

# CARNIVAL GRAND BAHAMA INVESTMENTS LIMITED

## GRAND PORT PROJECT

FREEPORT, GRAND BAHAMA ISLAND

## PUBLIC CONSULTATION

## VIRTUAL TOWN HALL MEETING

AUGUST 4, 2021



Prepared by



**Envirollogic International Ltd**

and



A Geosyntec Company

SEPTEMBER 2021

Revision 1

# **CARNIVAL GRAND BAHAMA INVESTMENTS LIMITED**

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### **PUBLIC CONSULTATION**

### **VIRTUAL TOWN HALL MEETING**

**AUGUST 4, 2021**

**Submitted to**

**THE DEPARTMENT OF ENVIRONMENTAL PLANNING AND PROTECTION**

**Prepared by**



**Envirologic International Ltd**

**and**



**September 2021  
Revision 1**

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## 1.0 INTRODUCTION

This document covers the public consultation process for the Carnival Grand Bahama Investment Limited (CGBIL) project for a proposed cruise port and recreational facility in Freeport, Grand Bahama Island. The details of the project were submitted in the Environmental Impact Assessment (EIA). Environmental management of the project for both construction and operation were detailed in the Environmental Management Plan (EMP). It is universally acknowledged that the EMP is a “living document” and subject to revision based on conditions and need.

According to the Environmental Impact Assessment Regulations, 2020 there is a prescribed public consultation process outlined in paragraph 7, see below:

“7. Obligation to consult.

Upon successful completion of the application for preliminary review, the project proponent shall conduct a consultative process as specified in regulation 11, the details of the outcome of which shall be provided in any form as may be prescribed by the Director.”

The Consultative process is outlined in paragraph 9.

“9. Conduct of consultative process.

(1) The mode and procedure of a consultative process shall be determined by the Department.

(2) During the consultative process, the project proponent shall-

(a) provide detailed information-

(i) concerning the proposed project and the potential environmental, social, economic and cultural affects, including adverse effects as defined in the Act;

(ii) on any possible impacts to adjacent properties and communities to the proposed project and

(iii) on any significant impacts by the proposed project to adjacent properties and communities.

(b) provide an opportunity for any public concerns to be addressed

(c) make a written record of all concerns raised for inclusion in the EIA or EMP consultation process.”

Copies of the EIA and EMP were made available to the public by placing electronic copies on the [carnivalgrandport.com](http://carnivalgrandport.com) webpage. Hard copies of the EIA and EMP were made available at 1) Department of Environmental Planning and Protection office in Nassau 2) Grand Bahama Port Authority office in Freeport and 3) Callenders & Co office in Freeport.

To fulfill the above mentioned criteria, a virtual Town Hall Meeting was held using Zoom – Video Conferencing on August 4, 2021. The Director of the Department of Environmental Planning and Protection (DEPP) was the moderator. The meeting started at approximately 6:00 pm and ended at 8:00 pm. The panel for the developer consisted of David Candib (Vice President, Development & Operations, Global Port & Destination Development Group), Armando Corpas (Senior Director, Development & Operations, Global Port & Destination Development Group), Dr. Michael Jenkins, PhD, P.E. (Applied Technology and Management), and Lloyd Cheong (Envirologic International Ltd.) Opening remarks for Carnival Corporation were made by Giora Israel (Senior Vice President Carnival Corporation) and Maria McKenzie (Vice President-Global Ports at Carnival Corp).

This report is divided into 4 parts, which represents the capture of all questions or comments derived from the public consultation process. The public had up to September 2, 2021 at 5:00 pm to submit questions in writing. The 4 parts are listed below:

Part 1. Transcript from August 4, 2021 virtual town hall meeting and additional responses

Part 1A: Additional responses from August 4, 2021 virtual town hall meeting

Part 2: Written questions received during August 4, 2021 from the virtual town hall meeting and responses

Part 3. Written questions from public consultation process received by Carnival Corporation from website and responses.

Part 4. Written questions received by the Department of Environmental Planning and Protection from the public consultation process.

**PART 1. TRANSCRIPT FROM AUGUST 4, 2021 VIRTUAL TOWN MEETING**

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1 (Meeting commenced at 6:05 p.m.)

2 CARNIVAL REPRESENTATIVE: Hello everyone.

3 I hope you guys are having a good evening.

4 CARNIVAL REPRESENTATIVE: Let's go ahead  
5 and mute everybody.

6 MS. ROCHELLE NEWBOLD: Good afternoon,  
7 everybody. And thank you all for making yourselves  
8 available for this Public Consultation Meeting today,  
9 with regards to the Carnival Grand Port Project  
10 targeting Grand Bahama, that's proposed for  
11 Grand Bahama.

12 My name is Rochelle Newbold. I am the  
13 Director for the Department of Environmental Planning  
14 and Protection. And I will be facilitating this  
15 meeting this afternoon.

16 I have with me other officers from within  
17 the Department who are here with me. And on the other  
18 end will be representatives from Carnival Grand Port  
19 and their team.

20 That being said, I want to go through a few  
21 House Rules, and I will not be using my camera for the  
22 duration of this meeting, as you all know. We are  
23 going to have bandwidth issues, and I prefer that you  
24 are able to hear the information rather than look at  
25 me, such that we can be assured that everybody has the

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1 best possible experience on this platform as possible.

2 The meeting is starting at 6:05, and at  
3 this time we have about 43 persons already on the  
4 platform.

5 As I said, my name is  
6 Director Rochelle Newbold. I will be facilitating  
7 this meeting.

8 I want to put down a few House Rules with  
9 respect to how we will conduct this Town Meeting.

10 And I see from the names in the platform  
11 that some of you would have gone through some other  
12 Town Meetings before, so that's good.

13 The Town Meeting will run no longer than 90  
14 minutes from the time that we have started. The whole  
15 purpose and objective of the Town Meeting is to have  
16 individuals express any concerns, raise any questions,  
17 point out any gaps or deficiencies that they may have  
18 found in the Environmental Management Plan, or the  
19 Environmental Impact Assessment Document that is  
20 associated with this Project, and that's available on  
21 the website.

22 These documents will remain on the website  
23 for the duration of this Project, until such time as  
24 the Department may request for them to be removed.  
25 And the public has, during the course of this whole

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1 review process, the opportunity to go and to review  
2 those documents, and to provide comments and feedbacks  
3           The way the process works, by law we are to  
4 engage the public in a public consultation effort. At  
5 21 business days from that date the public has the  
6 opportunity to review the information that has been  
7 presented, or having been exposed to the information  
8 that is presented, in light of the documentation  
9 that's available, they have the opportunity to provide  
10 by way of e-mail, which in this COVID environment  
11 would be the most expedient way to do it, any  
12 questions, comments, or concerns. By law that any  
13 communication from the public with respect to the  
14 Project must be shared between the Developer and the  
15 Department. That being said, if anybody e-mails the  
16 Department on any questions or concerns in the  
17 documents, the Department will acknowledge receipt of  
18 said question and will share that exact e-mail with  
19 the Developer. Such that it will be captured in the  
20 Public Consultation Report that is to be presented not  
21 less than the 22nd day after this date. And that  
22 would be for this Project, the 21st day would be  
23 September 5th, if I am correct -- sorry, it is  
24 actually September 2nd. So the general public has  
25 until 5:00 p.m. on September 2nd to provide any

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1 additional comments to Carnival or the  
2 Department of Environmental Protection and Planning  
3 relative to information that is presented today,  
4 and/or that they may find during the review of the  
5 documentation that is available online.

6 That being said, for the purposes of this  
7 meeting, please note that we now have 47 individuals  
8 on the platform. Each of you have the right to pose a  
9 question. Please note that you have a maximum of two  
10 minutes to provide your question. So it doesn't  
11 really give opportunity for long speeches, because we  
12 really need to get to the heart of the matter.

13 We do encourage you to use that opportunity  
14 to identify, as I said, any gaps, deficiencies, or  
15 anything, concerns relative to the documentation.  
16 There will not be a tally of who is for or against the  
17 project. We will not be running a plus and minus  
18 tally with respect to individuals who may or may not  
19 want the Project. So it is really a very focused  
20 approach to it.

21 That being said, if there is anybody for  
22 any reason who does not conduct themselves  
23 appropriately during the course of this meeting, I  
24 will eject you from the room. I will give you fair  
25 warning that your behavior is not acceptable and ask

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1 you to please comply in a respectful manner with the  
2 proceedings. Should you not or should you fail to  
3 comply, you will be ejected from the meeting. One  
4 good thing is, during the course of all the meetings  
5 that we have had, we have never had to do that, and I  
6 am hoping we don't have to break that trend during  
7 today's meeting either.

8 So, without further ado, I am going to now  
9 introduce Mr. David Candib from the Carnival team who  
10 will then take us through the course of this evening  
11 with respect to the presentation.

12 MR. DAVID CANDIB: Hi.

13 Thank you Director Newbold.

14 Good evening, good afternoon, everyone.  
15 Thank you for joining us.

16 My name is David Candib. I work for  
17 Carnival Corporation. And in this role of the  
18 Grand Port Project, I am the Project Manager.

19 I would like to introduce some of the team  
20 members that are here. We obviously have an  
21 incredible team supporting us. Not everyone will be  
22 speaking or joining us tonight as part of that. So, I  
23 would like to quickly introduce some of those that you  
24 will be seeing, communicating with you in talking  
25 about the Project. So to my left, I would like to

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1 introduce Armando Corpas.

2 MR. ARMANDO CORPAS: Hi, everyone. How are  
3 you?

4 Thank you for participating today.

5 My name is Armando Corpas, Senior Director  
6 of Carnival Corporation. I'm responsible for  
7 permitting, design permitting, and development of this  
8 facility. And again I welcome everyone.

9 And I would like to transfer it over to  
10 Marie, please, Marie McKenzie.

11 MS. MARIE MCKENZIE: Sure.

12 Good evening, everyone.

13 My name is Marie McKenzie and I lead  
14 Caribbean Government and Community Engagement for the  
15 Carnival Corporation Group of Brand, eight of which  
16 cruise the Caribbean Region.

17 Thank you for joining us today.

18 MR. DAVID CANDIB: Then I would like to  
19 introduce Giora Israel, who leads our team. And then  
20 we would also start the presentation.

21 Giora, on to you.

22 MR. GIORA ISRAEL: Hi, good evening.

23 My name is Giora Israel. And I am with  
24 Carnival Corporation, and I am the person overall  
25 responsible with Carnival Corporation overall global

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1 port destination engagements that we have in many  
2 countries around the world.

3 Director Newbold, thank you very much for  
4 hosting this event. And I am looking forward to  
5 continue.

6 Okay, so let me start by again thanking  
7 everybody who has an interest in Grand Bahama, and in  
8 The Bahamas in general. As it relates to this  
9 Development, we are really excited to be here today.

10 I want to start by telling you, I am  
11 actually on a ship. The ship is moving, we are  
12 leaving port as we speak, and I hope to be able to  
13 maintain the bandwidth that I currently have, and I  
14 hope it will stick around for us, at least for my  
15 part. If I disconnect, then I am sure David, and  
16 Armando, and Marie, and everybody will take on this as  
17 well.

18 I am actually on the Carnival Mardi Gras,  
19 which is Carnival's newest ship. It's the first  
20 cruise ship in the western hemisphere that is fueled  
21 actually by LNG. And we are proudly carrying Bahamian  
22 flag. It's a magnificent ship, that will be arriving  
23 for the first time ever to a Bahamian port on Friday  
24 morning. So I am actually looking forward to arrive  
25 on that magnificent ship into Nassau early morning

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1 Friday.

2 I would like now just to give you a very  
3 brief introduction of the Project and then move on to  
4 my colleagues to continue this discussion.

5 So, David, if you want to move to the next  
6 slide.

7 The Grand Port, which by the way is our  
8 working name for this Port, has been in discussion, in  
9 consideration by Carnival for numerous years now. We  
10 felt that the current location of the Port, which is  
11 mainly an industrial port, is not necessarily  
12 conducive to very successful cruise-port operation.  
13 We wanted to have a port that is close to the  
14 populations, centers, over a large Island.

15 And we have looked at the southern shore of  
16 Freeport for many years, myself, going back at least  
17 20 years. We ultimately allocated one location then  
18 another, and finally we have zoomed into a location  
19 which is commonly know as Sharp Rock, or everything  
20 east of Sharp Rock to develop this Project.

21 We have selected the Project based on the  
22 fact that it is close to the population. Once or  
23 twice we have looked at very far away from population,  
24 Project on the east side of Grand Bahama, and finally  
25 it zoomed on to this one. The major consideration is

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1 that in that area there is no outer reef. This area  
2 of Sharp Rock also, in order to allow the berthing of  
3 large ships, it is very conducive from the maritime  
4 condition. Because some dredging will have to be done  
5 to bring the pier as close as possible to the land,  
6 but not too close, and we selected this Project.

7 The Project is designed to be a uniquely  
8 Bahamian project. It will likely to be the largest  
9 spectacular destination that will be not only in  
10 The Bahamas, but hopefully also in the Caribbean.

11 It will also be the focal point of the  
12 reintroduction of Grand Bahama to become a world's  
13 premier cruise destination. As you know, Nassau is a  
14 very well-established, very successful, cruise  
15 destination already. But we need in The Bahamas more  
16 than just Nassau. So it will be introducing  
17 Grand Bahama, that needs it, that needed it for a long  
18 time, not only the cruising, but tourism destination  
19 as a whole.

20 And we are creating a very unique and  
21 exciting and a different type of economical engine for  
22 Grand Bahama. Sometimes different what some of the  
23 other ports that have been developed recently in  
24 The Bahamas.

25 The next slide, please.

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1                   What we -- that is the slide from Marie --  
2     So, I just wanted to say that the project will include  
3     one pier, one pier that will be able to accommodate  
4     two ships, any ships. It can accommodate very small  
5     ships, medium size ships, and also very big ships.  
6     But it has been designed, technically, so it can  
7     accommodate any type of ship of any size, that either  
8     exists, or may be built in the future. And it  
9     accommodates these two ships simultaneously on only a  
10    single pier as you can compare from both sides of the  
11    pier.

12                  We will, once the people are getting off  
13    the ships, they will have a huge selection of  
14    opportunity, what to do on land at the Port, as well  
15    as an offering of shore excursions by Bahamian tour  
16    operators. We do not operate any tours outside of the  
17    Port. They will all be operated and offered to our  
18    guest by Bahamian operators, both by sea and by land.  
19    And there will be a transportation hub there as well  
20    to allow for transportation by a rent a car, or  
21    obviously a major taxi dispatch to take people  
22    wherever they want to go, or if they have bought a  
23    tour from us.

24                  There will be also a lot of retail and F&B.  
25    We will not be operating the F&B operation; the F&B

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1 operation will be operated by Bahamian operators. And  
2 we also have retail, again, Bahamian retail  
3 operations.

4 And we are trying to make the place so it  
5 fits into The Bahamas. It's a Bahamian place. It is  
6 not fixed up in Orlando and put into The Bahamas. It  
7 is rather designed by and working for, and telling the  
8 story and the history and the culture of everything  
9 that represents Bahamas.

10 We are very excited about this project, as  
11 some of you have seen me talk about it when we  
12 introduced the project in February, 2019. And of  
13 course the process of obtaining permits is a prolonged  
14 process, which we fully understand, and expect it to  
15 be thorough. And we encourage thorough vetting of any  
16 project including ours.

17 But we also lost time during COVID. We are  
18 committed to the project; we may have to do some  
19 project adjustments. But we are very excited and  
20 ready once the project is fully vetted to proceed with  
21 the project.

22 And I thank you very much for the  
23 opportunity to make this introduction.

24 David, back to you.

25 MR. DAVID CANDIB: Thank you.

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1 Marie, if you would just like to share on  
2 that, what we have been able to do, and what you have  
3 led working with the Bahamian community, more  
4 importantly, Grand Bahama.

5 MS. MARIE McKENZIE: Sure.

6 Hi, good evening again, everyone.

7 I am not sure how many of you here on the  
8 call today were present on February 4th when we had an  
9 event to share with everyone our intent for the  
10 Project.

11 I would like to say that while today's  
12 meeting and this forum is required by law, we have  
13 always felt as a Company that it is very important  
14 that any project that we are developing, whether in  
15 The Bahamas or any where else, that the community  
16 absolutely understands what we are doing, and we have  
17 an opportunity to hear any concerns.

18 And so, on February 4th, 2019, when we  
19 launched this Project, our intent was again to share  
20 with the broader community. But we also had a few  
21 focus group meetings. And we identified some key  
22 groups to start with, with the absolute intent to  
23 continue engaging throughout the community.

24 But we did meet with, there was a press  
25 meeting; we met with the Chamber; we met with the

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1 Christian Council; we met with an environmental forum  
2 group that's focussed on environmental matters. And  
3 our intent moving forward was to maintain that  
4 engagement, while of course working with Government  
5 and the relevant Ministries to obtain approval to do  
6 the Project. Because that process is important, we do  
7 recognize the importance of the voice of the broader  
8 community as well, not just the process that we do go  
9 with Government.

10 So, unfortunately there was the hurricane.  
11 We are living, we continue to live through the  
12 challenges of COVID. So things did slow down a bit.  
13 But, I can tell you as a Company we are hopeful that  
14 we will get the approvals needed from Government. But  
15 recognize that there is work to do to get there, and  
16 that's what we are doing today.

17 So, we have had a few other events, but not  
18 as many as we would have liked, considering the  
19 challenges that we have faced over the past two years.

20 But I just wanted to definitely share a  
21 message that we do consider engagement with the  
22 community to be extremely important as a part of the  
23 process as we seek to gain approval from the  
24 Government and the relevant Ministries.

25 Thank you very much, David.

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1 MR. DAVID CANDIB: Thank you Marie.

2 So here as you have heard us, and Giora  
3 shared a little bit more, our team has vast experience  
4 in developing ports really around the world. But on  
5 this slide we are highlighting four of those that we  
6 have done in the region, that we not only developed,  
7 but we have been operating for, some on accumulative  
8 basis for 20 years; Costa Maya, Cozumel, Grand Turk  
9 and Turks & Caicos. Costa Maya and Cozumel,  
10 Grand Turk and Turks and Caicos. Costa Maya going  
11 back welcomes about two million passengers a year.  
12 Grand Turk welcomed about a million passengers a year.  
13 Mahogany Bay again welcoming two ships just off the  
14 mainland of Honduras, welcomed about six hundred  
15 thousand passengers. And Abaco where you and the  
16 Carnival team are today, opened in 2005 to our newest  
17 port facility in the region. And it is growing from  
18 zero guest in Puerto Plata region to about 600,000 and  
19 growing there.

20 You can see kind of the tier design in the  
21 bottom right at Amber Cove. The ship Giora is on  
22 today is the Mardi Gras, the flagship; so to give you  
23 some prospective, so she is alongside in that similar  
24 scale of what we are looking to do in The Bahamas and  
25 the Freeport Project.

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1 In addition to these projects, we have also  
2 worked and helped developed ports around the world,  
3 including destinations such as Japan, Australia, Spain  
4 and Dubai.

5 Next slide.

6 So here, as Giora alluded to before, this  
7 is the chosen location for the Grand Port Project. It  
8 is about four miles east of the Grand Lucayan Canal.  
9 And as you heard or may have been aware, we shifted  
10 from a location that was much further east, to what we  
11 found as a more optimal location, not only for the  
12 marine and the development side, but more importantly  
13 for the experience of the guest, and working and  
14 finding employment and opportunities for  
15 Grand Bahamians.

16 Next slide.

17 Again, just to give you an overview on what  
18 we are envisioning for this amazing Development, you  
19 know, it's a brand new cruise facility in  
20 Grand Bahama. Again it's a pier that's capable of  
21 accommodating up to two ships simultaneously, with a  
22 variety of sizes. You can have one of the largest  
23 ships alongside a ship from any other flag within our  
24 brand of Companies.

25 And we're looking to establish here a short

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1 excursion pier for sea-based operations, which would  
2 be unique and new to Grand Bahama. This would  
3 facilitate our guest making their way right off the  
4 ship, directly to another vessel in and around the  
5 waterways and tours that are offered in Grand Bahama.

6 We are also going to focus heavily on a  
7 transportation hub that would allow us the capability  
8 to offer all the land-based tours that guest are  
9 utilizing today in Grand Bahama on their tours. Also  
10 giving the opportunity for taxis and rental cars. And  
11 this gives the opportunity to have additional tours  
12 and growth with the product from within there.

13 You may have heard it -- well, we're keenly  
14 focused on having these amenities interwoven. It is  
15 really important that this Project and the Port  
16 resonates with a Bahamian design, and featuring the  
17 culture, and everything that we are able to offer our  
18 guests and crew as they visit this great destination.

19 We would like to highlight some of the  
20 socioeconomic impact that we believe the Project will  
21 bring forward. We have broken that down in some of  
22 the phases as we are kind of engaging in today as a  
23 predevelopment phase, working with various architects,  
24 engineers and landscapers. And as we move through the  
25 various permitting, and licensing, and approval

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1 process with the Bahamian authorities, we believe  
2 during those relevant construction phases, we will  
3 have about up to a thousand Bahamian jobs at any given  
4 time in various phases and scoping of the work there.

5 A keen or important note again is that, you  
6 know, our Development, we don't envision operating any  
7 retail or food and beverage within that facility, so  
8 there are huge opportunities for working with Bahamian  
9 entrepreneurs, those that are already in the tourism  
10 or retail food and beverage, or those who have  
11 interest in doing that.

12 In addition, as I have mentioned, we are  
13 going to keenly focus on the ability to have new and  
14 expanded tours. We are going to provide a sea-based  
15 tour excursion dock to give that ability for  
16 entrepreneurs and tour operators today. And also  
17 plenty of avian room adjacent to the facility that  
18 provides easy access for land-based tours closer to  
19 the destination in Grand Bahama, so it should be  
20 relatively easy to make your way in and out, and our  
21 guest have that experience.

22 During the operational phase, once we have  
23 completed construction, taking into account all of our  
24 direct and indirect jobs, we envision about a thousand  
25 new jobs will be generated by the Port, and our local

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1 partners that will have that.

2 Again, it is very important for us in this  
3 location that the passengers and guest will have the  
4 capability to easily leave the Port, travel into the  
5 greater Grand Bahama area, and again do that by tours,  
6 taxis, or rental cars.

7 Next slide, please.

8 So with this I would like to turn the slide  
9 over to Armando Corpas, who will lead us to the next  
10 slides and introduce our EIA Study team.

11 MR. ARMANDO CORPAS: So, wanted to  
12 recognize, take a moment and recognize our study team,  
13 which has great depth of knowledge in the  
14 environmental process itself. Our lead Bahamian  
15 Environmental Consultant is Lloyd Choeng. He owns a  
16 company by the name of Biologic International; 25 plus  
17 years experience in processing Bahamian EIA studies.

18 Also Michael -- came all the way down for  
19 us; thank you Lloyd.

20 And then also Applied Technology,  
21 Michael Jenkins, our Coastal Engineer, he is with us  
22 today as well; 25 plus years in processing Bahamian  
23 EIA Study Assessments.

24 Caribbean Coastal, which a lot of you may  
25 know, which I believe their name now is broad; ten

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1 plus years experience business with us with the  
2 Vegetation Study.

3 And then RC Minning Associates, which is  
4 Bob Minning has 20 plus years hydrological experience.

5 And Continental Shelf, which has 30 plus  
6 years of experience in -- studies as well.

7 And somebody who is not listed on here, who  
8 is actually on our team, but spent countless amount of  
9 hours in assisting us, is a gentleman by the name of  
10 Dr. Fernando Perez Monteagudo, who is actually a  
11 member of our team. And he has assisted us at all of  
12 our ports in drafting and implementing or has  
13 guidelines. Apart from that, he assisted us with the  
14 hydrological studies here as well.

15 So I wanted to shout out to everyone and  
16 thank you for a job well done and the comprehensive  
17 product that you put out.

18 And the next slide, please.

19 The Environmental Impact Assessment, is one  
20 of our first. As a part of that we worked with  
21 different departments in getting our terms of  
22 references approved. Once we had that, we jumped  
23 immediately into drafting the EIA. This was developed  
24 in consultation with DEPP and GBPA. The study actually  
25 accessed a range of potential impacts associated with

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1 the Project and develop strategies to avoid minimal --  
2 in mitigating Project impacts.

3 EIA included a wide range of field studies.  
4 Some of these field studies were hydro-geotechnical,  
5 water quality, benthic, the wind-wave analysis study,  
6 which actually took us almost six months to complete,  
7 because we wanted to capture the different seasons and  
8 its effect on wind-wave and currents. Once we had  
9 this study completed, we immediately jumped into what  
10 we call the Simulation Studies, which we actually own  
11 a simulation center in Almere in the Netherlands. I  
12 actually wanted to provide you the website,  
13 Csmartalmere.com; you will find it very interesting.  
14 We do all sorts of simulations there. Not only does  
15 due diligence studies, but we do operational studies  
16 as well. So I do encourage all of you to go to that  
17 website.

18 Once we were done with the actual  
19 Simulation Study, we knew exactly how to lay out the  
20 pier and its rotation and its recurrent layout today.

21 It is very important that we mention that  
22 obviously the EIA was done to specific international  
23 standards as well.

24 The Environmental Management Plan which was  
25 board from the EIA itself, the Environmental

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1 Management Plan which was also drafted by the same  
2 team that I mentioned earlier, has been developed for  
3 all the aspects of the project, construction and the  
4 operational phase.

5 The EMP, we understand, is a living  
6 document will be revised and updated on a -- basis  
7 with consultation with the DEV and GBPA.

8 The Environmental Management Plan was  
9 developed based on accepted international standards,  
10 practices, specific conditions of the Project.

11 Next slide, please.

12 Just a general overview. The whole Project  
13 there itself, there is an access road of approximately  
14 two miles long that joins the main highway, leads to  
15 our property boundaries of 329 acres. Of that of  
16 which we are conserving 103 acres of wetland  
17 conservation area. And there is also another 55 acres  
18 of nature trail.

19 Next slide, please.

20 So, as I mentioned before, it is a total of  
21 329 acres, and the conservation commitment is 103  
22 acres of wetland habitat be preserved.

23 It is where -- we are going to develop  
24 approximately 148 acres of the area of which these  
25 148 acres also include 34 acres, which will be used

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1 for, which will be landscaped with mostly native  
2 vegetation.

3 An arterial waterway is also, was also  
4 going to be constructed for recreational and guest  
5 transportation. Basically this waterway is needed  
6 because of the breath of the size of the property  
7 itself. It is a way of transporting our passengers to  
8 land from the eastern and western boundaries of the  
9 property.

10 Next slide, please.

11 We also have water, utilities will be  
12 primarily provided by the GBUC, and also Grand Bahama  
13 Power Company.

14 Safeguards and redundancies will be  
15 implemented which show reliable infrastructure. We  
16 will have back-up generators, salt-water RO, the  
17 plants as well as solar power will be introduced.

18 So, it is important here in the sequencing,  
19 right. So, if you see in the bottom left-hand there  
20 is a pier. That pier also has a hatched line, which  
21 represents the dredge area that we are going to be  
22 dredging. The sequence in this, first thing we need  
23 to do, that dredger in the next slide, also has some  
24 coral mounds that we will be moving and relocating.  
25 As well as some additional coral. Within that

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1 footprint, we have a pier which is approximately  
2 816 feet long. And it also, with the breasting  
3 dolphins that are alongside, the total pier length is  
4 about 1,300 feet. And then we have a trestle that's  
5 1,022 feet long.

6 As you can see, the actual dimensions of  
7 the actual pier is over to the right. It would be a  
8 five pile system for the pier. It's an open, it is  
9 important that I mention it's an open pile system, so  
10 which allows the water to flow freely underneath it  
11 with no diverting of water and so forth.

12 Next slide.

13 The dredge area has two resites that were  
14 chosen based on the depth and the conditions. So, as  
15 you can see, the dredge footprint that's over to the  
16 left, which is its hatch-line, we are dredging to  
17 -11 meters, which was also simulated, and that is the  
18 minimal amount, that is minimal draft that's required  
19 for this vessel, which is the largest vessel that we  
20 have, in order to come alongside safely.

21 Actually you will see these little dots,  
22 these red dots that you also see outlining the  
23 boundaries of the hatch-line, those are all the  
24 geo-technical studies that we did prior, which is also  
25 included in the field studies for our EIA.

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1                   The mitigation reads, the over to the left,  
2   that says "mitigation reef site", that reef site is reserved  
3   for individual coral, coral colonies. That reef site is  
4   approximately 5.3 acres just to give you an idea of  
5   the size of that location. And that artificial reef  
6   will be 650 away from the coastline.

7                   And then over to the right, we have the  
8   mounds of mitigation reef. Which are these actually  
9   reef mounds, which we will be actually picking up  
10  these mounds with floating bags, so that we can float  
11  it to these locations out of that dredge footprint.  
12  And that location is about, approximately six acres  
13  large, and it would be located about 1,600 feet from  
14  the coastline as well.

15                  So it is important that I mention that  
16  prior to any type of activity here, we will do another  
17  baseline survey before any removal and relocation of  
18  any of these corals.

19                  And the next slide then, please.

20                  These are just some examples of the  
21  construction that we have done at other sites you will  
22  see. This is actually a pier that we, an additional  
23  port that we were building in Cozumel, in Mexico. And  
24  actually the pier is being built approximately  
25  80 meters away from Paradise National Park, which is

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1 an official National Park. The pile-driving, you can  
2 see is, any pile-driving activity, just like in this  
3 Project, we will have a turbidity barrier, apart from  
4 obviously monitoring, continuously monitoring these,  
5 daily monitoring twice a day. These turbidity  
6 curtains are placed around any work that is being done  
7 consistently throughout the day. So right now, the  
8 area that is being worked on, is encapsulated by this  
9 turbidity monitor.

10 Next line.

11 We have moved away, as we continue to  
12 developing these projects, we learn more about using  
13 pre-cast elements. We learn that the pre-cast  
14 elements decrease the amount of weight in the rig  
15 during construction. So it is something that we are  
16 going to be introducing and actually increasing the  
17 amount of pre-cast units in order to speedup the  
18 process. And, more importantly, to reduce waste of  
19 debris.

20 We will also be using pre-casts walls and  
21 slabs and columns as well for the upland facilities  
22 for this Project.

23 Next point.

24 Then the -- it is important that, I  
25 mentioned before that we were going to be

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1 transplanting coral colonies as well as coral mounds.  
2 We have done this before all over the world. And we  
3 got 20-plus years in experience in coral mitigation,  
4 and transplantation and restoration for corals.  
5 Previous projects have exhibited rates of coral  
6 survival, high rates of coral survivorship and  
7 recruitment.

8 Grand Port would utilize proven coral  
9 mitigation, transplantation, and monitoring practice.  
10 Not only the ones that we learned from doing it, but  
11 even additional ones that we have implemented in this  
12 Project.

13 Next slide.

14 MR. DAVID CANDIB: So, Armando, thank you.

15 I know that we had kind of a window to  
16 provide some of the Project Summary and the Overview.  
17 There is certainly a lot of information provided here  
18 today. There is a lot information by our website. As  
19 Marie and Giora alluded to, we had a very in depth  
20 presentation on the Project in February, 2019. There  
21 is the capability to view that on You Tube, the entire  
22 two hours, which may provide some more background and  
23 insight for those that are interested, that weren't  
24 able to attend those sessions.

25 But in summary of some of the information

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1 that you have heard here, this is a project our team  
2 and Company is extremely excited to work on and work  
3 with the Bahamian authorities and certainly the  
4 Grand Bahama community to bring this forward, because  
5 really it is a commitment to what we see as really a  
6 bright future for Grand Bahama. We believe we have  
7 the experience and the background to create what is  
8 here the largest cruise port in the region to help  
9 boost the economy with additional arrivals, that  
10 presents jobs and business opportunities during all  
11 phases of the Project.

12 As you have heard from Armando and  
13 obviously the experts that we have here and online,  
14 and if you utilize, we really have focused on the  
15 rigorous studies that were conducted for all of the  
16 Environmental Impacts. The studies are designed, all  
17 of these elements are spending countless hours and  
18 time to ensure that we have kind of this best  
19 practices from a global scale. And we really feel  
20 comfortable that that has been delivered here.

21 And again, highlighting, it is about a  
22 third of the property as you know is going to be  
23 preserved within that wetlands conservation area.

24 So with this, Director Newbold, I think you  
25 can go to the next slide. We have concluded our

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1 presentation, and turn it back to you,  
2 Director Newbold.

3 MS. ROCHELLE NEWBOLD: Okay.

4 So most of you are quite familiar with the  
5 ZOOM platform, so if you have a question, or if you  
6 want clarification on any matter, please just raise  
7 your hand by pressing the reaction emoji, and you will  
8 be called upon.

9 There are now 59 persons in the meeting.

10 I see no hands, no request for the floor.  
11 And I see -- I am sorry, we do have Dr. Davis' hand is  
12 up. Dr. Davis, please open your mic.

13 MR. ANCILLENNO DAVIS: Hi, good evening  
14 everyone. I am Dr. Ancilleno Davis from  
15 Science and Perspective.

16 I have a few questions, but right now I  
17 think the most pressing ones for your EIA. I am  
18 concerned with what type of effort was used for your  
19 terrestrial surveys, particularly for the avian fauna.  
20 You only record 12 bird species, but there are 125  
21 species recorded in that area of Grand Bahama. It  
22 seems like your surveys were only conducted in the  
23 summer months, based on the species that you have  
24 there. And I think you're missing a huge amount of  
25 important bird species that are particularly protected

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1 under Migratory Bird Treaty, or Endangered Species Act  
2 in the U.S., and listed on the IUCN list.

3 And so if you could clarify what type of  
4 effort was done there, and if you do intend to make  
5 more effort.

6 And my next question is, you actually  
7 mentioned in your EIA that the Lucayan National Park  
8 is the most visited park in Grand Bahama. But you  
9 intend to make trails and stuff on your property. How  
10 do you envision that impacting The Bahamas National  
11 Trust and the delivery of their work. And maybe the  
12 visitation or revenue to their properties. And are  
13 you working with them to mitigate that impact on their  
14 conservation activities in that area.

15 MR. DAVID CANDIB: Dr. Davis, thank you.

16 This is David.

17 I'll start on there and then defer to  
18 somebody.

19 I'll answer the second question first. We  
20 have met with The Bahamas National Trust. We believe  
21 that it is going to be an important partner in the  
22 Development, and certainly the ongoing operations.

23 For, just to give you an overview on what  
24 we were envisioning, for the conservation area that we  
25 mentioned, that's not going to be developed. The

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1 55 acres of what we are calling nature trails, would  
2 be an amenity for the guest within there. But we  
3 don't envision that to be very high traffic, or really  
4 and experiential element like you would have in the  
5 current parks and areas that The Bahamas National  
6 Trust has.

7 So our view is, we have started with that  
8 engagement. We will continue with that. We have made  
9 it a commitment to try to highlight those experiences  
10 in Grand Bahama. And certainly with the additional  
11 level of guest and increase in calls, we believe there  
12 is an opportunity to work collectively with them on  
13 that.

14 So that would be an ongoing standpoint. We  
15 don't view the nature trails really as a big  
16 experience similar to what you have in a current  
17 National Park or visited sights.

18 Relative to the survey of the species and  
19 birds, I will see if Armando has that or wants to  
20 defer to our --

21 MR. ARMANDO CORPAS: We are going to go  
22 ahead and defer to Dwight, please.

23 MR. MIKE: Yes, I would note that you are  
24 correct in your observation that the surveys were of  
25 limited duration. Additional surveys are structured

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1 within the Environmental Management Plan.

2                   You are absolutely correct in your  
3 assertion that seasonality is very important. A lot  
4 of the bird species are migratory, and some those are  
5 going to occur during construction as well.

6                   I would note that some of our surveys  
7 occurred around Hurricane Dorian. And you know there  
8 are impacts associated with Dorian, that have  
9 influenced, certainly influenced this site in terms of  
10 habitat and habitat quality.

11                  In addition, regarding the EMP, it is a  
12 living document. So part of that is to ensure that  
13 we, going to the future, including through operating  
14 phases, that we are doing what we can to minimize and  
15 encourage the environment and species used.

16                  One thing that is additionally included in  
17 this, and it's important relative to migratory bird  
18 species, is the 103 acre wetland conservation area.  
19 That is an area that is critical habitat to many of  
20 those species. So there is preservation within the  
21 existing program of critical habitat for many of those  
22 species.

23                  And again, concur with the observation that  
24 only limited studies were done regarding bird species.  
25 But again, additional studies will be ongoing.

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1 MR. DAVID CANDIB: Thank you, Mike (sic).

2 Hopefully that answers your questions,

3 Dr. Davis.

4 MR. ANCILLEN O DAVIS: Yes. After Rashema  
5 (phonetic), I may have some more.

6 MS. ROCHELLE DAVIS: Ms. Ingraham, if that  
7 is your mic, you are not coming through clearly.

8 MS. RASHEMA INGRAHAM: Good evening to all.

9 I just had a few questions to whoever.  
10 Maybe I will ask two and depending -- my first  
11 question is based on the fact that there is some  
12 wetland area that is going to be developed on the  
13 property, either for water-taxis or other sources of  
14 transportation, as well as flowing out into the ocean.

15 So I wanted to know how concerned, or what  
16 were some of the monitoring efforts that Carnival has  
17 on the consumption or the usage of the water. Whether  
18 it's in the wetlands or in the marine area.  
19 Particularly because that area has been so impacted by  
20 many different hurricanes, and we are losing a lot of  
21 our pine forest in that area. So I just wanted to  
22 know your thoughts.

23 I know that in your report you did refer to  
24 some of GBUC's fresh water wells. But I just wanted  
25 to know which one of those wells you will be tapping

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1 into, and how that will affect the flow of water for  
2 household consumption. And just to kind of put a  
3 number to the total amount of daily usage of the  
4 water. So that's my first question.

5 The second one is also related to some of  
6 the work that I know The Bahamas National Trust has  
7 ongoing in terms of on-the-ground-work and getting  
8 some of the smaller communities and businesses to look  
9 at eco-based businesses in that area. And so whether  
10 or not you have either contacted them, all those small  
11 businesses, to see how they would be impacted by  
12 either the pier or this Development and how they can  
13 be involved in the process of a partnership with  
14 Carnival.

15 MR. DAVID CANDIB: Thank you for your  
16 question.

17 I will start again maybe with the second  
18 question first. So, we believe as the progress of the  
19 Project moves ahead, we are going to continue the  
20 engagement with the community and various operators,  
21 both to understand what we are envisioning and  
22 understand from them some of the ideas that they have.  
23 We will bring certainly the team that has the  
24 experience and the expertise relative to the  
25 adventures and tours. And to meet with these local

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1 entrepreneurs and operators to give them the foresight  
2 and understanding of what these opportunities are with  
3 growing passenger arrivals. Certainly the eco-tourism  
4 and elements like that are very popular today. So we  
5 envision that continuing. And we certainly will host  
6 kind of forums and meetings to listen to the operators  
7 and share with them some of the insight that we have,  
8 that we believe are the opportunities once the Port is  
9 developed and our guest want to experience all that  
10 Grand Bahama has to offer.

11 Relative to the wetlands and the area, I  
12 will ask Armando's team to highlight any information  
13 that we have today, or if we need to come back here on  
14 any of them.

15 MR. ARMANDO CORPAS: Sure. So I'm going to  
16 defer to Lloyd. But just to go back, we did a  
17 complete hydrological study of the area. We even had  
18 wells outside of the property in order to confirm our  
19 studies, conclusion.

20 We worked closely with Grand Bahama Utility  
21 Company, GBUC, in order to make sure our study was  
22 being done and executed in a manner that they felt  
23 comfortable with.

24 But I will let Lloyd, because he physically  
25 did a lot of the well work himself.

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1 MR. LLOYD CHOENG: Good evening, Rashema.

2 From the very beginning, we knew that water  
3 issue on the canal; the canal that would be -- water  
4 issue. So from the very beginning, we drafted up a  
5 scope of work for the study and the methods of and the  
6 Utility Company and they approved of what we were  
7 doing for our study and at times they came out and  
8 looked and we told them what we were doing.

9 So we did extensive hydrogeological work,  
10 and that's all in the hydrogeological study.

11 There are a number of consumption, water  
12 consumptions to the site, that is in the document; I  
13 can't remember that number off the top of my head, but  
14 it is there. As well as we're still going to have to  
15 have ongoing talks with the Utility Company because  
16 obviously W-6, which was the main well-field for  
17 Grand Bahama Island that provides, you know, after the  
18 -- was under 20 foot of salt water from the storm  
19 surge in Dorian. And that water also made its way all  
20 the way to the site. And as you drive out there you  
21 see the impact because all of the pine trees are dead  
22 on the north side and the south side of the highway,  
23 as well as on the site they are all dead as well.

24 So, as part of the Project they propose  
25 putting in a SWRO to meet the needs of the site.

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1 However GBUC is spending five million dollars to put  
2 in a RO system to upgrade the water for the local  
3 distribution system.

4 The GBUC wants to bunker water to the  
5 cruise ship. So it all depends on where the GBUC is  
6 in their efforts to produce better quality water than  
7 they are right now with the RO plant. According to  
8 the GBUC, hopefully by the end of this month they will  
9 have that RO plant operational. And then we can take  
10 it from there and continue discussions with them,  
11 based on them being able to meet water quality needs  
12 for the Project.

13 MR. DAVID CANDIB: Thank you, Lloyd.

14 MS. ROCHELLE NEWBOLD: Okay, we have a  
15 question in the chat:

16 "Has any flood modelling being conducted  
17 for the Project particularly as it relates to  
18 construction of the mile-long channel; and can the  
19 modelling results be shared publicly."

20 MR. DAVID CANDIB: I am willing to defer to  
21 Mike who is our Coastal Engineer.

22 MR. MICHAEL JENKINS: The answer to that  
23 is, yes, a hydro -- model of that channel was  
24 conducted. One of the main focuses was to, two-fold.  
25 One to make sure that the channel would be adequately

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1 flushed to preserve water falling within the canal.  
2 But also to ensure that the water quality outside of  
3 the canal and the ocean would also be preserved. So,  
4 yes, there was a numerical model study of that and it  
5 is referenced within the study. It is within an  
6 Appendix of the main study.

7 MS. ROCHELLE NEWBOLD: We have 63 people on  
8 the platform.

9 Mr. Petra, you could un-mute your mic,  
10 please.

11 MR. SAM TEICHER: Hi, everyone. Apologies,  
12 I'm outside and its windy so I will try to be brief.

13 First of all, it is great to see that you  
14 guys are taking corals and coral health under  
15 consideration. Just a few questions with that in  
16 mind. One is, when do you expect to sort of open up  
17 any proposals for the local businesses to participate  
18 in those restoration efforts -- engagement --

19 Second, based on the drawings, I saw that  
20 the, sort of, again appreciating it is a rendering,  
21 one of the ships was sort of having, one facing the  
22 shore, one facing away from the shore. And I know  
23 that in other cruise ports around the world there has  
24 been some significant sedimentation issues caused by  
25 ships backing into the shore as depths gets shallow.

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1 And given the proximity of Peterson Cay National Park,  
2 the remediation site that you talked about in your  
3 presentation, as well as the nature of the  
4 Grand Lucayan Waterway, and how it can kind of trap  
5 excess sediment in the area of Barbary Beach. Does it  
6 have to be backed in, or is there an opportunity for  
7 both ships to come in facing the shore.

8 And then the last one is the project of the  
9 wetlands sort of restoration or efforts; is there also  
10 consideration being given to mangroves.

11 Thanks very much.

12 MR. DAVID CANDIB: Sam, good to hear from  
13 you. Thanks for joining us on the call today.

14 As you are aware, we spent some time with  
15 you, Gaitor and the team on that.

16 I think relative to the timing of how we  
17 can work together and the sequencing really is how we  
18 continue to work with the relevant Government  
19 authorities as we progress with the permitting and the  
20 licensing of the Project.

21 I think as Armando alluded to earlier, for  
22 us there is some sequencing when we are talking about  
23 the overall Project and the Development. As you are  
24 aware from the marine side, we need to look at, you  
25 know, the coral relocation, the dredge, and then

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1 utilizing some of the dredged coral for some of the  
2 upland development. So that is one of the first  
3 segments or phases of the Project. So as soon as we  
4 are further along with Government in this permitting  
5 process, that would be one of the first elements of  
6 the marine work that we have to undertake relative to  
7 that.

8 So, we would work with you and any other  
9 interested parties if that comes about.

10 I will turn to Armando relative on our ship  
11 modelling and simulations and that exercise.

12 MR. ARMANDO CORPAS: Sam, hi, how are you  
13 again.

14 To your question regarding whether the ship  
15 has to come in stern, bow to, the vessels will  
16 basically, primarily come in as the Captain needs  
17 because it needs to make its approach into the  
18 position.

19 It is basically whatever the current winds  
20 at that point and time, or the projected winds and  
21 current. At debarkation he will make that choice at  
22 that point and time. So, yes, these vessels in our  
23 simulations included coming in bow view, stern view,  
24 as you see it here.

25 Regarding any sediments and suspensions

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1 that you mentioned, basically that's the reason why we  
2 opened up and the whole dredge box itself will be  
3 dredged to 11 meters in order to address that concern.

4 We are today, as I mentioned before during  
5 that construction slide that was in Costa Maya, which  
6 was Cozumel, we today are operating at eight meters  
7 away, which is roughly 260 feet away from a  
8 National Park. So we are not concerned about any  
9 sediment suspension due to vessels coming in, stern  
10 in.

11 Regarding the monitoring and so forth of  
12 the corals, I will defer over to Mike so that he could  
13 weigh in on that.

14 MR. MICHAEL JENKINS: Well, we have a  
15 monitoring program, and I would again defer to the EMP  
16 regarding that. I would note that the selection of  
17 the mitigation sites was done with knowledge of the  
18 Operation Unit. We wanted to make sure they were  
19 sufficiently distanced away; that was one of the  
20 operational parameters for choosing those sites.  
21 There were a number of operational factors regarding  
22 where the best place for mitigation reef, including  
23 specie selection, depth, currents, anything of that  
24 nature. But one of those selections was to make sure  
25 they were sufficiently away from the operations that

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1 we would not see some kind of secondary impact.

2 I would additionally note we were keenly  
3 aware of the National Park throughout this Development  
4 process. I would again defer to the EIA. We had very  
5 extensive -- assessment of that, that is the very good  
6 baseline scientific information regarding  
7 Peterson Cay. We will continue to do monitoring of  
8 Peterson Cay throughout the Project. But note that it  
9 is, the boundary of Peterson Cay is about a mile and a  
10 quarter from the edge of this dredge box. So, you  
11 know, part of the site selection was done with  
12 understanding of how close we were to Peterson Cay,  
13 and the need that there be a sufficient bumper between  
14 the ships and the -- resources might be.

15 MR. DAVID CANDIB: The question relative to  
16 the wetlands and the mangrove.

17 MR. MICHAEL JENKINS: Yes. Keep in mind  
18 right now, hundreds of the acres is designated for  
19 conservation. We are evaluating what opportunities  
20 there may be for enhancements.

21 We would note that Hurricane Dorian has  
22 impacted much of Grand Bahama including this area.  
23 And the original assessments that were made of that  
24 environment, we see degradation associated with  
25 Hurricane Dorian. And there likely are opportunities

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1 for enhancement and that's an ongoing discussion  
2 regarding the EMP. Those discussions are an  
3 opportunities is in process. We clearly saw some  
4 degradation associated with Dorian, and there are  
5 opportunities for enhancing the mangrove habitat  
6 there.

7 MR. SAM TEICHER: Thanks everyone.

8 And good to see you guys, how you have been  
9 keeping all these past few years after everything that  
10 has happened in the world.

11 MS. ROCHELLE NEWBOLD: Thank you.

12 Moving right along guys.

13 Comment in the chat:

14 "Not hydrodynamic modelling; flood  
15 modelling was the question that was asked previously."

16 And it says:

17 "Is construction going to compound flooding  
18 affects on the land?"

19 So they are saying, not the water quality  
20 modelling was the question, but the flood modelling  
21 with respect to the --

22 MR. ARMANDO COSTUS: We did do a flood  
23 analysis which was included in that Appendix as well.

24 One of the main reasons we have also looked  
25 at using the dredged material in order to elevate the

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1 site up to 13 feet. And that was based on the actual  
2 conclusion from that study, because the study is --  
3 itself.

4 MS. ROCHELLE NEWBOLD: Mr. Carey, your hand  
5 is up; please un-mute your mic.

6 MR. CAREY: Yeah, I almost forget, you took  
7 so long to come to me. But that's okay, Director.

8 Good afternoon Giora, et cetera, everybody  
9 from Carnival.

10 It is exciting to see this Project moving  
11 forward, in whatever direction it ends up. I know it  
12 was a lot of pent-up demand for, a lot of questions  
13 about what's happening with this Project. We get a  
14 lot of questions about it, so I am pleased to see that  
15 there is movement one way or another however it ends  
16 up with respect to Government's approval or not.

17 I wanted to talk about the corals. I  
18 noticed in the EIA there was a plan, and you just  
19 referenced it, a plan to create artificial reefs. And  
20 I was wondering whether, Lloyd, you might recommend  
21 that they consider, since this Project went into a  
22 state of dormancy because of the onset of the height  
23 of the pandemic, we have had the issue of the stony  
24 coral tissue loss disease that is impacting  
25 Grand Bahama. And whether or not there has been any

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1 consideration instead of creating these artificial  
2 reefs from relocated corals from your site, that maybe  
3 you might need to work with the teams or the, the  
4 results of the assessment for stony coral tissue loss  
5 disease, and maybe do out-plantings in some of these  
6 areas rather than some of these artificial sites that  
7 you are considering creating.

8 Thank you.

9 Mike Jenkins: Well, that is a good  
10 suggestion and something that we have been  
11 considering. There will be corals of opportunity as  
12 -- from this Project, right, we will have corals that  
13 we will want to save and transplant.

14 The original idea of mitigation, we are  
15 still, that is still an appropriate mitigation  
16 mechanism, right, because we would be then adding  
17 additional habitat, additional substrate for coral.

18 But you are absolutely correct; there are  
19 likely some opportunities here for out-planting to  
20 potentially -- keep in mind we also need to keep on  
21 track of the stony coral tissue loss disease, and  
22 whether it is appropriate, you know at this site or  
23 other sites. But that opportunity for out-planting to  
24 restore coral at impacted sites from stony coral  
25 tissue loss disease is something we are aware of. And

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1 right now we can't say it will, say that for sure we  
2 will do it. But we certainly are aware of that  
3 concern and that opportunity.

4 A lot of it is going to come down to not  
5 just this site, but other sites and how they are  
6 impacted by stony coral tissue loss disease when we  
7 come time to do the transplantation.

8 MR. ARMANDO CORPAS: And I think it will --  
9 in consultation with the GB -- and the other  
10 Government Ministries.

11 Mike Jenkins: Right. But we are  
12 certainly aware of the concerns regarding stony coral  
13 tissue loss disease. It is a major issue, and we  
14 certainly are looking for opportunities where we can  
15 help to mitigate that impact as well.

16 MS. ROCHELLE NEWBOLD: Okay we have another  
17 question in the chat and it reads:

18 "The EIA states that the dredge area  
19 footprint covers 76.6 acres. And the turbidity  
20 curtain would be utilized where practicable; how will  
21 this be done?

22 What impact from the sedimentation do you  
23 anticipate to Peters (sic) Cay and other sensitive  
24 nearby coral reef both from the dredging phase and the  
25 operational phase, maneuvering and docking of ships?"

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1                   And I think to some extent this may have  
2   been addressed, spoken to. But, please answer.

3       Mike Jenkins: Right, again, the  
4   primary concern is during construction. Operation is  
5   not as a concern, but the primary concern is during  
6   construction.

7                   You will note that while the whole dredge  
8   area is several acres, the immediate dredge area is  
9   not. And we will bear half of containment with  
10   turbidity curtains, the well practicable is associated  
11   with sea conditions. At times, these curtains, you  
12   have to deal with the good conditions, waves at times,  
13   there are issues with curtains and waves.

14                  Regardless of that, we will have turbidity  
15   monitoring programs throughout construction that will  
16   be monitoring throughout construction turbidity  
17   levels, and if they exceed the requirements in the  
18   EMP, dredging will be ceased until they are within  
19   compliance.

20                  So we have a program in place to ensure  
21   that we have maintained turbidity levels to a level  
22   where we minimize impact.

23                  And again, those measurements are well  
24   within the area of influence of the Project. And we  
25   will be monitoring the turbidity pool within the

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1 Project area. So, well before any of that turbidity  
2 could reach Peterson Cay.

3 MS. ROCHELLE NEWBOLD: Thank you.

4 Dr. Davis -- Mr. Carey, your hand is up, is  
5 that because you have another question, or residual?

6 Dr. Davis.

7 MR. ANCILLENNO DAVIS: Yes, so I have some  
8 followups. The wetland habitat that you mentioned is  
9 103 acres out of the 155 wetland that you have that  
10 will be kept or protected. I wanted to know what are  
11 your plans for not changing the hydrology of that.  
12 Because it seems right now that that wetland is not  
13 actually open to very strong tidal-flow in and out.  
14 But once you open that up or dredge through any part  
15 of that, that is going to significantly change the  
16 hydrology inside there. So that's one thing.

17 The next thing is, there is a new protected  
18 species list apart from what you have inside your,  
19 what you have mentioned inside your EIA. But inside  
20 your EIA and EMP you mentioned that Florida is close  
21 enough and have enough large-scale nurseries to supply  
22 with similar species of plants.

23 In my experience and my understanding  
24 that's a dangerous proposition for the sensitivity of  
25 the Grand Bahamian habitat, considering all of the

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1    invasions that we have going on in The Bahamas right  
2    now that are often attributed to horticultural  
3    introduction. So things like Cuban knight anole,  
4    green iguanas, snakes, cane toads, being introduced  
5    from Florida.

6                   And I know that we also have local  
7    Bahamians who can grow those.

8                   So what is your opinion, or how are you  
9    going to address making sure that most of your plants  
10   maybe come from The Bahamas; or are not shipped in a  
11   way that can increase the risk of invasion species.

12                  CARNIVAL REPRESENTATIVE: Regarding the  
13   landscape, Doctor, we envision a good portion of this  
14   land acreage that we have, we are going to start  
15   growing, immediately we will start our own nursery in  
16   there.

17                  So a lot of the materials we think  
18   mostly -- vegetation, a lot of the material that we  
19   envision in order to supply the 35 acre within the  
20   Project, will be grown locally. So, that is the idea,  
21   that is the vision that we have.

22                  Regarding an importation of any of those  
23   plants, obviously we will work with the Department in  
24   order to make sure that these plants that are being  
25   brought in, are certified and acceptable in order to

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1 be brought in, into --

2 But we envision, the majority of this, one  
3 of the first steps that my colleagues and us will do,  
4 the first activity of the, apart from anything else  
5 there on the land-side, is to grow our own landscape  
6 on site. We have slated approximately, I think  
7 appropriately like 28 acres for this activity, so just  
8 to give you a magnitude of what we envision. So  
9 that's the landscape version.

10 On the fauna, regarding the wetlands and  
11 the canal activity --

12 MR. ARMANDO CORPAS: I am sorry; I was out  
13 of the room so I missed part of your question. But I  
14 did hear some of it about, a concern about importing  
15 plants. And I think, during Hurricane Dorian, I mean,  
16 most of the north-shore, from East End all the way  
17 into Freeport and into town, was all flooded with salt  
18 water. So, I think the Project would love to get  
19 locally grown plants, but I don't know how well that  
20 will go given the circumstances of Dorian and we are  
21 still in the recovery. We are still recovering from  
22 Dorian and then we add the COVID-19 thing. But I  
23 think every effort will be made to use local people  
24 wherever possible for that vegetation part of it.

25 Also, there is a process, I think, with

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1 approval to bring in plants; you have to go through  
2 the Department of Agriculture. So I think all of that  
3 will be streamed.

4 And I missed your first question.

5 CARNIVAL REPRESENTATIVE: Hydrology --

6 MR. ARMANDO CORPAS: I think it is just  
7 going to be just as it is right now. I mean there was  
8 some impact from Hurricane Dorian to that 103 acres as  
9 part of the beach that eroded away. I think it was in  
10 the EIA, and I stand to be corrected, is that we would  
11 try to preserve some of that area and then use the  
12 mangrove restoration in that area, west-side of the  
13 site where the sand has eroded away.

14 MS. ROCHELLE NEWBOLD: Ms. Ingraham.

15 MR. ANCILLEN O DAVIS: Sorry, Rochelle.  
16 Just in regard to the numbers or acres that are being  
17 used, I also wanted to point out that their numbers  
18 don't add up to the 329 that they mentioned. So for  
19 their habitat table, if they could review that.

20 CARNIVAL REPRESENTATIVE: That will be  
21 noted.

22 Thank you.

23 MS. ROCHELLE NEWBOLD: Ms. Ingraham.

24 MS. RASHEMA INGRAHAM: So, my last point is  
25 that, not a question but a statement. And I am sure

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1 that you can see just based on some of the  
2 participants on the call that many of us are really  
3 concerned with impacts that may happen on ecosystems  
4 especially because a lot of the groups, large and  
5 small, have been monitoring and have programs and  
6 activities related to monitoring whether they be  
7 mangroves, water quality, flora and fauna for many  
8 years.

9 And so just to kind of reemphasize the  
10 point that Dr. Davis was making, rather than importing  
11 any species, you have groups in here that have data  
12 and have the resources and should be really considered  
13 as you're looking through your EMP and trying to get  
14 those on stream.

15 Your EMP does talk about a mangrove  
16 restoration project. But I don't know if that's  
17 referring only to Roatan. I don't know if I  
18 overlooked where it spoke to the Project on  
19 Grand Bahama, so.

20 CARNIVAL REPRESENTATIVE: There is  
21 opportunity.

22 Rashema, the consultation process will be  
23 NGO; that had stopped. I mean we have had COVID-19  
24 and we will continue to reach out to the BNT, to  
25 Save the Bays, the Waterkeepers as we go on and keep

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1     them abreast of this situation.

2                     And so there will be ample opportunity for  
3     you guys to sit down with us and discuss the Project.  
4     And we would like to move together and work together  
5     as a team to resolve all of this.

6                     We all know the impact from Dorian. And  
7     all of the mangrove, pretty much all of the mangrove  
8     on the north-shore is dead. So there is opportunities  
9     to possibly do planting in other areas other than this  
10    site. But that is something that we can talk about in  
11    the future.

12                    MR. DAVID CANDIB: I think that we will  
13    welcome that. And as we develop it, as Armando and  
14    the team said, the EMP is a working document. And we  
15    certainly would welcome the opportunity to work with  
16    local knowledge and source locally when we can. So  
17    that is critical to us.

18                    MS. ROCHELLE NEWBOLD: Ladies and  
19    gentlemen, just for clarity, the Environmental Impact  
20    Assessment is supposed to address the biological  
21    impacts that are associated with the intended work.

22                    The Environmental Management Plan is  
23    supposed to address the mitigative actions that are to  
24    be taken by the Project to minimize those intended  
25    works.

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1                   So let us keep things in their proper  
2   boxes. And if additional information is required to  
3   one or the other, to make sure that the documents is  
4   addressed in that light.

5                   We have another question in the chat:

6                   "The EIA references a document, the  
7   economic impact of proposed Carnival Cruise Line  
8   expansion on Grand Bahama Island. By tourism  
9   economics, where might we be able to view this  
10   document."

11                  MR. DAVID CANDIB: It should be referenced  
12   within the Appendix 8. Within the EIA, it is in  
13   Appendix No. 8, I believe.

14                  MS. ROCHELLE NEWBOLD: We have another  
15   question:

16                  "Good evening. What is the intended  
17   procedure if ruins are found on the site?"

18                  MR. ARMANDO CORPAS: That is addressed as  
19   well in the EMP, that immediately work will stop and  
20   we will consult with the Antiquities, Monuments, and  
21   Museums.

22                  MS. ROCHELLE NEWBOLD: Now we have 64  
23   persons on the platform.

24                  I see no further comments in the chat.

25                  Dr. Davis, I see your hand is still up; if

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1 you have another question you can un-mute your mic.

2 MR. ANCILLENNO DAVIS: I don't have anymore  
3 questions at this time. Thank you.

4 MS. ROCHELLE NEWBOLD: It is now 7:21.  
5 There is 64 persons at the meeting.

6 I see no comments in the chat; I see no  
7 request by hands for the floor.

8 Now I see a hand --

9 MR. ANCILLENNO DAVIS: Yes, I am back.

10 Inside the EIA, you say that you have the  
11 capacity for up to 11,000 guests and 2,000 crew  
12 members, as well s 1,000 people working at the  
13 facility.

14 You do indicate that this is, you're  
15 expected to take five years to wrap-up to maximum ship  
16 arrival.

17 But I would like to know, have you done a  
18 capacity assessment of that area for the waste. And  
19 how many people can you actually handle; and would  
20 that, the residual impact, or build-up impact would be  
21 for having that maximum amount of guest.

22 Often Cruise Ship Developments indicate  
23 what their maximum amount of passengers and crew is.  
24 But they do not really do a clear job of saying how  
25 often that maximum will be over-filled.

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1                   Also for the 1,000 Bahamians, for the 1,000  
2 people working at the facility, how many of them will  
3 be Bahamian; and what percentage of that cruise  
4 revenue is expected to stay with those Bahamians that  
5 are working on that Development.

6                   MR. DAVID CANDIB: Well, let me try to see  
7 if I can answer all of your questions. Relative to  
8 the opportunities and the employment, we envision the  
9 vast majority, certainly both from our team who will  
10 operate the Port, but that is really the back of the  
11 house management, security and maintenance, the vast  
12 majority of the employment at the Port will come from  
13 local Bahamian entrepreneurs that are working the food  
14 and beverage, the retail, and the water sports areas;  
15 we envision the 90 plus percent routed to that from  
16 Bahamian locals and the communities within the Port.

17                   Relative to the capacity component, really  
18 an answer is maybe taking a step back that, you know,  
19 we're planning to develop the Port certainly in an  
20 environmental responsible way. We're looking to  
21 introduce, early on and even from the beginning  
22 working with our contractors. It is an ongoing  
23 commitment to low carbon footprint, very low waste  
24 generation, high standards of waste management in  
25 working through World Health Organization Guidelines

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1 for public health and environmentally responsible kind  
2 of operational choices.

3 The idea from that, is that the capacity  
4 comes from, you know, two of the largest ships  
5 simultaneously that could welcome 6,000 guests, 5,000,  
6 6,000 guests at the same time with crew.

7 So we use that within the capability of at  
8 one time. We are not envisioning that taking place,  
9 when the Port opens. The first ship from the Carnival  
10 fleet is just on its inaugural sailing this week. We  
11 have the second ship coming next year, and then the  
12 year after that. So we are envisioning working with  
13 the cruise lines to ensure that the Port is able to  
14 manage that.

15 We believe given the scope of the property,  
16 with 320 acres, the capability to manage 11,000 plus,  
17 we are capable to do that. We have been doing that in  
18 similar numbers in our existing Ports in other regions  
19 and are comfortable in doing that.

20 But I think what's to note is that we want  
21 to take under this environmental stewardship, from the  
22 very beginning, when we are looking at the design,  
23 ensuring that we are understanding all the best  
24 environmental practices out there, working with  
25 construction companies on minimizing waste that's

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1 coming into the property. And more importantly that  
2 we find those operators in food and in the retail to  
3 ensure we work with them, what is the input that we  
4 can do to minimize that, the waste and generated  
5 within the cruise port.

6 But we feel within the development plan  
7 that you have seen, the capabilities to grow over  
8 time, we don't envision any capacity challenges from  
9 our side.

10 MS. ROCHELLE NEWBOLD: Dr. Davis, I see you  
11 have posted something in the chat.

12 MR. ANCILLEN O DAVIS: Yes, in the chat, I  
13 put the Appendix 8. I accidentally posted the  
14 Appendix from the EMP, but then I posted the  
15 Appendix 8 from the -- because people were asking in  
16 the chat where is the Appendix, and they are posted  
17 separately on the website. I just happen to have them  
18 all downloaded as I was reading them.

19 My question was, if there was an  
20 Environmental Carrying Capacity Assessment done  
21 though, and I don't think that was really answered.

22 Although you said how many people you -- I  
23 feel like there wasn't a, inside the documentation I  
24 didn't see an assessment of how much waste water, or  
25 how much -- can be tolerated by the environment.

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1 MR. DAVID CANDIB: So we will work with the  
2 team here to answer that and direct you to  
3 specifically maybe what's within the document, and  
4 anything missing within there, we will table as a  
5 follow-up response to that point.

6 MR. ANCILLENNO DAVIS: Okay, thank you.

7 CARNIVAL REPRESENTATIVE: In regards to the  
8 waste water, I believe there was some numbers  
9 projected from another facility. And so that was done  
10 and also the -- technology and all of that stuff is in  
11 the document.

12 MR. ANCILLENNO DAVIS: There will be more  
13 clarification on that needed, I think, for end-of-life  
14 waste. You have some pretty good stuff on how you  
15 process it, and what you do with it. But then, the  
16 final products from that waste processing, where does  
17 that go; do you take it back on your boat and ship out  
18 of the country, stuff like that.

19 Ultimately you still will have some waste.  
20 And I know some of your waste water treatments you do  
21 have laid out really well, but there are still going  
22 to be some residuals that you can't put into the  
23 environment.

24 MR. DAVID CANDIB: So if you put your  
25 question in writing, we will be more than happy to

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1 respond to it.

2 MR. ANCILLEN O DAVIS: Thank you.

3 MS. ROCHELLE NEWBOLD: It is now 7:29.

4 There were 57 people on the platform. I see no

5 further comments in the chat. I see no, other than

6 Dr. Davis' residual hand, I see no other hand seeking

7 the floor.

8 Okay, I see a question:

9 "Would it be possible to see the actual

10 report that has some detail on methodology, not just

11 the summary Power Point of the Economic Assessment

12 with respect to the original question regarding the

13 Economic Report."

14 MR. DAVID CANDIB: We will review that

15 question and answer that as well. We will take note

16 and see what we are able to provide or point to with

17 information already provided.

18 MS. ROCHELLE NEWBOLD: It is now 7:30.

19 There were 57 persons still on the chat. I see no

20 other questions in the chat box -- fifty-seven persons

21 on the platform. I see no request for further hands.

22 Ladies and gentlemen, I want to thank you

23 for your participation in this meeting this afternoon.

24 Once again we have kept the streak of not having to

25 eject anybody from any of the meetings; I like that.

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1                   And I wish you all a safe -- who is this  
2   coming in at the last minute.

3                   Dr. Davis is just putting his question in  
4   the chat for prosperity, so it will be captured. But  
5   nonetheless, all questions that have been highlighted  
6   this afternoon, are to be reflected in the  
7   Public Consultation Report.

8                   And as was stated at the beginning of the  
9   meeting, should there be any additional questions, the  
10   public at large have until September 2nd to provide  
11   those questions in writing via e-mail. Those  
12   questions can be submitted to the Department of  
13   Environmental Planning at [enquiries@dept.gov.bs](mailto:enquiries@dept.gov.bs); or it  
14   can be provided to Carnival, and Carnival's e-mail  
15   address for questions and inquires,  
16   [info@carnivalgrandport.com](mailto:info@carnivalgrandport.com).

17                  So either addresses you can use. And as I  
18   stated, by law should Carnival receive any requests  
19   for information, they must provide same to the  
20   Department. And should the Department receive any  
21   questions, it must provide same to Carnival. Such  
22   that, on the 22nd day, no earlier than the 22nd day  
23   should the Public Consultation Report be produced,  
24   individuals can flip through the document and find  
25   their question and make sure that their question has

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1     been duly documented and fully addressed.

2                     Ladies and gentlemen, thank you for your  
3     time this afternoon. And I wish you all a safe rest  
4     of the evening.

5                     Please be COVID aware.

6                     Good night.

7                     MR. DAVID CANDIB: Thank you everyone.

8                     Thank you, Director Newbold, appreciate  
9     your help with this.

10                    (Meeting adjourned at 7:30 p.m.)

11                    - - - - -

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## PART 1A. Additional Responses to August 4, 2021 Virtual Town Meeting

### Dr. Ancilleno Davis : Bird Survey Question

*Response: In Section 9 (page 30) Management of the Terrestrial Environment the following commitment is made:*

*"Post construction ecological surveys of the upland project area will be conducted on an annual basis during the winter to capture potential use by migratory birds for two years following project construction. Surveys will identify flora and fauna present within the project area, in particular any listed or protected species. Surveys will be conducted by a biologist or ecologist with relevant experience with the habitats and species present within the project area. These surveys will provide an assessment of habitat loss and fragmentation and identify any possible corrective or mitigative actions to minimize impacts."*

### Rashema Ingraham: Water Consumption to Households

*Response: We do not anticipate that the project will have any impact on potable water supply to Grand Bahama. CGBIL will have to meet with the Grand Bahama Utility Company (GBUC) to discuss for the provision of potable water to support the facility and water bunkering for the cruise ships. The GBUC will*

*need to meet the CGBIL's drinking water quality standards. The details of water consumption and provision of water are discussed in the EIA and EMP.*

**Dr. Ancilleno Davis: Habitat Table does not add up to 329 Acres.**

*Response: The Habitat Table 8.2 presented in the EIA adds up to a total of 321.87 acres and the site is approximately 329 acres more-or-less. The difference of 7.13 acres is due to a nursery that will be constructed on the north side of the property boundary in the Pine Woodland.*

**Table 8.2. Habitat Communities and Acreage**

Habitat	Acres
Broadleaf Coppice Forest	25.48
Casuarina dominated Coastal Shrubland	26.43
Coastal Shrubland	13.98
Fire Impacted Coppice	3.96
Mangrove Forest and Wetland	155.18
Pine Woodland	21.61
Sabal Woodland	41.56
Semi Permanently Flooded Wetlands	20.23
Silver Palm-Bracken Fern Shrubland	13.44

**Rashema Ingraham: Statement on Cooperation with local NGO's**

*Response: Once approved, CGBIL will reach out to the local NGOs to keep them informed on the status of the project. Particularly, CGBIL will keep BNT informed of reef survey's, dredging operations, turbidity control, and turbidity monitoring given the location of Peterson Cay National Park. CGBIL will also seek input from and collaborate with the local NGOs on potential projects such as mangrove planting and other appropriate projects.*

**Dr. Ancilleno Davis: Carrying Capacity**

*Response: Responded to in written comments from virtual town hall meeting. See Part 2. Question 9.*

## PART 2. WRITTEN QUESTIONS RECEIVED DURING AUGUST 4, 2021 VIRTUAL TOWN HALL MEETING AND RESPONSES

### 1. Stacey Moultrie

Question:

Has any flood modelling been conducted for the project, particularly as it relates to construction of the mile-long channel? And can the modelling results be shared publicly?

Response:

*Flood modeling of the development has been conducted and is detailed in Appendix 6 of the EIA. Modeling included hydrodynamic analysis of the canal system.*

### 2. Stacey Moultrie

Question:

Not hydrodynamic modelling. Flood modelling. Is construction going to compound flooding effects on land?

Response:

*Modeling included evaluation of flood risk associated with storm surge. As the site will be raised significantly through beneficial use of dredge spoil, there is a reduced potential for storm surge impacts within the project area.*

### 3. Casuarina Mckinney

Question:

The EIA states that the dredge area footprint covers 75.6 acres, and that turbidity curtains will be utilized "where practicable". How will this be done? What impacts from sedimentation do you anticipate to Peterson Cay and other sensitive nearby coral reefs both from the dredging phase and the operation phase maneuvering docking ships?

Response:

*Turbidity control measures will be implemented within the active area of construction (around the working dredge) These are further detailed within the EMP. Best Management Practices include deployment of turbidity curtains and turbidity monitoring throughout construction. Assessments of coral resources will be additionally conducted throughout the construction process. Impacts to Peterson's Cay are not anticipated from construction due to the distance from the active work area to Peterson's Cay (which is over a mile) and the turbidity control and monitoring measures which will be implemented. Impacts during the operational phase from ship operations are not anticipated, as the project will implement a safe approach for all vessels. Specific details for use of Turbidity Curtains, Oversight and Monitoring during Marine Construction, Turbidity Monitoring, and Benthic Surveys during Construction can be found in Sections 10.4.11 – 10.5.3. of the EMP.*

**4. Casuarina Mckinney**

Question:

The EIA references a document: "The Economic Impact of the Proposed Carnival Cruise Line Expansion on Grand Bahama Island" by Tourism Economics. Where might we be able to review this document?

Response:

*This document is found in Appendix 8 of the EIA. The technical appendix to that presentation is attached in Appendix 1 of this report*

**5. Casuarina Mckinney**

Question:

Appendix 8 is not part of the document. Is it somewhere else?

Response:

*Note there are two documents, the Environmental Impact Assessment (EIA) which includes the referenced Appendix 8 (Tourism Economics Presentation) and the Environmental Management Plan (EMP) which has separate appendices*

**6. Casuarina Mckinney**

Question:

Would it be possible to see the actual report that has some detail on methodology, not just the summary ppt of the economic assessment?

Response:

*The technical appendix to that presentation is attached in Appendix 1 of this report.*

**7. Dr. Ancilleno Davis**

Question:

What was the methodology in the Economic assessment? that is necessary to evaluate the validity.

Response:

*See Attached Tourism Economics Technical Appendix in Appendix 1 of this report*

**8. Karen Panton**

Question:

Good evening. What is the intended procedure if ruins are found on the site?

Response:

*See from EMP page 42 below:*

*"Historical, Archeological, and Cultural Resources: If during construction activities, the CONTRACTOR observes items that may have historical or archeological value, such observations shall be reported immediately to the Engineer, so that the appropriate authorities may be notified and a determination made*

*as to their significance and what, if any, special disposition is required. The CONTRACTOR shall cease all activities that may result in the destruction of these resources and shall prevent his/her employees and subcontractors from trespassing on, removing, or otherwise damaging such resources. The Grand Port will have an Environmental and Safety Awareness Orientation for all contractors prior to the beginning of work. The contractors will be informed of possible artifacts that have been found in the past on Grand Bahama near West End. These artifacts were related to the Lucayan Indians."*

## 9. Dr. Ancilleno Davis

Question:

My question on the environmental carrying capacity: How will the residual solid waste be treated? how much of it will be delivered to the landfill or removed from the island.

Response:

*The waste management plan for the facility can be found in Section 7 on page 20 of the EMP. Additionally, Environmental Management of Waste Vendors can be found in Section 11. Section 7 covers trying waste reduction technologies, recycling, and disposal of batteries and used oil. Sanitation Services Company Limited operates the Pine Ridge Landfill. It is noted that Sanitation Services Company is a subsidiary of Waste Management Inc. The Landfill has 195 acres of available land for use but currently only occupies less than 30 acres. According to Sanitation Services they will be able to accommodate the waste produced from the facility.*

*As stated in the EMP:*

- "Environmentally sustainable collection and disposal of all solid waste generated by the operation of the Port will be in coordination with Sanitation Services Company Ltd. (SSC) with the goal of minimizing the wastes disposed of to the Pine Ridge Landfill located on Rock Plant Rd. SSC is responsible for the collection and disposal of solid waste in Freeport."*
- "No ship waste will be accepted at the Port for disposal in Freeport."*
- "If is not possible to implement advanced waste reduction technologies at the initial stage of the operation of the facility, a recycling program will be implemented considering the lack of recycling facilities in Grand Bahama Island. Sands branded beer bottles could be recycled in Freeport, but other recyclables would be embarked to the corporate cruise ships based upon the experience of the pilot project currently being carried out at GTCC (see below, GTCC Waste Generation Summary, where all wastes generated by this port in several days are logged and also the recyclables embarked in several Carnival cruise ships). For this purpose, proper equipment such as glass crushers, can densifiers, waste compactors, etc., will be installed. All waste generated from gardening maintenance will be used to create compost heaps, based mainly upon the experience at Mahogany Bay Cruise Center (see Appendix 7)."*

*Therefore, it is expected that most waste will be able to be disposed at the Pine Ridge Landfill. The Pine Ridge Landfill is a lined landfill with a leachate collection and treatment system. The Pine Ridge Landfill is one of the most modern landfill facilities in the Bahamas.*

*The waste water treatment system is discussed in the EIA in Section 9.4 page 176. It states the following:*

*"Consequently, Carnival Corporation's Global Port and Destination Development Group has installed in three of Carnival's Caribbean ports AWWTPs with MBR technology. This technology is designed to provide a very high quality of water capable of operating within varying and at higher pollutant loading. Biologically treated wastewater is filtered using MBRs to produce reuse quality effluent. Based upon the excellent performance of the MBR systems currently installed, Carnival has decided to install an MBR system in Grand Port, with treatment requirements intended to exceed the standard set in The Bahamas and the U.S. At this preliminary stage of Grand Port's design, an average day flow of approximately 30,000 gallons is estimated.*

*To minimize the fluctuations in the influent to the wastewater treatment plant, an equalization tank will be sized to store at least the peak day flow. As shown in the example from Carnival's Amber Cove facility MBR system in Figure 9-2, the last lift station from the wastewater collection system pumps raw wastewater (influent) passing through the fine screens to this equalization tank. Equalized influent (raw wastewater) is then pumped to fill the MBR process."*

*As discussed in Section 6.0 Waste Water Treatment Plant of the EMP (page 9):*

*"When required, waste activated sludge is conveyed to a storage tank where it can be digested, dewatered and used for the nursery/landscaping purposes and/or hauled to the Pine Ridge Landfill for disposal."*

*Further details on the operation of the Waste Water Treatment Plant are discussed in the EMP.*

*The Bathroom facilities are discussed in Section 6.8 (p.58) of the EIA and a drawing of the locations are provided in Appendix 2 of the EIA. The number of restrooms were based on the anticipated throughput of guest through the facility.*

*"The bathrooms are divided into three categories:*

*Large Public Restrooms (Quantity 10)*

- *Men's Urinals 5*
- *Women's WC 11*
- *Men's Lavatory 3*
- *Women's Lavatory 4*

*Small Public Restrooms (Quantity 9)*

- *Men's WC 1*
- *Women's WC 1*
- *Men's Lavatory 1*
- *Women's Lavatory 1*

*Crew Restrooms (Quantity 3)*

- *Men's WC/Urinals 3*
- *Women's WC 4*
- *Men's Lavatory 2*
- *Women's Lavatory 2*

**PART 3. WRITTEN QUESTIONS FROM PUBLIC CONSULTATION PROCESS RECEIVED BY CARNIVAL CORPORATION FROM WEBSITE AND RESPONSES.**

As of September 2, 2021 no questions or comments were received by Carnival Corporation on the Environmental Impact Assessment or Environmental Management Plan that were posted on the [carnivalgrandport.com](http://carnivalgrandport.com) website.as per the public consultation process.



**PART 4. WRITTEN QUESTIONS RECEIVED BY THE DEPARTMENT OF ENVIRONMENTAL PLANNING AND PROTECTION FROM THE PUBLIC CONSULTATION PROCESS.**

The Department of Environmental Planning received questions from Falon Cartwright (Director of Science and Policy) of the Bahamas National Trust on September 2, 2021. The responses are inserted below the questions and presented on the following pages.



September 2, 2021

Mrs. Rochelle  
Newbold Director  
Department of Environmental Planning and  
Protection Ministry of the Environment and Housing

Dear Director Newbold,

## RE: Carnival Grand Port Environmental Impact Assessment

The Bahamas National Trust (BNT) is writing to offer our official comments on the Environmental Impact Assessment (EIA) (Rev. II April 2020) for the Proposed Carnival Grand Port at Shark Rocks Point, Freeport, Grand Bahama prepared by Envirologic International Ltd. on behalf of Carnival Grand Bahama Investments Ltd.

We have evaluated the EIA considering the Bahamas National Trust's mandate to manage and protect the National Parks System and in particular the Peterson Cay National Park (PCNP) and the Lucayan National Park (LNP) due to the proximity to the proposed development.

## General Comments

The Carnival Grand Port will create a waterway inland parallel to the current shoreline, and docking facilities to accommodate Carnival Cruise ships, up to two at a time. The location is east of the Peterson Cay National Park and west of Lucayan National Park. The primary impacts of this development are environmental and socio-economic. Major concerns for the BNT include:

1. The fragmentation of local habitat including reef and hard bar, mangroves, and pine forest.

### *Response:*

*Based on the Conclusions of the study and the corresponding comprehensive management plan meant to mitigate any potential primary and/or secondary impacts. We do not believe we are causing any fragmentation.*



*We have executed many similar projects in the region implementing best practices and have not caused any fragmentation of the existing ecosystem.*

2. Long term impacts to the biotic and abiotic systems within PCNP including stochastic events such as spills and ship groundings, long-term effects of water quality and long-term effects on nutrient transport and benthic organism recruitment.

**Response:**

*Our ships visit over 700 ports around the world often operating several hundred feet from many marine national parks without impacts to the biotic and abiotic systems.*

*These concerns have been specifically addressed both within the EIA document (including appendices) and within the EMP. Direct or secondary impacts within the PCNP are not anticipated from this project.*

3. Long term effects on the hydrology of the surrounding island environments including, the mangrove wetland, groundwater resources, current and wave flow within and beyond the project area.

**Response:**

*These concerns have been specifically addressed both within the EIA document (including appendices) and within the EMP, specifically Appendix #4 Hydrological Report.*

4. Economic impacts to nature tourism offerings preempted by on-property wildlife areas through higher cost for tour operators to maintain offerings further away from Freeport, legal and certification costs for guides wishing to engage with cruise guests and decreased participation of guests with local parks such as Lucayan National Park.

**Response:**

*Notwithstanding the negative impacts from Dorian and COVID-19, this project truly represents an opportunity to increase Ecotourism in the region. Please refer to the Social Economic section of the study. Tour operators pre COVID-19 have been doing business with Carnival for years. This longstanding relationship will only grow in the future.*

5. Long term economic effects on the surrounding communities through the cannibalization of the Port Lucaya tourism community as well as higher cost for participation in ecotourism and sustainable tourism ventures for local Bahamians.



**Response:**

*Grand Port will more than double (likely triple) the number of passengers in Grand Bahamas (based on Pre COVID numbers). Furthermore, the port will create new opportunities currently not available for Bahamians that will sustain tour companies which have been adversely impacted by the lack of tourist due to Hurricane Dorian and COVID-19. By no means, will this opportunity create "higher cost for participation in ecotourism and sustainable tourism ventures for local Bahamians".*

*There is also a potential for new business to take root outside of the Carnival site to take advantage of the of the increased number of tourists visiting the port creating new employment opportunities.*

In addition to these general concerns, the conduct of the assessment reveals the following gaps:

1. Timing of avian surveys was of short duration insufficient to thoroughly characterize avian species communities at any time of year and occurred at a time of year that underrepresents true diversity and specifically excludes the vast majority of threatened and endangered migratory species listed in the US Endangered Species Act which may use the area. Such as Piping Plovers, Bahama Nuthatch and woods warblers.

**Response:**

*Additional Wildlife surveys are proposed in Section 9 page 30 of the EMP.*

2. No wetland bird species were detected during the surveys; this conspicuous absence indicates a lack of thorough survey or use of an inappropriate sampling method or technique.

**Response:**

*Additional Wildlife surveys are proposed in section 9 page 30 of the EMP.*

3. Wildlife survey methods and effort are not adequately described to determine abundance or density of the species identified or to account for absent species.

**Response:**

*Additional Wildlife surveys are proposed in section 9 page 30 of the EMP.*

4. The surveys conducted within the Peterson Cay National Park did not involve Park or BNT staff. This may have reduced the effectiveness of the effort and indicates a disregard for or lack of familiarity with local regulations.

**Response:**

*Please note that we engaged not only with local BNT but with other NGO's in Grand Bahama throughout the inception of the project. Furthermore, our scientist implemented accepted methods & standards to collect and analyze the data. It is also important to note that our scientists were approved by DEPP based on their expertise.*

**5. The Benthic project area does not fully encompass the dredging footprint.**

**Response:**

*Our scientists implemented accepted methods & standards to collect and analyze the data. The data collected included not only the dredge footprint but also the areas adjacent to the dredge footprint.*

The presentation of the EIA has additional concerns that should be addressed to improve accessibility, accuracy and value. Some of these concerns include:

1. Definitions of acronyms and terminology in the primary EIA document. The EIA document does not expand on some Acronyms such as CSA divers.

**Response:**

*Please note the Terms of Reference approved by the DEPP does not require a definition of acronyms & terminology. Please refer to the Appendix 7 of the EIA "Continental Shelf Associates" CSA. The EIA contains 10 appendixes which are an essential part of the EIA and should referenced when reading the EIA.*

2. Arithmetic: Numerical items in several areas of the report are inconsistent, inaccurate and/or misleading.
  - a. The numbers in several of the table columns do not add up to the totals at the bottom of the columns. The result of which is an over or underestimate of the impact area depending on the column. In the same table there appear to be multiple areal estimates for the same area. This should be accounted for and explained appropriately.

**Response:**

*This comment was previously addressed. Please refer to Part 2 of the Public Consultation report.*

- b. The number of sample survey quadrat and bounce dive locations are inconsistent with the images in the documents.

**Response:**

*The number of sample survey quadrat and bounce dive locations are provided in the Benthic Assessment Appendix #7*

- c. The job creation is stated as 1,680 annually and 706 during the development phase, but this includes direct, indirect and induced jobs. Direct development phase jobs are only 354 about half of what is in the main EIA. Annual direct jobs are only 1279 about 75% of what is reported in the broader EIA. Considering the current economic situation in Grand Bahama, indirect job creation and job induction through expenditure is less likely. These values need to be recalculated and in the main EIA distinction should be made between created jobs and indirect or induced jobs.

**Response:**

*The economic data was generated by the Oxford Company and included in Appendix 8 of the EIA. This was used as a basis for the Social Economic section of the report. The EIA concludes that this project will have a positive economic impact on Grand Bahama and this conclusion has not changed.*

3. Metadata for key environmental elements or survey locations should be presented including:
  - a. Discrete GIS locations: the transects used for environmental surveys, quadrat locations and bounce dives should be provided in tables to allow references for future monitoring and in situ validation of report information.

**Response:**

*This information is available to support future assessments of the areas, but this information is not relevant to the main EIA document.*

- b. Effort data: start and end time of surveys speed of movement along transects and area or distance traveled are all necessary to determine the value of species assessments. These are not included for avian, roving diver, terrestrial invertebrate, or reptile surveys.

**Response:**

*This information is included with in the field notes, but it is not relevant to the main EIA document.*

Below are more specific concerns/questions regarding the project.

## Avian Survey

### Time and Duration

- The timing of the surveys during the summer reduce the number of species that can be detected due to migration and breeding.

**Response:**

*Additional Avian surveys are proposed in section 9 page 30 of the EMP.*

- The surveys were of a short duration and it is not clear if the time was strictly

dedicated to avian surveys or if these birds were opportunistically recorded while focused on the vegetation survey.

**Response:**

Additional Avian surveys are proposed in section 9 page 30 of the EMP

**Species detections**

- There are 286 species of bird reported for Freeport and West Grand Bahama. Only 12 were detected here. No migratory songbirds were detected and no endemic species.
- The first and second most prolific bird observers for the Bahamas according to eBird live on Grand Bahama but were not consulted for the survey.
- The crab body shown in images implies predation by a larger heron, but no herons were detected despite the immense wetland area.
- The Bahama Nuthatch has been observed in the Owl's hole area where you conducted water quality assessments and in the pine forests north of the project site. There has not been any thorough effort in the project area. So there may be risk to this endangered endemic species.

**Response:**

*The above 4 points are addressed with the additional Avian surveys which are proposed in section 9 page 30 of the EMP*

**Survey methodology**

- Avian surveys should include some description of survey effort in terms of distance travelled, area searched and time spent looking for birds only.

**Response:**

*Additional Avian surveys are proposed in section 9 page 30 of the EMP*

- Methodology should be described as Caribbean Waterbird Census and forest surveys are different and the different protocols are specifically designed for certain habitats.

**Response:**

*Methodology is described in Appendix #5 of the EIA*



## Benthic Survey

### Benthos

- Sand transport is an issue when the coastline is altered with jetties on both the eastern and western ends of the development, the impacts to
- The two inlets will also create a new flow dynamic, potential for pollution (chemical, thermal and species introductions)
- The dredged footprint will change the wave profile and regular dredging will create more frequent disturbances.

**Response:**

*The above 3 points are addressed in the EIA Coastal Processes Study Appendix #6*

### Benthic Wildlife

- New inlets will create new wildlife habitat or pollution sources. Are there any wildlife or disease elements present in the wetlands that may impact marine fauna or flora, if dredging exposes them?

**Response:**

*Please reference Appendix #6. There are no sources of pollution or disease associated with the creation of the inlets.*

Dredging, inlets and jetties will affect longshore drift of sand and currents, how will this affect recruitment or survival of coral and other benthos in PCNP? Will PCNP be included in ongoing monitoring.

**Response:**

*Please refer to Appendix #6 of the EIA. The project will have no impact to coral recruitment or survival in the PCNP. As a further safeguard The PCNP is included with in the monitoring plan.*

- A 5.81 acre receiver site has been identified 1.5 miles east of the impact area for coral relocation and mitigation. There should be an additional EIA assessment of that area before it can be used for such activities.

**Response:**

*The EIA has already been approved by DEPP for this activity.*

- A 5.18 acre receiver site nearshore adjacent to the Western project boundary will be made of limestone boulders 4 ft in diameter. Will these be in the area affected by the inlet, dredging and changes in longshot sand transport?

**Response:**

*No*



- Dredging to maintain the cruise ship docking area will be a major impact with regular frequency. How will downstream impacts be managed? The timing of removals would also need to be carefully considered to avoid potentially spill due to hurricanes or winter storms.

**Result:**

*Any required maintenance dredging is addressed with in the EMP document and will be conducted in coordination with DEPP. The same EMP policy for initial dredging applies to maintenance as discussed in Section 10.3.5 (page 40) of the EMP.*

- Benthic habitat classification by bounce divers is appropriate for the timeline but underrepresents the actual diversity. Some of the corals missing from the PCNP site were reported in earlier assessments performed by BNT.

**Response:**

*We believe that the study appropriately represents the diversity of the corals present in the study area.*

- There is very little mention of the Stony Tissue Coral loss and potential risk of exporting this disease to other reefs/islands through either visitors or vessels, considering the presence of the disease in the project area.

**Response:**

*Stony Tissue Coral Loss Disease (SCTLD) protocols are included with in the EMP. There is no correlation between a proposed pier (pile driven structure) and ship movement and the SCTLD that is now plaguing large parts of the Caribbean and the warm water coral reefs around the world.*

## Terrestrial Survey

- The report lists 155.18 acres of mangrove habitat and estimate 54.6 acres of impact. However, page 184 states that 103 of the 155 acres of habitat will be conserved. The image by Haskell August 30 2019 shows 159+/- acres of mangroves. The numbers are inconsistent.

**Response:**

*This comment was previously addressed. Please refer to this Public Consultation report.*

- Exposed habitat edges will also be more prone to invasion. How will invasion of the wetland be monitored and managed during the life of the project?

**Response:**

*Please refer to the EMP section of the document. These areas will be replanted with mangroves.*

- The report mentions the removal of pine trees as typical in development in Freeport. This is irrelevant. Proper assessment of the age and abundance of the pine trees is needed to determine their value and inform appropriate mitigation. Transplanting is also an option.

**Response:**

*Please reference the Terrestrial Resource Study in Appendix 5 of the EIA*



Current condition of Pines on access road to site (approximately 2.3 miles)



Pines on the property as a result of Dorian

## Hydrologic Survey

- Proposed activities will shift the freshwater lens northward several hundred feet. Grand Bahama Company (GBUC) has a wellfield north of there and will be using that area for a wellfield expansion. How will this impact the ability to deliver water to Bahamians?

*Response:*

*This concern has been adequately addressed with the GBUC. GBUC have been actively engaged throughout the hydrological study.*

- Considering the extent and magnitude of interconnected fractures, the hydraulic conductivity may vary by several orders of magnitude within one rock type. The values used for the simulations should be considered “average” values over the entire system. Dredging that connects any of these cracks to the marine environment can potentially contaminate the entire freshwater lens and change recharge rates and viability. Have any studies

*Response:*



*Please reference Appendix #4 of the EIA and EMP document where monitoring of the aquifer is proposed.*

Saltwater intrusion to the freshwater lens is considered one of the major causes for the broad death of the pine forests and slow recovery. If the lens is pushed northward, what is the expected impact on the national forestry reserve?

**Response:**

*Please reference Appendix #4 of the EIA and EMP document. Unfortunately, the pine forest in the area and most of east Grand Bahama have already been adversely impacted from the seawater flooding in from Dorian.*



*Current conditions of Pines at intersection of Suffolk Road (access road to site) and Grand Bahama Highway. Site is approximately 2.3 miles south.*

- The permanently flooded brackish mangrove wetlands “do not exhibit the same tidal fluctuations as the surrounding area”. This raises the concern that a sudden change in salinity could permanently damage and possibly kill the mangroves in that area. What remediation measures will be taken if the 103 acres of mangroves experience die off after the hydrology is changed?

**Response:**

*This is addressed in the EMP, in general monitoring of the mangroves will be conducted during the development phase and restoration will be implemented if needed. Maintaining the wet land on our property is and will be a top priority it will be a feature we are looking for BNT to*

*work with (as explained in our public presentation(s) during the February 2019 in Grand Bahama.*

- Hurricane Dorian already impacted the freshwater lens. If this work will reduce Bahamian access to clean water, how will this project compensate for that? They mention how their activities will have on the freshwater lens. Considering Dorian has potentially damaged the water lens already, does it seem sensible to further impact it?

*Response:*

*This concern has been adequately addressed with the GBUC. GBUC have been actively engaged throughout the hydrological study and afterwards. Potential impacts to the freshwater lens are addressed in the EIA. The GBUC and GBPA have not expressed any objections to the project proceeding, in fact GBPA has approved the issuance of a Building Permit. GBUC is installing a 5 MGD Reverse Osmosis plant to treat groundwater from the W-6 wellfield to supply potable water to the public. Grand Port will also have its own Reverse Osmosis plant. Therefore, there should be no impacts to the GBUC subscribers other than those already experienced as a result of Dorian's impact.*

*Hurricanes will keep on coming, each with its own impact, hopefully none with the devastating impact of Dorian.*

EIA suggests changes to the freshwater lens will be short term, there is no science to support this and based on current evidence as the freshwater lenses have not returned to pre-Dorian state in 2 years.

*Response:*

*The EIA does not suggest that changes to the freshwater lens will be short term in fact the EMP proposes a monitoring plan to monitor potential changes to the freshwater lens. The impacts are discussed in Section 9.2.1 Groundwater Resources of the EIA and in Appendix 4 of the EIA.*

Where will Reverse Osmosis plant effluent be discharged? Deep well injection or offshore?  
This needs to be stated and impacts to surrounding aquifer and biota need to be considered.

*Response:*

*Please refer to the EMP and Appendix #6 of the EMP "Functional & Technical Specification Deep Injection Well"*

## Stated Impacts

- The report admits that the beaches are quality sea turtle nesting habitat and that the nighttime lighting environment poses the greatest risk nesting sea turtles. What best management practices are in place at Carnival properties in the region to reduce these impacts? How will they be applied here?

**Response:**

*Please refer to Section 10.10 of the EMP. The port will be used during daytime. In rare occasion of a late evening for a few hours some small portion of the beach may have some ambiance lighting.*

- LNG in storage will have some boil off gas produced. What percentage of this is expected to be recaptured to run the engines and what is the expected net loss to the environment? Absolute value needs to be presented to determine true cost.

**Response:**

*There will be no LNG storage at the port. Please refer to Appendix 11 of the EMP document "Bunkering Process". LNG ships have been calling on The Bahamas for years including since July also by LNG driven Cruise ships, most new cruise ship being build will call on the 9 Bahamian ports plus 2 under development will welcome LNG ships, using the cleanest fossil fuel. The new cruise ships have advance technologies that puts them a head of any cargo LNG driven ships and that includes boil off gas produced. Carnival is the global leader in LNG technology for cruise ships.*

## Additional Impacts

- Appendix 3 (Water Lines) indicates that water supply will come from the GBUC. With the shift of the Freshwater lens north how will this affect the GBUC ability to deliver potable water to the additional Grand Port consumers along with their current customers?

**Response:**

*GBUC has confirmed they will be able to provide the ships with ample supply without impacting local customers.*

- Carnival ships are 3 of 5 that call at Port Lucaya. What will become of Port Lucaya?

**Response:**

*We do not have ship (including pre COVID) calls at Port Lucaya, we are using Freeport Harbour for the cruise operation. Port Lucaya is a marina/shopping/restaurant complex. The passenger counts in the new port will be at least double the number of passengers we had pre COVID (coming in with less ships but much larger capacity ships. Freeport Harbor is reported to be engaged in a new development project that will likely maintain and even increase the number of passengers calling on the commercial port. Further there is no statistics as to how many cruise ship passengers even make it to Port Lucaya. We note there has not been*

*a Carnival ship with passengers in Grand Bahama since the end of March 2020 until present and Port Lucaya has managed to sustain itself to date.*

- In the event of storms, or other adverse events, will the jobs and income of local staff be guaranteed? Will the positions be salaried or dependent on the number of guests that disembark or make purchases?

**Response:**

*The port will employ local Bahamians via 4 categories of employment: A. Via Bahamian Retailors at the port. B. Employees of the F&B beverage Bahamian operators at the port. C. The port Subcontractor labor in specialized area and D. The employees of the port itself. That is in addition to others that we will be working with operators selling tours to the cruise lines. We can only address the question as to our directly employed employees and indeed such adverse event we will guarantee the jobs and income of our employees as we have done in the past. Our employees will be paid by the time / job they will perform as measured in hours / days. We do not know how the other indirect employees will be renumerated.*

- Tour businesses will now be split between Port Lucaya and Grand Port, how will this affect the local economy stability and offerings?

**Response:**

*It will increase the offering and the opportunities. Additionally, tour operators offer different tour packages that do not go to Port Lucaya, i.e. ATV tours, kayak tours, moped tours and Lucayan National Park, etc.*

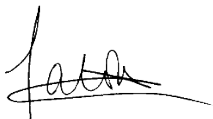
- Sperm whales and other cetaceans have been reported south of Grand Bahama. How is this expected to affect them?

**Response:**

*Please refer to the Marine Noise (page 41) of the EMP. No significant impacts to cetaceans are anticipated on this project.*

If you have any comments of concerns, we would be happy to make ourselves available for further discussions on the matter.

Sincerely,



Falon Cartwright  
Director of Science and Policy