

Minutes of the Salamander Boat Park – Proposed Replacement of Breakwater Public meeting held at Langebaan NG Kerk on the 4th September 2013 at 18h00

Present:

Mr Andre Kruger	Langebaan Councillor
Mr Antonio Tonin	Saldanha Bay Oyster Company (SBOC)
Mr Barry Clarke	Anchor Environmental (Specialist)
Mr Gareth Richards	Langebaan Online
Mr Jaco Kotze	Langebaan Ratepayers Association (LBBIU)
Mr Ndafika Baleni	Transnet National Ports Authority (TNPA)
Mr Paul Zietsman	CSM (Engineer)
Mr Pierre Nel	West Coast National Park (WCNP)
Mr Shawn Berry	South African Heritage Resources Authority (SAHRA)
Ms Christine Fouche	Greenmined Environmental
Ms Daryn Price	Greenmined Environmental
Ms Pat Bopape	West Coast National Park (WCNP)
Ms Sophie Winton	South African Heritage Resources Authority (SAHRA)

Purpose of Meeting:

To obtain and discuss comments received from the public on the Draft Basic Assessment Report on the proposed breakwater project, as well as to examine the various options available to enable the Department of Environmental Affairs to have all the relevant information to base their decision on once the Final Basic Assessment Report has been submitted.

Agenda:

- Brief project overview
- Technical information
- Commenting period (comments received so far)
- Way forward (what happens next)

Christine Fouche pointed out where precisely the project was located. The Breakwater will be constructed in order for SANDF to utilise the area more effectively when launching boats. At the moment there is an existing breakwater consisting of two shipwrecks, the Emily Faithful and the Harvest Sirius. The Marine Archaeologist (Mr Jonathan Sharfman) concluded when his study was completed that the Harvest Sirius was sunk in 1991 and was not older than 60 years and therefore is

not protected under the South African Heritage Resources Act (SAHRA), but the Emily Faithful is older than 60 years, although it is uncertain of the exact date, and therefore protected under the Heritage Act. Consequently if you do anything to it you need to apply for a permit from SAHRA. The most important heritage aspect is basically due to the age of the ship wrecks. The Harvest Sirius has low heritage significance and the Emily Faithful has medium heritage significance. Through the years the boats are becoming dilapidated and are no longer effective as the water goes through and creates a current, hence the proposal for the riprap breakwater. This in turn triggers NEMA and an Environmental Impact Assessment (Basic Assessment) needs to be conducted with a Basic Assessment Report that is distributed for public comments.

Technical Information:

There are two structures at present (the two shipwrecks) and the proposal is for the construction of a breakwater and submarine simulator.

It is proposed that the new breakwater be made from riprap; it will be 50metres in length, Height 8 - 10m, Footprint width 15m, Crest width of 3m of which the visible area will be \pm 1.8m. The current proposal is to go around the two shipwrecks instead of removing the shipwrecks – 3 metres from the Harvest Sirius – Alternative 1 in Basic Assessment at the moment.

The simulator was requested by SANDF and consists of a precast concrete / stainless steel structure placed on the breakwater, Length 15m, Height 1.8m, Footprint 3m and Width 2.5m. The simulator will basically represent a submarine hull to be used by the defence force for practise purposes, to get in and out of and will be a standalone feature which will not be connected to electricity or anything else.

Christine Fouche clarified that the simulator would be placed on top of the breakwater. The trainees will use the simulator, and walk back to shore on the breakwater.

The riprap will be coming from a licensed quarry in the Saldanha area. No large stockpiles are anticipated and the rock will come in as necessary and used immediately. For the transportation of the rock, there are two options:

1. By barge
2. By truck

By Truck – the vehicles will have to go through the National Park and will have a high traffic impact. Use of a Barge will be across from Saldanha Harbour to site. The rock will need to be placed with either a track mounted crane (land) or platoon mounted crane (sea). Mitigation measures received from Barry Clarke report outline that it would be preferred to use a land based crane as it has less impact on the marine life in the area. The construction camp will be built in an already disturbed area of the boat park which will not be have to be extremely large as they will not be stockpiling riprap.

Mr Ndafika Baleni asked with regards to transport of the material, which one is the preferred option and Christine Fouche replied that it was not specified and gave both options outlining their issues:

1. Truck - Large construction vehicles will have a high traffic impact on the park and visitors to it.
2. Barge - Traffic into park will be reduced but this option will impact on the marine life.

Jaco Kotze said Barry Clarke had stated in his report that the terrestrial crane has less impact, and thus stated that there is impact both ways. One is an impact on SANParks and the other is an environmental impact on the marine life. Christine Fouche confirmed this.

Mr Paul Zietsman expanded on that as from a cost perspective the barge is the cheaper transport option and with the effect that road transport may have on SANParks, the barge is the way to go but it will take longer compared to the land construction time. There were cost benefits by using a barge as well as negative effects as using a barge will have an effect on the local marine life. As Jaco Kotze said there are pros and cons for each one:

1. Road –
 - a. Guaranteed time frame;
 - b. No stockpile area;
 - c. Shorter construction time;
 - d. Direct impact on National Parks road.
2. Barge –
 - a. May be less expensive;
 - b. Shorter distance;
 - c. Less availability of a barge;
 - d. Direct effect on marine life.

Jaco Kotze asked if the wrecks were filled with concrete and rock and Barry Clarke said that the wrecks are empty. Paul Zietsman confirmed this and stated that 10 – 15% of the Emily Faithful have been overlaid with rock from previous work undertaken.

Jaco Kotze posed the question that if the wrecks were already partially filled with rocks and most of the material is already there, why is there a need to go with the alternative route. Why not use some of that material that is already there as the micro flora has already been established therefore there will be less impact by using less transport.

Paul Zietsman replied that if the direction of the breakwater is extended and the rocks are there they would be reused, but they were not going to salvage rocks from one area to place in another area as it would disturb the fauna.

Christine Fouche mentioned that if the Department of Environmental Affairs decides that the barge can be used, there will still be contractors that will need to use the access route to the park so there will always be contractors who will have to go through the park. That is alternative one at the moment.

The following alternative options were discussed at the meeting:

- Alternative 1 (preferred option) – build the breakwater in front of the shipwrecks.
- Alternative 2 – build over ships.

- Alternative 3 – remove wrecks and build on old footprint.

The second alternative is connected to the heritage comments and Christine Fouche requested SAHRA give feedback about the Marine Archaeological study received by them and which option they would support. SAHRA agreed with Jonathan Sharfman's report that the shipwrecks rather be left as they are and that the breakwater be built around them. That was also the alternative used in the Basic Assessment and Barry Clarke (Marine Ecology) also specifically looked at that area to determine what impact this would have on the surrounding area. There were two options for the shipwrecks:

1. Protect them (basically protection of the Emily Faithful by the Harvest Sirius) and place the breakwater around that will provide protection for the Emily Faithful – for this option there is no need for any further archaeological studies or permits to be obtained.
2. Removal of the ships - further permits are required and further studies need to be done.

SAHRA agreed with this and re-iterated that Jonathan Sharfman gave them three options in his report:

1. Build the dogleg (arched breakwater) around both ship wrecks.
2. Build over the Harvest Sirius.
3. Remove both and this requires a permit for the Emily Faithful.

Any one of the three will be acceptable to SAHRA. Jonathan Sharfman took into account time and finances in his report and SAHRA prefer alternative one as the wrecks will remain but SAHRA are not against removal of the wrecks should the necessary permits be in place.

Andre Kruger asked what the preferred option for SANDF was and for what reason because if they want to make use of the boat park, the two wrecks remaining might be a problem for them. Christine Fouche confirmed that SANDF was not concerned about leaving the shipwrecks where they are. Alternative one as described in the DBAR is their preferred option at the moment as well.

Mr Andre Kruger pointed out in one of the slides under the Heritage Aspects, it reads Removal – Further archaeological intervention, and thought that would couple with Mr Kotzes' previous question about removing rocks and using them because the rocks have been there for years – all sorts of animals growing on them that has become part of the marine environment so removing the rocks will have archaeological and environmental impact.

Clarification was made that the existing rocks everyone was referring to was the rocks on the one side of the Emily Faithful. Andre Kruger commented that the advantage to Alternative 1 is that it will protect the two wrecks. Shawn Berry said that these wrecks acts as an artificial reef for the sea life and by removing the wrecks the marine life will also be removed. The breakwater will be an added protection for the sea life.

Jaco Kotze asked SAHRA if the only reason they prefer the option of keeping the shipwrecks and building the dogleg is the 60 year value of the Emily Faithful. Shawn Berry replied that the Emily Faithful qualifies for the 60 year conservation protection clause and this is the basic reason why they prefer Alternative one.

Jaco Kotze went on to say that there was previously a lot of whalene found in that area and the possible effects in Big Bay is known after that has been disturbed. From an environmental point of view this is a good opportunity to clean up the area which might still be contaminated with whalene. It must be remembered that although those two wrecks are marine barriers, they are going to disappear in the near future. The Emily Faithful's lifespan is in single digits and the Harvest Sirius is of no significance. So that will deteriorate anyway and he is really concerned that placing the breakwater where proposed will deflect currents and experience has shown that if you tamper with it in one place the result usually emerges somewhere else. We do not know what influence building the dogleg will have on the currents and have pointed this out in the comments of the Langebaan Ratepayers Association. They have made a very principled decision that no interference in Big Bay should take place until it is properly understood how the entire hydro dynamics of this bay operate. By building the breakwater this might be a saving aspect now but could prove very costly at a later stage and until a hydrological study of the entire bay is undertaken, piecemeals cannot be allowed. There is already scouring around the rocks because of the currents coming in now and if the dogleg is built what other scouring will we have?

Paul Zietsman said the rock used to building the breakwater will be granite and not sedimentary rock. The analysis made of the bedrock shows it is very strong with not a very deep layer of benthos.

Jaco Kotze was still concerned about the top layer which is heavy sediment but Paul Zietsman said that a 150 - 200mm sediment layer is present, some of which has been scoured away and there is no massive overlay.

Another concern of Jaco Kotze is that the disturbed footprint of the area will be doubled. With the wrecks already there, having been artificially dumped many years ago, and now building the dogleg around them the footprint will effectively double again. Another negative result by having the dogleg is the area between the wrecks and dogleg may become sterile at some stage because of sediment deposits which is then not only doubling the footprint but tripling it.

Barry Clarke added his point of view from on the marine ecological side. Saldanha bay is a unique system – nowhere in Africa relates to this ecosystem and any loss to even a portion thereof is not acceptable. That being said, we are talking about a fairly small development area in relation to the size of the bay and we need to weigh that up. The wrecks are artificial so loss of biodiversity associated with the wrecks to him is of no consequence – artificial substrate does not form that unique ecosystem in the bay that he is concerned about as the area is already disturbed to some extent, some of which is due to the placing of the boats and some of due to the fair amount of boat traffic, hence it is partially disturbed and not as important as some other parts of the lagoon. Also took into consideration one other important issue, which is that the sediments in the boat park area are contaminated by past activity (whalene/whaling station activities/trace metals) in that area and the last time there was development we saw huge problems with those sediments going out into the bay wide area around that site, so whatever we do in that area we need to ensure we do not disturb it again. He is confident that what has been proposed is unlikely to constitute insignificant disturbance of the sediment, placing the rock on top as the breakwater structure he is not particularly concerned about as there will be a little disturbance but nothing near to that when the area was dredged in the past.

From a marine ecological perspective, Barry Clarke would prefer the breakwater to be build on top of the wrecks or even the removal of the wrecks as the less distance the breakwater projects out into the bay the less loss of marine ecological habitat and reduced risks of invoking erosion/sediment deposition because of altering wave and current patterns is created. Development is very small so even if it does go ahead with the preferred orientation he does not expect to see much of an impact.

With regards to transportation of material, Barry Clarke would prefer transport by road as it decreases vessel movement in and around the mouth of the lagoon (increased vessel movement increases the risk of accidents/oil spills/ contamination etc). Obviously SANparks needs to consider both sides of the argument and must decide if the terrestrial ecological risk represents more of a concern or a risk than what has been outlined from a marine perspective. And the same with the Land based crane, Barry Clarke would prefer it to be operating from the land side as opposed to the sea side only as it reduces the impact on the marine life.

From a marine ecological perspective the Harvest Sirius is of no heritage value so building over that or removing that ship is not an issue, it is only the Emily Faithful that is a concern.

Antonio Tonin said he is increasingly concerned, that creeping into the jargon, is the thinking that if it is already disturbed it has less value. One cannot perceive in an ecosystem like this that if something is damaged it has lost its conservation value and you can damage it further. He also questioned why the special forces want to go ahead with this project because if the reason is for increasing the vessel access, one can assume that the type of activities being conducted there are going to increase i.e. blasting and he finds it incredibly disturbing that this type of activity goes on night after night when they blast away with heavy artillery and depth charges.

Jaco Kotze was concerned that what he had previously said about the area already being disturbed was misconstrued, in that as a national bay, the area of the wrecks has re-established itself by adapting to the wreck but it has already been compromised once, and by building the dogleg, it will disturb yet another percentage and although within the bay it may seem to be a small and insignificant area, it could have a huge impact on the bay as a whole.

Jaco Kotze feels there is now the opportunity to try cleaning up what has been damaged in the past by dredging on the southern side of wrecks to remove any remaining whalene. As that is a demolition track used by SANDF for their underwater demolitions, this will definitely disturb the lower layer of sediment and what the effects of that will be, no one can say. Although not in favour of dredging anywhere, sucking up the heavy metals and whalene and depositing it back in the back rising parts where they did it during the construction of the boat park it would result in a clean and revived area.

Paul Zietsman explained that the breakwater will not have a smooth surface as was the case with the ship wrecks, which causes the scouring problem especially under strong north westerly winds in spring/ebb tide. It has already been said that the significance of the two wrecks is basically just their age and is insignificant and deteriorating by the day. In Jaco Kotze's opinion in 15 to 20 years' time nothing will be left of the ship wrecks except a monster which we have created and therefore Mr Kotze is against Alternative one.

Andre Kruger enquired what the timeline would be if alternative one was chosen, when will there be an outcome/decision and when would construction start and how long it would take.

Christine Fouche stated that after the release of the final basic assessment report there will be another 21 commenting days after which the Department of Environmental Affairs has 30 days for review of the application. Construction of the breakwater would be unlikely to begin this year, more likely early next year around February; Paul Zietsman confirmed this and stated that construction would take approximately three months.

Andre Kruger wanted to know if we had to go the other way by building over the ships, how long would it take to acquire the permit and what would be the delay.

Shawn Berry replied that it would all depend which shipwreck you want to build over. A permit for building over or removing the Harvest Sirius would take approximately two weeks, but the process for the Emily Faithful will take a lot longer as the shipwreck would have to be assessed by a marine specialist and that will take time as there are only six specialists nationwide and they may not be available.

Andre Kruger reiterated that to obtain the permit is about a month's delay, what with the paperwork and decision making and so forth therefore it won't delay the project to any great extent.

Shawn Berry confirmed the only delay would be the archaeologist.

Jaco Kotze declared that they would not support any alternative until a proper hydrological study has been undertaken and that could take years. That is not negotiable. It has to be done but it will take time. Have to weigh up environmental savvy versus archaeological concern.

Shawn Berry disagreed with this and said the one should not be weighed up against the other and further stated that there is only one law that needs to be enacted and complied with. He can only abide by the law and communicate the path that needs to be followed. All three options are supported. The easiest option would be to go around the shipwrecks (Alternative One) and building the dogleg, the second one would be to go over the Harvest Sirius and the third one would be to go over the Emily Faithful and the Harvest Sirius. If the wrecks were to be removed a process would have to be followed and SAHRA is not against this but they would like at least to have one of the wrecks remain there as it does play an important role as far as the whaling station is concerned.

Jaco Kotze proposed another option by either removing the Emily Faithful or the Harvest Sirius which Shawn Berry confirmed could also be done but again, there is a process which needs to be followed. Alternative One will be fine as both wrecks will be protected. A second option is to remove the Harvest Sirius, and a permit from SAHRA is the only requirement and it could be sold for scrap. For the third option a permit from SAHRA is required as well as a Marine Archaeological Study.

Christine Fouche confirmed with Paul Zietsman that it would be possible to build over the wrecks without having to remove them first; Paul Zietsman stated that it would just take time to precision place the rocks but Jaco Kotze was concerned that the structure would rust away and erode the integrity of the development.

Barry Clarke then clarified with regards to sediment that to build over the wrecks would be the preferred option as there is reduced disturbance to the contaminated sediment which is probably still lying around the wrecks.

Andre Kruger pointed out that the cleaning of the whalene and the building of the breakwater is two different issues although the one may impact on the other. Barry Clarke agreed with this and stated that the Department of Public Works would probably resist having to clean up what they would perceive as someone else's mess. They would probably be comfortable to remove the wrecks in order to secure the breakwater in a proper fashion and possible save costs in construction but for them to go there and physically measure out the whalene is another story.

Paul Zietsman asked between the whalene and the heavy metals which constitutes the biggest threat.

Barry Clarke communicated that whalene is a short term risk. It is full of hydrogen sulphide and releasing that into the bay will deplete oxygen in the waters around the area and have a short term impact; trace metals, once you release them will circulate around the bay and be a longer term risk. Difficult to weigh one up against the other if you are disturbing that sediment releasing the hydrogen sulphide you will probably see fish floating whereas with the trace metals it would be unlikely that you will see immediate visual impact as lots of things will die more slowly and the environment will be compromised in a more subtle way over a bigger area.

Paul Zietsman confirmed that the sediment study has not yet been done and they were waiting to see which alternative would be chosen and then would be able to determine what further action would need to be taken. There were two options available should the study be deemed necessary:

- a) Desktop Study
- b) Computer Model – will take approximately three months or longer.

If the study is undertaken it will be restricted to the specific area influenced by the breakwater and the results will be worked into the Final Basic Assessment Report and distributed to everyone again.

Jaco Kotze again expressed concern about piecemeal projects and how at a later stage, it always had a detrimental effect but Christine Fouche mentioned that to do a complete Hydrological study on the whole bay area for this one small project was impractical.

Andre Kruger asked how long the study would remain relevant and Paul Kruger replied that all things being consistent and depending on nature, it should be valid for the next 20 to 50 years.

Barry Clarke confirmed in any model simulation study you have to consider a 1:10 or a 1:20 or 1:50 or 1:100 year event. On an open coast situation those events are highly relevant but if we are just talking about the localised Salamander Bay Area those events aren't so relevant because it is a fairly well protected piece of coastline so the 1:100 year wave event is not any different from the 1:10 year wave event but if you are talking about Paradise Beach a 1:100 year and 1:50 year event is very relevant.

Andre Kruger clarified that in this particular case in terms of the Environmental Impact Assessment no massive risk is being taken to evaluate that area and the conditions that we find them there using the information gleaned from the CSIR and computer model.

Barry Clarke agreed that in this area even though it is not a fully ocean exposed piece of coastline one does not have to throw that spacial domain that wide to be confident that the impacts are constrained to the area. The main water movement is the current coming in and out of the lagoon. There is some swell coming from the northwest as Jaco Kotze pointed out that we need to take into account, but the water is in effect quite small in the order of tens of kilometres. If building on top of the wrecks or where the wrecks are, you are building something that is more or less coastal and the currents are moving parallel to that, so you are not going to see the effects a long distance away from that structure but if you dogleg it out then you are going to deflect the currents more and there will be more concern and rips.

Jaco Kotze mentioned that the study would not be need if the breakwater were to be laid over the two wrecks instead of building the dogleg as the factors are already known.

The only other comments which had not yet been discussed were those received from SANParks regarding transport through the park. Christine Fouche has received the new agreement and that will be worked in and discussed with the Department of Public Works. Christine Fouche confirmed with Pierre Nel that there would be approximately 92 trucks a month entering the park and he mentioned that they had recently received guidelines for repair work that may be a necessity which he will look at and give further additional comment thereon.

It was discussed that building straight out from where the rocks are situated in the harbour over the footprint of both shipwrecks would be more in line with what is there at the moment as the angle would not differ too much and Christine Fouche confirmed that the SANDF require the breakwater only as protection for the current and as such as long as this is achieved, it does not matter which way the breakwater is placed. Barry Clarke also mentioned that there is a dead zone now where the wrecks are lying so building a breakwater on top of that would have an insignificant impact.

Andre Kruger affirmed that this discussion had been beneficial as it allowed individuals to interact and reach a far more informed decision. He came to the conclusion that moving the wrecks and keeping the footprint as small as possible on the inside where the wrecks were, seems to be the best option, although it has certain implications of permits etc. but it didn't seem that that would take too much extra time and one would be able to do the study concerning the sediments and see which will have the least impact on the entire system.

Christine Fouche agreed that that would be a good summary of what the report will show and what will be presented to the Department of Public Works and included in the Final Basic Assessment Report which will still need to go out for comments.

Jaco Kotze complimented Christine Fouche on the presentation and thanked her for the openness of the process. He also requested a few additional days be added onto the time allowed for the commentary period on the Final Basic Assessment Report due to various constraints.

Christine Fouche reviewed the way forward into the following steps:

1. Giving the Department of Public Works feedback of the meeting.
2. Incorporating all information into the Final Basic Assessment Report.
3. 21 Day commenting period on the FBAR.
4. Submission of the FBAR to the Department of Environmental Affairs.

We want to include as much information as possible into the FBAR as that in turn will go into the Environmental Management Plan and into the conditions of the Environmental Authorisation so it is easier to place all the information in from the start and then everybody knows what has to happen.

Christine Fouche further summarised that the proposal to the Department of Public Works will be to look at either removing the shipwrecks (doing the permit application to do so) and build the breakwater on the footprint area. The other option would be to build on top of the shipwrecks instead of removing them.

Jaco Kotze also questioned the full length of the breakwater in respect of the 50m as on the presentation and asked why it should be extended beyond the current point. He also pointed out that the footprint be limited by shortening the length of the breakwater.

The meeting ended at 19h40.