



LLANDUDNO
COASTAL
FORUM

FFORWM
ARFORDIROL
LLANDUDNO

MINUTES
Thursday 19th July, 2018

1. THOSE PRESENT

Cllr Frank Bradfield - Conwy County Borough Council
Mrs Eileen Burrows - Llandudno Chamber of Trade
Mr Owen Conry - CCBC (ERF)
Mr Geraint Edwards – CCBC (ERF)
Mr Edward Hiller - Mostyn Estates Ltd
Mr Berin Jones - Llandudno Hospitality Association
Cllr Donald Milne – Conwy County Borough Council
Cllr Greg JT Robbins - Llandudno Town Council (**LCF Vice Chair**)
Mr Nigel Treacy – Destination Conwy (**LCF Chairman**)
Ms Debbie Wareham - Ships' Timbers (**LCF Secretary**)

AECOM Representatives

Mr Alan Forster - AECOM
Mr Ryan Rooprai - AECOM

APOLOGIES

Cllr Francis Davies - Llandudno Town Council
Cllr Louise Emery – Conwy County Borough Council
Mr Jon Merrick – Conwy County Borough Council - CDS
Mr Dyfed Rowlands – CCBC (ERF)
Mr Adam Williams – Llandudno Pier

NO APOLOGIES RECEIVED

Ms Alison Shields – Restore Our Beach
Mr Mike Shields - Restore Our Beach

2. DECLARATIONS OF INTEREST

None

3. MINUTES

3.1 To receive and accept the Minutes of the Llandudno Coastal Forum meeting held on **Tuesday 24th April, 2018**. Proposed by Cllr Greg Robbins; Seconded by Mr Edward Hiller.

Cllr Greg Robbins (LCF Vice- Chair / Llandudno Town Council) asked for it to be recorded in the minutes, the Forum's thanks to Ms Debbie Wareham (LCF Secretary / Ships' Timbers) for producing such accurate minutes as they allow anyone to know what is discussed during meetings without needing to be there.

Mr Nigel Treacy (LCF Chair / Destination Conwy) added that Ms Debbie Wareham did a lot to contribute to the Forum outside meetings through correspondence with the Forum's Chair and Vice Chair, checking things out, updating Forum website etc.

Ms Debbie Wareham (LCF Secretary / Ships' Timbers) thanked Members for their acknowledgement of the work she did for the Forum.

3.2 Matters Arising from the Minutes of, **Tuesday 24th April, 2018**.

Mr Owen Conry (CCBC – ERF) pointed out that Agenda Item 5, p.4 of the Minutes from 24.04.2018 made reference to 15% match funding requirement for Coastal Development work, and updated the Forum that the match funding requirement currently stands at 25%. Forum Members requested clarification of this amount. Mr Owen Conry confirmed that he would clarify that figure. Any post meeting amendment would be stated in the Minutes of 24.04.2018 before they were published.

4. URGENT ITEM

None received at the time of publication.

5. LLANDUDNO BMP / OUTLINE BUSINESS CASE (OBC)

5.1 Update from CCBC on the development of the Outline Business Case, the next stage of the Llandudno Beach Management Plan (2017) work.

(Mr Geraint Edwards, Mr Dyfed Rowlands, Mr Owen Conry - CCBC ERF and AECOM Representatives).

Mr Owen Conry (CCBC – ERF) introduced AECOM Representatives, Mr Alan Forster and Mr Ryan Rooprai to Forum Members. Both Mr Alan Forster, and Mr Ryan Rooprai were working on the Llandudno Beach Management Plan from the initial stages to produce the Beach Management Plan Document (2017), with Mr Forster attending the Beach Management Plan Public Consultation (November 2017). They are now working on the current scheme (Outline Business Case, and Llandudno Vision / Tourism Strategy) on a day to day basis.

Mr Alan Forster (AECOM) gave a presentation to Forum Members to provide an update on the work they are currently doing on the Outline Business Case, and the Llandudno Vision / Tourism Strategy.

Flood risk maps for Llandudno were shown to Forum Members as part of the Presentation.

Presentation Summary:

Subject: Outline Business Case (OBC) and Llandudno Vision / Tourism Strategy

Areas Covered:

1. OBC Recap – why we are doing this?;
2. OBC Current Progress;
3. Llandudno Vision / Tourism Strategy
4. Where we are going over the next six-nine months, and the program for that.

1. OBC Recap – why we are doing this?

In the future there is a significant risk of flooding (to Llandudno) from the tide, and waves overtopping. Primarily, the risk is from the west shore with a small amount of risk on the north shore. But primarily the risk we are concerned about is the low level of the sea defences on the west shore. The water will come over those defences purely because the crest level is not high enough so in one hundred years time, sea levels will be approximately 1m higher than they are now, which is the forecast, and therefore on some of the normal tides some water will come over, and on extreme tides when there is a big surge event in the Irish Sea, more water will come over, and flood Llandudno. Llandudno is a bit of a *bowl* (in shape), with a low point in the middle of the Town, so any water that comes over the defences, does not drain back to sea, it will actually just drain to the middle of the Town which means a larger area will be flooded than the actual volume of water might normally allow. That is an important thing for us to remember when we come to look at the impact of that type of flooding.

With reference to the Public Consultation and the timeline presented in November 2017. Up to the end of 2017 we had the Beach Management Plan with list of options. We are now in 2018, and we are now preparing the Outline Business Case (OBC). The purpose of the Outline Business Case is to apply for funding to allow us to carry on doing more studies, and to get more developed on the idea of what the solution is. So the OBC is not the final step before actually selecting the scheme, but it is the step that is really going to start looking at some of the interim investigations that are needed, and to take a design, and hopefully select that scheme, to take forward to apply for funding for the Full Business Case (FBC). So the Full Business Case is then required when you actually need to get the scheme, and when we go into detail design of the scheme. So at some point in the OBC, we are going to need to make some decisions over what is the preferred solution.

It is worth noting there that the FBC and detailed design is shown there (on the estimated timeline) as two years, that assumes that this stage actually says that we need that construction imminently. If

construction is not required for another ten years to fifteen years, then it may not go to a FBC now, and we will have to delay that until an appropriate time in the future.

If construction is required imminently, then we will need to go to the FBC, and will go to construction at some point after 2020, but that might end up being 2022, or some other point in the future.

2. OBC Current Progress

The objective at this stage is to develop the OBC to obtain funding for the next stage. The OBC consists of a Strategic Case, Management Case and an Economic Case. The *Strategic case*, is what the Town actually requires, for flood defence, coastal protection, and it is allowed to take into account the Town's vision, what people are doing, development, how the Town will grow in the future. But broadly it is about what are the Town's immediate needs, what is at risk (from flooding). The *Management case*, considers how the process will be managed, who is responsible. We have to demonstrate that the organisation is in place to take this through to completion if required. The *Economic case* is the selection of the preferred option which fundamentally is a cost / benefit approach, however there are other considerations of environment, heritage, and Welsh Government's values such as the *Well Being of Future Generations Act*, which can go into this, and influence the decision.

Condition Survey:

We have carried out a condition survey of the assets (north shore and west shore sea defences, promenade) and will estimate their residual life, that is, the time we would expect them to provide that coastal protection for the function they are designed to do. We will also be looking at what maintenance might be required for those, that is a high level review and plan, and if we are required to do some works there, what is needed to improve them. Can we actually use what is there, or do we have to remove, and replace, if we want to improve the situation.

We are also carrying out an environmental assessment, looking at the plants and animals and how they are combined together as a habitat. For example the dunes on the west shore are an important habitat, and there is some vegetation colonisation on the north shore which is being looked at. Whether there is going to be anything of significance found there is another matter. They will evaluate their assessments of the ecology, and heritage, in context of tourism, and against the engineering solutions, at a later date.

There have been surveys carried out on the beach, this week, the sampling of sediment size on the beaches, which will feed into the development of designs for solutions.

Options for West Shore (Initial Assessment)

Because west shore has been highlighted as an area of concern, we have been developing some options for improving flood defence there. Examples from the condition assessment at west shore has shown at the paddling pool, and the revetment on the seaward side, there are two longitudinal cracks, and we are now further investigating this to determine if this is cosmetic, or structural. We need to know for design development that we can build on this structure. There are also some cracks on the steps that are exposed on the north shore. Although they are small voids, they can cause a problem if sea water gets into layers underneath the promenade. We are looking for all of these things that might be of note, to any designs, and options, we may be looking at.

On the west shore, there has been in-situ maintenance to the wave return wall, and revetment, over the last 10 – 20 years. Some parts of the whole unit have been repaired, and it is unknown whether they were precast, or cast in-situ, when they were built, but they do display cracks, and reinforcement bars are visible, in some places. Once reinforcement bars become exposed to sea water, they rust and corrode, which pushes out more of the concrete, which means a progressive failure. One of the units shows it could become a risk to failure under high water loading. So we need to understand all of this, which will then feed into our options.

So one of the options we will (must) consider is what if we just maintained what we have, how much is that going to cost? If we show that over that next 10 years, for example, the Council might need to spend £1,000,000 just to maintain what they have, we need to understand that cost, compared with replacing the structure.

The options for west shore, includes just raising the height of the sea wall. A simple engineering solution, but we need to make sure we can actually do that. Or we could build a new wall further back, and leave the existing wall in there. The narrowness at the boating lake area makes working there more difficult. Other issues include the windblown sand. One way of trapping windblown sand includes the use of vegetation, but impact from the full force of the sea if vegetation is placed at the front needs considering, as well as visibility if placed at the back. The prime concern is of flood protection.

Near the car park there is a low point on the beach there, so this is at risk if the beach was eroded here, and waves were to drain in towards the land, as there is a slope there. Hence, the wall there will probably need to be extended.

There are lots of options to be considered here, in combination with other things for example, how is access going to be maintained for people, mobility vehicles, and other vehicles? Then what will happen to the grassy areas, and how will that be used? And the coastal path, and how it might be integrated with the wall.

Our challenge is to determine the most efficient alignment, as we don't want an alignment that is going all over the place.

Questions from Forum Members:

Ms Debbie Wareham (Ships' Timbers / Forum Secretary) asked, if the wall was built at the back, at west shore, would the promenade at the front have to be reinforced if the waves overtop there?

Mr Alan Forster (AECOM) replied, that would be one of the considerations, absolutely. Those are all the types of engineering considerations. Waves overtopping up to 0.5 m/s per metre, starts to cause damage to any surfaces that the waves are going into, especially if you have fast flowing water going over that. Especially if the promenade is not designed for that, then it will start coming up. Where this was shown on the north shore, the small gaps on the North Shore promenade, waves will just start breaking that up. So you are absolutely right. One of the other concerns is the soft ground at west shore. There will need to be some reinforcement there. If the waves do come over the wall, and scour out the soft ground, we need to make sure the back wall is not compromised. One of the questions we have to understand is can we get down into this, is it sand, or solid rock, and at what depth?

Mr Edward Hiller (Mostyn Estates) asked, if the solutions essentially are adding meters of 'concrete', there are no alternatives, other than adding concrete?

Mr Alan Forster (AECOM) replied, the fundamental problem is that Llandudno is below the level of the water table so we are adding height by adding structure in some other shape or form. That is the option. To take the question to the next stage, are there no soft engineering solutions? There would be nothing that would be realistically able to be constructed, and have the confidence to work. Fundamentally, the primary source of sea defence is your *beach level*. If for example the beach levels were dropped (7-8m), and the waves coming in would hit the wall there, they would powerfully impact on the concrete. One of the best things for dissipating wave energy is a beach. That's why the groynes that have been built at west shore are doing their job. They are catching the sand which is protecting the revetment, and if it stays there, it is protecting the wave return wall. What we don't want is the beach levels lowering, and scouring away at the foot of the revetment, as then the whole revetment becomes compromised. The wall height is probably not going to change significantly. A lower wall height can be placed at the back as the waves will be dissipated, but at the moment, it is not a wall, it is a step up, or a walk onto the path. Building a wall at the back still leaves us with an ageing wall at the front, and how will that look in 20 years? There is no point building a wall at the back now, and leaving the front wall to fall into disrepair; that is not going to be acceptable. So the options are not just about building something, it is how that will be used in the future going forward, what protection will it afford in the future?

Cllr Frank Bradfield (CCBC Elected Representative) asked if sand dunes were not an option at all?

Mr Alan Forster (AECOM) replied to say the problem there would be the size you would need to build them. And where is the sand going to come from, to keep them replenished? The windblown sand at west shore is the same as the source sand for sand dunes. All the sea is trying to do is blow the sand inshore to produce sand dunes. The size of the dunes to provide the required coastal protection is

significant. I don't think we would be allowed to build sand dunes, and say, that is your coastal flood protection. If you had five, not necessarily big storms which came through in the winter, each of those would eat into the sand dunes and it may take another 20 years to build those sand dunes back up. I can't think of anywhere where sand dunes have been built as a single means of sea defence. Colwyn Bay has sand in front of a seawall with (rock) groynes, to hold the sand in place.

Mr Owen Conry (CCBC – ERF) commented that, we can't just do nothing, and leave it as it is. With sea level rise, and climate change predictions, we have to improve our sea defences. It was understood that a 70cm rise was previously indicated, but guidance is now suggesting a 1m sea level rise.

Mr Berin Jones (LLHA) commented that we have been told that sea level has already risen over the last 100 years, with variation around the Country. But if the guidance is now saying 1m, we need to find out what is accurate for Llandudno.

Mr Alan Forster (AECOM) commented to add some clarification about sea level rise. There are two causes of sea level rise. One is global sea level rise, which is all about the melting of the ice. The other one in this country is a rebound of that. In the last ice age, Scotland was covered by ice, the weight of which caused the land to sink. Now the ice has gone, the land is slowly rising. The fulcrum for that is somewhere in the middle of the country, so the South East is experiencing higher relative sea level rise than Scotland. However, the Government guidance does provide regional variations. The Welsh Government is implementing the UK Government Guidance. A new report on Climate Change is being produced, and will be published next year by the UK Government. Hence, the various agencies will have to work out how they will interpret that guidance. Hence, although we are using guidance at the moment, in two years time, when we come to doing the detailed design, they may need to be designed to meet a different number. Also in terms of having an adaptation plan, if we say we need to design / build something now, but in 50 years time we may need to add to that, this is called *Adaptation Planning*. So we are not going to build it here now, as it would make a bigger visual intrusion, and it will cost more money, but if we can make sure that what we build on the base, is able to take something on top, the foundations, and all the other aspects of design, then we can ensure that there is a way of adapting it. That has the advantage of allowing us to wait 25 years, and thinking that we thought we were going to have to build it, but in actual fact, we don't. But it could also be we thought we would have to build it in 50 years, but we actually need it in 30 years.

Mr Edward Hiller (Mostyn Estates) commented that, there is a difficulty with that, if you wanted to do any further development in Town, that needs planning, you need authority from NRW and all the various parties, and if you've only gone to a certain height, the fact that you might be able to build it to a certain height that's x-plus, is not going to necessarily wash.

Mr Alan Forster (AECOM) confirmed that whatever that height is for this one has to be providing that standard protection up to a certain number of years, so it has to be out there for the public, it is known what is happening. There are two aspects to this, one is the flood protection, and the other is the

planning guidance. Adaptive defences like this are being implemented. This is an established way of doing flood defences, cost effectively. It's what do we spend / construct now, and what can we delay?

Mr Edward Hiller (Mostyn Estates) commented that was something we could take away and we could have a chat with planning and guidance on that.

3. Llandudno Vision / Tourism Strategy

This is the development of the Tourism Strategy for Llandudno. The idea it is forward looking, and what is happening in visitor numbers over the next 25 years, what is forecast? Considering what has Llandudno got now, and what could it develop in the future? AECOM will be talking to key strategic stakeholders, so this is high level, it is a strategy, what is the environment like for tourism, key drivers, key principles we need to hold onto, potential opportunities?

We need to understand current visitor numbers, economic impact of tourism, is it as important as most people think? Trajectory, the forecast for visitor numbers, and comparative assessments with other tourist areas.

Future options, the key things that perhaps could be invested in? Where could investment go? The north shore clearly that's the primary location at the moment, the focus. But is the West Shore an opportunity? What about the Great Orme? Also to look at is all season attractions, so Llandudno is not just a summer resort.

The reasons these two pieces of work are tied together are because we don't want to come up with options for flood protection that would be a potential negative to tourism. But also we want to see if there are opportunities both for the development, and also the funding of a development by combining the two. It is important to remember that the OBC is about flood and coastal protection, that is its driver. The question is, whether we can hang anything else on that, as that will enable the scheme to gain more acceptability, to have more benefit, to have something beyond just that flood and coastal protection? Can Llandudno gain in other ways from this development? Are there any things that could be developed in a tourism way, that might limit or constrain the type of defences that we want to develop?

Questions from Forum Members:

Ms Debbie Wareham (Ships' Timbers / Forum Secretary) asked in context of the west shore and the cycle track, how far along the cycle track will the flood defences be considered as part of this project, raising concern for any possible disturbance to the dunes?

Mr Alan Forster (AECOM) replied, saying that the cycle track will have to tie in with the work, and is something they will have to discuss. The primary focus of the OBC is flood defence, but if we can tie in with other things we will. All environmental considerations will be taken into account, and this is why

these types of projects take so long, as such factors, and any impacts, have to be considered. It is likely that the dunes will be surveyed more than once, maybe two, or three times.

Cllr Greg Robbins (LLTC / LCF Vice-Chair) commented that the solution to the cycle track is vitally important due to the current maintenance costs associated with that.

Mr Owen Conry (CCBC – ERF) commented that the cycle path will be considered.

Ms Debbie Wareham (Ships' Timbers / LCF Secretary) asked for some further clarification for options for north shore?

Mr Alan Forster (AECOM) replied to say, that the reason that options for north shore have not been presented is because fundamentally there is limited flood risk there, so the options for north shore from an engineering point of view still need to be evaluated. The two simplest options there are, one is a wave return wall on a seaward wall, and the other is behind the paddling pool. That is as far as we have got at the moment, as we need to evaluate the longitudinal cracks, and see what that actually means, to see what is possible. In terms of children's corner, those options again are more from amenity, and trying to improve the amenity so depends on the Tourism Strategy. If the Tourism Strategy comes back, and says that is something we really need to look at, then those are options that we can start to look at. What we have shown is the progress we have made, it does not mean that all the other options we have looked at for north shore have been thrown out, it is just at the moment, the focus has been on the west shore, because that is where the flood / coastal risk is. We will have to address the issues of the other options on the north shore, so whether that is the one for the groynes, or raising the wall, on the front of the promenade, or the back of the promenade, those will all have to be looked at. But it is important to remember that this is about finding a cost effective solution for flood / coastal protection of the Town.

Mr Edward Hiller (Mostyn Estates) commented to say, one of his initial points was that of maintenance. If every 20 years you have to spend £1,000,000 putting a whole pile of stones on the beach with the political fallout from it. There are issues with it, which are far greater than just, is there a flood risk here?

Mr Alan Forster (AECOM) replied to say, with the stones coming up to the revetment, it is protected by the beach, it could last a long, long time, with those stones there. If those stones are drawn down, and material is lost, then all of this (the promenade) becomes at risk due to scour. The few cracks that we can see are indications that maintenance is going to be required. These structures were put in during the 90's, so they are getting towards being 20-30 years old, they probably have a design life originally of 50 years. The experience of concrete is that it normally keeps going, this is normal, we would expect to start seeing some damage. What we have to do is come up with that maintenance, and understand what are the different levels required in front of here, to protect it, and allow it to function as a coastal defence in the way that it is. So those are the questions that we need to ask.

Cllr Donald Milne (CCBC – Elected Representative (Cabinet Member – ERF)) asks for clarification that, the stones themselves are the sea defence, and there are only two other areas for concern (the paddling pool, and children's corner).

Mr Alan Forster (AECOM) commented that, this is one of your best coastal protection / flood defences that you have, without a doubt. This will be dissipating so much wave energy, and if it was sand it would just be ripped away in one or two storms. If you had the same volume of sand in there it would not last in the same way.

Cllr Greg Robbins (LLTC / Coastal Forum – Vice-Chair) commented that, we have to be clear here, that the whole reason of this Body existing, and the whole reason the consultation itself had to be done, was because retaining the stones as a sea defence is not an option.

Mr Nigel Treacy (DC / Forum Chair) commented that, we have found ourselves back where we started, the terms of reference of the Forum state that we seek to develop a sustainable beach management strategy for Llandudno that seeks to: provide beaches that are fit for purpose, provide appropriate coastal / flood risk management, improve natural environment and cultural heritage, recreational space, and create opportunities for commercial activities for the Town. We find ourselves now at a point that the flood risk proposals actually end up supporting the provision of the very thing we, and the larger number of people, wanted to get rid of.

Cllr Donald Milne (CCBC – Elected Representative (Cabinet Member – ERF)) commented that, we are here looking at the coastal protection, but also in this business case looking at the overall economy, tourism, and that is another funding area and will probably have to be funded from other sources in addition to. How can we then improve, and provide an amenity that is going to broaden the range of visitors.

Mr Edward Hiller (Mostyn Estates) commented that, what minds is providing an amenity, it's a great solution to flood protection, but it was interesting on Armed Forces Day, even fully grown men were falling over on the stones. As an amenity, it's not clever. It is how you find that solution.

Cllr Greg Robbins (LLTC / Forum Vice-Chair) commented that, the reality is the options we expect to see developed and costed through the OBC, for the alternative groynes etc. We know we are not going to get all the beach back to sand, but certainly some of the options there, and having it back up to the Imperial Hotel, in that area, and we want to see that incorporated as part of the overall strategy of the OBC, and that is what we were told would happen.

Mr Alan Forster (AECOM) commented to say, that is why it is good, that the two (OBC and Tourism Strategy) are being done together. As it stands, this is purely an OBC, and it is just to look at flood and coastal protection, and is not tied in to this consideration of the wider implications. I could stand here and say that I don't think I could even be considering any options that meant removing material on the

beach, but because we are trying to look at impact, because we are trying to look at the issue just outlined, we need to also consider those other solutions. Even though we know the cost of those other solutions is going to be significantly higher. The question then will come, once we have got those solutions out, similar to the matrix we had before, when we consider all the other factors of environmental impact, cost etc. which will be in slightly more detail. The likely solution is going to cost a lot of money. If the Town wants to come up with the money to do that, then that is for the Town to negotiate with Welsh Government to work out how that is going to be implemented.

Ms Debbie Wareham (Ships' Timbers / Forum - Secretary) commented that, in the Beach Management Plan (produced in 2017) it clearly states that the current means of sea defence are adequate to protect Llandudno from flooding if current sea levels remain the same. However, with predicted sea level rise, it states that the current means of sea defence are not adequate to protect Llandudno from flooding, so that contradicts what is being said, about north shore.

Mr Owen Conry (CCBC – ERF) replies to say that the current sea defences work as they are for present day, but for sea level rise, we have to do something, and there is a proposal to do something. There is an existing coastal revetment there, and the stones in front of them protect that revetment. If you take away the stones, you have to put something in front of them, a sandy beach for example, but you have to put something there to keep the sandy beach there. We have to be aware of the cost of doing that. As an example if you have one type of slate on your roof and you want to have say Welsh slates put on your roof, is the Welsh Government going to pay for you to change the slates on your roof?

Mr Edward Hiller (Mostyn Estates) commented that, actually we could turn that around and say, actually, we own a number of buildings which are listed or in a conservation area, and the Council and the Planning Conservation Officer tells us, we *have* to have Welsh Slate, which costs more. So it is actually about us demanding what is required of it.

Mr Berin Jones (LLHA) commented that, we all know it is going to cost more, in the real terms of actually investing money to do it. But what CCBC are saying is, 'investing money, which is the cheapest, that one, I'm going with that'. What we are saying is that it has to be bigger than just the basic height, we need to be looking at future Llandudno, and if we are investing this much money, which means Llandudno stays as prominent, which is the economy that CCBC depends upon, if Tourism is going to continue to grow, which will be sustaining CCBC and its employees, surely you would want that option, this is where we are going, this is our whole livelihoods, our whole Town depends on it. You can say, that is the cheapest option, but it is not the right option, and that is what the Forum has said, find the right option.

Mr Alan Forster (AECOM) commented that, sometimes the cheapest option does not give the best return. If there is a small differential in cost, then there will be scope for negotiation. If there is a large differential in cost, then you are going to be looking for different funding partners. Our job is to come up with that list of options, present the appraisal of those options. One of those things is an economic

assessment, and how will this process be managed, that is not to say that is the final answer. We have to follow a process, but there are things that are open to change, but they are fundamental to how it is funded, so we follow a process, we will provide the professional design of options, and appraise those options against standard criteria, and will come up with a list with a matrix, the preferred option will be selected from that list, and in consultation. But it might not be the option that everybody wants. And the question then is what is required to make one of those other options more beneficial, or more preferential?

Ms Debbie Wareham (Ships' Timbers / Forum Secretary) asked can you clarify for us then, that you are going to consider various options for north shore in context of alternative sea defences as we have been led to believe that would be the case, to this point in time?

Mr Alan Forster (AECOM) replied to say, we cannot complete the OBC with only one option. We have to present a do nothing option, and a do minimum, which is the minimum we can do with no enhancement to keep it (sea defences) going. But it is the cost baseline, if we work out that the do minimum will cost, say, £1,000,000 and it still does not provide what we need, but we can enhance everything for say £500,000, then doing the £500,000 is a good idea. But if it is going to cost us £50,000,000 then some questions are going to be asked what are we doing in between? So we have to go through more than one or two options. We have to show we have thought about the breadth of this. Some of those options will not be suitable. The options will be evaluated in a matrix.

Mr Nigel Treacy (DC / Forum Chair) commented that it is important the Forum continues to emphasise that there needs to be more options emerging from this OBC.

Forum Members were in agreement that awareness of the need for more options had been clearly demonstrated to CCBC / AECOM, at this evening's meeting.

Cllr Greg Robbins (LLTC / Forum – Vice Chair) commented, at the end of the day, this an holistic strategy going forward, that has got to be put into reality, and we cannot make the same mistakes that were made before.

Members asked for clarification of the next steps in the process, and when the next update will be?

4. Where we are going over the next six months, and the program for that.

- AECOM will prepare a Report for Conwy County Borough Council, and there will be a Public Consultation – within the next six to nine months.
- The Report to the Council will be presented in September / October 2018 (estimated) with a Public Consultation in November / December 2018. The next presentation to the Llandudno Coastal Forum will be between those times.
- A presentation of the report, and copy of the report, will be shared with the Llandudno Coastal Forum for feedback.

- 1. IT WAS AGREED THAT: The Process that was adopted for the Beach Management Plan 2017 will be followed for this stage of the work.**

Cllr Greg Robbins (LLTC / LCF Vice-Chair) suggested that the same process should be followed with the Tourism Report before a final draft is agreed as the presentation at this evening's meeting was specifically about Flood Defences.

- 2. IT WAS AGREED THAT: Members would receive a separate presentation, and copy, of the Tourism Report that was being prepared before it was agreed.**

6. PENRHYN BAY BEACH COASTAL DEVELOPMENT WORK

6.1 To provide Llandudno Coastal Forum Members with an update on the Penrhyn Bay Coastal Development work (Mr Geraint Edwards, Mr Dyfed Rowlands, Mr Owen Conry - CCBC ERF).

Mr Owen Conry (CCBC – ERF) explained that the Outline Business Case for Penrhyn Bay has been completed and a Public Consultation was held in March 2018. The Results of the OBC were inconclusive. The beach levels have dropped in the area and if left the sea could undermine the stepped revetment in that area. The option to address this was considered in two ways, a breakwater, or using larger cobble material. The Public Consultation was well attended by seventy people, and Llandudno Town Council was notified about this Consultation. A report has gone forward to Welsh Government to request funding for the detailed design stage. Consultation materials are on the CCBC Website.

7. CONWY CDS – VISIONARY WORK

7.1 Update on the progression of the CDS Tourism Trajectory / Visionary work. (Mr Jon Merrick – CCBC CDS).

It was noted that this was included in the Presentation given by AECOM, who are now developing the Tourism Visionary work. Mr Owen Conry (CCBC – ERF) commented that the Tourism work was important for CCBC as it will really help Conwy's case with Welsh Government. The OBC is a Coastal Risk Management scheme, a part of which is the development of an economic case. A Tourism Strategy will support the amenity / economic aspect of that report.

8. LLANDUDNO BEACHES – INTERIM WORKS UPDATE

8.1 Llandudno's North Shore (CCBC ERF)

Mr Owen Conry (CCBC – ERF) explained works were carried out and completed, adding that beaches need to be maintained, and maybe there needed to be a budget for that.

Ms Debbie Wareham (Ships' Timbers / LCF Secretary) asked who paid for the interim works. Mr Owen Conry (CCBC – ERF) and Cllr Greg Robbins (LLTC / LCF Vice – Chair) replied to say that Llandudno Town Council paid for the total cost of the North Shore works.

Mr Berin Jones (LLHA) commented that as regards beach management works and costs, this is something that the Llandudno Coastal Forum has raised every year, and there should be an annual budget for these works, and was pleased that acknowledgement of that fact was being raised by CCBC ERF at this time. Mr Jones added that he hoped that senior members of Cabinet and the senior officers of the Council are paying attention, and will do something about examining a proper budget that can be put to Llandudno Town Council.

Ms Wareham (Ships' Timbers / LCF Secretary) asked if a request for a budget for these works can now be taken forward.

Cllr Greg Robbins (LLTC / LCF Vice-Chair) suggested that Llandudno Coastal Forum writes to Cllr Louise Emery (CCBC Cabinet Member – Tourism) to say that Llandudno Coastal Forum would like to see a proposal for a program of maintenance works for the amenity use of north shore together with budget costings which can then be discussed with relevant bodies be they CCBC, Llandudno Town Council, or Llandudno Coastal Forum.

3. IT WAS AGREED: To write to Cllr Louise Emery (CCBC Cabinet Member – Tourism) to request that Llandudno Coastal Forum would like to see a proposal for a program of maintenance works for the amenity use of Llandudno's north shore together with budget costings which can then be discussed with relevant bodies be they CCBC, Llandudno Town Council or Llandudno Coastal Forum.

Ms Debbie Wareham (Ships' Timbers / LCF Secretary) confirmed that she was continuing with her research on the recent archaeology found on the north shore beach, and has now contacted other academics working in the same field in order to carry out more detailed work to identify and the possibly date these features. Ms Wareham was appreciative of the assistance given to this research by CCBC and by the Contractor while the interim works were being carried out on the north shore this year.

9. **LLANDUDNO WEST SHORE – LLANDUDNO COASTGUARD AND RNLI TEAMS (LLANDUNDO AND CONWY) RECENT RESCUES OF PEOPLE FROM THE INCOMING TIDE FURHTER TO CROSSING NORTH DEEP CHANNEL**

9.1 Over the last two weeks many people have been rescued by the Llandudno Coastguard and local RNLI teams (Llandudno and Conwy) further to them crossing the north deep channel at Llandudno's west shore, and then becoming cut off from the incoming tide. This is an extremely serious concern, and the need to address this problem has been raised with CCBC ERF. An email was sent (09.07.2018)

by Llandudno Coastal Forum to CCBC ERF and to Cllr Donald Milne (CCBC – ERF Portfolio holder) about this matter asking for additional support to address this problem as a matter of some urgency. Llandudno Coastal Forum has previously discussed the need for improved signage / communication to people about the sand banks at west shore, and included this in a matrix of items to include for improvements in this area. Llandudno Coastal Forum has not received a reply yet to our recent enquiry about this matter raised with CCBC ERF. Hence, we now raise this issue as a concern at this LCF meeting (19.07.2018). (CCBC – ERF and Cllr Donald Milne (CCBC – ERF Elected Representative).

Mr Geraint Edwards (CCBC –ERF) replied to this concern by saying that this is not a new problem and sandbanks are regularly used and have been for many years, during nice weather. During this recent spell of warm weather, there have been a lot of people on the beach at west shore. We know that the banks are cut off around one and half hours after low water, and we work in close co-operation with the HM Coastguard, and the RNLI to mitigate the risks that are posed by the sandbanks and we (CCBC, HM Coastguard, RNLI) take all reasonable practical measures to reduce the risks associated with the sandbanks. There are warning signs displayed along the length of the beach, however we will review the signs that are there and take on board any comments that are made. This summer we have an experienced member of staff on a quad bike monitoring the banks at low water with radio, binoculars etc. at his disposal, and his shift pattern is set according to those times. Most of the time by warning members of the public they manage to evacuate the area before the channel fills, however if the public are cut off from the shore, the public can take refuge on one of two life rafts that are provided and they can wait there, until they are rescued. The Coastguard also take pre-emptive measures to warn people in advance of channel flooding, so we are not alone in doing that.

Mr Geraint Edwards (CCBC – ERF) added that CCBC would welcome any suggestions.

Cllr Greg Robbins (LLTC / LCF Vice-Chair) commented that near the pumping station at west shore there is a good pictorial image of the Sandbanks which is not repeated further down the shores, suggesting maybe we could get some more of those.

Mr Geraint Edwards (CCBC – ERF) replied to say that following the receipt of Ms Wareham's letter about the matter CCBC has requested that the signage is reviewed. They were waiting for feedback from that review.

Ms Wareham (Ships' Timbers / LCF Secretary) asked if anything else was being considered adding that she wondered if the information that is collected about people who the HM Coastguard rescue from the Sandbanks could have been analysed in a way which might help to identify where to target placing advice. For example where are people are from, are they day visitors, how they arrived at the area, where they walked onto the beach.

Mr Berin Jones (LLHA) commented that information about the Sandbanks could be left in hotels, or in coaches, agreeing knowing where people were from etc would help. Adding that maybe a lifeguard would be beneficial too, to advise people before the tide comes in.

The benefits of having a lifeguard at west shore will be reviewed however, the decision to have a person on a quadbike currently enables a faster response to advise people.

Ms Wareham (Ships' Timbers / LCF Secretary) suggested contacting the HM Coastguard for statistics they may have to assist with the process of how to best target giving information to people about the dangers of the Sandbanks at west shore.

4. IT WAS AGREED: To contact Llandudno Coastguard to ask for statistics they may have of people who they rescue from the sandbanks at west shore

Further to wider discussion of this issue, Forum members were in agreement that no matter how much advice people are given about the dangers of the sandbanks, some people will deliberately ignore that advice.

10. TO DISCUSS OR NOTE ITEMS OF CORRESPONDENCE RECEIVED

None received.

11. MATTERS ARISING RELEVANT TO THE LLANDUDNO COASTAL FORUM

None

12. TO NOTE THE TIME AND DATE OF THE NEXT MEETING

Provisional Date September / October 2018. Await confirmation from CCBC - ERF.

PLEASE ADVISE ANY APOLOGIES IN ADVANCE