be decommissioned, thus impacts have not been investigated.

Direct impacts:

None

Indirect impacts:

None

Cumulative impacts:

None

Indicate mitigation measures to manage the potential impacts listed above:

Alternative S1

Alternative S2

The proposed lifesaving facility will not be decommissioned as it provides essential services to the general public.

b. Process, technology, layout or other alternatives

List the impacts associated with process, technology, layout or other alternatives that are likely to occur during the decommissioning or closure phase (please list impacts associated with each alternative separately):

Alternative A1 (preferred alternative)

The proposed expanded lifesaving facility will not be decommissioned, thus impacts

Basic Assessment Report

have not been investigated.

Direct impacts:
None

Indirect impacts:
None

Cumulative impacts:
None

Alternative A2

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

The proposed expanded lifesaving facility will not be decommissioned, thus impacts have not been investigated.

Direct impacts:
None

Indirect impacts:
None

Cumulative impacts:
None

Indicate mitigation measures to manage the potential impacts listed above:

Alternative A1	Alternative A2
The proposed lifesaving facility will not be decommissioned as it provides essential services to the general public.	

E. PROPOSED MONITORING AND AUDITING

For each phase of the project and for each alternative, please indicate how identified impacts and mitigation will be monitored and/or audited.

Alternative S1 (preferred site)	Alternative S2
<p>An onsite Environmental Liaison Officer (ELO) must be appointed to oversee and ensure that the EMPr is correctly and stringently implemented and maintained for the duration of the construction phase of the activity. The ELO will be responsible for the day to day environmental monitoring of the construction of the lifeguard facility.</p> <p>An independent Environmental Control Officer (ECO) will be employed to conduct monthly audits of the activity for the duration of the construction phase. The ECO will audit the compliance of the EMPr and specify any corrective measures that may be required. The ECO will also be in the position to issue penalties if any gross non-compliance with the EMPr occurs.</p>	

Alternative A1 (preferred alternative)	Alternative A2
<p>An onsite Environmental Liaison Officer (ELO) must be appointed to oversee and ensure that the EMPr is correctly and stringently implemented and maintained for the duration of the construction phase of the activity. The ELO will be responsible for the day to day environmental monitoring of the construction of the lifeguard facility.</p> <p>An independent Environmental Control Officer (ECO) will be employed to conduct monthly audits of the activity for the duration of</p>	

the construction phase. The ECO will audit the compliance of the EMPr and specify any corrective measures that may be required. The ECO will also be in the position to issue penalties if any gross non-compliance with the EMPr occurs.

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative S1 (preferred site)

The impacts related to the expansion of the existing Umhlanga Lifeguard Facility will generally occur during the construction phase of the activity. All these impacts can be mitigated as described in the document above. Furthermore, detailed mitigation and management principles for the construction phase will be included in the Environmental Management Programme (EMPr).

The proposed activity will have no significant negative impact on the receiving environment if the mitigation measures and management of the impacts are undertaken. The negative impacts are considered to be of low significance and short duration. The negative impacts are considered to be unlikely, or if they occur, will still have a low risk rating for the receiving environment. It is imperative that the findings and recommendations of the Basic Assessment Report are carried through to the project Environmental Management Programme (EMPr) and monitored by an Environmental Control Officer (ECO). The approved EMPr must be in place for the construction activities as well as the decommissioning of the contractor's camp. An independent ECO must be appointed to enforce EMPr compliance.

The social impact of the proposed project will be of high significance to the local and wider community during the operational phase. The impact shall be of a positive long term significance with a high impact.

The proposed project should not result in impacts on the natural or social environment that are highly detrimental, or result in undue risks. The nature and types of negative impacts do not outweigh the potential benefits of this project, provided the impacts of construction phase are adequately mitigated.

Type of Impacts

The significant negative impacts include the sites potential for storm surge events, a larger footprint, air (dust suspension) and noise pollution (limited to the construction phase), traffic (mainly pedestrian) disruption and waste generated from the construction phase. These impacts can be successfully mitigated.

Social impacts are likely to be associated with the traffic (mainly pedestrian) disruption and the blocking off of the construction area; this should be limited to the construction phase.

Likelihood

Negative impacts are likely to occur during the construction phase, while the project benefits will be definite during the operational phase.

Duration

The duration of most impacts will be short term, negative impacts will be limited to the construction phase and the longer term positive impacts will be for the life of the

structure.

Spatial Scale

Negative impacts as noted above will be localised in scale while the positive impacts will be for the greater Umhlanga region.

Intensity

Impacts on the local natural environment are likely to be moderate to low as much of the area has already been impacted by commercial activities and the fact that the project involves the reconstruction of an existing structure. Negative impacts will be offset by MODERATE to HIGH BENEFITS in terms of a the expanded structure and consequent service provision.

Overall Environmental Significance

The overall environmental impact in terms of the natural environment will be of a LOW NEGATIVE impact and will be limited to the construction period. Benefits associated with the expansion are expected to be HIGHLY POSITIVE.

In the light of the impending need for the expansion of the existing facility, the impacts identified herein, the definite successful mitigation of these impacts, and the definite positive impacts that will be forthcoming from the activity, it is our opinion that there are no fatal flaws associated with the project that should prevent it from receiving environmental approval.

Alternative S2

Alternative A1 (preferred alternative)

The impacts related to the expansion of the existing Umhlanga Lifeguard Facility will generally occur during the construction phase of the activity. All these impacts can be mitigated as described in the document above. Furthermore, detailed mitigation and management principles for the construction phase will be included in the Environmental Management Programme (EMPr).

The proposed activity will have no significant negative impact on the receiving environment if the mitigation measures and management of the impacts are undertaken. The negative impacts are considered to be of low significance and short duration. The negative impacts are considered to be unlikely, or if they occur, will still have a low risk rating for the receiving environment. It is imperative that the findings and recommendations of the Basic Assessment Report are carried through to the project Environmental Management Programme (EMPr) and monitored by an Environmental Control Officer (ECO). The approved EMPr must be in place for the construction activities as well as the decommissioning of the contractor's camp. An independent ECO must be appointed to enforce EMPr compliance.

The social impact of the proposed project will be of high significance to the local and wider community during the operational phase. The impact shall be of a positive long term significance with a high impact.

The proposed project should not result in impacts on the natural or social environment that are highly detrimental, or result in undue risks. The nature and types of negative impacts do not outweigh the potential benefits of this project, provided the impacts of construction phase are adequately mitigated.

Type of Impacts

The significant negative impacts include the sites potential for storm surge events, a larger footprint, air (dust suspension) and noise pollution (limited to the construction phase), traffic (mainly pedestrian) disruption and waste generated from the construction phase. These impacts can be successfully mitigated.

Social impacts are likely to be associated with the traffic (mainly pedestrian) disruption and the blocking off of the construction area; this should be limited to the construction phase.

Likelihood

Negative impacts are likely to occur during the construction phase, while the project benefits will be definite during the operational phase.

Duration

The duration of most impacts will be short term, negative impacts will be limited to the construction phase and the longer term positive impacts will be for the life of the structure.

Spatial Scale

Negative impacts as noted above will be localised in scale while the positive impacts will be for the greater Umhlanga region.

Intensity

Impacts on the local natural environment are likely to be moderate to low as much of the area has already been impacted by commercial activities and the fact that the project involves the reconstruction of an existing structure. Negative impacts will be offset by MODERATE to HIGH BENEFITS in terms of a the expanded structure and consequent service provision.

Overall Environmental Significance

The overall environmental impact in terms of the natural environment will be of a LOW NEGATIVE impact and will be limited to the construction period. Benefits associated with the expansion are expected to be HIGHLY POSITIVE.

In the light of the impending need for the expansion of the existing facility, the impacts identified herein, the definite successful mitigation of these impacts, and the definite positive impacts that will be forthcoming from the activity, it is our opinion that there are no fatal flaws associated with the project that should prevent it from receiving environmental approval.

Alternative A2

No-go alternative (compulsory)

The no-go alternative will have highly significant negative social and economic impacts, of a long term duration on the surrounding communities. Basic levels of essential services will not be met even as tourist numbers in the Umhlanga region increase. Maintenance costs may increase as the current infrastructure ages with no upgrades or improvements.

SECTION F. RECOMMENDATION OF EAP

Is the information contained in this report and the documentation attached hereto in the view of the EAPr sufficient to make a decision in respect of this report?

YES	
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If "NO", please contact the KZN Department of Agriculture & Environmental Affairs regarding the further requirements for your report.

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Basic Assessment Report

If “YES”, please attach the draft EMPr as Appendix F to this report and list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

The authorization should include the following provisions:

- An EMPr must be compiled for the Site Establishment and Construction phases, prior to the contractor moving on site.
- An Environmental Liaison Officer (ELO) must be appointed for day to day environmental management and an independent Environmental Control Officer (ECO) to complete compliance audits of the EMPr for the duration of the construction phase.
- All stipulations set out by stakeholders in the comments section, with regards to servitudes, must be upheld, particularly with regards to the following:
 - As per the eThekweni Water and Sanitation Division, the existing lifeguard building is located very close to an existing sewer. Caution and protection thereof should be exercised during construction of this facility.
 - Design and construction of the facility should take into account the Coastwatch comment, which notes that the intrusion of the built structure onto the beach cannot take place as the ‘beach environment’ in front of this structure is defacto intertidal zone. It should also be noted that the use of ‘waterloffel’ or retaining bricks is ill advised as these are not suitable structures for sea defences under high energy wave inundation as noted from recent erosion events.
 - As per the DWA, solid/construction/general waste is to be managed during the construction and post-construction phase and a suitable stormwater management system is to be implemented.
- Coastal development shall be planned and managed to minimise disruption of dynamic coastal processes and to avoid exposure to significant risk from natural hazards.
- Activities that lead to physical disturbance of natural drainage patterns, near-shore sediment transport patterns, water quality or indigenous coastal vegetation shall be avoided or at least strictly controlled.
- The potential consequences of climate change and associated sea-level rise shall be taken into account in the planning, construction and management of this development.
- Attention shall be given to the dynamic, high-energy character of the coast, its complex biophysical and chemical processes, and regional and local variability.
- Appropriate preventative and adaptive measures shall be implemented.¹⁸

¹⁸ Department of Environmental Affairs and Tourism, 1998: *Coastal Policy Green Paper “Towards Sustainable Coastal Development in South Africa”*.
http://www.polity.org.za/polity/govdocs/green_papers/src/costalqp03.html#Chapter_9 Accessed 04/09/2013

SECTION G: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Draft Environmental Management Programme (EMPr)

Appendix G: Other information