SOUTH ABACO: HOTEL, MARINA AND RESIDENCES

PUBLIC CONSULTATION REPORT

Submitted to:
The Department of Environmental Planning and Protection
Ministry of the Environment & Housing
Charlotte House, Charlotte & Shirley Streets,
Nassau, The Bahamas.

Submitted by:
Caribbean Coastal Services Ltd.
Lot 57, Airport Industrial Park
P. O. Box CB-11524
Nassau, The Bahamas

On behalf of:
Tyrsoz Family Holdings Ltd.
South Abaco, Bahamas

2 March 2021

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1. INTRODUCTION

Caribbean Coastal Services Ltd. (CCS) was engaged by Tyrsoz Family Holdings Ltd. (the Developer) to prepare an Environmental Impact Assessment (EIA) for the Lantern Head and South West Point Project (the Project). The EIA was submitted to the Department of Environmental Planning and Protection (DEPP) on November 4th, 2020. In order to facilitate the public consultation process, the public was invited to download the EIA from the Project website, www.southabacotyrsozpublicconsultation.com, and submit comments to the Developer through an online portal available on the same site. The public was also invited to submit comments to the DEPP via email at inquiries@depp.gov.bs. The two public notices circulated by the Developer on November 10th, 2020 in the newspaper are shown below:

Figure 1. Public notice circulated on November 10, 2020 in The Nassau Guardian

South Abaco Development Project EIA Submission

The Public is advised that the Environmental Impact Assessment document (EIA) for the South Abaco project was filed with the Department of Environmental Planning and Protection (DEPP) by **Tyrsoz Family Holdings Limited**. The Development will include residences, hotels, golf course and a marina and is located at Lantern Head and South West Point, in South Abaco. The Public is to note that (3) three public meetings regarding the project were held in 2019, two in April and one in December.

The EIA document is available online at **www.southabacotyrsozpublicconsultation.com**. The document can be downloaded and all comments and questions can be provided to the Director of the Department of Environmental Planning and Protection in writing to **Inquiries@depp.gov.bs**. Public comments and feedback should be made no later than 21 days from the posting of this notice or December 3rd 2020 by 5pm.

US NEWS

Tropical Storm Eta floods already drenched Florida cities

Biden targets virus as his White House transition begins

California seeing biggest jump in virus cases in months

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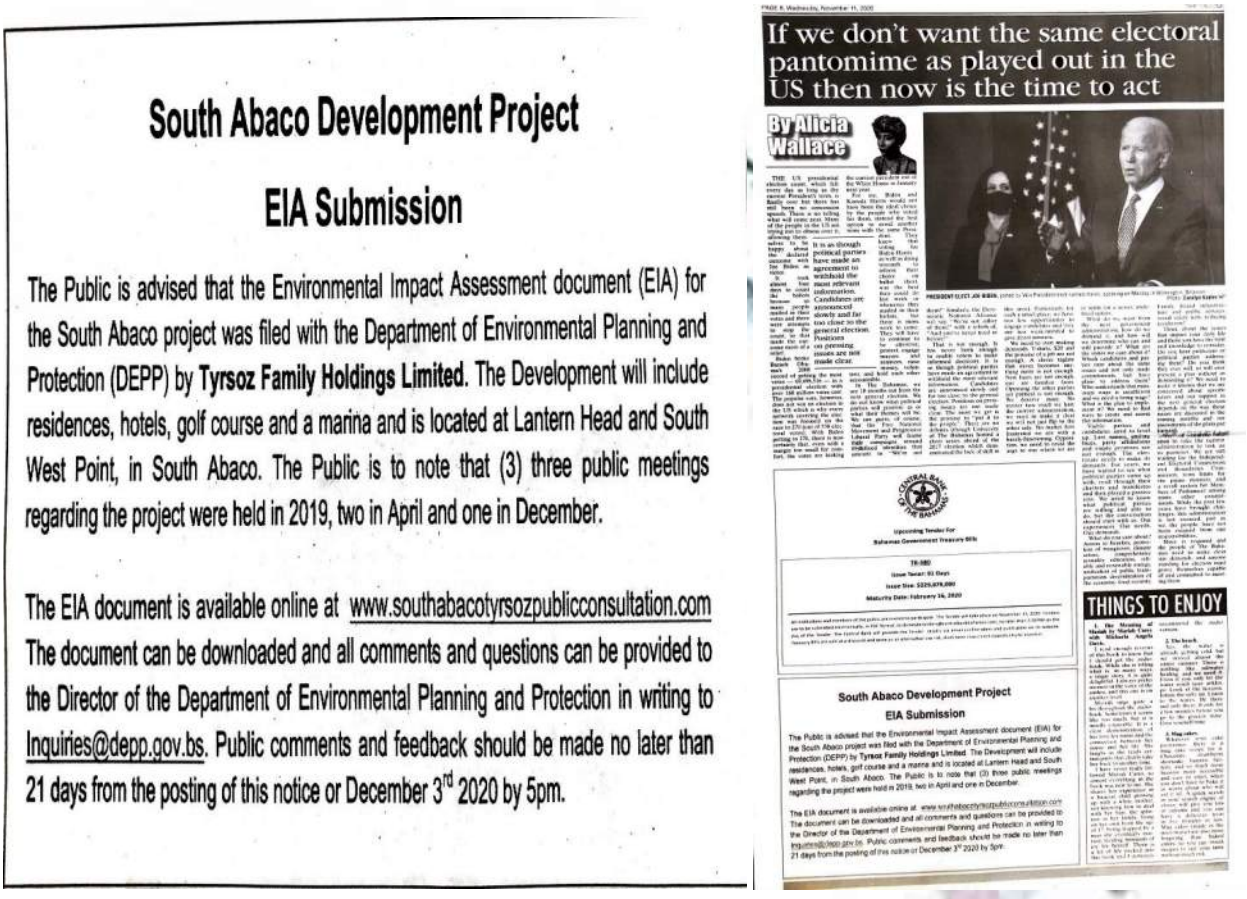
Figure 2.. Public notices posted in The Tribune newspaper on November 11, 2020



South Abaco Development Project

EIA Submission

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The purpose of this Public Consultation Report (the Report) is to summarize and address the comments made by the public as part of this process. This report is being submitted to the Department of Environmental Planning and Protection (DEPP) to assist in the assessment of the Project.

2. FORMS OF COMMUNICATION

2.1 Public meetings

Prior to the EIA submission, the Project was presented to the public in three meetings:

- Morning of April 9, 2019 – meeting in Marsh Harbour, with many Environmental groups in attendance. See Appendix A for meeting documentation.

- Evening of April 9, 2019- meeting in Sandy Point, Abaco with approximately 500 people in attendance representing a cross section of Abaco and mainly south Abaco residents. See Appendix B for meeting documentation.

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- December 12, 2019 – a meeting in Sandy Point, Abaco at the request of the Government of The Bahamas. In addition to over 100 residents of Abaco, DEPP Officers and Bahamas Investment Authority (BIA) personnel were also in attendance.

The aim of these meetings was to give the public an opportunity to comment on the Project and obtain information that might be useful to the Project in finalizing submissions to DEPP in its review of the Project's application.

In communication with DEPP and after consultation by DEPP with the office of the AG it was determined that these meetings are sufficient to fulfill the requirements of the Environmental Planning & Protection Act (2019), Environmental Impact Assessment (EIA) Regulations.

In addition, and in an effort to provide another opportunity for communications, the Project has held a virtual meeting with representatives of the Environmental groups after the EIA was submitted on November 23rd, 2020 (see Appendix C for the list of participants in that meeting and link to recording of that call).

2.2 Web site comment

- The Project's website received only one (1) comment from Ms. Lesley Brickman submitted on November 26, 2020.

See Table 3 in Appendix D.

2.3 Formal Submissions to DEPP

DEPP provided the Project on December 18th, 2020 with four formal submissions that it had received concerning the Project:

- Bahamas Reef Environment Educational Foundation (BREEF) letter dated December 3rd 2020
- Bonefish Tarpon & Trust (BTT) letter dated December 3rd, 2020
- Bahamas national trust (BNT) letter dated December 3rd, 2020
- Sustainable South Abaco letter dated December 3rd, 2020

These letters are enclosed as Appendix E

2.4 Other Submissions

The South Abaco District Council submitted two letters to the Government of the Bahamas

- Letter from South Abaco District Council to the OPM dated April 26th, 2019
- South Abaco District Council to BIA dated October 27th, 2020

These letters are enclosed as Appendix F

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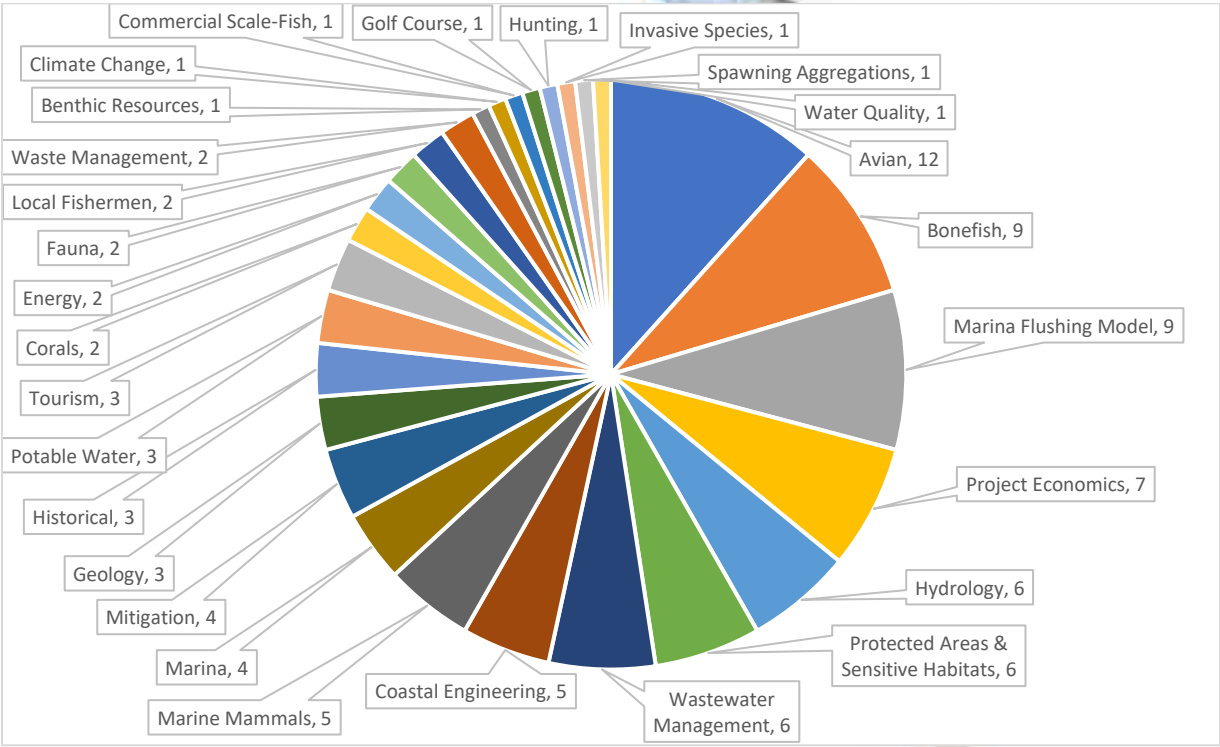
3. SUMMARY

The Developer notes that many of the comments or concerns expressed in the letters submitted during the Public Consultation process and prior to it are repetitive. As such, much of the responses in the response tables may seem redundant, but it was the intention of the Developer to respond to all comments.

A distribution of the comments by topic is shown below in Figure 3.

Figure 3. Distribution of Public Comments by topic.



The most prevalent environmental comments received were related to Avian species, Bonefish, Hydrology and Protected Area Management & Sensitive Habitats.

The Developer's detailed responses to each of the comments and concerns raised during the consultation process is shown in the Appendix G, tables 1-3.

All the above topics were covered comprehensively in the EIA submitted on November 4th, 2020 for the Project. Further specific information has been provided in the Response Tables in answers to specific comments made. Additional detailed information will be provided in the EMP as is customary.

In our opinion, the well thought out design for the Project, which was centered around responsibility to the environment, the mitigation strategies and remediation proposals described in the above documents, all combine to reduce the environmental footprint of the Project to be objectively small and as much as possible given this type of development.

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4. OWNER'S DISCUSSION

The Project is a low-density luxury residential resort community designed on sound economic footing, with great care and responsibility to the environment and pristine nature of the area in South Abaco while providing significant opportunities for the local community by way of entrepreneurial and employment opportunities as well as community engagement and environmental mitigation projects.

Throughout the process of creating this Project the Developer has emphasized the need to design The Project around three fundamental guidelines: responsibility to the environment, investment in the community and financial feasibility.

4.1 Low Density

The Project encompasses about 1,200 acres. This is a very large area which typically would comfortably provide space for a development of 4,000-5,000 residential units.

As designed The Project involves only about 150 large residential units, 140 small residential units, about 60 large residential units equivalent in hospitality facilities, a golf course, a marina and other amenities.

Even when comparing to other similar luxury residential communities in the Bahamas this is a very low density (3.42 acre/unit) given the 1,200 acres available for development.

As an example:

4.1.1 Baker's Bay is approximately 585 acres on Guana Cay and has a 18 hole golf course, a 200 slip marina and approximately 385 residential units (1.51 acre/unit).

4.1.2 Albany stretches over 600 acres in Southwestern New Providence and has a 7,400 yard championship golf course, a mega yacht marina and about 300 large residential units and over 100 small residential units (1.5 acre/unit).

4.1.3 Lyford Cay stretches over about 1000 acres in western New Providence and has an 18 hole golf course, a canal system and about 450 homes (2.22 acre/unit) .

4.1.4 Ocean Club estates occupies 300 acres on Paradise Island and has a golf course, a marina and about 122 single family homes and approximately 88 condominiums (1.44 acre/unit).

As can be shown the Project is by far the lowest density project amongst all similar projects.

4.2 Golf course

All of the other projects mentioned above have golf courses and are designed to be in the most optimum location with amazing views mostly along the ocean. The Developer has chosen to locate the Project's golf course behind a 60-90' ridge separating the course from the ocean, thus sacrificing value, specifically in order to limit its detrimental effects on the marine environment. In addition, no expense will be spared in building the course and operating it based on state-of-the-art methods to protect the environment from intrusion emanating from the golf course to the maximum level possible.

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4.3 Marina

For the Marina at SWP, The Developer chose the more environmentally sensitive method of creating the marina. The result is a marina which is over 90% excavated on land and limits dredging activity in the ocean to a minimum. Another example of choosing the right thing to do from an environmental point of view yet sacrificing value or creating extra cost.

4.4 Utilities

The Project was offered the opportunity to obtain its power supply from BLP which would have probably involved extending electrical wires through the Bahamas National Park. Developer rejected this offer in favor of the more expensive suggestion of building its own power generating capacity. In addition, the Project of course will have vast solar power generation capability and will try to maximize the use of solar. However, this will not avoid the need to build a traditional power supply as a redundancy. Similarly, the Project will create an elaborate system of rain containment in order to maximize the use of rainwater in the Project. Again, choosing a likely more expensive and non-traditional method to generate water but the one which is more environmentally friendly.

4.5 Storm management/Rising sea levels

When looking for a suitable location for the development, developer was offered 10 (ten!) separate parcels of land on Abaco. All the other 8 parcels were located much closer to the main developed areas in Abaco and would have proven much easier and cheaper to develop due to the ability to use existing infrastructure. Nevertheless, Developer chose these two parcels mainly due the unusual topography and elevations that provide embedded protection against hurricanes and the rise of sea levels(See figure 3 below).

Figure 4. Sketch depicting topography of Lantern Head

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This Project will become the only similar-type project in the Bahamas to be able to recover from a direct hit by Hurricane quickly and with relatively minor damage. This of course is very important for the entire economic and social system that will surround the Project. At the time, and even now, it was thought by many to be a mistake due to the less direct access to abundant beaches. It is only after the devastation inflicted by hurricane Dorian that more and more people are seeing the wisdom of that choice of location. Yet again Developer has shown that he will choose responsibility to the environment and community first and economic sound footing second.

4.6 Transportation

Given the seclusion of the Project and the lack of existing infrastructure it was always a given that a road will need to be created to allow access to the Project. The Developer chose to limit the road to run within the footprint of the existing right-of-way already going through the Abaco National Park and thus minimizing the disruption to the forest, even though the resulting road will be on the narrow side. In addition, The Project is committed to the use of predominantly electrical cars. An informal beach access previously provided a route to the beaches west of Hole in the Wall. The Developer has offered to reopen this beach access route for public access to beaches.

Figure 5. Existing roadway in South Abaco traversing through Abaco National Park

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4.7 Environmental Mitigation/ Community Engagement projects

Sections 5.2, 11.9 & 15 of the EIA describes the various environmental mitigation and community engagement investments included in the Project:

- As a part of community outreach, the South West Point development also includes the development of an artist village. The artist's village would consist of approximately 20 small units rented out to local Bahamian artists at zero rent.
- Hole in the Wall Lighthouse Refurbishment
- Development of the southern beaches in Abaco for public use and enjoyment
- Development of the Sandy Point Airstrip to allow better access to the community of south Abaco
- Paving the right of way in the BNP to allow better access for the public to the natural treasures of South Abaco.
- Avoidance and replacement of protected & flagged trees in 2:1 ratio
- Donation of 174.5 acres to BNT/Forestry
- Donation of $1,500,000 to BNT to promote their master plan for the development of the BNP
- Onsite nursery for propagation of native plants
- Potentially restoration of the Crossing Rock wetland or other such element.

Even excluding the airport and road elements, the total outlay on the other elements mentioned above is estimated to be in the region of $7,000,000. In addition, The Project committed to create an additional $7,000,000 fund that will help local entrepreneurs start and manage their business in the Marina Village and some other business trading with the Project.

Developer has more than once suggested to many of the environmental groups who submitted formal responses to DEPP regarding the Project, that Developer is willing to enter into discussions with these groups regarding other potential environmental mitigation investments that may be included in the Project. There has been no response from these groups to such suggestions. Developer is still willing to entertain such additional investments for worthy environmental mitigation projects for Abaco.

4.8 Benefits to the local community of South Abaco, to Abaco and to the Bahamas.

An Economic Business Assessment report prepared by CBRE was included in the EIA as Appendix E. That report estimated that the Project will generate close to $2 Billion in economic benefits to the Bahamas in a period of 10 years. While that report was done approximately 2.5 years ago, it is unlikely that the numbers would have changed in a significant way. The benefit generated by the Project to The Bahamas' economy are very substantial and will create significant advantages locally and throughout The Bahamas. Not least due to the marina which is a very important element of the Project and will generate a lot of economic benefit. It also falls within the declared policy of the Government of the Bahamas to encourage the superyacht business in the Bahamas. The marina which is going to be endorsed by one of the most prestigious brands in the superyacht industry (the name of which cannot be revealed due to confidentiality undertaking) will be very instrumental in promoting and progressing this established government intent.

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Figure 6. Artist's rendering of the Superyacht Marina at South West Point (not necessarily conforming)

5. CONCLUSION

Effective management of the environment in South Abaco is required to optimize the environmental and economic outcomes. Collaboration between the Developer, regulatory agencies and other stakeholders is essential to achieve this goal.

Since Project inception, and through the environmental compliance process, Developer has expressed the Project's willingness to work with pertinent stakeholders to achieve that. Developer is committed to continue to work with these stakeholders as the Project progresses to ensure that the most effective, yet practical mitigation strategies are incorporated and executed by the Project.

Given the seclusion of the area and the resulting need to make significant investment in providing infrastructure for transportation and utilities, all at the sole cost of the Project without any contribution from the government of the Bahamas, the Project as designed is the most responsible and environmentally focused Project that could be envisaged while still maintaining economic feasibility. The Developer understands stakeholders concerns and has committed to creating a sound Environmental Management Plan that will reiterate and expand upon the preventative and mitigation strategies described in the EIA.

The environmental compliance process is designed to evaluate the trade-off between potential environmental impacts and economic development utilizing input from the Project team, the general public and relevant regulators. For this Project, the decision is between the vast contribution of The Project to improving the standard of living and well-being of the local community and the rest of the Commonwealth of the Bahamas and no development at all for the entire region of South Abaco.

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6. APPENDICES

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A. Marsh Harbour Public Consultation Meeting held April 9, 2019- Questions & Answers

**The questions posed by attendees to the meeting is presented below, accompanied by answers provided by The Project. Actual responses during the meeting were not recorded, however, answers below are similar as the Project has not materially changed since the public meeting was held. **

April 9th, 2019 – Tyrsoz Family Holdings ENVIRONMENTAL Presentation

Attendees:

1) Ken Hutton, President of Abaco Chamber
2) Krista Sherman, Perry Institute for Marine Science
3) Justin Lewis, Bonefish & Tarpon Trust
4) Dr. Mick Michelson, Fisheries Conservation Foundation, Treasure Cay Bonefishers
5) Max Woolnough, Delphi Club, Bonefish Lodge
6) Cha Boyce, Friends of the Environment
7) David Knowles, Bahamas National Trust
8) Keith Bishop, Fisheries Conservation Foundation (FCF)
9) Diane Claridge, Bahamas Marine Mammal Research Organization (BMMRO)
10) Olivia Patterson-Maura, Friends of the Environment
11) Charlotte Dunn, BMMRO
12) Buddy Pinder, Abaco Fly Fishing Guides Association (AFFGA)
13) Cindy Pinder, AFFGA
14) Oliver White, Abaco Lodge, Bonefish Lodge
15) Jeremie Saunders, Senior Fisheries Superintendent (Abaco) from the Department of Marine Resources, a government appointee
16) Donald Rolle, South Abaco Island Administrator, who sat with Ryan Pinder at the top table

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Questions & Comments:

- David Knowles (BNT) not for golf course – he *personally* does not support it.

1) Who is financing the project?

RBZ: THE ISSUE OF FINANCING IS NOT PART OF THE SCOPE OF THE ENVIRONMENTAL ASSESSMENT. HOWEVER, WE DO HAVE TH FUNDING THAT WE NEED TO PROGRESS THE PROJECT.

2) How many developments has Ronnie done?

RBZ: MY EXPERTISE IS NOT IN THE SCOPE OF THIS MEETING. BUT I HAVE DONE ENOUGH DEVELOPMENTS TO QUALIFY ME. GETTING THIS PROJECT TO THE STAGE THAT IT IS IN IS IN ITSELF A TESTAMENT TO MY ABILITIES.

3) What are some of the US projects Ronnie has done?

RBZ: SAME ANSWER AS ABOVE.

4) What's the maximum-sized vessel the marina can fit, and how deep would the pool be? (Charlotte Dunn)

RBZ: THE MARINA WILL BE ABEL TO ACCOMMODATE YACHTS UP TO 650'. ITS DEPTH WILL BE ABOUT 15'.

5) Will this be a full-service marina (meaning vessels can refuel there)? Also, what's the plan for infrastructure (power, water, etc.)? (Keith Bishop)

RBZ: FULL SERVICE YES. INFRASTRUCTURE- THE PROJECT WILL PROVIDE ITS OWN UTILITIES NEEDS IN ALL RESPECTS.

6) Does Ronnie need both the marina and Lantern Head – can he do one without the other? (Diane Claridge)

RBZ- BOTH SIDES ARE REQUIRED. THE TWO ARE VERY COMPLIMENTARY AND BOTH PROVIDE A UNIQUE AND IMPORTANT ELEMENT TO THIS PROJECT.

7) Is all of it private land? (Diane Claridge)

RBZ: YES.

8) Where is the location of the marina in relation to the map of Abaco?

RBZ: AT THE VERY SOUTHERN PART ON THE LEEWARD SIDE OF THE ISLAND.

- Buddy Pinder says coppice is close to the water (contrary to what Ryan said)

9) What's your projection in terms of employment? (David Knowles)

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RBZ: ABOUT 600 OPERATIONAL EMPLOYEES ON AVERAGE (SEASONALITY) ONCE THE PROJECT GETS TO STABILIZATION. A SIMILAR NUMBER DURING CONSTRUCTION ON AVERAGE WITH HIGHER PEAKS AND LOWER TROUGHS.

10) How long do you think development will take (Cindy Pinder)

RBZ: ONCE WE ARE APPROVED AND CAN START WORKING 4-5 YEARS TO FULL COMPLETION.

11) Part of the marina is in a **proposed** expanded mammal protected area – is Ronnie willing to aid the management of that area via environmental restrictions on the marina? (Charlotte Dunn. Ryan's response is that this would be a government mandate)

12) What will you do about sewage? (Cindy Pinder)

RBZ: WE ARE NOT YET AT A STAGE TO PROVIDE DETAILS BUT WE WILL OF COURSE TREAT IT AND DEAL WITH IT AS PER STANDARDS.

13) How are you planning on watering the golf course? (Cindy Pinder)

RBZ: WE DO NOT HAVE FINAL PLANS AS OF NOW, BUT MOSTLY WITH GRAY WATER. MAYBE ALL.

14) How many lakes are you planning for the golf course? (Cindy Pinder)

RBZ: NO FINAL DESIGN YET.

- Diane Claridge said she appreciates Ronnie's time and presentation. She lives in Sandy Point and knows that South Abaco needs employment.

15) Would you consider a smaller-scale development? (Diane Claridge)

- Diane also said she doesn't think the marina is possible, engineering-wise, because of the condition of the waves – "It's a high-energy, dangerous coastline. I've seen people die there."

RBZ: THIS IS A VERY LOW-DENSITY PROJECT. ANY SMALLER WILL NTO BE FINANCIALLY FEASIBLE. EXPERTS CONCLUDED THAT THAT IT IS ENTIRELY SAFE AND FEASIBLE TO HAVE A MARINA AT THE PROPOSED LOCATION.

16) Where is Soldier Road in conjunction with the marina? (Cindy Pinder)

RBZ: LEADING TO IS FROM THE LIGHTHOUSE RD JUNCTION.

17) Will your consultant produce a flushing analysis for the marina? (Keith Bishop)

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- Keith Bishop of Islands by Design, who specializes in all matters coastal but attended on behalf of the Fisheries Conservation Foundation (FCF), doesn't think the marina's flushing canal will work.

RBZ: FLUSHING ANALYSIS WILL BE DONE. EXERTS BELIEVE IT IS WILL WORK.

18) Will the EIA be public? (Keith Bishop)

RBZ: WHATEVER IS DECIDED BY BEST.

19) Can Ronnie as the developer share the EIA **before** it's approved? (David Knowles)

RBZ: WE WILL ACT EXACTLY ACCORDING TO HAT BETS WILL ADVISE.

20) Who do you see using the marina aside from rich people? (Cindy Pinder)

RBZ: THE MARINA WILL BE OPEN TO EVERYONE AS LONG AS WE HAVE SPACE AVAILABLE.

21) What are the amenities besides the golf course? Will they be accessible by the local community? (David Knowles)

- Some concern was raised among attendees at the mention of a waterpark
- Diane Claridge suggested that marina access may need to be restricted to guests only for security reasons, and also because of the target market.
- Charlotte Dunn asserted that this project is *not* low-density because collectively it's 400 rooms. She also commented that "world class does not always mean success."

RBZ: ACCESS WILL BE AVAILABLE TO ANYONE WHO WANTS TO MAKE A RESERVATION TO USE, GOLF, SPA, RESTAURANTS ETC. THE PROJECT IS PROVEN LOWER DENSITY THAN ANY OTHER SIMILAR PROJECT. 400 UNITS MAY SOUND A LOT BUT WE HAVE APPROXIMATELY 1,200 ACRES.

22) How will you transport people from the airport to various venues? (Cindy Pinder)

RBZ: MOSTLY BY CARS. MOSTLY ELECTRICAL VEHICLES.

23) Would you have public charging ports for electric cars? (Charlotte Dunn)

RBZ: YES.

24) Does the 1200 acres include the marina? (Olivia Patterson)

- Olivia Patterson's concern is not just for the project to be low-density, but also how it will use its land; said that lots of vegetation would have to be removed.

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RBZ: IT DOES.

25) Have you considered having environmental scientists employed full-time for the development? (Olivia Patterson)

RBZ: WE HAVE NOT PROGRESSED TO THIS STAGE OF THINKING YET.

26) Will you truck construction equipment from Marsh Harbour? (Cindy Pinder)

RBZ: VERY LITTLE, MAYBE AT THE VERY BEGINNING. PLANS ARE TO USE LANDINGS NEAR THE SANDY POINT AIRPORT AND TO PREPARE ONE IN SWP AS SOON AS POSSIBLE. IN ORDER TO MINIMIZE THE MOVEMENT OF HEAVY EQUIPMENT THROUGH THE FOREST.

27) What's your plan for solid waste management? (Diane Claridge)

RBZ: NO DETAILS YET.

28) The location is so remote and entertainment is limited – what will people do after their spa days? (Cindy Pinder)

- Diane was concerned about heavy traffic through the national forest due to construction.

RBZ: WE KNOW OUR BUSINESS AND ARE CONFIDENT OF ATTRACTIVENESS OF THE PROJECT. SEE ANSWER ABOVE RE HEAVY EQUIPMENT THROUGH THE FOREST.

29) Did you investigate other sites? Why is this site attractive to you? (Cha Boyce)

RBZ: YES. DUE TO ITS UNIQUE TOPOGRAPHY, SIZE. THE ABILITY TO DO A MARINA AND OTHER CONSIDERATIONS.

30) How long before the EIA is finished? (Krista Sherman)

RBZ: NOT SURE WE HAVE JUST STARTED TO WORK ON IT.

31) Have they already done the coastal survey? (Diane Claridge)

RBZ: ONLY VERY PRELIMINARY.

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B. Sandy Point Public Consultation Meeting held April 9, 2019- Questions & Answers

**The questions posed by attendees to the meeting is presented below, accompanied by answers provided by The Project. Actual responses during the meeting were not recorded, however, answers below are similar as the Project has not materially changed since the public meeting was held. **

April 9th, 2019 – Tyrsoz Family Holdings COMMUNITY Presentation – Questions:

1) **Will the development's structure be built of concrete or wood?**

Project response- mostly concrete but not all.

2) **When will the job application process start?**

Project response: it will still take time as we need to get the HOA negotiated and approved as well as the EIA and the to construct The Project. So few years.

3) **Will the site *only* have electric vehicles?**

Project response: No. But the vast majority will be electrical.

4) **At what level (4 star, 5 star, etc.) is your development intending to operate at?**

Project response: 5 stars +

5) **Will you provide training for staff?**

Project response: yes.

6) **Will there be accommodations for commercial services (businesses) at the marina?**

Project response: Yes, many. The Project will work with qualified people to help them establish their business at the marina and support them financially.

7) **What are you negotiating with the government in terms of the expat vs. Bahamian** employment ratio?

Project response: this will be determined by the HOA but we expect it to be in the range of 80% Bahamians and 20% expats)

8) **What are you waiting on from the government?**

Project response: at this stage (April 2019) we are in the middle of negotiating the HOA.

9) **Is there a rough estimation for the development time, from beginning to end?**

Project response: Hard to say but about 3-4 years.

10) **Abaco is a farming island – what is your plan to support local farming and fishing businesses?**

Project response: we intend to work with local farmers and fishermen to be able to buy their

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produce and output.

11) Will the airport remain public?

Project response: yes

12) Are executives included in the 80% Bahamian employment rate?

Project response: yes

13) Will you build completely before selling houses, or sell as you go?

Project response: most of the houses will be built only after they are sold. few will be built before.

14) Are the beaches in South Abaco a part of the property you're buying?

Project response: the main beaches at the southern cost of Abaco are not part of the Project however, the Project agreed with the Government to make some improvements to these beaches (land side, shores) and recreate the road leading to these beaches so that they will be come accessible and open to be used by the public. But they are not part of The Project and will not be supervised by it.

15) Will locals be able to own and operate businesses?

Project response: yes, within the marina village mostly. Also, many vendors will be selling services and products to the Project.

16) Will access be public? Can the general public drive through the development?

Project response: some of the elements of the Project are going to be open, others are not.

17) Can we get a breakdown of what the 600 (approximately 480 of which will be Bahamian) jobs?

Project response: too early to know at this stage.

18) What other projects have you done of this size? In what US states were they in?

Project response: None of this size. However, many in the same ballpark. Florida, Texas and others.

19) The golf course will have a great environmental impact. How does that fit with your statement of being environmentally conscious?

Project response: the golf course is positioned and will be designed and operated with the top state of the art environmental protection. From the use of only organic materials to lining the lakes so that nothing will sip through etc.

20) What do you intend to do to Sandy Point Airport?

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Project response: we will extended the runway, build a small terminal and all the necessary services to make it a 24 hours 365 days operating international airport to service general aviation only.

21) Are you working on any other projects?

Project response: No.

22) Is this the first family project you're doing? (In reference to him working on behalf of his children)

Project response: all my life is dedicated to my children who are the most important thing for me.

23) What can we do as a community to help you get it started?

Project response: thank you. let the relevant authorities know of you strong support for the Project.

24) In what other ways are the communities around South Abaco going to benefit from this development?

Project response: employment in the Project, business opportunities within the Marina village and as suppliers to the Project. The indirect effect of this additional source of wealth and-revenue will flow and cerate indirect positive effects too. A recent Busines Impact Assessment conducted by a professional consulting group estimated the total benefits once The Project is operational to be on average about $200,000,000 each year.

25) Has there been talk about any charitable organizations helping with the community development aspect of The Project?

Project response: not as such. Not sure how and why would we need charitable organizations to be involved. However, we are committed to work with a number of public bodies to guide us and participate in the various community engagement elements of the Project.

26) Can you tell us more about the ultra-luxury brand that will be operating the hotel?

Project response: I am afraid not. We are under a confidentiality agreement to not disclose the name at this stage.

27) What point of entry will you mainly use for building materials, etc.?

Project response: initially we will try to use the ferry landing not far from here (Sandy Point) but as soon as possible we will start brining in materials to the South West Point area which is directly to The Project.

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28) Will the marina be the first thing developed?

Project response: this depends on markets at the time but most likely yes.

29) How do contractors and subcontractors get their names to you?

Project response: feel free to approach me via my e-mail at rbenzur@frenchquarterhospitality.com or though any of the consultants that you see here on the podium with me.

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C. Virtual Meeting with Environmental Groups on November 20, 2020

Link to Recording of Meeting:

https://www.dropbox.com/sh/xafg8t01ss8fmia/AACiJ46YQM6LMVE6dTRaq4XHa?dl=0

Meeting Attendees:

Olivia Patterson Maura

Cha Boyce

Charlotte Dunn

Keith Bishop

David Philipp

Diane Claridge

Cindy Pinder

Aaron Shultz

Caroline Stahala

Krista Sherman

Jacob Allgeier

Andrew Tucker

Craig Layman

Liz Wallace

Mick Mickelson

Nancy Albury

David Knowles

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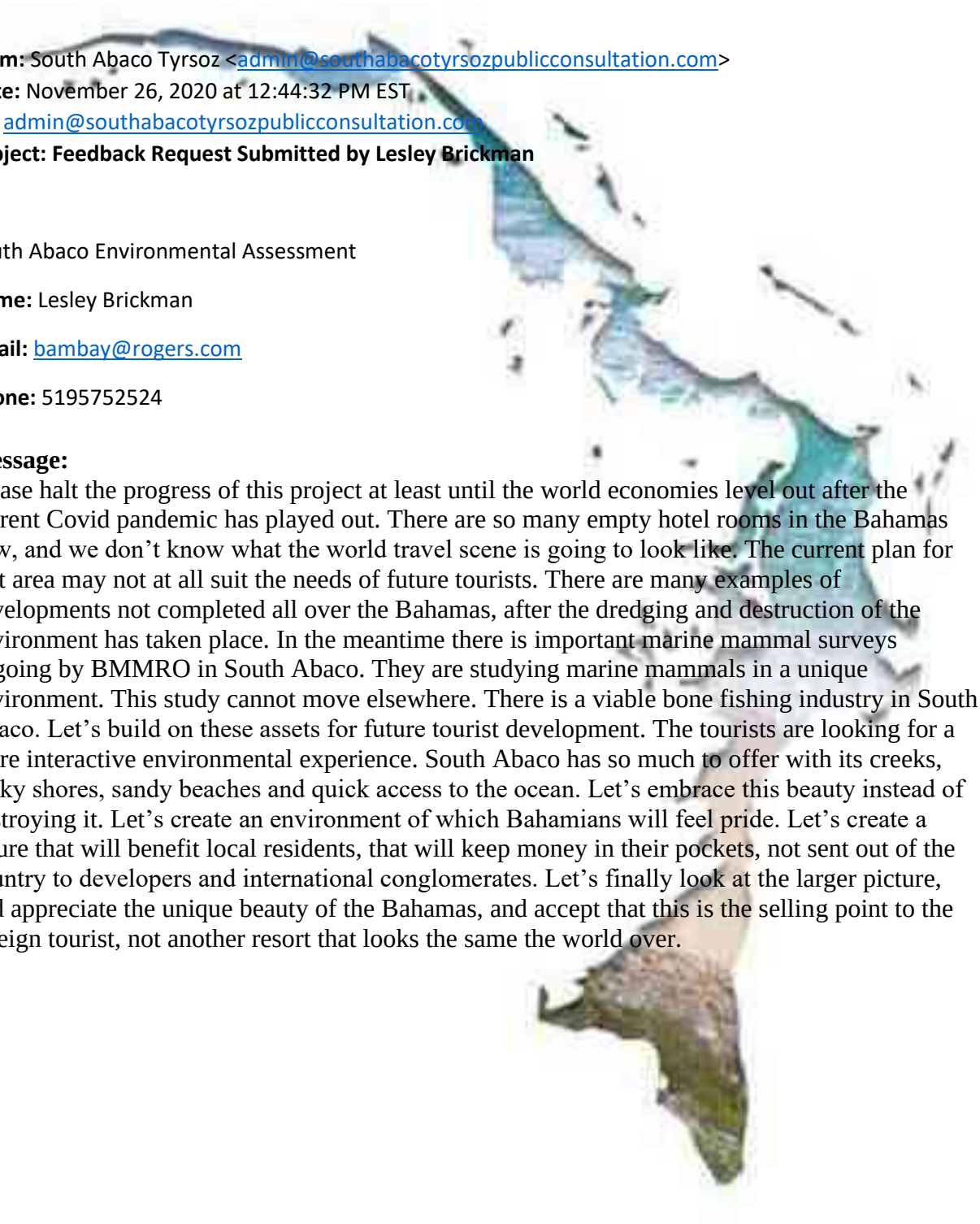
D. Submissions to the Project through online portal



From: South Abaco Tyrsoz <admin@southabacotyrsozpublicconsultation.com>
Date: November 26, 2020 at 12:44:32 PM EST
To: admin@southabacotyrsozpublicconsultation.com
Subject: Feedback Request Submitted by Lesley Brickman

South Abaco Environmental Assessment

Name: Lesley Brickman

Email: bambay@rogers.com

Phone: 5195752524

Message:
Please halt the progress of this project at least until the world economies level out after the current Covid pandemic has played out. There are so many empty hotel rooms in the Bahamas now, and we don't know what the world travel scene is going to look like. The current plan for that area may not at all suit the needs of future tourists. There are many examples of developments not completed all over the Bahamas, after the dredging and destruction of the environment has taken place. In the meantime there is important marine mammal surveys ongoing by BMMRO in South Abaco. They are studying marine mammals in a unique environment. This study cannot move elsewhere. There is a viable bone fishing industry in South Abaco. Let's build on these assets for future tourist development. The tourists are looking for a more interactive environmental experience. South Abaco has so much to offer with its creeks, rocky shores, sandy beaches and quick access to the ocean. Let's embrace this beauty instead of destroying it. Let's create an environment of which Bahamians will feel pride. Let's create a future that will benefit local residents, that will keep money in their pockets, not sent out of the country to developers and international conglomerates. Let's finally look at the larger picture, and appreciate the unique beauty of the Bahamas, and accept that this is the selling point to the foreign tourist, not another resort that looks the same the world over.

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E. Submissions to Department of Environmental Planning & Protection

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2937 SW 27th Avenue
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Miami, FL 33133
www.btt.org

TO: Mrs. Rochelle Newbold, Director, Department of Environmental Planning and Protection, Ministry of the Environment

FROM: Justin Lewis, Ms.C., Bahamas Initiative Manager

Aaron Adams, Ph.D., Director of Science and Conservation

Bonefish & Tarpon Trust

SUBJECT: Environmental Impact Assessment "South Abaco: Hotel, Residences, and Marina" submitted by Caribbean Coastal Services Ltd. on behalf of Tyrsoz Family Holdings Ltd

DATE: 3 December 2020

Dear Mrs. Newbold:

Below please find comments on the Environmental Impact Assessment submitted to your office on 4 November 2020. In brief, we find the EIA lacking substantially in details needed to properly evaluate the potential impacts of the proposed development on the pre-spawning and spawning activities of bonefish in South Abaco.

In this comment letter, we first summarize the importance of South Abaco to the bonefish fishery in Abaco and The Bahamas, as this information is essential to understanding the concerns about the proposed development. We then outline our primary concerns about the proposed development project.

Bonefish Biology

As you are aware, Bonefish & Tarpon Trust has been researching in The Bahamas since 2008, with a focus on ensuring a sustainable bonefish fishery. This is being achieved through collaboration with bonefish lodges, fishing guides, fishermen, The Bahamas National Trust, local NGOs, teachers, researchers, and The Bahamian Government. The scientific research allows us to collect actionable knowledge that directly impacts bonefish and flats conservation and education efforts in The Bahamas.

A BTT study completed earlier this year documented the economic and cultural importance of the bonefish fishery. The annual economic impact of the recreational bonefish fishery in The Bahamas exceeds $169 million and supports more than 8,000 jobs. The fishery is especially important on the Family Islands, including Abaco.

Bonefish & Tarpon Trust's extensive work in The Bahamas and conversations with collaborators show that the top threat to bonefish and the fishery they support is habitat loss and degradation. This makes

the inadequate EIA for the proposed South Abaco development especially concerning since South Abaco has been identified as an important bonefish pre-spawning and spawning location.

Using mark-recapture and acoustic telemetry, research has shown that adult bonefish have relatively small home ranges, with 60-80% of bonefish recaptured within 5 km of where they were originally tagged. However, during spawning season (October through April), adult bonefish undertake extensive migrations to pre-spawning sites, where they form high-density pre-spawning aggregations (PSAs, ranging from hundreds to over 5,000 bonefish). The PSAs typically form during the five days before full moons during the spawning season, with some PSAs forming near new moons. The pre-spawning sites are typically bays protected from prevailing seasonal winds and near deep water.

Applying a protocol that uses mark-recapture, acoustic telemetry, local knowledge, and reproductive assessments, we have identified Long Bay (immediately south of Cross Harbour) as an important pre-spawning site for bonefish. Further, tag-recapture has shown that bonefish migrate to this location from multiple home range areas separated by distances of up to 75 km. For South Abaco, this includes the entire Marls and farther north. When migrating from their home ranges to the pre-spawning site, bonefish tend to follow the shallow shoreline contour.

Once at the pre-spawning site, the bonefish aggregation moves offshore at dusk, and spawning occurs offshore at night in water that is thousands of feet deep. A recent tracking study found that bonefish descended to 450’ depth before making a spawning ascent to a spawning depth of 230’’ depth, where they broadcast spawn. The tracking research also revealed that bonefish use a broad offshore area for spawning, which means that a large offshore area must be protected. After spawning the bonefish return to their home ranges.

The bonefish eggs hatch after approximately 24 hours and the larvae live as plankton in the open ocean before reaching shallow, open-bottom, protected bays, where they metamorphose into juveniles. Recent oceanographic current modeling research shows that some larvae spawned on South Abaco are retained locally while others are transported to other islands.

The South Abaco pre-spawning site and spawning area are important locally and regionally. Adults that spawn at the South Abaco location are part of the recreational fishery that provides great economic and cultural benefits to Abaco, and many of the larvae that they spawn remain on Abaco. Also, the spawning at Abaco provides larvae for other islands, bolstering these bonefish populations and the fisheries they support.

Figure 1. Diagram showing examples of spawning migrations by multiple fish from the Abaco Marls to Long Bay and return, based on mark-recapture. Data from Boucek et al. 2019.

Figure 2. Underwater photograph of a bonefish pre-spawning aggregation in South Abaco. Photo Cam Luck.

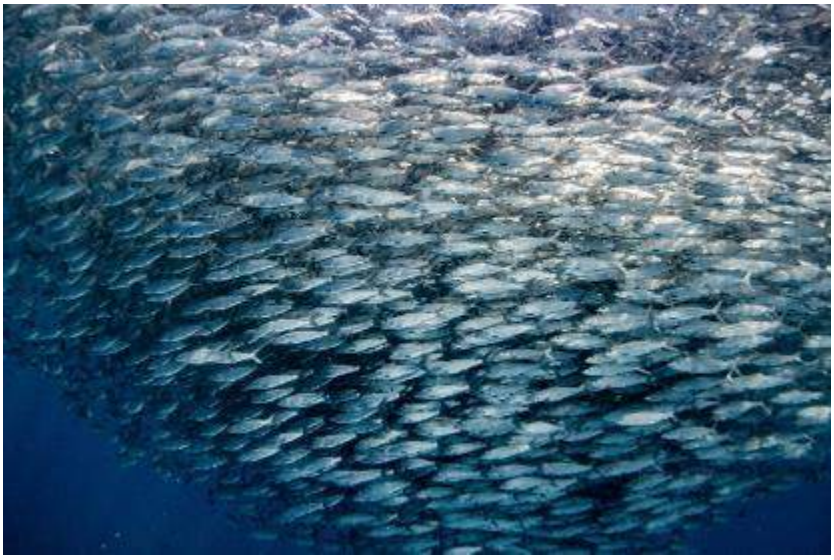


Figure 3. Aerial view of a bonefish pre-spawning aggregation. Photo Tom Henshilwood.

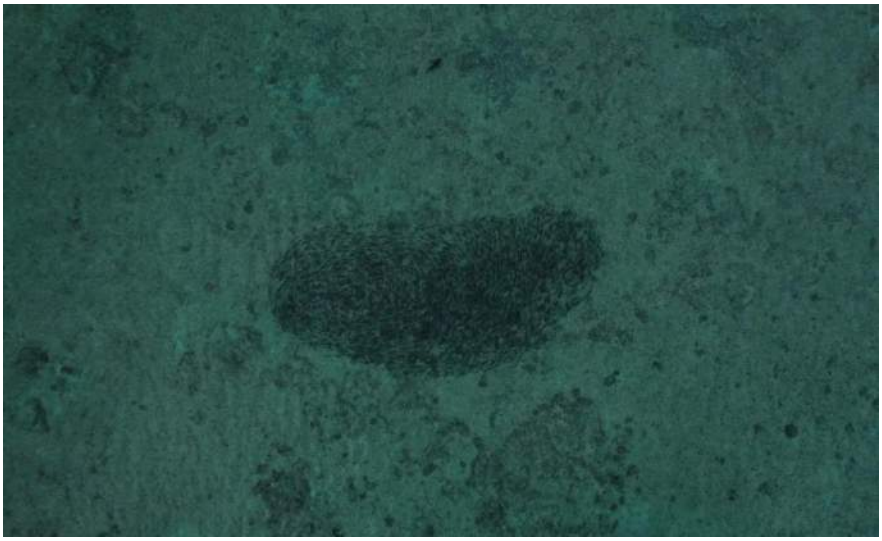


Figure 4. Offshore spawning tracks of bonefish that used the Long Bay, Abaco, pre-spawning site. Each colored line shows an offshore spawning migration in separate years underscoring the use of a broad offshore area for spawning. The end of the tracks shows where spawning occurred. From Lombardo et al. 2020.

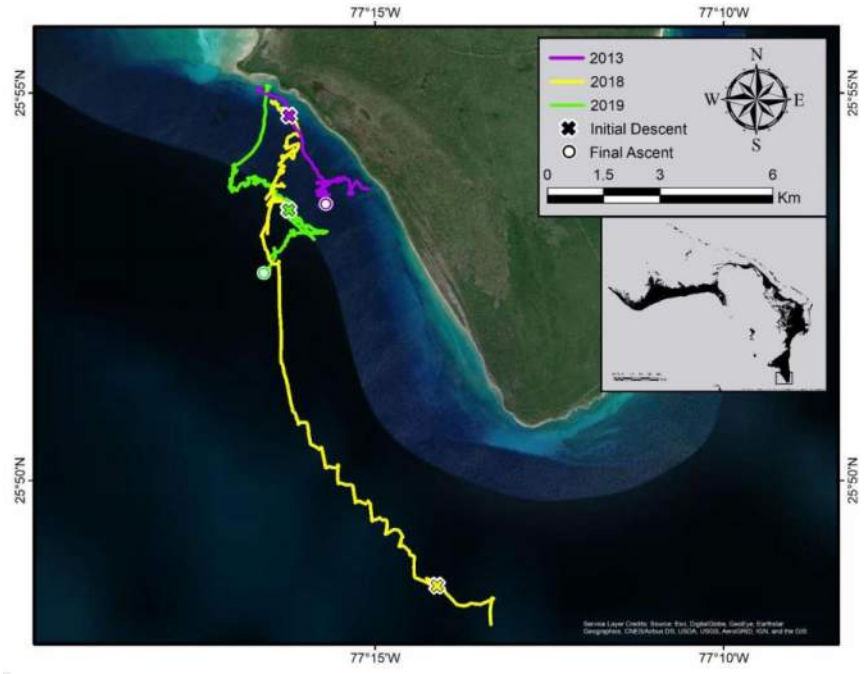
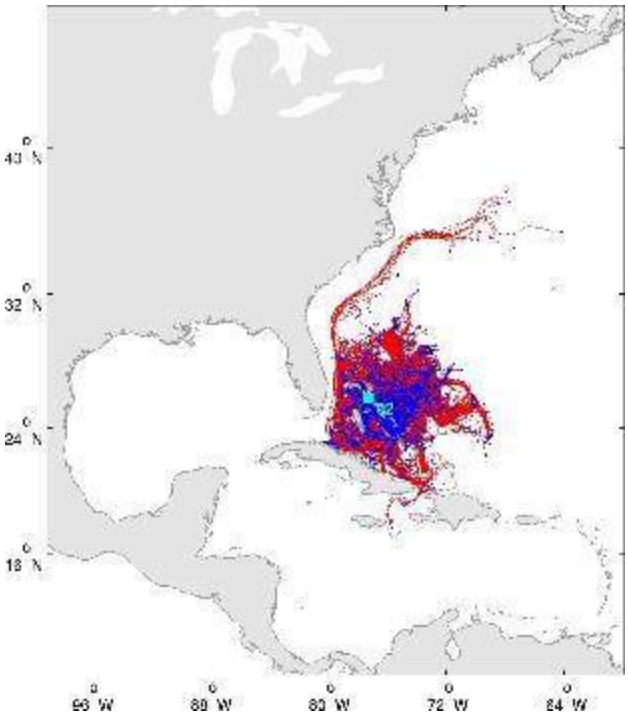


Figure 5. Results of models of oceanographic current transport of larvae from the South Abaco spawning location. The light blue square is the spawning location, the red lines are the thousands of estimated tracks of larvae, the blue dots show locations of larvae after 53 days (average duration of the larval period). This shows that larvae spawned at South Abaco are important to the bonefish populations on Abaco and other islands. From Zeng et al. 2019.



Below we list multiple research articles that document much of the above information, with a focus on Abaco. Please let us know if you would like us to send pdf documents of these articles that you might not already have in your files.

Adams, A.J., J.P. Lewis, A.M. Kroetz. 2020. Bonefish (Albula vulpes) home range to spawning site linkages support a marine national park designation. Aquatic Conservation.

Adams, A.J., J. Shenker, Z. Jud, J. Lewis, E. Carey, A.J. Danylchuk. 2019. Identifying pre-spawning aggregation sites for bonefish (Albula vulpes) in the Bahamas to inform habitat protection and species conservation. Environmental Biology of Fishes. 102(2): 159-173.

Boucek, R.E., J.P. Lewis, B.D. Stewart, Z.R. Jud, E. Carey, A.J. Adams. 2019. Measuring site fidelity and homesite-to-pre-spawning site connectivity of bonefish (Albula vulpes): using mark-recapture to inform habitat conservation. Environmental Biology of Fishes. 102(2):185-195.

Danylchuk, A.J., J. Lewis, Z. Jud, J. Shenker, A.J. Adams. 2019. Behavioral observations of bonefish during pre-spawning aggregations in The Bahamas: clues to drive broader conservation efforts. Environmental Biology of Fishes. 102(2):175-184.

Lombardo, S.M., A.J. Adams, A.J. Danylchuk, C.A. Luck, M.J. Ajemian. 2020. Novel deep-water spawning patterns of a shallow water fish. Marine Biology.

Zeng, X., A.J. Adams, M. Roffer, R. He. 2019. Potential connectivity among spatially distinct management zones for bonefish (Albula vulpes) via larval dispersal. Environmental Biology of Fishes. 102(2):233-252.

Concerns about the proposed development

With many details lacking in the Environmental Impact Assessment "South Abaco: Hotel, Residences, and Marina," submitted by Caribbean Coastal Services Ltd. on behalf of Tyrsoz Family Holdings Ltd, we have done our best to ascertain the most likely negative impacts on bonefish. Given the information available, we are concerned about the potential impact of construction activities, activities associated with the development, and activities associated with the marina on local bonefish and bonefish reproduction.

Our top concern is that increased boat traffic, fishing, jet skis, and other activities will negatively impact bonefish reproduction. Long Bay is only seven miles from the proposed development and marina, so will undoubtedly experience increased visitation and fishing pressure. During the spawning migration and in their pre-spawning aggregation, bonefish are especially vulnerable. Fishermen seeing a school of 5,000 bonefish will try to catch those bonefish, there is no doubt. Even if they release the bonefish alive it is unlikely to survive. The fish are already stressed from the migration and spawning process, and predators (sharks, barracudas, groupers) are abundant at these PSAs. Given the complex behavior and physiology of bonefish reproduction (we have researched reproductive hormones and egg development, as well as behavior), any activities that negatively affect the bonefish spawning process decrease the likelihood of successful spawning. This would have a significant negative impact on the health of the recreational bonefish fishery for all of Abaco as well as other islands. Unfortunately, even if spatial management (e.g., closed zones) or fishing (e.g., no fishing allowed) regulations are put in place, effective enforcement will not be possible given current capacity.

Although the construction activity will not take place on shorelines adjacent to flats habitats and not at the Long Bay pre-spawning site, we are concerned that the sedimentation from construction will impact coastal waters. For example, if sediment and contaminants from road construction reaches nearby wetlands or creeks, it will damage these juvenile and adult habitats and impact the bonefish that live in these habitats. This will directly impact the local bonefish population upon which guides depend as part of the fishery.

Once the construction is complete and the development is operational, a top concern will be the effects of increased use of the nearby shallow water area of Cross Harbour. This use includes recreational watercraft, boat noise, access from shore, and increased fishing pressure. We are concerned that increased fishing pressure on the resident bonefish in the Cross Harbour area will cause a decline in the fishery due to exceeding the fishery's capacity. Here we define "fishery capacity" as the amount of fishing effort that a catch-and-release fishery can support while maintaining a high-quality fishery (high catch rates, large fish size, intact habitats). Although bonefish are not typically harvested, the fishery can still be overcapitalized, which results in a fishery that exceeds its capacity. For example, too much fishing effort might result in a decline in catch rates because fish may become "educated" to angler activities,

thus reducing catchability. This is especially true for bonefish with relatively small home ranges. A decline in catchability reduces the quality of the fishery from the perspective of anglers. This would negatively impact the established fishing guides who already fish in the Cross Harbour area.

We are also concerned about how recreational watercraft and yachts entering the proposed marina will disrupt bonefish pre-spawning and spawning behaviors. Bonefish pre-spawning behavior is very complex, and disruption by recreational watercraft may negatively affect spawning success. Also, yacht traffic crossing the offshore spawning track may alter the track or bonefish behavior. Further, any blasting or other loud noise during construction that occurs when pre-spawning and spawning schools are present will negatively affect bonefish and may cause mass mortality.

How the proposed development will manage nutrients and fresh water is also a concern. For example, the EIA states that the development will have on-site sewage treatment, but not an adequate description of what will be done with treated wastewater and biosolids. In Florida, post-treatment greywater has been used for landscape irrigation. However, recent research has shown that this greywater is so high in nutrients that it is not suitable for irrigation because it introduces excessive nutrients into nearby waterways. Similarly, the spread of biosolids from sewage treatment on agricultural fields as a means of disposal has caused nutrient spikes in nearby waterways, causing algae blooms that result in fish kills.

Similarly, with such extensive landscaping and a golf course, the EIA must go into much greater detail on how runoff will be contained. Fertilizer runoff has been a major contributor to eutrophication in coastal areas worldwide, and one only needs to look to Florida for many examples of the impacts to coastal waterways.

There is too little information on freshwater access and use. If the location is outside of the main island freshwater lens area, how will freshwater be obtained? If by desalination, how will the effluent be disposed of? Similarly, if marina dredging perforates the freshwater lens, it will reduce salinity in the nearby coastal area. Changes in salinity in coastal waters may have negative impacts on spawning bonefish or larvae.

In summary, the South Abaco region is a critically important area for the bonefish fishery of Abaco and other islands, thus extreme care must be taken when considering any development with potentially negative impacts. The current EIA is insufficient in addressing the activities that would cause such impacts, but what has been presented raises significant concerns.

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Facebook: BREEF, Twitter: Breef242

3rd December 2020

Dear Director Newbold,

I am writing to express extreme concern upon review of the Environmental Impact Assessment "South Abaco: Hotel, Residences, and Marina" submitted by Caribbean Coastal Services Ltd. on behalf of Tyrsoz Family Holdings Ltd.

The EIA document is entirely inadequate for a project of this magnitude proposed to be located at the iconic southern tip of Abaco.

Major issues include:
1, Impacts on the bonefishing industry, particularly considering there are known essential bonefish spawning aggregations immediately offshore
2, Threat to spawning aggregation of other fish species, notably Nassau grouper and mutton snapper
3, Impacts to marine mammals. The waters off the southern tip of Abaco are well documented as critical habitat for endangered species of whales
4, Pollution and excess nutrients from dredging and the creation/maintenance of a golf course
5, Serious threats to nearby marine protected areas, national parks and sensitive blue holes
6, EIA inadequately addresses avian fauna including Bahama parrot and the Kirtlands warbler
7, Impacts to historical features at Lantern Head, fragile caves and the fresh water lens
8, The EIA fails to adequately address climate change
9, There is no evidence of the support of the Bahamas National Trust and the Department of Marine Resources, although they are referenced in the EIA
10, The EIA refers to the Blue Flag marina certification which is a completely outdated statement since the Blue Flag marina programme has not been operating in The Bahamas for several years, and the developer has never had any communication with BREEF- the organization responsible for the Blue Flag programme

There are numerous additional omissions, inadequacies and outright false statements in this EIA.

Sincerely,

Casuarina McKinney-Lambert
Executive Director, BREEF

3 December 2020

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

Dear Mrs. Newbold,

The following is feedback from the undersigned regarding the Environmental Impact Assessment "South Abaco: Hotel, Residences, and Marina" submitted by Caribbean Coastal Services Ltd. on behalf of Tyrsoz Family Holdings Ltd. While not a comprehensive review (because of the short period we had to prepare this), the summary highlights some primary concerns and the most apparent issues with the assessment.

We feel that the document is biased, lacks quantitative data, and much of the information provided is insufficient or inaccurate. Some of the data gaps could have been filled by utilizing public data sources, or contacting scientists, such as the ones signing this letter, who have conducted extensive research on Abaco that pertains to environmental issues regarding this project. Where the Environmental Impact Assessment (EIA) identifies environmental concerns relating to the proposed development, resolution for those issues is not thoroughly addressed or in some cases ignored.

This effort is not intended as a comprehensive critique, especially given the timeframe provided to compile these concerns. Instead, this document seeks to highlight the sheer breadth and depth of inadequacies, omissions, and errors.

The issues raised in the following pages build on information based on decades of Bahamas scientific research and more than 150 peer-reviewed, published, scientific papers, as well as extensive local stakeholder and community knowledge.

Per the Sustainable South Abaco letter to the Prime Minister (from 1 December 2020, see Appendix) we request that a thorough, independent EIA be submitted before any further consideration of this project, as the risks are great.

We are grateful for the opportunity to comment. We are hopeful that the new EIA regulations provide the necessary structure moving forward for a systematic EIA.

Respectfully,

The Undersigned

Aaron Shultz, PhD
Fisheries Conservation Foundation

Caroline Stahala, PhD
Avian Conservation Biologist

Charlotte Dunn, PhD
Senior Scientist
Bahamas Marine Mammal Research Organisation

Craig Layman, PhD
Senior Fellow
Center for Energy, Environment, and Sustainability
Wake Forest University

David Philipp, PhD
Fisheries Conservation Foundation

Diane Claridge, PhD
Executive Director/Senior Scientist
Bahamas Marine Mammal Research Organisation

Elizabeth Wallace, PhD
Fisheries Conservation Foundation

Jacob Allgeier, PhD
Assistant Professor
Ecology and Evolutionary Biology
University of Michigan

Keith Bishop, P.E.
Principal
Islands by Design

Krista Sherman, PhD
Senior Scientist
Perry Institute for Marine Science

Olivia Patterson Maura, BSc, MA
Deputy Director
Friends of the Environment

Cc:
The Most Hon. Dr. Hubert Minnis, Prime Minister
Hon. Michael C. Pintard, Minister of Agriculture and Marine Resources
Hon. Dionisio D'Aguilar, Minister of Tourism
Hon. Romauld Ferreira, Minister of the Environment and Housing
Hon. Darren Henfield, Minister of Foreign Affairs and North Abaco MP
Mr. James Albury, Central and South Abaco MP
Mrs. Candia Ferguson, Director of Investments, Bahamas Investment Authority
Mrs. Kim Outten-Stubbs, Director, Antiquities Monuments and Museums Corporation
Mr. Edison Deleveaux, Acting Director, Department of Marine Resources
Mrs. Nancy Albury, Antiquities Monuments and Museums Corporation - Abaco Office
Mr. Eric Carey, Executive Director, Bahamas National Trust
Mrs. Eleanor Phillips, Director of External Affairs for the Caribbean, The Nature Conservancy
Mrs. Shenique Albury-Smith, Director of Northern Caribbean Programs, The Nature Conservancy

Introduction

This EIA is so poorly written that it is difficult to even understand what the project is proposing to do, especially at Southwest Point. For example, in Section 5.2 the project description includes 75 residential lots and a 100-room hotel, the Economic Impact study is based on 2 hotels at Southwest Point (a 75-room upscale hotel and a 100-room limited-service hotel), and the Southwest Point Master Plan shows a 100-room hotel and a condominium building (of unknown size). Establishing what is actually proposed is the first step in assessing impacts.

Regardless, there is an unequivocal disconnect between a mission statement that suggests "commitment to an environmentally friendly development" and a project that could include such components as a 100-room 6-star hotel, 75 residential lots, an 18-hole golf course at Lantern Head, a 136-slip mega-yacht marina, a marina village with retail stores, and a water park—with all of the associated infrastructure development. To suggest that this project can be done in an environmentally-friendly manner is a falsehood, whether intended as such or not. The extent of habitat loss and degradation due to the scale of this project cannot be overstated.

We detail concerns in a series of sub-categories, all of which are made specifically for the areas of South Abaco where the project is proposed. However, without the Environmental Management Plan in hand, our review is limited.

Nutrient Pollution

The sheer scale of this project coupled with its proximity to sensitive resources means that nutrient pollution is a major concern. Coastal nutrient pollution (eutrophication) is one of the largest human stressors to the world's oceans and the cause of billions of dollars in loss every year in the form of direct economic losses and harm to local ecosystems. The coastal waters of The Bahamas are among the most nutrient-poor in the world. These conditions facilitate the clear water that brings tourist dollars into the country, but also make these ecosystems particularly susceptible to impacts from nutrient pollution—with consequences to all levels of marine life. One of the most egregious features of the EIA was the dismissiveness regarding waste management and its potential impacts to the local aquatic ecosystems, namely, the aquifer (imperative for local drinking water) and coastal marine environment (imperative for tourism, local livelihoods, and biodiversity). Here we refer to waste as (1) point-source inputs, such as sewage and other wastewater from housing and facilities, and (2) non-point inputs from fertilizer to the golf course, as well as inputs from residential and non-residential buildings, landscaping proximal to the coastline, and construction.

A zero-point source input policy is imperative to retain the integrity of the aquatic ecosystems in this region. Of these inputs, point-source is the easiest to manage. The EIA stated that there would be a wastewater treatment facility able to cope with point-source inputs that would produce "potable" water as a by-product. This is necessary and we agree that such action should be taken. However, the EIA failed to provide detail about this intended facility. Specifically, no information was provided for the proportion of point-source water that will be filtered (and or recycled), nor at what point in the development process it will be constructed (note the development phase will be tremendous with workers themselves generating substantial sewage inputs). There are well-established regulations that need to be met for water to be considered "potable" or "grey" following conversion from wastewater. As such, many important questions remain. What are these thresholds that are being set and followed by the

applicants? How were these thresholds determined? Without such information, it is impossible to estimate potential impacts.

The non-point source inputs are of equal or greater concern. Notably, to maintain a golf course, a substantial amount of fertilizer must be applied. Golf course fertilization is a well-honed science and, because of this, generating estimates for fertilizer demand and waste for the proposed golf course is an achievable goal and a minimum expectation of any EIA. In no place did the EIA state the amount of fertilizer that would be applied to the golf course per unit time. The only statement regarding fertilizer that we found simply stated that it would be "organic," which has little bearing on the environment of Abaco.

The absence of the simple, standard measurements regarding fertilizer use and waste highlights a dismissive and negligent attitude regarding the potential impacts of this development on the local environment. Non-point source inputs represent a critical stressor to local environments and can have substantial long-term impacts on coastal marine ecosystems. The golf course, the residential and non-residential buildings, the extensive landscaping, the continuous construction, and the maintenance need for upkeep are all factors that will undoubtedly have negative impacts on the health of local aquatic systems including the aquifer used for drinking water (see more on this below).

Impacts on the Bonefishing Industry

A quote from the most recent Bahamas bonefish industry-wide economic assessment (*The 2019 Economic Impact of Flats Fishing in The Bahamas*, Fedler 2019): "Flats fishing generates $169 million in total economic benefits to the Bahamian economy annually. These angling visitors spent nearly $133 million directly in island economies and supported the equivalent of 7,800 full-time jobs from those direct expenditures." The proposed South Abaco development has the potential to fundamentally compromise this vitally important industry for The Bahamas.

Bonefish spawning sites now have been well mapped on Eleuthera, Andros, and the islands throughout the Little Bahama Bank. The site serving the greatest number of spawning bonefish is found on the south end of Abaco, in the area proposed as the Cross Harbour National Park expansion. Up to 20,000 adult bonefish travel great distances along the Abaco coastline to spawn at this site during most full and new moon periods from November through June. They choose this site for at least two reasons: the proximity of the shoreline to the drop off to deep water and the existence of major gyre currents in the adjacent Northwest Providence Channel. The gyre currents entrain the developing larval bonefish for approximately two months, keeping them in The Bahamas rather than getting swept up the North American coast by the Gulf Stream. This spawning site is undoubtedly the greatest source of juvenile bonefish for the entire Little Bahama Bank; loss of its productivity would cripple the bonefishing industry in Abaco and Grand Bahama. Such losses to the local economy and livelihood of Abaco communities would be unavoidable if the development proceeds. Such impacts were not addressed in the environmental impact assessment nor the economic impact assessment provided by the developer.

Marine Mammals

Although the EIA mentions the potential impacts to marine mammals by the proposed development, it does not include any details on marine mammal occurrence in South Abaco, information which is available through numerous open access sources. South Abaco provides habitat for 19 different whale

and dolphin species; five species are resident, including endangered sperm whales and beaked whales. Some local populations are already declining (e.g., coastal bottlenose dolphins) due to cumulative effects of human activities, such as increasing underwater noise, marine debris, and tropical cyclones. Beaked whales are deep-diving whales that are particularly vulnerable to disturbance from man-made noise; mass stranding events have occurred in The Bahamas, including in Northwest Providence Channel, coincident with Naval sonar exercises. The proximity of the Southwest Point development to deep water puts these populations at further risk from human disturbances. Telemetry studies found Blainville's beaked whales forage along the canyon wall to 1800 m depth immediately offshore (<1 km) from the proposed flushing channel. Some of these risks are noted in the EIA. So why has the EIA neglected to include any background information on the occurrence and habitat needs of these protected species in South Abaco?

Relative to other areas in The Bahamas, South Abaco provides high-quality habitat for deep-diving whales. Recent prey mapping studies revealed that the southwest coast of South Abaco is highly productive at foraging depths for beaked whales (>800 m) which supports higher abundance and greater reproductive success for local populations compared to elsewhere. For this reason, this area was included in the proposed Cross Harbour National Park expansion. Why was there no mention of the proposed Park expansion?

Other Marine Concerns

Insufficient quantitative data (over appropriate spatial scale) were collected and presented to evaluate potential impacts on marine fish and benthic communities. Lists of easily observed fish species at the two sites (1–2 hours at the two sites), plus an added compendium of some underwater photos, is not a productive contribution to an impact assessment. Fish are mobile and cursory surveys do not reveal the likely extensive fish usage of the coastal areas to be impacted. Further, the EIA states just two elkhorn colonies were found in the vicinity of the development. Yet, the southwest coast of Abaco Island includes some of the healthiest stands of critically endangered elkhorn coral in The Bahamas. These corals may be negatively impacted by construction and subsequent use of the proposed marina at Southwest Point through direct and indirect habitat destruction, including alteration caused by dredging activities, increased pollution, and, importantly, overall increased human activities along the shoreline.

The lack of effort regarding mitigation for any potential damage is notable. For example, the conclusion that the disturbance from dredging and jetty construction would be trivial is unsubstantiated. That includes (false) statements such as the following: "The dredging activities would remove this habitat and impact local ecosystems and biodiversity. However, this impact would be localized to the dredged channels, and transplanting of coral species is a mitigation measure that can be employed before dredging. The noise created during dredging activity will be temporary and have minor negative impacts on marine resources."

Construction of a marina, like the one being proposed at the South West Point site, as well as the jetty proposed for the Lantern Head site and proposed each groin at Southwest Point, would certainly result in extensive shoreline disturbance. It is likely that during marina, jetty, and groin construction (and for years after) disturbance levels would diminish bonefish reproductive activity, possibly eliminating it, simply by deterring the fish from swimming past the disturbed area on their way to the spawning sites on the south end of Abaco. As a parallel example, research has shown the noise and disturbance

associated with rebuilding the marina at Cape Eleuthera resulted in bonefish ceasing migration through the marina area and not forming a spawning aggregation at that location. Likewise, increased activity throughout the area will harm the elkhorn coral colonies and other valuable benthic resources.

Critically, the EIA suggests that the developer will work along with the Department of Marine Resources and Bahamas National Trust with regards to fisheries management (two sentences starting on page 199). There are no letters of support or other evidence of if and how these agencies will be involved in the project.

Marina

The EIA speaks to the dredging activities involved in the construction of the marina but does not mention pile driving. Even if the entire marina is constructed with only floating docks, which is unlikely, they will have to be anchored to something which will require pile driving. Although the paragraph on p. 187 (that is taken from Todd et al. 2014, virtually verbatim) is correct regarding temporary impacts for dredging activities to marine mammals, this is certainly not the case with pile driving. Additionally, Todd et al. state "dredging in spawning areas can be detrimental" there is need to be assured the areas in question are not near spawning aggregations. During marina construction and maintenance, mitigation measures should be put in place, e.g., the inclusion of expert marine mammal observers.

During the operation of the marina, the paragraph on p. 199 should be expanded to inform vessels of routes and speeds through the entire proposed Cross Harbour MPA expansion, not just as they approach the marina. Also, we hope to make this MPA an echo-sounder-free zone and would expect the marina and its users to adhere to this regulation.

Even more broadly, the marina is designed to fail because the proposed site is too dynamic. According to the Caribbean Coastal Services' (CCS) modeling of wave agitation, the proposed marina greatly exceeds the recommended limit for wave movement in the marina (e.g., weekly mean estimated to be 43 cm and recommendation is 6 cm) and the EIA provides no resolution for this issue. Yachts in the marina will be vigorously bouncing in average conditions predicted by the CCS model and the floating docks will be unstable. Unquestionably, the yachting community will find this dangerous, unacceptable, and will find safer havens elsewhere. The EIA resolution for this issue is to extend the marina jetties further offshore but does not indicate whether such action is even possible.

Other statements raise more questions than they answer. For example, "Striving for Blue Flag marina certification, public education initiatives will be used as a tool to aid in the decrease of the marina's impacts on the surrounding marine environments. This will assist with the decrease of potential marine pollution, overfishing, and collisions with marine mammals and sea turtles." What aspects of Blue Flag will be pursued and how will they decrease impacts? How will public education initiatives be organized? As detailed in a previous section, marine pollution is not adequately addressed. It is concerning to use blanket statements that suggest good intentions, but no detail is provided to evaluate their likelihood, feasibility, or sincerity.

Coastal Engineering
Statements in the EIA raise other engineering questions, a few of which we list here.

The HD model was only calibrated to water surface elevations. What about currents? Were local current measurements obtained? Were current meters deployed—if so where and for how long? How was the wave model calibrated? Were local wave measurements obtained?

Wave setup and sea-level rise were noted to be excluded in the storm surge analysis. How would the effects of wave setup and/or wave run-up influence the coastal storm surge inundation?

How do the results compare with Dorian? EIA stated Doran surge levels were greater than 18 feet. What is the recommended base flood elevation for coastal structures and infrastructure? The EIA states 30 feet above sea level.

Wave energy reduction associated with the breakwater/jetty at Lantern Head appears low. A cost-benefit analysis of the breakwater relative to the usable swimming area is recommended. The cost of the breakwater may be significant when constructed to survive extreme events. Also, the 50% reduction in wave height may still be inadequate for safe swimming when considering the incident wave height. What is the required rock size/weight for the breakwater to survive extreme conditions? What are the effects of the coastal structures on sediment transport? Longshore transport is not discussed.

Issues with wave agitation in the marina during commonly occurring swell waves are identified but not resolved. The report mentions consideration of extending and/or overlapping jetties, but the effects of this are not evaluated. Consistent swell wave energy entering the marina, and/or internal seiching potential can greatly impact marina operations (e.g., safely mooring vessels) and the overall viability of the marina.

Further comments on the flushing model are listed in an Appendix.

Fresh Water
Section 9.8 of the EIA, Fresh Water Assessment, generally quotes the United States Army Corps of Engineers (USACE) Water Resources Assessment (2004) and merely states "the project sites within Lantern Head and South West Point may lie outside of the vast freshwater lens in South Abaco." However, the USACE report and associated mapping would indicate that areas of development could have negative impacts and lead to saltwater intrusion into the aquifer. Given the immense value of freshwater resources to Abaco and The Bahamas, further research is warranted in quantifying potential impacts on this vital resource.

Geology
The marina on the Southwest Point will be dredged into and behind the high headland to the south that has numerous caves. In speaking with Mrs. Nancy Albury of Antiquities, Monuments and Museums Corporation (AMMC) it was highlighted that some of the caves intersect the water table and are filled with fresh and saltwater and unique cave fauna. Dry caves line the north and south side of the headland that are fragile habitats for bat roosts with prehistoric faunal remains and human history. One of the finest and most extensive caves in The Bahamas lies under Soldier Road (referring to the road from the

southwestern shore to the lighthouse). Besides housing large maternity roosts of at least three species of bats (*Macrotus waterhousii, Erophylla sezekorni, and Tadarida brasiliensis*), the cave has historical, paleontological, and geology features. While these bat species are considered "least concern" by the IUCN (who also recommends preservation of their habitat, especially caves), they may be at greater risk of local extinction in The Bahamas due to limited recent gene flow between island populations and anthropogenic disturbance. Hutia remains have been found in caves along Soldier Road, lending paleontological significance, as hutia are no longer extant on Abaco. The main cave at Hole in the Wall is in the center of the road. Heavy equipment and materials would be needed to access the Hole in the Wall Lighthouse site if any restoration, as suggested in the EIA, is to occur. There are only a few feet of ceiling rock and heavy equipment will certainly collapse it. Roosting bat colonies are sensitive to the noise of any sort and traffic overhead or nearby will force them to abandon the cave. The cave passages extend laterally under and well beyond the current roadway, which would be affected by any activities adjacent to the road proper. Also, importantly, this network of caves would facilitate saltwater intrusion into the freshwater lens if (when) the geology of the areas is affected by the extensive development activities.

Historical Features

Research conducted by Colin Brooker and Nancy Albury for the AMMC found historical sites at Lantern Head and Alexandria to be historically significant in the early development of Abaco. The Lantern Head site includes a mid-nineteenth century farmstead and ancillary structures enclosed within an extensive walled compound and is deserving of inclusion in the National Historic Registry. Barque Bay at High Banks at the northern end of Lantern Head Beach has already experienced negative impacts from hasty prospectors who cleared large roads without proper surveys and damaged numerous historical features (report submitted to AMMC by Colin Brooker).

Due to the extent of the property involved and its known history, the ruins of Alexandria at Southwest Point make up a significant National Register-eligible historic site. Believed to be founded in the 1840s to service Hole in the Wall Lighthouse, it later became a center for the local pineapple industry and was occupied until the 1920s. Alexandria is represented by its original footprint and a range of ruin structures, including residential units, ovens, walled enclosures, a least one cemetery, and a lighthouse store. The EIA briefly mentions this site and declares that it is off-site, but boundaries are not defined nor are the resources described. Per recommendations from Colin Brooker, Alexandria requires full recording, archaeological investigation, and protection in advance of any development. It is likely to be severely impacted directly or indirectly by the construction of the proposed marina and improvements to Soldier Road—a historic roadway installed by the Royal Engineers which passed through the township, linking Hole in the Wall and Alexandria to the shore. As presented by the EIA, it is difficult to discern the relationship of the proposed marina to existing features (notably Soldier Road and Alexandria's ruined infrastructure), a deficiency which might be remedied by maps showing proposed construction overlain on the existing settlement pattern. Overall, historical resources were poorly represented on the maps provided in the EIA, not allowing for a thorough assessment (inadequate maps are characteristic of the EIA).

Furthermore, we refer only to known sites and are unable to account for local reports of more structures and unexplored caves, which only a full Historic Resource Survey can verify. We urge that results of a

survey of this kind be incorporated into the EIA along with recommendations regarding the mitigation of any adverse effects to historic resources.

Bird Impacts

Despite the proposed massive loss of habitat for birds, the avian section of the EIA provides little information to make a judgment on the impact of this project on birds, other than it will be negative. This was stated in the document conclusions on p. 208.

The only information about birds on or near the sites was a point-count survey conducted over four days during the morning and evening. A species list was provided, but no information was provided on how many point counts were conducted or where the point count stations were located. For all sites to be impacted by this project (Lantern Head, South West Point, Sandy Point Airport, Sandy Point dump, and roadways adjacent to and within Abaco National Park, ANP) many more species would have been expected. Several species are common and certainly should have been seen (e.g., Bahama Mockingbird, Bahama Woodstar, Bahama Warbler, Bahama Yellowthroat). Few of the warbler species were documented, particularly the endemics. A simple eBird search indicated 113 species using the habitat in the project area versus the 14 species the EIA surveyor detected.

A basic literature search of bird species in the area was not conducted. It would have shown that there have been reported sightings of the endangered Kirtland's Warbler in the general area of the proposed development. Someone with expertise in detecting this species should have been part of the avian survey to detect this warbler species. The EIA does not indicate anyone with such expertise on the team.

Abaco parrots nest along much of the proposed access road to the development. No information was provided on how many underground nesting cavities along the path will be impacted or destroyed by the added infrastructure. The EIA does mention that Abaco parrots forage within the proposed development site; since this fact is acknowledged by the EIA, specific information on the minimization of habitat loss should be included. A habitat corridor was mentioned to minimize impact but there does not appear to be a corridor in the plans. The plan does admit that the proposed project may have a "population-level effect" on the Abaco parrot and other imperiled species (pp. 171–172). This statement by the planners shows a more in-depth review of environmental impacts is needed.

Secondary impacts need to be elaborated, such as how the increase in vehicle traffic along Hole in the Wall Road, Soldier Road, and Lighthouse Road will increase road mortality for birds, particularly parrots who fly low to the ground, and endemic reptile species (Bahama boa and Bahama racer). An increase of predators due to edge effects (predation will also increase because of the expanded dumpsite), as indicated on p.172, will adversely impact bird species, particularly Bahama parrots.

Mitigation measures were mentioned (p. 187) but no clear plan is being provided on how these measures will be executed.

Waste Management and the Sandy Point Dump

During Sustainable South Abaco's recent Zoom call with project principal Ronnie Ben Zur, the project's lawyer stated that "some" on-site solid waste management will be required (as well as use of the Sandy Point dump), which was not mentioned in the EIA. Unaddressed concerns include (among others):

- Transport of waste through ANP, especially considering multiple examples of excessive littering along roadways leading to dumps (e.g., the previous Marsh Harbour and current Snake Cay dump).
- The material at Sandy Point dump is already poorly managed.
- The proximity of the dump to the airport. With the proposed extension of Sandy Point airstrip (an additional 2,500 ft.), the runway will meet the existing dumpsite.
- Additional impacts of solid waste on-site (rats, leaching of pollutants, chemicals, etc.).

Solid waste management is one of the most important parts of any development plan, particularly in a remote area surrounded by national parks and sensitive marine habitats. The current EIA has fundamentally neglected to address this most basic of procedures, demonstrating gross oversight or negligence, despite the obvious implications to local communities and the environment.

Summary Statement

Mr. Ben-Zur presented his threefold mission statement as (1) a commitment to an environmentally friendly development; (2) a commitment to the local community; and (3) a project that is based on a sound economic footing. The burden of proof should fall on Mr. Ben-Zur to justify meeting each of these intended goals. This document addresses the first of these three points. The EIA falls vastly short of this burden of proof, calling into question the validity of the entire project.

This project puts local stakeholders in a fundamental dilemma. The developer stated to us "we cannot make any material changes to the project," yet, concomitantly, expressed interest in a "sustainable Abaco." These two sentiments cannot be reconciled. Given the scale of this project, the developer has neglected the sensitivity of the environment and its proximity to two of our National Parks. For a sustainable Abaco environment, there must be comprehensive "material changes" to the project. Without such changes, we cannot support the project as is currently outlined.

Appendices

A - Research publications from scientists supporting this EIA critique
B - Comments on Marina Flushing Model
C - 2019 letter from Sustainable South Abaco to the Prime Minister concerning the proposed development in South Abaco
D - 2020 letter from Sustainable South Abaco to the Prime Minister about EIA for “South Abaco: Hotels, Marina, and Residences”
E - Brooker, C. (2006). Preliminary Historical and Architectural Investigation of Abandoned Settlements at Alexandria and Lantern Head, Great Abaco Island, The Bahamas

Appendix A

Research publications from scientists supporting this EIA critique

Scientists supporting this critique of the EIA have published more than 150 peer-reviewed papers on related topics in The Bahamas. Please see the following sites for some of those available electronically. A complete paper list can be compiled upon request.

http://www.bahamaswhales.org/publications.aspx

https://craiglayman.com/publications/

http://www.fishconserve.org/tracking-bonefish-in-the-bahamas/

https://www.jacoballgeier.com/publications

http://www.perryinstitute.org/our-work/publicationsandmedia/

Appendix B

Comments on Marina Flushing Model

Various other statements require more detail to be adequately evaluated.
-As for the flushing model: "*The model is limited in its application and ability to replicate the true physical mixing and flushing process."* How? Is that not concerning the adequacy of the model?

-"*If further flushing is required, a pump system could be installed in the flushing channel to increase its flushing capability*." Why would this be needed or mentioned if the results are conservative? Models are only useful if they apply to the specific situation which they are intended to describe.

-"*A flushing reduction (the amount of a conservative substance that is flushed from the basin) of 90 percent over a 24-hour period*". The difference between flushed and diluted should be clarified as it relates to this analysis.

-*"Representative tidal amplitudes were in the range of 0.5 m and local (tidal) currents were at the order of 0.05 to 0.1 m/s…*". Are the observations/measurements from the site investigation or model results? If the latter, what were the currents calibrated against? How are the current speeds in the flushing channel determined to be reasonable?

-The base case and full distribution of trace are deemed an example of the overall flushing characteristics. If a point source pollutant is released into the basin and disperses, but does not efficiently flush out of the basin, compounding effects can occur.

-How will wind affect the water circulation patterns? Is this limited to water movement within the basin, or overall tidal forcing mechanisms on the entrance and flushing channel?

-The statement about basin circulation needs clarification. Figures illustrate typical tidal exchange and dispersion common with small tidal amplitudes. The worst location may be further from the entrance and flushing channel connections, or further enclosed areas such as the SE region exhibited in Figure 6-1.

-It is unclear if Figure 6-6 is illustrating positive flushing characteristics or just local dilution of the tracer. Concentration amounts should be explored in the entrance channel to determine if containment was leaving the basin.

-The EIA states marina basin depth is -15 ft MLLW and flushing channel is -10 ft MLLW. The Flushing report states entrance channel depth of 8.1 m (26.6 m), marina basin depth of 5 m (16.4 ft) flushing channel depth of 1.8 m (5.9 ft). Justification and clarity are warranted here.

Appendix C

April 15th, 2019

Office of the Prime Minister
Cecil Wallace-Whitfield Center
Cable Beach
P. O. Box CB 10980
Nassau, The Bahamas

Dear Dr. The Most. Hon. Prime Minister,

Re: Proposed Development in South Abaco

We are writing to convey our grave concerns and strong opposition to the proposed large-scale development in South Abaco. The below signatories or their representative attended a presentation on April 9th, 2019 made by Ra'anan "Ronnie" Ben-Zur on behalf of The Tyrsoz Family Holdings Ltd., describing their plans for a huge project in an ecologically sensitive area that is recognised internationally for its significance. While we understand the need for sustainable job opportunities for Bahamians in South Abaco, we believe that a development of this scale would result in irreversible negative socioeconomic impacts on local communities as well as dire environmental consequences for many species living in the area. For the many reasons given below, we (our collective group of Bahamian and international scientists and environmentalists) strongly oppose Mr. Ben-Zur's proposed plans for South Abaco. Due to our deep concern and in the interest of time, we have compiled our immediate and initial comments in this letter; however, we will all be following up with more thorough documentation that will be forwarded to your office at a later date.

Mr. Ben-Zur's presentation outlined his plans for a two-site, ultra-high-end residential and hotel development on two blocks of land in South Abaco totalling 1,086 acres. The respective sites are Lantern Head, which is adjacent to the Abaco National Park, and South West Point, which is in the middle of the proposed expansion of the Cross Harbour National Park. He also expressed a plan to establish a private Fixed Based Operation (FBO) at the Sandy Point airstrip, extend the runway, and pave a 30-foot wide road through 9 miles of the Abaco National Park (ANP) to Hole in the Wall. The development will include a 50-room 6-star hotel, 75 residential lots in a gated community and an 18-hole golf course at Lantern Head as well as two hotels with 175 rooms plus 80 residential lots, a 136-slip mega-yacht marina, a marina village with retail stores, and a water park at South West Point. In total the two sites will have close to 400 residential units catering to the ultra-wealthy. The project is estimated to cost $580 million to complete. Tyrsoz Family Holdings is a Gibraltar registered company, owned, according to Mr Ben-Zur, by his six children.

Mr. Ben-Zur presented his threefold mission statement as: (1) a commitment to an environmentally friendly development; (2) a commitment to the local community; and (3) a project that is based on sound economic footing. We collectively and resoundingly challenge each of those statements.

(1) Environmental Impact Concerns

Although Mr. Ben-Zur presented his intent to develop a self-sustaining development, he was unable to provide details of waste water and solid waste management plans, nor the anticipated quantities of water and power required or associated infrastructure. Without detailed information concerning the full scope of the proposed development and access to the environmental impact assessment (EIA), particularly the details surrounding the creation of the marina and the installation of the golf course, it is difficult to identify and quantify the potential extent of impacts to the marine environment. That said, there is no shortage of published information to indicate that a development of this scale in such an ecologically sensitive area will create irreversible damage to Abaco's natural resources and the industries that rely on them. Impacts on the most iconic, ecologically and economically important of these resources are addressed below:

- ***Abaco Parrot*** – The paving of the road adjacent to and through the ANP and the proximity of the development to the nesting sites will increase disturbance of nesting areas and result in a **population decline of this endangered, Abaco endemic species**. As a ground-nesting bird, disturbances will include feral and domestic animal predation on parrot chicks and adults, increased nest poaching for illicit sale, and increased trash attracting rodents that predate on nesting birds. The extensive destruction of prime foraging habitat will further affect adult and fledging survival. There are a limited number of nests that these endangered parrots can use, and the same nests are re-used each year. The footprint of available nests extends beyond the boundaries of the ANP.

- ***Kirtland's Warbler*** – The proposed development would have direct, negative impacts on this **critically endangered bird.** The Bahamas is the only wintering area in the world for this species, and that area includes South Abaco, which has been surveyed thoroughly. Notably, the Kirtland's Warbler Study Group found its habitat use restricted to a two-mile radius around the junction of Soldier Road and Hole in the Wall Road, right in the path of the proposed South Abaco development. International interest in protecting this critical wintering habitat is extraordinarily strong.

- ***Bonefish*** – The proposed development, particularly the marina aspect, would also have negative impacts on bonefish with the potential to cause substantial population reductions, and the bonefishing industry is worth $50M annually to the islands on the Little Bahama Bank. Adult bonefish migrate more than 100 miles to aggregation sites, where they gather and then spawn at night at the drop off to deep ocean. After spawning, these bonefish migrate back to their home areas. One of the largest spawning aggregations in The Bahamas and the most important site for the Abaco and Grand Bahama fishery is located off Cross Harbour, with the **actual spawning site occurring**

nearer to South West Point. This spawning aggregation is undoubtedly responsible for producing not only the vast majority of bonefish that make up the fishery in The Marls and other areas of Abaco, but also a significant portion of the fishery in Grand Bahama. Because bonefish follow the shoreline very closely during their spawning migrations, the alteration of the shoreline area at the site of the marina would impede the migration of fish from East Abaco to the Cross Harbour aggregation site, causing most if not all of those fish to avoid that site, thereby, failing to spawn.

- ***Corals*** – The coastal area of South Abaco provides relatively undisturbed habitat for a wide array of valuable marine resources, many of which require healthy coral reefs to survive. The Southwest coast of Abaco Island includes some of the **healthiest stands of critically endangered elkhorn coral in The Bahamas**. These corals have the potential to be negatively impacted from the construction and subsequent use of the proposed marina at South West Point through direct and indirect habitat destruction and alteration caused by dredging activities, increased pollution, as well as anchor and grounding damage. Mr. Ben-Zur told us that, to limit vehicular traffic through the ANP, all supplies for the construction and operations thereafter of the South Abaco hotels, houses, marina and marina village will instead be landed at "a landing site" by freight ships and barges which will increase pollution and further degrade water quality along this ecologically rich coastal area.

- ***Commercial Scale-fish*** **–** Spawning aggregation sites for **critically endangered Nassau grouper** and mutton snapper exist off southern Abaco. Negative impacts to their migrations would be similar to the bonefish. In addition, harvesting pressure by marina visitors on all fished species (including, conch and spiny lobster) would increase, impacting the entire marine ecosystem.

- ***Whales & Dolphins*** – Under the Bahamas Marine Mammal Protection Act, it is prohibited to harm a marine mammal in The Bahamas. Beaked whales are particularly vulnerable to disturbance from noise. South Abaco provides habitat for 19 different whale and dolphin species, including local resident populations of five species. Deep-water circulation off the Southwestern coast of Abaco provides important foraging habitat for deep-diving whales, including **endangered sperm whales** and beaked whales. The construction and operations of a marina at South West Point would result in a decline in the abundance of these resident populations, some of which are already declining (e.g., coastal bottlenose dolphins and sperm whales) due to existing cumulative effects of human activities, such as increasing underwater noise and marine debris.

- ***Fresh Water Resources*** – One of Abaco's four aquifers lies between Crossing Rocks and Hole in the Wall. It is 20-50 feet thick and can produce yields greater than 40 gpm. The excavation of approximately 200 acres for the marina at South West Point dug to a minimum depth of 20+ feet could cause significant salt water intrusion and destruction of this critical fresh water resource.

In addition, contrary to the mission of being an environmentally friendly development, the project includes the construction of a golf course. Golf courses bring a host of environmental

concerns, in particular the leaching of fertilizers and chemicals into the ground water and coastal waters around Lantern Head potentially threatening this critical fresh water supply for Abaco. Mr. Ben-Zur stated that, although the golf course was not designed yet, they have discussed using recycled grey water, but may also need ground water for irrigation, further increasing use of this precious and limited resource.

(2) Socio-economic impacts on local communities

- ***Negative impacts to local commercial fishermen*** – Sandy Point and Crossing Rocks are historically fishing communities and are home to the primary fishers of coastal waters around South Abaco. A marina at South West Point will bring a fleet of private, primarily foreign, sport-fishing vessels using state-of-the-art equipment, that would compete directly with local fishing activity on commercial resources (scale-fish, crawfish and conch) and result in a decline in availability of these resources for local fishermen from local communities leading to socio-economic hardship.

- ***Negative impacts to Bahamian bonefishing guides and lodge owners*** – Cross Harbour serves as a primary bonefishing site for South Abaco guides and bonefish lodges. A marina at South West Point would increase the use of the nearby shallow water of Cross Harbour, resulting in not only increased fishing pressure on, but also increased disturbance to the resident bonefish by recreational water craft. Paving the Hole in the Wall road would allow rental car access for the first time to the flats of Cross Harbour for unguided bonefishers fishing from shore causing a decline in the fishery. As a result, guiding opportunities and income for Bahamians would suffer.

- ***Negative impacts to Abaco's tourism image*** – The Abaco Parrot is a point of pride for Abaco. Parrot images adorn logos for local businesses (e.g., Abaco Chamber of Commerce). Lack of protection for this iconic species would affect Abaco's tourism image internationally.

- ***Negative effect on Abaco's growing bird-watching industry*** – Due to the number of endemic bird species on Abaco, bird-watching tourism contributes significantly to Abaco's economy and continues to increase annually. With the establishment of the Abaco and Cross Harbour National Parks, South Abaco is the centre of this activity. A development at this scale in South Abaco would cause massive habitat destruction and loss resulting in declining bird populations and biodiversity and lessen opportunities for Bahamian birding guides.

- ***Historical sites*** – In his presentation, Mr. Ben-Zur did not address plans for the ruins of well-documented historical settlements at Lantern Head & Alexandria, and the master plan he presented did not include any concessions for their protection. Damage from a D8 bulldozer to the ruins of the pineapple and sisal plantation at Lantern Head has already occurred during the surveying of this parcel attesting to the lack of concern about the rich

cultural value of this site. The planned marina complex completely engulfs the Alexandria settlement without any proposed buffer to ensure its protection.

- ***Hunting conflicts*** – The areas under consideration for development contain one of the last remaining and most prolific concentrations of berry-bearing trees on Abaco and are a key food source for Abaco parrots and white-crowned pigeons. As such, this area has long been considered prime territory for Bahamian pigeon shooters and other hunting activities (e.g., wild boar) enjoyed by Abaconians.

(3) Financial Sustainability & Credibility Concerns

- ***Insufficient investment funds*** – We are, sadly, all too familiar with other projects on Abaco and elsewhere in The Bahamas where projects have been started but never completed or have been abandoned (e.g., Schooner Bay, Serenity Point, Ginn Bahamas), leaving environmental damage without providing the promised economic benefits to the communities involved. Mr. Ben-Zur in his presentation was evasive in his answers to any questions about source(s) for financing a project of this magnitude, other than to say his family would be contributing some of the funds. Without complete and demonstrable evidence that he has indeed secured the necessary capital, it should be assumed that it does NOT exist. Before conducting any further discussion on this project, the Bahamas Investment Authority (BIA) should **secure performance bonds** for an amount equal to at least 125% of the $580 million estimated cost of the project, i.e., a minimum bond of $725 million.

- ***Lack of information about Mr. Ben-Zur's credentials*** – When questioned, Mr. Ben-Zur would not name any of his previous developments but admitted that this project would be his biggest to date, his first marina and his first development outside the US. Bloomberg's company profile for French Quarter Holdings (Mr Ben-Zur is its CEO) describes the company as focused on the "*acquisition and redevelopment of undervalued hotels, renovating, repositioning, and preparing for sale services*".

As such, we also request a thorough investigation into Mr. Ben-Zur's bonafides and experience as a resort developer to determine if he actually has the credentials to complete such a massive project.

The proposed development in South Abaco by Mr. Ben-Zur emphasizes the need to elevate environmental issues with policymakers. We strongly recommend that before any further consideration of this proposed project continues, all relevant stakeholders be given enough time to thoroughly review and comment on the complete proposal that was submitted to the Government of The Bahamas along with the Environmental Impact Assessment upon its completion. This would indicate whether additional assessments would be required to identify more potentially sensitive habitats, vulnerable species, impacts to water resources, etc., before this proposal would be ready for actual evaluation.

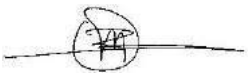
Finally, The Government of The Bahamas is a signatory of international conventions on climate change, biological diversity, coastal and marine areas and sustainable development, reflecting our commitment to promote social reform and environmental protection. The proposed South Abaco project does not align with any of these principles.

In conclusion, Mr. Ben-Zur failed to address many critically important issues associated with this proposed development, giving us tremendous concerns for both its financial viability and its environmental impact. We strongly urge the government to decline this project proposal for development.

Yours sincerely,

Cha Boyce
Executive Director
Friends of the Environment

Krista Sherman, PhD
Senior Scientist
Perry Institute of Marine Science



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Elizabeth Wallace, PhD
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Aaron Adams, PhD
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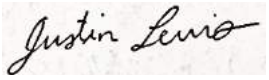

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Cc:
Hon. Michael C. Pintard, Minister of Agriculture and Marine Resources
Hon. Dionisio D'Aguilar, Minister of Tourism
Hon. Romauld Ferreira, Minister of the Environment and Housing
Hon. Darren Henfield, Minister of Foreign Affairs and North Abaco MP
Mr. James Albury, Central and South Abaco MP
Ms. Rochelle Newbold, Acting Director, BEST Commission
Mrs. Candia Ferguson, Director of Investments, Bahamas Investment Authority
Mrs. Kim Outten-Stubbs, Director, Antiquities Monuments and Museums Corporation
Mr. Edison Deleveaux, Acting Director, Department of Marine Resources
Mrs. Nancy Albury, Antiquities Monuments and Museums Corporation - Abaco Office
Mr. Eric Carey, Executive Director, Bahamas National Trust
Mrs. Eleanor Phillips, Director of External Affairs for the Caribbean, The Nature Conservancy
Mrs. Shenique Albury-Smith, Director of Northern Caribbean Programs,
The Nature Conservancy

December 1, 2020

The Most Hon. Dr. Hubert Minnis
Prime Minister
The Bahamas

Dear Most Hon. Dr. Minnis,

The undersigned Abaco citizens, residents, and scientific experts on behalf of the organizations and companies they represent are writing to you to express our continued concern about the proposed project to build an extensive resort, including a super yacht marina, golf courses, a hotel, condos, 50 villas, private mansions, and other luxury facilities in South Abaco. The project is proposed by Mr Ra'anan (Ronnie) Ben-Zur.

As part of the process to obtain final approval for their highly ambitious $650 million development 'South Abaco: Hotel, Marina, and Residences', the Tyrsoz Family Holdings group has submitted an Environmental Impact Assessment (EIA) to the Department of Environmental Planning and Protection (DEPP), and posted it for public viewing. The developer, Ronnie Ben-Zur, met via Zoom on November 23rd with a group to discuss concerns over the proposed development in South Abaco.

Our group's concerns were not in any way alleviated by Mr. Ben-Zur's EIA. Not only is it very superficial with respect to its assessment of the potential impacts on the environment, the project borders the Abaco National Park and its unique collection of fauna and flora. There are multiple deficiencies and data gaps in the analysis. Our group of scientists is preparing a detailed list of our concerns with the EIA that we will submit to DEPP by the December 3rd deadline (a timeframe that seems unreasonably short given the magnitude of the issues at stake). We urge the government to require that a rigorous and independent EIA be performed rather than rely on the totally inadequate and misleading EIA paid for by Mr. Ben-Zur and executed by a company that has significant conflicts of interest. We would also urge the government, as mandated by the 2020 Environmental Impact Assessment Regulations addendum to the Environmental Planning and Protection Act of 2019, to require the developer to put up Environmental Performance Bonds equivalent to 5% of the project's value (approximately $32.5M) to guarantee his adherence to these important environmental issues, We generally are concerned that many of the provisions within this Act may be overlooked in light of the disruption caused by COVID, and we believe that the Zoom meeting does not amount to anything close to satisfying the public consultation requirements laid out in the Act and Regulations.

Our concerns about the South Abaco project are not, however, limited to its impacts on the environment. In addition, we have concerns about the following:

1) **Financial capacity and opacity.** Mr. Ben- Zur's plans for financing this project are light on detail and highly speculative. He proposes to raise $60 million in the private equity market to fund both the land acquisition cost and the 'pre-construction phase of the project'. The rest of the $658 million in funding is anticipated to be in the form of loans (both mezzanine and senior). Nowhere is there any indication of the possible sources of these funds. The debt to equity ratio of over 10:1 derived from this financing structure is dangerously high and likely makes obtaining these debt facilities speculative at best. This is of great concern given the timing proposed by Mr. Ben-Zur for obtaining these facilities. $60 million of private equity needs to be raised to buy the land and conduct pre-construction work. Pre-construction means clearing the land and building roads. The mezzanine and senior facilities will be required 2-3 years later. If these loan facilities are not forthcoming, the project will fail, BUT the land clearing will already have done its damage to the environment. This is the classic pattern that has led to the failure of so many projects in The Bahamas.

Furthermore, little or no public information is available on Tyrsoz Corporation other than it is incorporated in Gibraltar, a strange place for an American citizen to incorporate.

We would strongly urge the government to do more due diligence on Mr. Ben-Zur and require greater line of sight into the availability of the financing facilities he will be relying on. The Bahamas Investment Authority (BIA) has an obligation under the law to fully understand the sources of all inward investment. The government has an obligation to ensure that sufficient funding is in place for it to be confident that this enormous project can be successfully completed and that the benefits promised are realized.

2) **Relevant project experience.** Mr. Ben-Zur has no experience in resort development that we are aware of, other than managing two small hotel renovations in Florida. We believe that developing a project of the scale being proposed in South Abaco is way above his level of expertise, and he is seriously underestimating the logistical, structural engineering, and environmental challenges of building a resort in a remote spot on the island. This lack of experience will inevitably lead to significant cost overruns with an accompanying greater probability of financial failure, again, a common situation with those lacking experience building in The Bahamas.

3) **Labour scarcity.** Due to Hurricane Dorian and the resultant rebuilding work that is going on in Abaco and Grand Bahama, there is actually a shortage of labor on these islands, and wages are increasing as a result. The volume of freight arriving in Abaco has increased since Dorian which is already leading to building delays. This demand will last for several years, freighter scarcity and unexpected delays in receiving building supplies

will put further pressure on project costs, again increasing the likelihood of financial failure.

4) **Economic Impact Assessment.** This document is simply an abstract projection of what a similar resort in the US or the US Virgin Islands might look like under ideal circumstances. Additionally, the document was completed in 2018, and the scope of the project has changed since then. As a result, we are concerned that this document, which promises over 600 permanent jobs and $2 billion in economic benefit to Abaco, is distracting the government from its obligation to undertake detailed due diligence on Mr. Ben-Zur's project. *We submit that this abstract approach is inappropriate for The Bahamas and, more particularly, South Abaco*.

We are also concerned that very few of the jobs promised will go to Abaconians.

Finally, to be un-biased, a thorough economic impact assessment should have included potential negative impacts. Considerations should have included damage to the flyfishing industry, loss of income to Sandy Point commercial fishermen who will experience competition from high tech offshore recreational fishing, and impacts to eco-tourism and bird watching. Over 20 years of research on bonefish behaviour, movements and reproductive ecology performed in The Bahamas by scientists associated with our group has identified the great potential for negative impacts arising from construction of this proposed resort. That research indicates that the associated disturbance from construction and operation of the resort would result in decreased spawning success in the spawning aggregation that exists along the coastline of South Abaco. This spawning aggregation is this largest identified so far in The Bahamas and because of its location adjacent to the gyre currents in the Northwest Providence Channel, it is likely responsible for a large proportion of the bonefish populations across both Abaco and Grand Bahama. Reductions in reproduction of this important species would have substantial negative impacts on the $100M annual revenues inherent in the flyfishing industry on the Little Bahama Bank.

5) **Engineering concerns**. We have already identified Mr Ben-Zur's lack of large greenfield resort development experience as an area of great concern. Nowhere is this more evident than in his presentation on the proposed marina. We are extremely concerned that this marina is proposed to be situated in an area that is wholly unsuitable for such an endeavor, with average wave agitation far in excess of marina norms, making berthing there potentially dangerous. We would urge the government to commission its own engineering study before signing off on a proposal that is, at face value, wholly inadequate.

We are very much in favour of responsible development and recognize that bringing jobs to Abaco has become even more important since the ravages of both Hurricane Dorian and the ongoing pandemic. Needlessly rushing to approve a project with such limited public consultation and so many question marks surrounding it appears contrary to public

interest. Additional due diligence and an independent in-depth EIA would help protect the government from public criticism and judicial review and, ultimately, help The Bahamas avoid granting land and approving a project which is likely to substantially disturb the environment without actually incurring the benefits of employment and development.

In summary, We strongly urge the authorities to ensure that such due diligence is in fact done on Mr. Ben-Zur and the Tyrsoz Family Holdings. We also urge that the government orders both a comprehensive and independent environmental impact assessment and detailed engineering feasibility studies of the proposed marina and golf courses. We are not afraid of success, but history has scarred us with the repeated failures of the past. The worst thing that can happen to this environmentally, culturally, and historically critical area is the avoidable destruction of natural resources that should be protected for multiple generations of Bahamians. A post-Dorian, post-COVID Abaco cannot, nor should it be asked to, withstand another large scale, failed development that would leave permanent scars on its beautiful landscape …like the barren and stripped lands of other unfinished and failed developments that unfortunately already exist throughout The Bahamas.

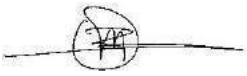
We appreciate your time and are grateful for your attention to this matter.

Yours Sincerely,

The Undersigned

Cha Boyce
Executive Director
Friends of the Environment

Charlotte Dunn, PhD
Senior Scientist
Bahamas Marine Mammal Research Org.



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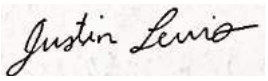

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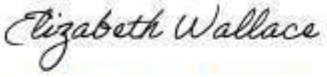

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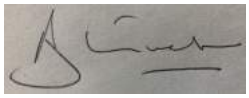
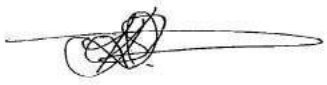


Andrew Tucker
Chairman
Delphi Club Abaco

Capt. Buddy Pinder
Treasurer
Abaco Fly-Fishing Guide Association



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cc:
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Mrs. Eleanor Phillips, Director of External Affairs for the Caribbean, The Nature Conservancy
Mrs. Shenique Albury-Smith, Director of Northern Caribbean Programs, The Nature Conservancy

Appendix E

Nancy Albury

Preliminary Historical and Architectural Investigation of abandoned settlements at Alexandria and Lantern Head, Great Abaco Island, The Bahamas.

A Report Prepared for Mr. Keith Bishop, Islands by Design, Nassau, The Bahamas.

By

Colin Brooker, Dip. Arch; M. Arch.

November 17, 2006

Brooker Architectural Design Consultants
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Preliminary Historical and Architectural Investigation of abandoned settlements at Alexandria and Lantern Head, Great Abaco Island, The Bahamas.

Colin Brooker, Dip. Arch; M. Arch.

Introduction.

The following Report prepared for Mr. Keith Bishop (Islands by Design, Ltd. Nassau, The Bahamas) presents results of preliminary historical and architectural investigation into two abandoned settlements situated at the southern end of Grand Abaco Island, The Bahamas.[1]

The larger of the two named Alexandria, is located on the island's southwestern shore and still preserves something of its former village-like character despite inroads made by tangled stands of dense, tropical broad leaf forest. The second site located north of the Hole-in-the-Wall incorporates an as yet nameless homestead standing in magnificent isolation on a limestone rise overlooking a promontory called Lantern Head and beyond that, the open Atlantic. Like Alexandria, the Lantern Head site is covered by dense vegetation but wind and wind-borne surf has stunted and sculpted all tree growth, the resulting open heathland looking totally unlike the forests of Caribbean Pine found further inland.

While both settlements are known to hunters, relic collectors and naturalists, geographical isolation coupled with access via almost impassable logging tracks has left them largely undisturbed although neither has escaped the destructive effects of harsh and (insofar as human sustenance is concerned) unforgiving environments. Indeed, it might be that both settlements failed because their inhabitants found the struggle to wrest a living from local resources both manmade and natural, too precarious.

As many historians of The Bahamas have observed, historic life-ways on the islands depended to

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[1] We are indebted to Mr. Bishop for inviting us to participate with the project, supplying maps, photographs etc. of the two sites visited and facilitating all practical arrangements.

a greater or lesser extent on the sea. The settlements discussed were doubtless not exceptional in this respect although exactly what kind of activities were followed remains undetermined. Nevertheless, a large group of ship graffiti found preserved at Alexandria, pods of migratory cetaceans recorded off Lantern Head plus persistent tales of wrecking along the same desolate coast are all highly suggestive.

Romance aside, it must be remarked that documentary sources pertaining to the project area proved very elusive during the time devoted to documentary research at the Department of Archives, Nassau. However, thanks to the tenacity of Ms. June Maura, MBE, MVO (Past President, Bahamas Historical Society) references surfaced which establish that pineapples were grown commercially at the south end of Abaco at a time coincident with the founding of Alexandria, a circumstance apparently now forgotten by local residents. Materials were also discovered linking the establishment of Alexandra to construction of the Hole-in-the-Wall Lighthouse in 1836. Additionally, Ms. Maura must be thanked for obtaining invaluable cartographic materials from the Department of Lands and Surveys, and searching legislative records. I personally examined Specification Books of the former Department of Public Works and all available Commissioners Reports for South Abaco held by the Department of Archives but, little pertinent information emerged.

Four days were spent on Abaco, three of these in the field, the fourth in discussion with local informants. Arrangements in Marsh Harbour were made by Dr. Keith L. Tinker (Director, National Museum of The Bahamas) who introduced Ms. Anita Knowles (Friends of the Earth) and Ms. Nancy Albury (Antiquities Monuments and Museum Corporation, Marsh Harbour) both of whom did everything possible to facilitate the project. Their help with finding knowledgeable guides and organizing transportation was especially useful.

At Alexandria, dense vegetation made observation of architectural features difficult. Four standing buildings were recorded in some detail, photographs taken of ship graffiti and several fragmentary structures concealed deep in the 'bush' (including a tomb) examined.

Since local informants deemed access to the ruins at Lantern Head impossible by road, the site was visited on foot taking a path (of sorts) running two miles or more along the cliffs and foreshore north from Hole-in-the-Wall. While remarkably scenic, the route was not only arduous and time consuming but dangerous owing to loose and heavily eroded limestone underfoot, a fact mentioned

here because it could have significant bearing on the logistics of any future survey or testing program. Time spent reaching the site left fewer hours of daylight than anticipated. Consequently, recording of the ruins was limited to making a sketch plan of the standing buildings and photographing key architectural features. Ms. Nancy Albury generously acted as guide and patiently bore with my slow progress.

Ms. Albury also produced photographs of another ruined settlement located further north at Barque Bay (also impossible to reach by road). In construction and details, structures at this site appear to closely resemble structures at Lantern Head and clearly deserve systematic recording.

Information gathered by ourselves is presented below in two sections. Section I deals with Alexandra, Section II with ruins at Lantern Head. Architectural features are described from both sites, description being preceded by summaries of historic data insofar as understood.

Although much remains to be learned about them, the settlement at Alexandria and ruins at Lantern Head both qualify for nomination to the Bahamas National Register of Historic Resources. Discussion to this effect is presented along with recommendations regarding the protection, recording and mitigation of historic and archaeological resources at the two sites.

I. Alexandria.

Location. The now abandoned coastal settlement of Alexandra is located near the southwestern tip of Great Abaco Island just south of Laroda Bay. A narrow, eroded track gives access, the track cutting through thick tangles of mixed broad leaf coppice which provide habitat for the indigenous Bahama Parrot (*Amazona leucocephala bahamensis*) and numerous migrant birds including endangered species such as the Kirtland Warbler (*Dendroica kirtlandii*). [2] This route follows the line of a roadway called Soldier Road, which runs just over two miles in a straight northeast/southwest direction to link Alexandria with the lighthouse at Hole-in- the-Wall. Standing at an elevation of about 124 feet above a rocky promontory, the lighthouse with its distinctive red and white painted finish, is visible for the most of the road's length when traveling eastwards (Figure 1).

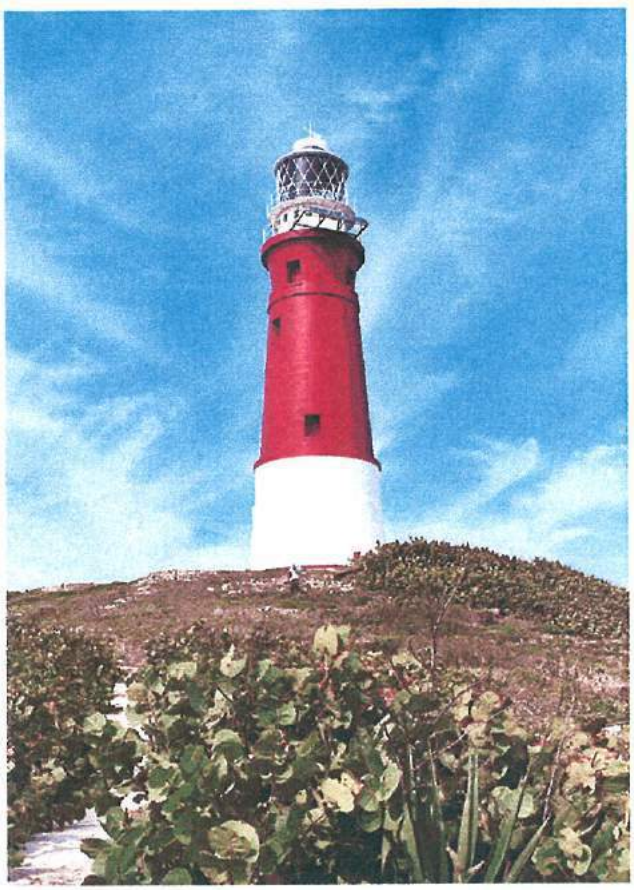

Figure 1: Hole-in-the-Wall Lighthouse, Abaco, 1836.

Soldier Road it intersected about halfway along by another track called William's New Road on late nineteenth century maps. This cut across country in a northeasterly direction toward Lantern Head (a prominent landmark rising about 74 feet above the Atlantic) and terminated at the edge of a property owned during the 1870's by the Hon. Thomas Williams who presumably was responsible for its installation. Except for logging roads, no other permanent tracks linking the

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[2]One Bahama Parrot was seen at dusk near the western end of Soldier Road, local informants observing that small flocks of the species are often seen at in the vicinity of Alexandria where food plants (such as Poison Wood,) are common. White (1998: 61) reports *"this is the location of what was possibly the last sighting of the Black-cowled Oriole on Abaco."*

southernmost part of Great Abaco with settlements to the north, such as Sandy Point and Cherokee Sound, seem to have existed before the second quarter of the twentieth century.

Unlike rocky shores immediately north and west of Hole-in-the-Wall, the coastline at Alexandria is somewhat sheltered from prevailing winds by high ground known as Fishers Hill.[3] The settlement itself is situated on relatively low land and opens west to a beach which before recent hurricanes reworked the coastline, must have offered access for small vessels. The settlement's off-shore anchorage could never have been very safe but was probably more accessible and safer than any other located near Hole-in-the-Wall, where the coastline is dominated by high limestone cliffs with few beaches, bays or coves to the north and heavy surf breaking over jagged rocks to the west.

History of the Settlement. Little is recorded about Alexandria's history, the earliest land record so far discovered being a plan of the township dated August 4, 1870. This depicts plots aligned approximately north and south of Soldier Road at its western extremity, the plots (numbered 1 through 38) laid out in an irregular grid-like pattern. Unfortunately, the original of this plan has disappeared from the Department of Land and Surveys, Nassau, the photocopy supplied to us from an anonymous private collection not showing if the land on which Alexandria stands had previously been granted.[4]

Nevertheless, there is strong circumstantial evidence linking Alexandria with construction of the Hole -in-the-Wall Lighthouse which began in 1836.[5] In that year, public notices sought tenders for construction of a roadway to be laid over a course already prepared by the Royal Engineers. While the exact route is not specified, there can be no doubt that given its name, the road in

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[3]Apparently misnamed Fishes Hill on modern maps.

[4]Newspaper advertisements attest that parcels hereabouts had escheated before 1834 and were then offered for public sale, but no specific details are given.

[5]Riley (1985: 94) gives the following tarnslation of the description of what is now called Hole in the Wall published by by Jacques-Nicolas Bellin in 1758: *The southern point [of Abaco]is noticeable by the rock escarpments in which one perceives an opening which seems to be the entrance to a cave. The English maps mark it and name it Hole in the Rocks, Trou dans le roches. It serves as a point to recognize this entrance as the best way to go to Providence.* The same name (Hole in the Rocks) appears on a chart based on surveys by Anthony De Mayne of His Majesty's Surveying Cutter Landrail in 1817 and 1818 (UK Hydrographic Office, Taunton, Somerset, Ag.6 D803). Unfortunately, the scale of this chart is too small to show any settlements although "*Lanthorn Head* " is noted. According to Riley (209-210), DeMayne recommended construction of a lighthouse in 1824. The United States offered to purchase lnd and build a light in the vicinity at the same period but the offer was refused in the interest of military security.

question was Soldier Road, linking Hole-in-the-Wall with Alexandria.

Additionally, the 1870 plan of the settlement mentioned above, shows Plot Number 20 of the township (located at the far end of Soldier Road overlooking the shore), was then occupied by a structure named the *"Lighthouse storeroom"* a structure still extant (see description below).

Another, perhaps obvious, link with Hole-in-the-Wall is the name *Alexandria* which recalls Alexandria in Egypt, famed during antiquity for its Pharos or lighthouse, one of the seven wonders of the ancient world completed during Ptolemaic times circa 285 BC. Such designation might seem overly grand for so small a settlement but, erection of the lighthouse was a monumental enterprise. The cylindrical tower, apparently fabricated of imported stone blocks, rises to a height of 85 feet (25.9 m) on what must have been a nearly inaccessible site in 1836. Overlooking the Atlantic, it was designed to mark the way for mariners entering or leaving the heavily trafficked New Providence Channel between the southern tip of Abaco and north end of Eleuthera.

Although original records have not been found, it is can be confidently assumed that construction on this scale required large numbers of workers, a steady supply of imported building materials and constant delivery of provisions. Road making by the Royal Engineers and presumably one or more civilian contractors in 1836, strongly suggests that Alexandria, with its sheltered (if far from secure) anchorage was founded to satisfy such needs, offering a beachhead for incoming supply vessels. A new settlement of fisherman and farmers here might have also offset the hostility of local inhabitants who, seeing their long. established wrecking activities threatened by erection of the lighthouse plus its supporting structures (including a keeper's house, stores and latrines built circa 1837) supposedly refused to supply foodstuffs to construction workers.

If any of these workers were housed at Alexandria, or if liberated Africans settled in the vicinity (as elsewhere across the northern Bahamas during the later 1830's) cannot be said for sure. However, our brief reconnaissance in October 2006 revealed features usually associated with slaves or the descendants of slaves, including remnants of wattle and daub construction (commonly found in the context of slave housing throughout the Caribbean region) and numerous ship graffiti (see description below). Featuring sloops, schooners and one or two steam vessels, the latter drawings attest an interest in ships and shipping on the part of the settlement's inhabitants, but again, the nature of this interest (which may or may not have included boat building), is impossible to determine at the current stage of investigation.

Local agricultural activities are equally uncertain, however grants offer significant clues to late nineteenth century land use patterns. For instance, coppices bordering the sea extending southeast of Hole-in-the-Wall were noted to have been *"all cultivated by squatters"* when applied for by (L?) H. Knowles in May, 1873.[6]

In Alexandria, several parcels (Plot nos.1; 4; 5; 12; 13; 23; 29; 31; 36) were granted during 1870 to Thomas Williams, a member of the Legislative Council. Williams also owned an estate near Lantern Head which incorporated 445 acres. According to a report published by the Nassau Guardian on 13 May, 1871, he then had ten acres there *" under cultivation in pineapples.* The same report states:

> *20 more [acres] will be laid out in same. It is estimated that by the end of next year [1871] he will have under cultivation 50,000 dozen pineapples.*

Just over one month later, it was observed:

> *The hundred acres of land in the southern portion of Abaco recently laid out in sugarloaf and scarlet pineapples are looking quite verdant.*[7]

The same report attests that, in addition to Thomas Williams at Lantern Head, other local landowners were growing pineapples. At High Bay near Crossing Rocks, these included Sawyer & Menendez and J. Roberts. Immediately east and south east of Alexandria at Fisher's Hill, growers mentioned are M.C. Knowles (who owned 20 acres fronting Soldier Road just west of the junction with William's New Road) and Joseph S. Johnson whose extensive local holdings included acreage bordering Alexandria south and southeast.

Like Thomas Williams, J. S. Johnson also held property in the settlement, including Plot Nos. 10; 11; 2 3; 32; and 38. Sawyer and Menendez, had been granted a plot in Alexandria too (No. 19) located overlooking the ocean behind the lighthouse store.

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[6]Pencil note on Map of Land Grants, South Abaco, Department of Land and Surveys, Nassau.

[7] Nassau Guardian, 24 June 1871

On 12 August , 1871, the Nassau Guardian further reported:

> *Messrs. M.C. Lewis and S.B. Knowles have recently planted at Fisher's Hill, Abaco 80,000 dozen pine slips. It is presumed that Messrs. T. Williams and Co; Messrs Sawyer and Menendez and Captain J. S. Johnson have also gone into the cultivation of pineapples at the south end of Abaco so extensively, that the total planted will amount to at least 160, 000 dozen this year.*

From the distribution of land holdings held by these growers, it seems that Alexandria must have played an important role in the shipping and perhaps processing of pineapples at this period. A native of Harbour Island, Eleuthera, Joseph S. Johnson was perhaps a key figure in the business of growing and shipping pines here, since he is known to have opened a canning factory on Bay Street, Nassau in 1876 and is reported by Craton (1962: 248) to have operated other factories at Governor's Harbour; Harbour Island; Abaco and Rock Sound.[8]

Craton (ibid) also quotes the following description of the canning process given by Lady Brassey:
:

> *The 'apples' as they are always call the pines here are first stripped of their leaves; then they are swiftly peeled; stalk and eyes are dextrously removed ; and the best fruit are thrown whole into coppers full of hot syrup where they are boiled ten times. They are then put singly into tins, which are afterwards hermetically sealed. Those of the second quality, are cut into slices and treated in the same manner. The third quality is cut into squares, the fourth is merely scraped; but all are cooked in syrup and are packed in tins decorated with attractive pictures.*

If fruit was processed in similar fashion at Alexandria or shipped whole directly from the settlement to overseas consumers (as often the case with pineapples grown on the so- called out islands) is not yet known. It is probable that financial returns were relatively modest at first, 500 dozen pineapples

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[8]R. G. Lightbourne (Reminiscing II, Nassau 2005: 38) reproduces an early photograph of J. S. Johnson's Nassau office located between Elizabeth and Victoria Avenue on East Bay Street. We have not had the opportunity to examine any company records, but if still extant these would perhaps furnish information concerning Johnson's activities at South Abaco.

exported from Abaco to Jacksonville, Florida in July1871 being valued at £32. 0. 0.[9]

Bahamian productivity improved rapidly over the next two decades, fruit exported from the colony in 1892 being valued at nearly £60,000. Production peaked in 1900 when 7,233,012 dozen pineapples were exported. But, this vast output both glutted and depressed overseas markets, prices falling from an average of 1/8½ d per dozen in1892 to 2d per dozen (Craton, 192:248). What effect such price falls may have had on farmers at the southern end of Abaco, cannot be said. Nor is it known if failures in cultivation or exhaustion of soils combined with market fluctuations and American tariffs (imposed in 1898) to precipitate Alexandria's ultimate decline.

Unverified records of births suggest the settlement was occupied until at least 1891, records of this kind ceasing thereafter. Sisal plants now growing wild in the vicinity may mean that sisal replaced pineapples as a cash crop around 1900 but, if so, official documentation is wanting and oral histories are vague on the subject.[10] Nothing is recorded concerning Alexandria by Commissioner's Reports for the area dating back to 1911 suggesting that much of the settlement was abandoned some time near the beginning of the twentieth century although the Lighthouse Store appears to have been kept in repair and used down until relatively recent times.

Description of Selected Structures

During our visit to Alexandria it was noted that, insofar as visible from Soldier Road, dry-stone walls (between about 2' and 5' high) define a grid-like ground plan, closely resembling the settlement's plan recorded in 1870. However, alleys or pathways then shown cutting across the settlement are no longer obvious having perhaps been encroached upon by local landowners or

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[9] Nassau Guardian, 12 August, 1871.

[10] At Sandy Point (the nearest surviving settlement to Alexandria) in 1913, the local Commissioner noted that the inhabitants chiefly followed the sponging business, *"they earn in this way"* he wrote *"enough to keep then going."* Sisal was also grown at Sandy Point, but there were no machines "*affordable to the poor man*" to clean the crop which was sent to Nassau for sale. The Commissioner noted the populations of Sandy Point and Moores Island were *"very law abiding"* owing to their *"superstitious ideas of obeah."*. (Commissioners's Report, Abaco, 1913, Department of Archives, Nassau). In 1963, the then Commissioner wrote: *"it is commonly believed that Sandy Point was settled by the Deans, Dames and Burrows [families)... this belief is supported by the common existence of the surnames at Sandy Point and Moores Island. Later settlers migrated from other islands.... particularly Long Island and Grand Bahama. Today the population is entirely of African descent with a small segment of mulattoes."* (Commissioners's Report, Abaco, 1963, Department of Archives, Nassau).

alternatively, occupied by squatters after Alexandria was abandoned. It was also noted that the majority of front plots located both north and south of Soldier Road give evidence of buildings. Many of these structures are now badly damaged and heavily overgrown. Our limited time at Alexandria was therefore spent in examining the better preserved examples which may or may not be representative of the settlement as a whole. An attempt was made in the field to correlate structures observed with plot designations given on the 1870 plan. Unfortunately, it proved impossible to determine exact corners of the original grid layout. The plot numbers assigned below are therefore less precise than we would wish.

Lighthouse Storeroom, Plot No. 20.

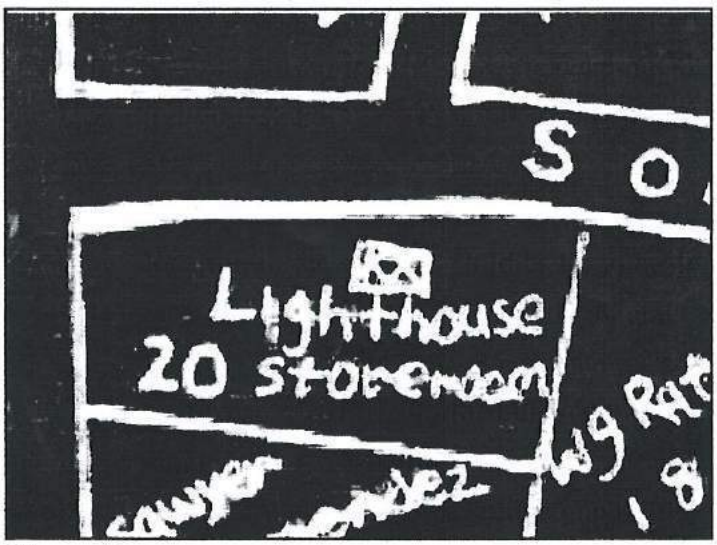

Figure 2: Detail of 1870 map showing Plot No. 20 with building identified as lighthouse store (Private collection, Abaco)

The 1870 plan of Alexandria already cited shows only one structure, a rectangular building standing on Plot No. 20 identified as the *"Lighthouse storeroom"* (Figure 2). Inspection in approximately the same location to the south of Soldier Road at its western extremity, revealed a small building still exists here. Measuring 12'-2" east/west x 10'-1" north/south, this is a single storey structure raised about 11" above ground level on a solid stone plinth, the plinth supporting stucco faced rubble walls. Measuring 11 ½" in width, exterior walls stand to a height of 7'-1" on the external face.[11] The interior space is undivided, one doorway (measuring 3' -1' in width x 6'-9" high) centered on the north facade giving access. There are no window openings as such, the building having been ventilated by a series of narrow, open slots (each about 2" wide x 10" high) positioned symmetrically, with two on each long facade and one centered on each of the shorter

[11]Like many other traditional nineteenth century and later folk buildings in The Bahamas, exterior walls are triangular in section at the upper level, rafters being set into the stonework without a wall plate. If this detail was devised to anchor roof frames in a way which minimized lifting or other damage by hurricane force winds remains to be determined.

walls.

The roof frame has disappeared, but seatings for the lost rafters show it to have been hipped in form, with rafters placed about 1'-7" on center. The roof covering has also gone, fragments found in the vicinity suggesting that this was originally of slate. There is evidence exterior stucco has seen some repairs and patching. Otherwise it survives in good condition.

Given the structure's lack of window openings and robust stone walls, there is no reason to doubt that it was originally used for storage, an iron bedstead left inside indicating the interior was cleared for human occupation at some later period. In functional terms it correlates well with the *"lighthouse storeroom"* attested by the earliest plan of Alexandria, all construction details observed being consistent with erection around 1870. Whether the current store replaced an earlier, somewhat larger one, as possibly indicated by the plot map, is entirely uncertain.

Building Standing in Vicinity of Plot Nos. 14 and 15. [12]

General. Another well preserved structure stands south of Soldier Road at or near the settlement's opposite (east) end on either Plot No. 14 or Plot No. 15. This single storey building is considerably larger than the presumed Lighthouse Store, measuring 21'-9" east/west x 30'-2" north/south at floor level (Figure 3). Despite the loss of its roof, most wall finishes remain more or less intact, some window reveals and interior surfaces retaining an important series of ship drawings and other graffiti.

Construction. Fabricated of stone stuccoed on the outer face and plastered internally, exterior walls are relatively substantial measuring 2'-1" in width at grade. About 1'-6" above ground level, they are reduced in thickness to 1'-7" by means of setbacks on both inner and outer faces. The interior set-back once supported timber floor joists (now lost) spanning east-west across the building. Joists were apparently supported mid-span by a roughly constructed stone sleeper wall (running north/south) measuring on average 1'-11" in width x 1'- 6" high. If this feature originally carried (in addition to the floor joists) a partition, dividing the building into two equal areas about its north/ south axis is very uncertain, a lack of ghost impressions on adjacent interior wall faces

[12]The name of Plot 14's owner is illegible on the copy map of Alexandria supplied to us. Lot 15 is shown to have been granted to Edwin Carey.

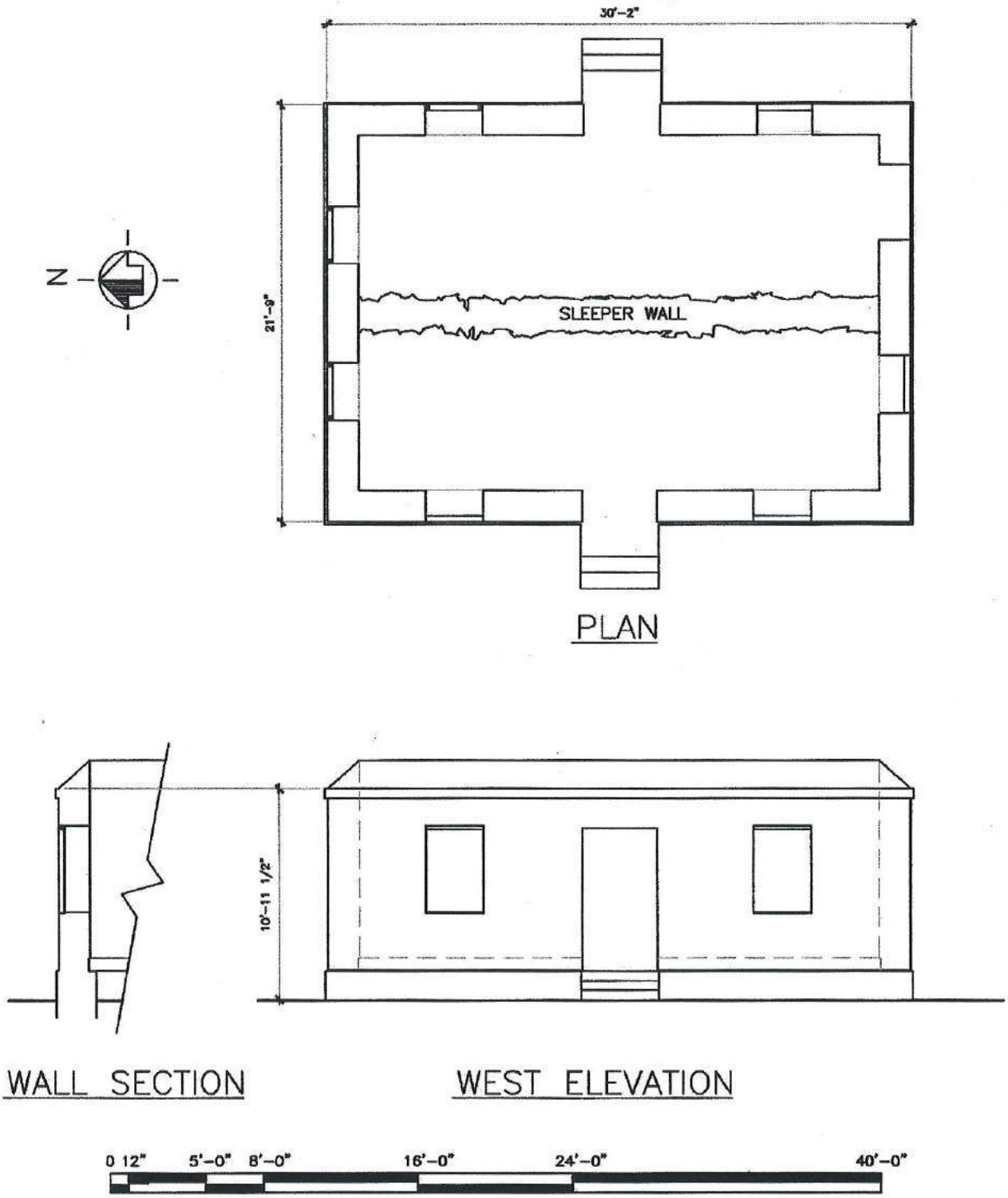

Figure 3, Alexandria. Stucture in Plot No. 14; Plot No. 15 vicinity.

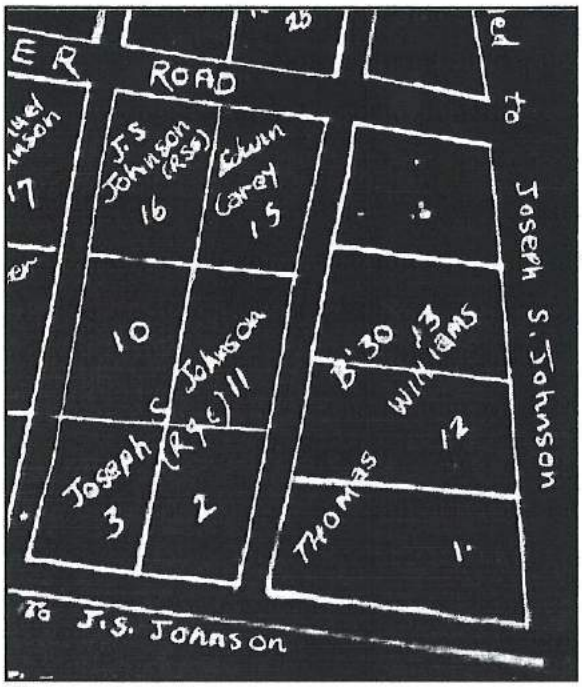

Figure 4: Detail of 1870 map showing location of Plot 14 (north of Plot 13, almost illegible) and neighboring properties south of Soldier Road.

arguing against such interpretation. Impressions show that floor joists measured 8" in depth, but their spacing could not be determined.

Like those of the Lighthouse Store, exterior walls were built somewhat higher on the inner face than the outer one to support rafters of the roof frame (now lost), which impressions show to have been hipped. The height of exterior walls (including a plinth at the lower level and 6" high frieze running around the entire building) on the outside is 11'-0". On the inner face, this dimension increases to 12'-5" .

Facades. Elevations are carefully modulated and well proportioned. Both long facades (east and west) feature a central doorway, the openings measuring 3'-11" wide x 7'-5" high. Each doorway is flanked by a window right and left, window openings measuring 3'-0" wide x 4'-6' high. Remnants of timber window frames (measuring 2 ½" x 35/8" in section) set flush with facades still survive. The north facade features two windows of the same size disposed symmetrically. The south facade has one similar window and a doorway (matching the two other doorways) positioned toward the building's southeast corner.

Graffiti. Graffiti scratched into wall plaster are found on the interior of this building. Most are concentrated near its northwest corner where they are inscribed on window reveals and wall surfaces. Others occur adjacent to doorways piercing the east and west facades. A few are abstract or geometric, circles and other figures having been constructed with a compass. But the majority of the drawings represent small ships recognizable as sloops and schooners of traditional types once common to Bahamian waters. In many instances, rigging and sails are shown by means of carefully incised lines drawn using a straight edge.

Of particular note are drawings depicting steam ships, one of which looks very much like an ironclad vessel of the Confederate era. Additionally, a pennant shown flying from the mast of another otherwise indistinct vessel bears the initials "*N P*" presumably for New Providence.

Figure 5: Hole-in-the Wall Lighthouse, Abaco. Storage building.

Typically, pictorial graffiti are about 6" to 8" high, there being indications that a few, presumably later drawings, are superimposed on top of earlier ones.

Surroundings. This structure and the plot on which its stands are densely overgrown. It can however, be seen that the plot is enclosed on at least three side by relatively low dry stone walls, which may or may not be contemporary with the building described. A well exists several yards to the southeast. Rising and falling with the tide, its water tastes fresh.

Interpretation. Despite its isolation from any urban center, the building standing near or on Plot No.14 is remarkably well built showing every sign of having been erected by a skilled group of craftsman. Indeed, the details employed and specifications followed are reminiscent of those utilized in public buildings of the Victorian era erected in Nassau and elsewhere including Hole-in-Wall where a subsidiary structure associated with the Lighthouse, presents a good analogy (Figure 5).[13] Unfortunately, the Department of Archives was unable to find Specification Books of the former Public Works Department dating back to the 1870's or before which might confirm official involvement in building at Alexandria of the kind exemplified by the building under discussion. Nor have we found as yet any reference which indicates corporate patronage, though it seems possible that if not connected to the Hole-in-the-Wall Lighthouse (as we believe possible), this structure might be associated with the shipping or processing of pineapples.

Interpretation is further hindered by uncertainties concerning internal planning, no clear evidence for partitions now being visible. Unless interior space was undivided, doorways centered on east and west facades are indicative of either a central hall or through hall plan. The latter is more likely,

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[13]Building construction at Alexandria is similar to construction seen at the Quarantine Station at Athol island, New Providence designed by the colony's then Chief Civil Engineer, Thomas C. Harvey in 1856 but not completed until the mid or late 1860's.

in which case, one large room to the north and one or two rooms to the south accessed by a central passageway might be imagined. In view of the fact that a doorway pierces the south facade near the building's southeastern corner, two subsidiary, south facing rooms are probable. What function such an arrangement may have served (presuming it existed) is impossible to say. Residential usage is one obvious possibility, use as an office or even work space, another.

Although of considerable historic significance, graffiti inscribed on interior wall surfaces do not clarify either organizational or functional questions since similar drawings reported elsewhere in The Bahamas are associated with work places, dwellings and institutional structures as diverse as Fort Charlotte in Nassau and the former Nassau Jail (now Public Library).

It is generally accepted that ship drawings were mostly created by individuals of African descent although why this should have been the case has not been explained. Neither is it certain exactly what such drawings signify. Are they for instance tallies of ships seen by residents of a particular site or merely generalized and imaginary representations? Assuming those preserved at Alexandria were inscribed while the building was still occupied and are not modern forgeries, the fact that one includes the letters NP does indicate the artist was literate.[14] Dating is more problematic, the drawing of what appears to be an iron clad steam ship suggesting the graffiti were made after 1865. While by no means conclusive, such an interpretation is consistent the attested laying out of Alexandria in 1870 and attribution of the building to the later Victorian period.

Structures Standing in Vicinity of Plot No. 15 and Plot No.16.

Description. On the adjoining plot to the west stands a smaller stone structure which appears related in style insofar as can be determined from its heavily damaged and overgrown ruins. In plan, this building measures approximately 21'-0" east/west x 17'- 4" north/south. It incorporates one

[14]We were shown a cave located west of Hole-in-Wall Lighthouse which has a ship drawing carved on a rock with the supposed date 1450. Although accepted by Peters we believe this to be a forgery since its crudely engraved lines are not weathered like surrounding rock surfaces. Oral testimony supports the conclusion that it was fabricated in recent times with the object of lending authority to the supposed high antiquity of the site. We did not see other drawings in the cave described by Turner (77:2004). The latter mentions drawings at Alexandria in her thesis but apparently had not seen them. There are no obvious signs that graffiti have been tampered with at Alexandria but clearly caution should be observed before accepting the more unusual ones (such as those depicting steam ships and the drawing of the pennant inscribed NP) as genuine.

raised on a plinth, the plinth standing about 3 feet above grade. Exterior walls (measuring 1'-4" in width above the plinth level) are heavily damaged making it impossible to gauge their original height, although much exterior stucco and interior plaster survives. North and south facades feature a central doorway reached by stone steps. Each of these doorways is flanked right and left by a window, measuring 3'-0" wide x perhaps 3'- 6' high. The east facade presents two symmetrically disposed windows of similar if not identical size. The west facade incorporates one window and (to the north) another, slightly narrower (2'-4 ½" wide) exterior doorway.

Inside, nothing remains of the original framing. Therefore, while a central or through hall interior plan is likely, the arrangement cannot be confirmed. Similarly, roof timbers are lost making it difficult to determine the exact roof pitch although a hipped solution may be safely assumed.

Outbuildings. No graffiti were found incised on wall surfaces of the main building. But we did observe fragmentary foundations of a small outbuilding (size not determined) located immediately to the south, which originally had exterior walls made of wattle and daub. a feature (like ship graffiti) usually associated in The Bahamas, with slaves or the descendants of slaves. Here, wattle and daub is attested by chunks of lime mortar, finished smooth on one face and bearing impressions of interwoven timber strips on the other. [15]

Several more poorly preserved structures were seen nearby, including a roughly built stone and mortar oven of conical form and what might have been an open kitchen. Defined by crudely fabricated dry stone walls (1'-7" thick) the latter is approximately "L" shaped in plan, measuring at maximum 16'-5" x 12'-6" the projecting top of the "L" measuring 6'-5" x 4'-5". No evidence survives for roofing which was doubtless made of perishable materials such as palm thatch. Several wells were seen in the same vicinity.

Whether these subsidiary structures are contemporary, later or earlier than the principal stone building standing on the site is impossible to say in advance of closer investigation. It is obvious that their construction is totally unlike that of the principal building which features carefully cut and finished stone of a type common in the Victorian period. Indeed, the outbuildings seem to

[15]We have seen identical material at the Walker Plantation, Crab Cay near George Town, Exuma where it is found associated with a group of dwellings probably built near the end of the eighteenth century to accommodate slaves working at Walker's residence.

belong to an earlier, pre- industrial time, coincident say with construction of the Hole-in-the Wall-Lighthouse in1836. But if this is actually the case or an illusion remains to be determined.[16] Either way, wattle and daub construction and reliance on found rather than cut walling materials denote builders with different values and different skills who perhaps followed different occupations to those individuals who built, or at least commissioned, Alexandria's larger structures.

Cemetery

We were led by way of an ill defined and twisting route partially cut through thick undergrowth to an area which is undoubtably a cemetery positioned southwest of the outbuildings described. above. The area is defined on two sides by high, dry-stone field walls and contains a large tomb of almost semicircular cross section carefully fabricated of limestone rubble stuccoed smooth. According to our guides, this is is one of two similar tombs, the other having been destroyed in recent years by relic hunters . No inscriptions or markers were seen.

Building in Vicinity of Lot Nos. 22 and 30.

Diagonally opposite the Lighthouse Store north of Soldier Road stands a substantial stone building which although less well preserved appears almost identical in size, organization, orientation and detail to the building located in the vicinity of Plot Nos.14 or 15 described above. There can be very little doubt that both structures belong to a single construction program, this circumstance tending to support and reinforce the impression that public or corporate entities were building at Alexandria some time around 1870.

Recommendations

Despite deficiencies in the historic record as currently understood and incomplete knowledge of the site, we have no hesitation in recommending that Alexandria be nominated for inclusion on The Bahamas National Register of Historic Resources. In our view, the settlement embodies in a remarkably complete way, several almost forgotten episodes in the history of south Abaco and

[16]The possibility of squatters occupying the site at after its main buildings had been abandoned should not be ruled out.

meets applicable standards for significance in history, architecture and archaeology through *"integrity of location, design, setting, materials, workmanship, feeling and association."* Additionally, the settlement: meets the following nationally and internationally recognized criteria:

- *is associated with events that made a significant contribution to the broad pattern of [Bahamian] history;*
- *Embodies distinctive characteristics of a type, period, or method of construction;*
- *is likely to yield, information important in prehistory or history.* [17]

To move forward with the Nomination process it will be necessary to:

- Determine the boundaries of the site through a program of archaeological testing designed in association with and approved by the Antiquities, Monuments and Museum Corporation, Nassau.
- Under professional supervision, clear the site sufficiently to allow mapping and full recording of historic structures.
- On the basis of continued historical research and the results of archaeological/ architectural site investigation, present documentation required to justify nomination of the site to National Register.

In advance of any development impacting the area it will be necessary to prepare and submit to government authorities an historic resource management plan. This document should detail proposals for long term preservation (or alternatively mitigation) of all archaeological resources; stabilization/conservation of all standing structures and the general protection of the site.

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[17] Criteria cited here those adopted by the US National Register of Historic Places on which the Bahamian Register is based. They are set forth in 36 CFR Part 60.40.

II. Ruins at Lantern Head

General. Located approximately two miles north of Hole-in-the-Wall on the east coast of Great Abaco Island, the promontory called Lantern Head rises about seventy-two feet above the Atlantic ocean. On its south side the headland commands a long, curving bay fringed by white sand and tall

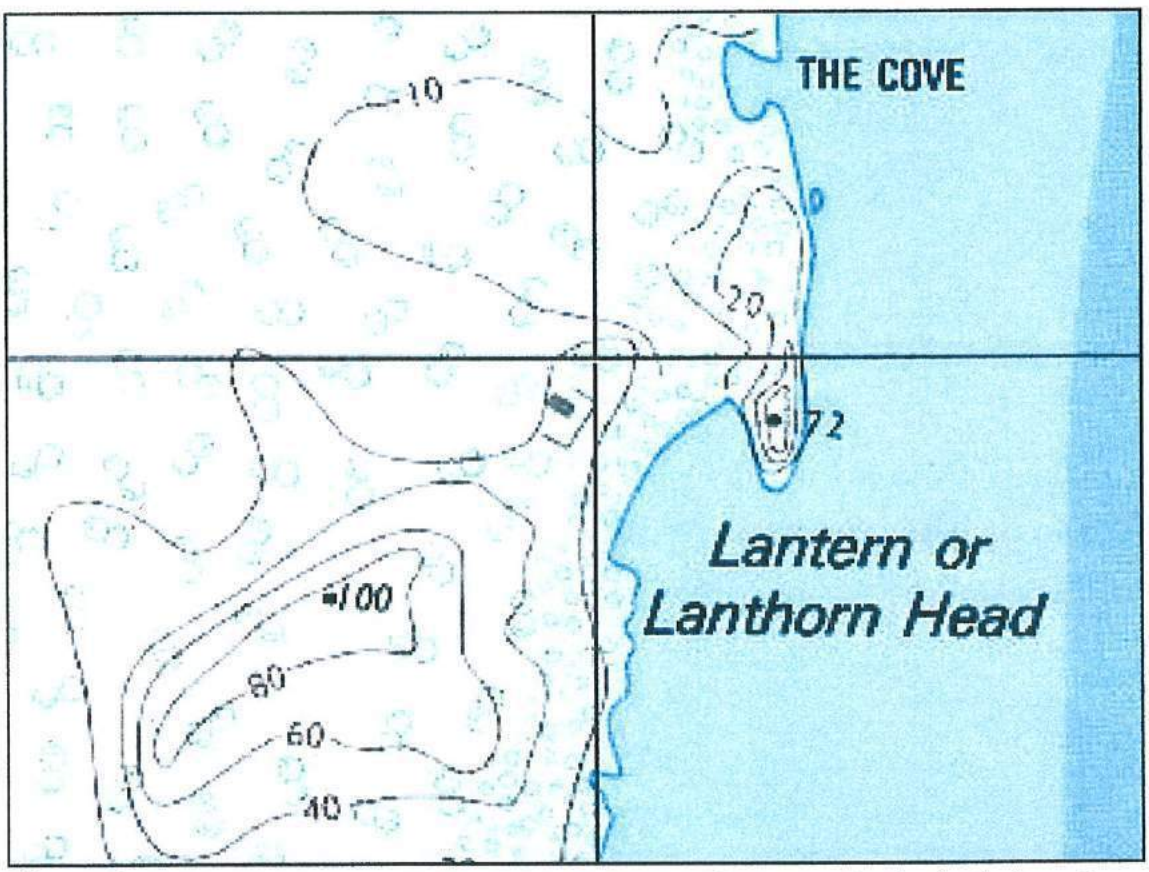

Figure 6: Detail of Ordinance map (1975), Abaco Sheet 27 showing Lantern Head and ruins located slightly inland defined by portions of a rectangular enclosure. (Department of Lands and Surveys, Nassau).

dunes. But, the beach is steep and there is little shelter here from prevailing winds, even in the lee of Lantern Head itself, a fact demonstrated by stunted vegetation extending inland from the primary dune system. Noticeable too is a near total lack of modern development. Indeed, as mentioned above, access to the area is currently almost impossible by road, the only feasible route being a barely marked track running along the cliffs and foreshore north from Hole-in-the-Wall.

Nevertheless, Lantern Head's isolation has not always been complete. The name itself (in the form

of *Lanthorn Head)* appears on Anthony DeMayne's chart of Abaco Island based on surveys made in 1817 and 1818, which, given the prevalence of wrecking during the early nineteenth century perhaps adds credence to the following remarks by Grace R. Turner (2004:6):

> *Lantern Head, a wind-swept cliff at the southeastern tip of Abaco, got is name from the practice, as I was told of placing a light there to lure ships onto the rocks.*

Be this as it may, occupation is definitely attested just west of the headland by a group of ruins situated at an elevation of about 30 feet above the bay already mentioned.

Description. Still memorable for its loneliness and superb choice of site, the ruined group of structures is surrounded by what must have once been a rectangular enclosure of uncertain dimension defined by dry-stone walls now standing three to four feet high (see Figure 6). This enclosure is orientated southeast/northwest and appears almost perfectly centered on the beach located immediately south of Lantern Head, an alignment which may well have functional significance (see below).

Within the enclosure stands a ruined homestead, surviving elements of which are arranged in an "L" shaped configuration (Figure 7). Built to face the sea, the largest and most imposing structure is without doubt a dwelling, which insofar as can be determined from present condition, incorporated one floor raised on a plinth 2'-0" above grade. Measuring 27'-1 ½" x 21'-3" in plan at first floor level, the dwelling features cut stone and rubble external walls (measuring 1'-6" in width) stuccoed on outer faces and plastered internally. No evidence was found for any interior partitions, however the building's interior is partially filled with rubble and overgrown which makes observation difficult. A mass of fallen brick seen along the outer southwest wall does suggests a chimney though where this element stood is impossible to say. Likewise, facade organization cannot be determined with any precision, exterior walls above plinth level having largely collapsed except at the building's four corners where sockets for frames and loose timber lintels attest each facade was pierced by at least two windows.

Separated by a narrow (4'-0" wide) pathway, the main house is flanked on its northern side by a deep rock-cut cistern (measuring about 6'-3" x 20'-0" in plan). Immediately west of the cistern stands a long, narrow, single storey building, measuring 36'-3" x 15'-8"overall. Now roofless but otherwise exceptionally well preserved, this building is enclosed by mortared rubble walls

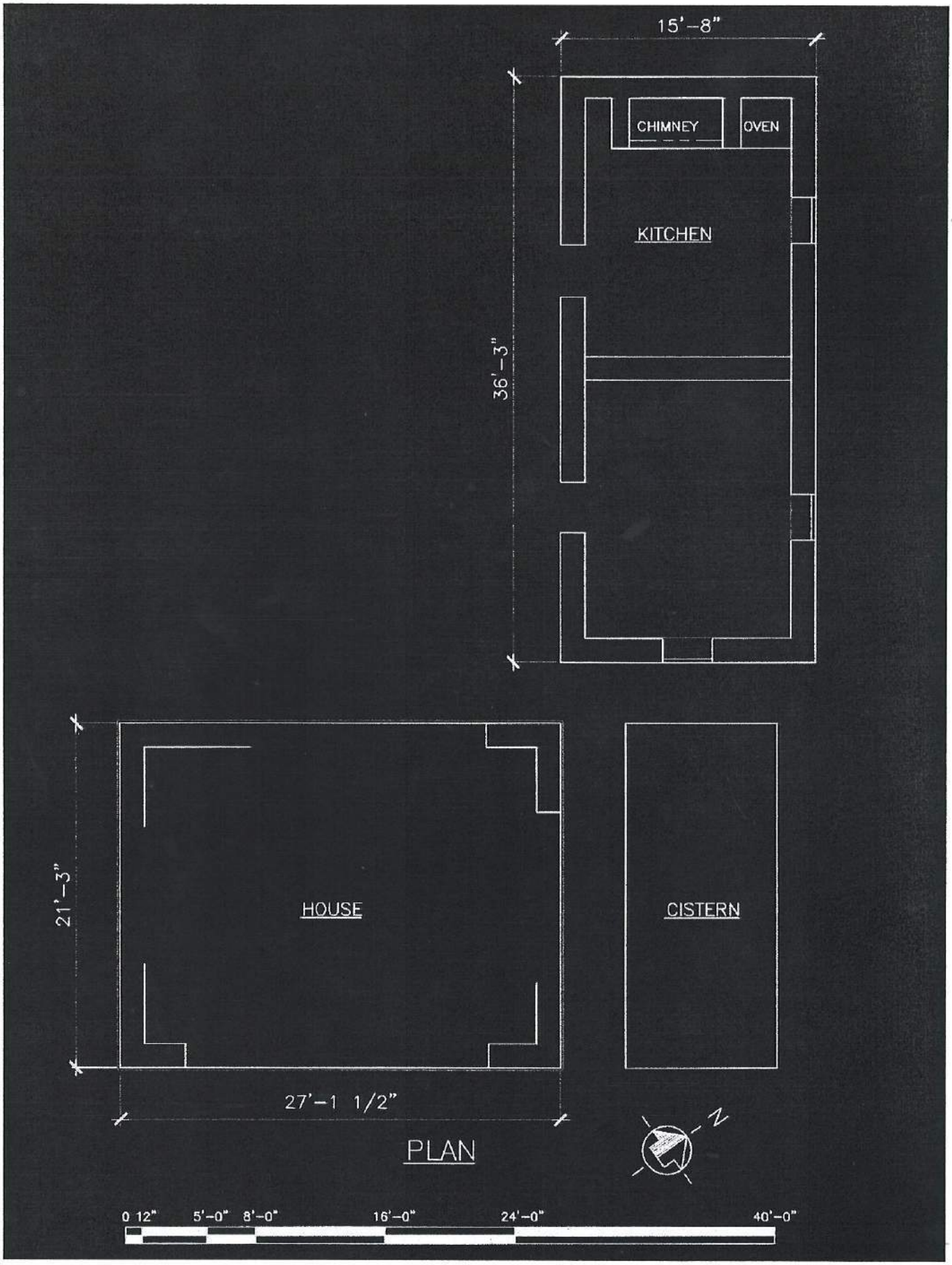

Figure 7. Ruins at Lantern Head, Abaco. Sketch plan of house and outbuilding.

(measuring 1'-6" in width) and shows few architectural refinements except at its far (westernmost) end which is dominated by a massive (7'-10" wide) internal fireplace, flanked on one side by what was probably an oven used for baking. The hearth is raised, the zone of transition between hearth and chimney featuring corbeled construction in cut stone, the large, carefully finished blocks used being supported on a single timber beam measuring 5"x 6" in cross section. Originally, the hearth and fire box were lined in red brick. The same brick was employed to construct an arched opening to the bake oven.

Elevational treatment is simple, incorporating two doorways (3'-1" and 3'-3" wide) on the long southern side and two windows on the corresponding northern facade, the window openings measuring 2'-10" wide x 4'-7" high. Another, similar window is centered on the eastern facade. Each door and window opening is spanned by an exceptionally thin (1" thick) timber lintel. Some window frames survive. Set flush with facades these are made up from 3"x 3" pine sections, morticed, tenoned and pegged at the corners.

Originally, the building appears to have been undivided, a stone partition wall being added to make two spaces during a secondary construction phase.

Roof timbers are no longer in place (although fallen members probably survive in the destruction debris surrounding the main house). The chimney end of the building is gabled, but lack of a gable at the opposite extremity probably means that the roof here was hipped.

A small, ruined well house (not measured) stands immediately west of this building. There is evidence for other structures (including a mass of large cut stone now strewn southwest of the house), but time did not allow investigation.

Discussion. Ground surrounding the building group is strewn with artefacts including glass bottles,

fragments of iron cooking pots and ceramics. The ceramics include both glazed and unglazed wares, the majority seen (including numerous transfer wares) dating to the latter half of the nineteenth and early part of the twentieth centuries, with late nineteenth century patterns predominating. While this assemblage attests occupation of the site during the period when pineapples were being cultivated on a commercial scale in the near vicinity, architectural features are reminiscent of an earlier era.

Too little is known of the house to draw any firm conclusions regarding its plan type or chronological position, but, the long narrow outbuilding immediately to the northwest closely resembles structures built to accommodate house slaves in Nassau (Figure 8) and further afield, in

Figure 8: Range of slave or servant houses, Cumberland Street, Nassau, The Bahamas.

American cities such as Charleston, South Carolina.

At Lantern Head, the resemblance is reinforced by a massive fireplace. Besides attesting that one end of the outbuilding was used as a kitchen, the bold, corbeled construction employed finds parallels in late eighteenth century and early nineteenth century practice known from sites elsewhere in the Bahamas (Figure 9). Assuming such interpretation is correct, construction predating Emancipation in 1835 becomes a real possibility, details observed making a date during the 1820's (or perhaps slightly later) feasible.

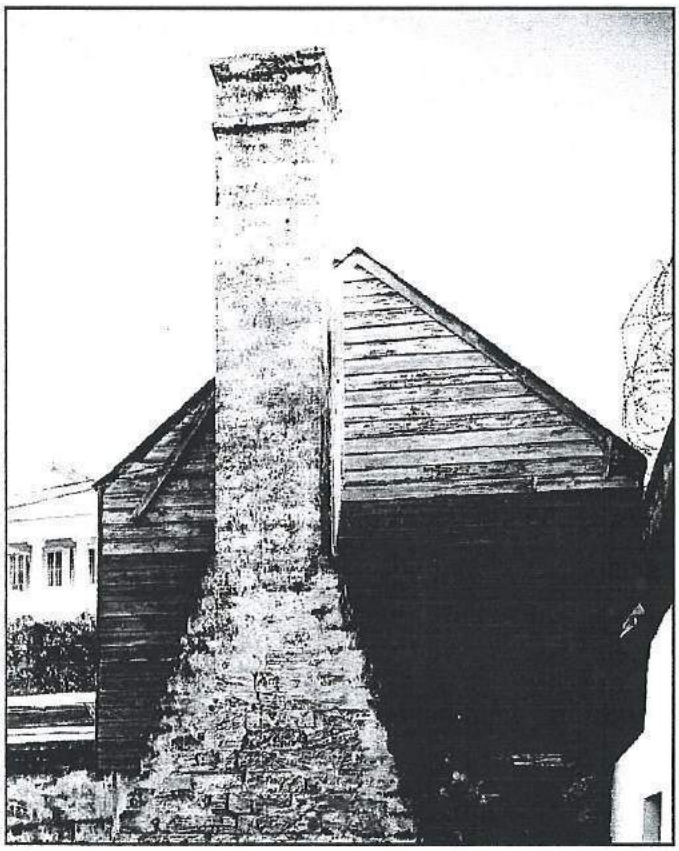

Figure 9: Kitchen chimney with corbeled base, late 18th or early 19th century, George Street, Nassau, The Bahamas.

Very little is understood about settlement in South Abaco over the later Loyalist period Plantations are mentioned at Cherokee Sound in 1822 when the settlement had 139 inhabitants. (Riley,:1985: 207).

At Lantern Head, the land on which the ruins stand, is shown by records from the Department of Land and Surveys, to have been part of a 210 acre tract granted to W. H. Stuart, but when this grant was made remains undetermined.[18]

Nevertheless, an unexamined building group located further north on the east coast of Great Abaco at Barque Bay opens the possibility that settlement in the area before 1870 (when commercial pineapple growing got underway) was somewhat greater than might be expected from its present desolation.

How settlers lived during the early 1800's is difficult to imagine. People in Cherokee Sound were close to starvation in 1822, and they, like other residents of the Abaco's, probably fell back upon salvaging and wrecking during hard times. At Lantern Head, the ruins suggest that whatever else was wrested from the land, it was the sea that provided sustenance. Indeed, the house is sited high enough to give panoramic views to the headland and a broad expanse of open ocean making it a lookout from where ships passing into or out of the New Providence Channel could be seen and sea mammals observed. It is also positioned close enough to a beach where small boats might be be launched.

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[18]The 1870 settlement shows Capt . W. H. Stuart then owned a small parcel of land just north of Alexandria. For reasons unknown, the reference map at the Department of Lands and Surveys, Nassau does not show this parcel.

Although it seems doubtful that larger sailing vessels could have found safe haven here except for brief periods, longboats were another matter, these perhaps allowing wrecked vessels to be salvaged and marine mammals such as whales to be pursued. Lantern Head's reputation as a place where ships were deliberately lured to destruction should not be entirely discounted in this scenario, though it must be stressed that nothing certain has been discovered pertaining to human settlement near the southeastern extremity of Great Abaco before construction of the Hole-in-the-Wall Lighthouse in 1836 permanently put the island's wreckers out of business.

It is obvious that, whatever its history, the building group described above is a remarkable survival embodying a plan type for which we have seen no parallel. The close and compact association between its component buildings appears to reflect the harshness of local environmental conditions the structures themselves providing shelter against prevailing winds and the deep cistern harboring rain water against drought. Besides having considerable architectural value, the site possesses exceptional archaeological significance since it has the potential to yield an artefact assemblage otherwise unknown from south Abaco besides illuminating ill recorded aspects of local history.

As such we would have no hesitation in recommending the site for nomination to the Bahamas National Register of Historic Resources.

Furthermore, we wish to draw attention to the scenic value of the site and its surroundings, the so-called view-shed from the ruined buildings being one which preservers a remarkable natural assemblage untouched by modern development. Indeed this landscape is remarkable enough in our view to merit a form of ownership which ensures it be permanently protected as a place of outstanding natural and archaeological value for the Bahamian people.

As as a preliminary to Nomination it will be necessary to:

- Determine the boundaries of site through a program of archaeological testing designed in association with and approved by the Antiquities, Monuments and Museum Corporation, Nassau.

- Under professional supervision, clear the site sufficiently to allow mapping and full recording of historic structures.

- On the basis of continued historical research and the results of archaeological/ architectural site investigation, present documentation required to justify nomination of the site to National Register.

To prevent looting, we strongly recommend that a sample of artefacts now lying loose on the site be collected as soon as possible for permanent curation at The Bahamas National Museum.

Select Bibliography

Maps

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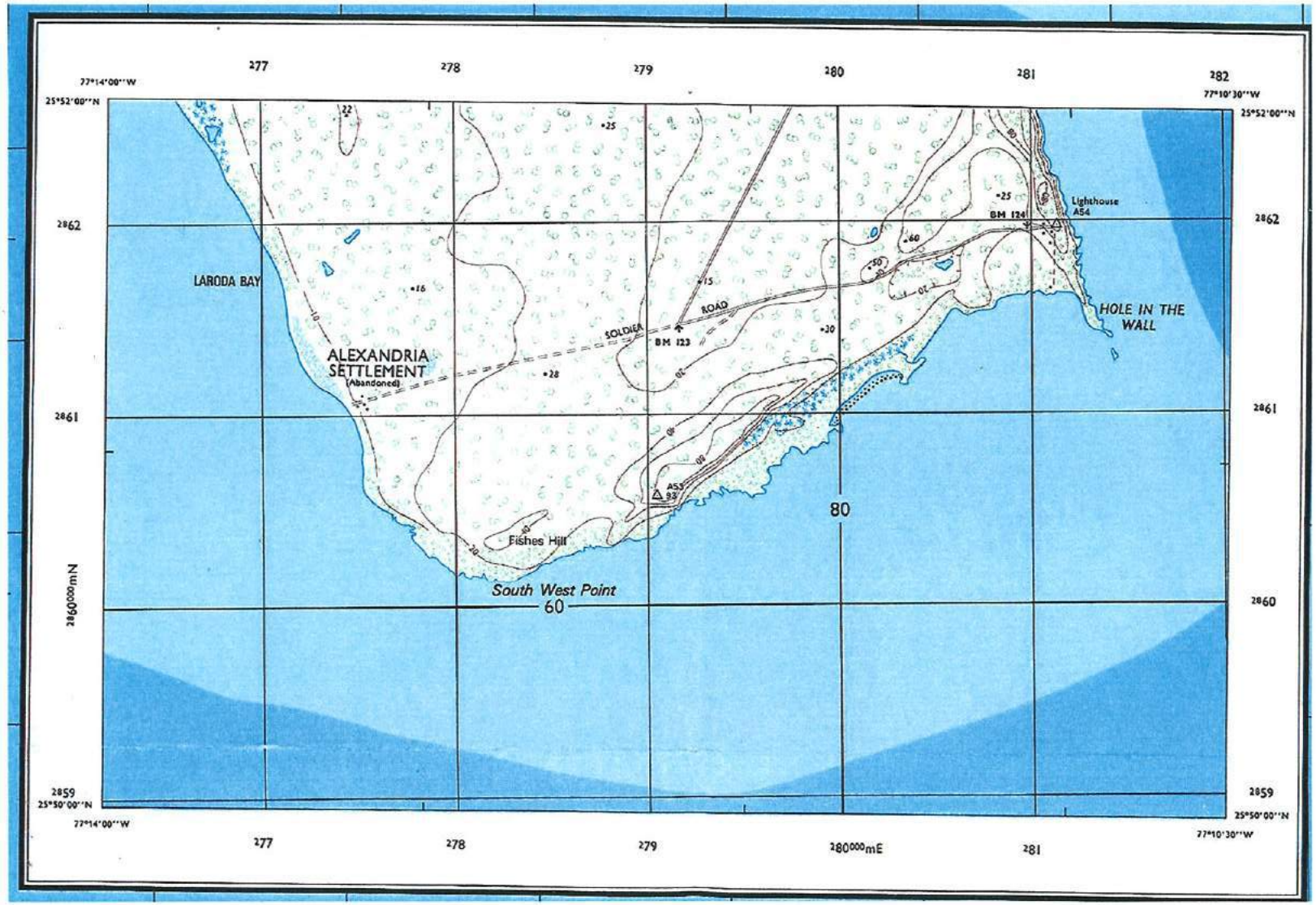


Plate I.1: Detail of Ordinance map (Abaco, Sheet 27, 1975) showing Alexandria, Hole-in-the-Wall and Soldier Road.

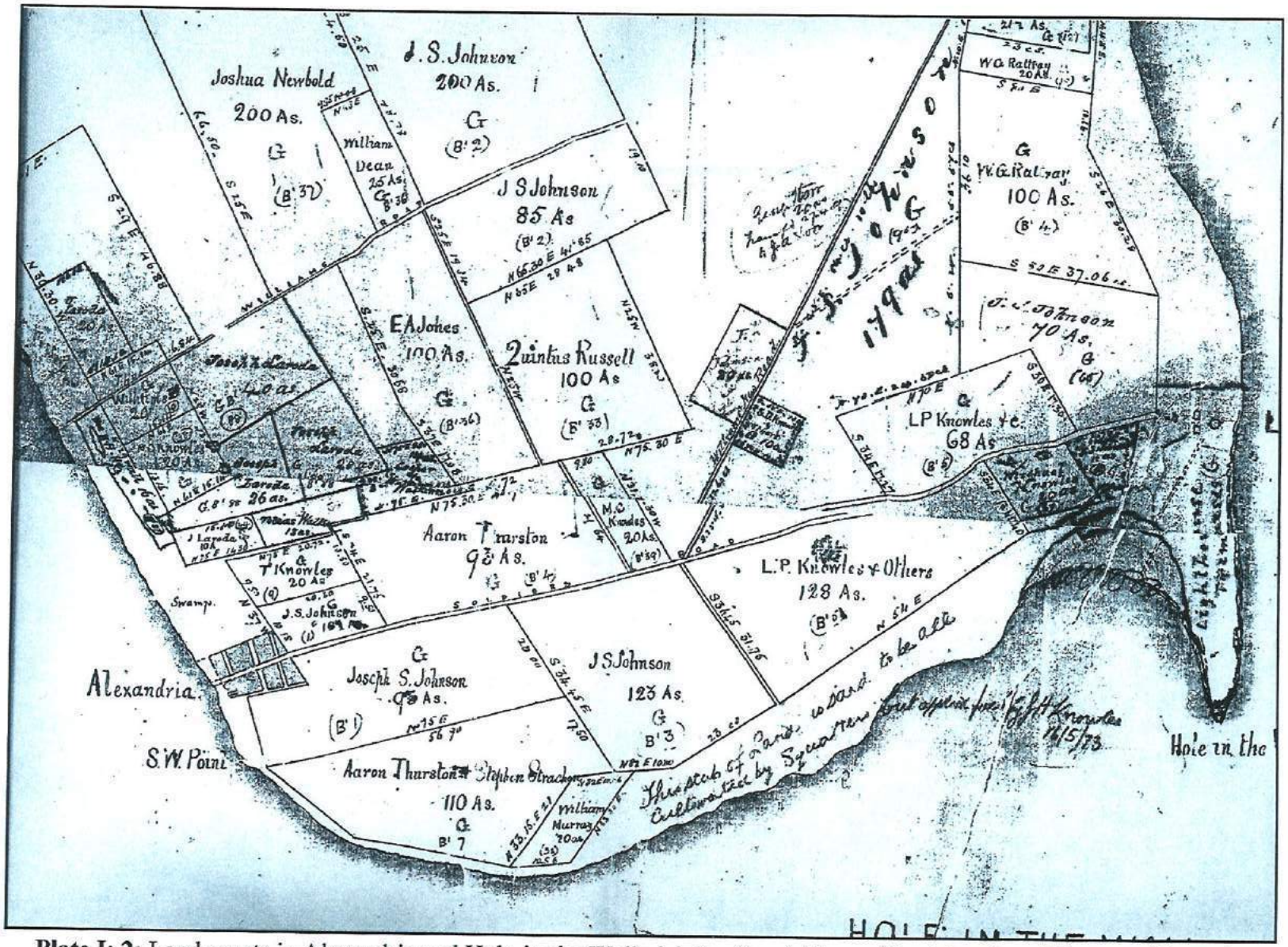


Plate I: 2: Land grants in Alexandria and Hole-in-the Wall vicinity, Great Abaco. (Dept. Lands and Surveys, Nassau).

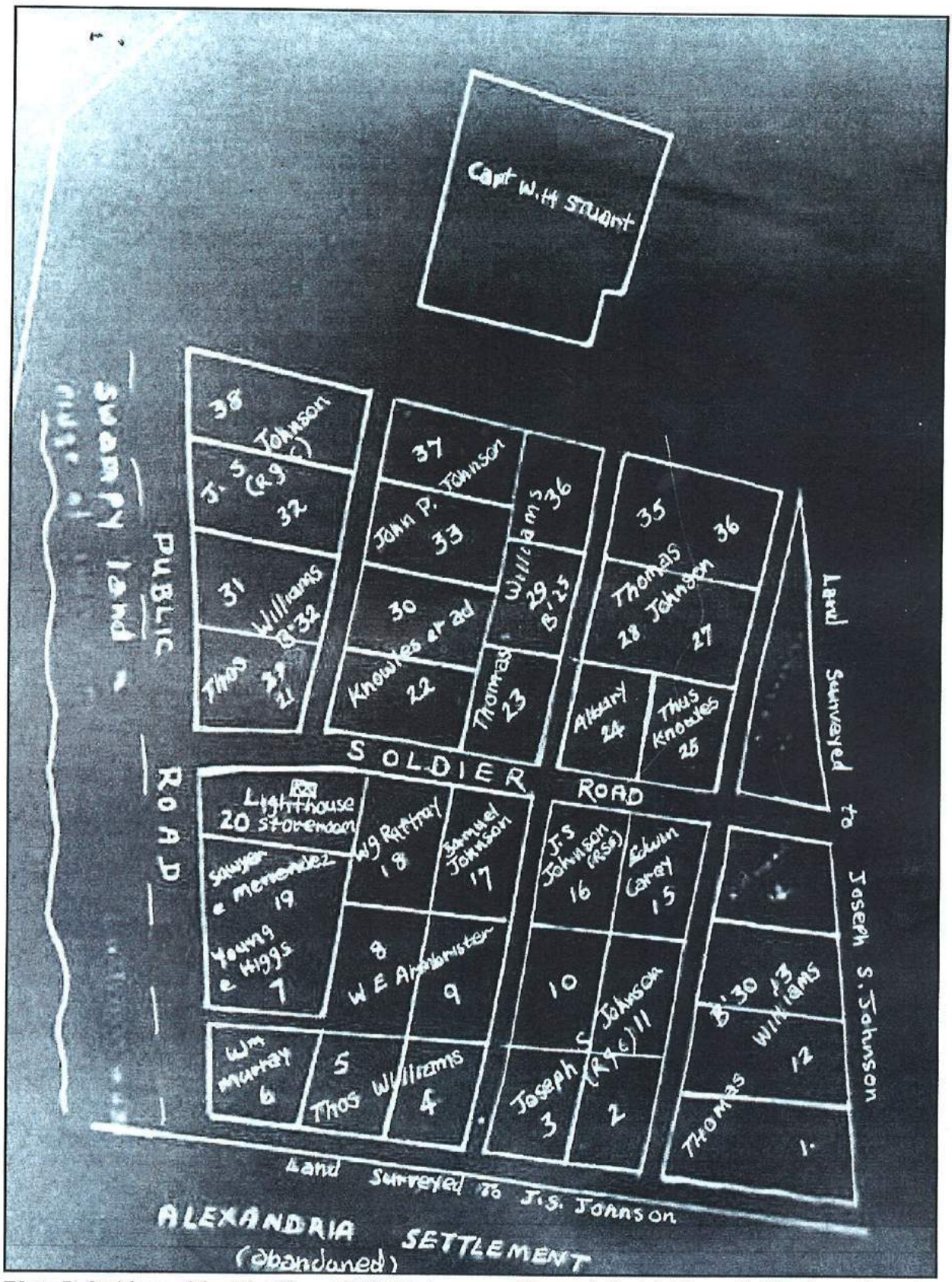


Plate I: 3: Alexandria, Plot Plan, 1870. Photocopy of lost original (Private Collection, Abaco).

Plate I: 4: View from Hole-in-the-Wall Lighthouse, Great Abaco looking southwest toward site of Alexandria.

Plate I. 5: Alexandria, Abaco. View of shore from western end of Soldier Road. Note wreck left of center.

Plate I. 6: Alexandria, Great Abaco. Lighthouse Storeroom, north facade.

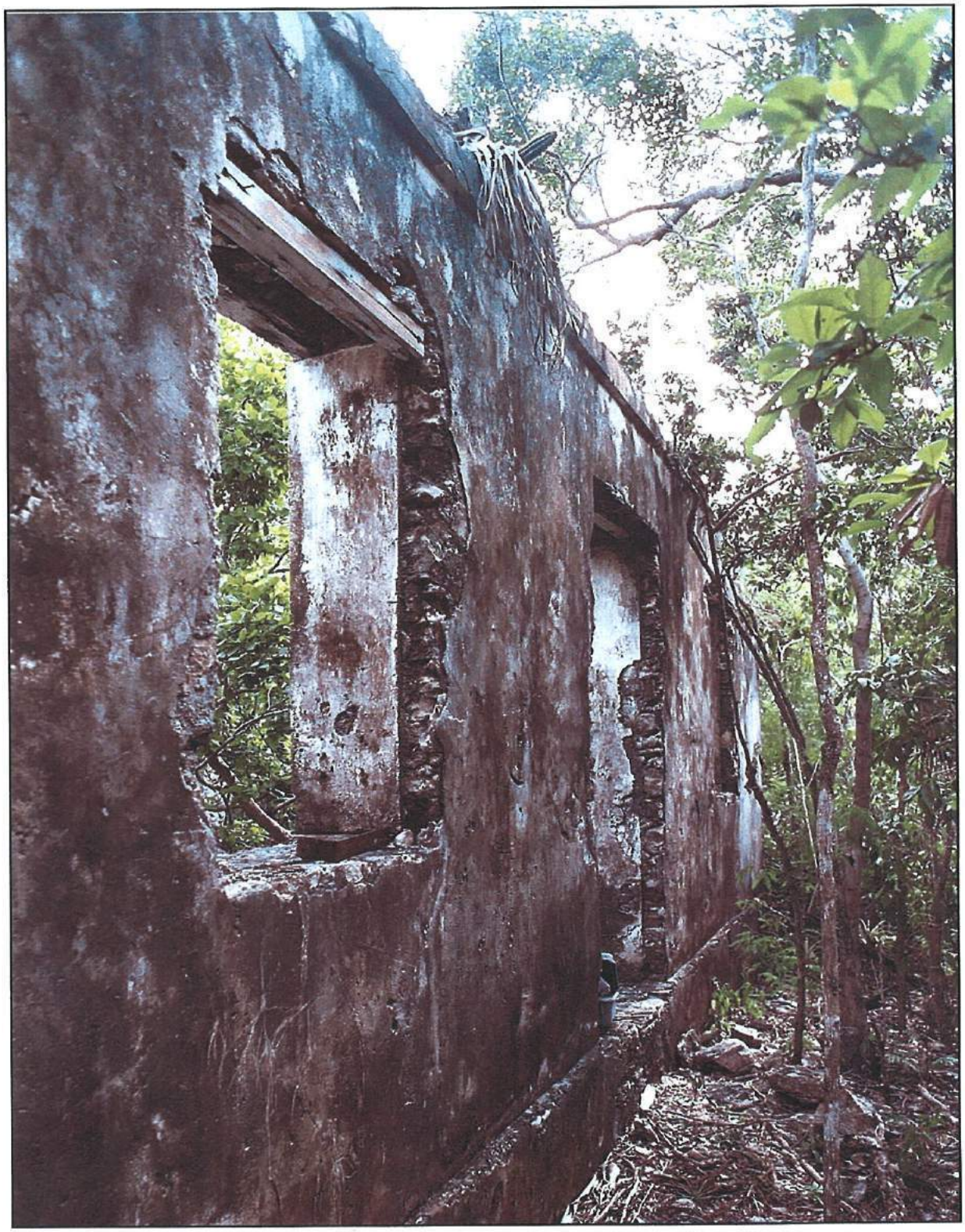
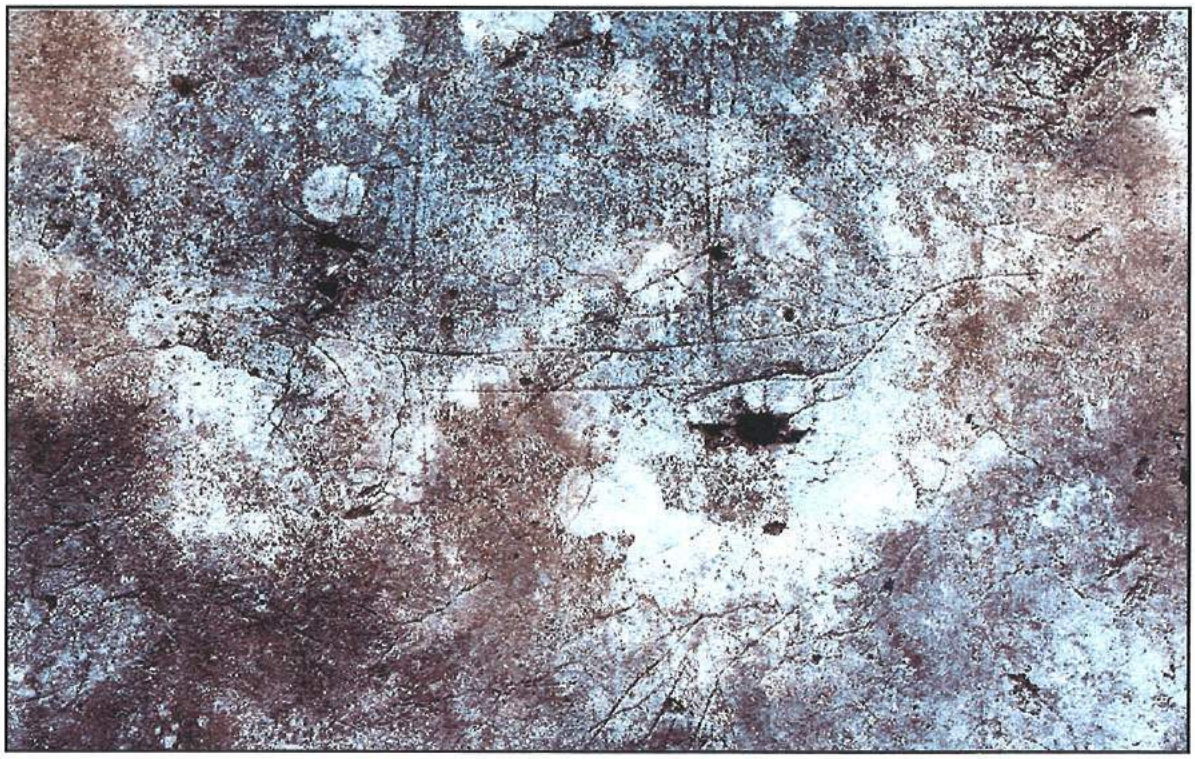


Plate I.7: Alexandria, Structure in vicinity Plot Nos.14 and 15. West facade.

Plate I. 8: Alexandria, Structure in vicinity Plot Nos. 14 and 15. West facade.

Plate I. 9: Alexandria, Structure vicinity Plot Nos. 14 and 15. Ship drawing.



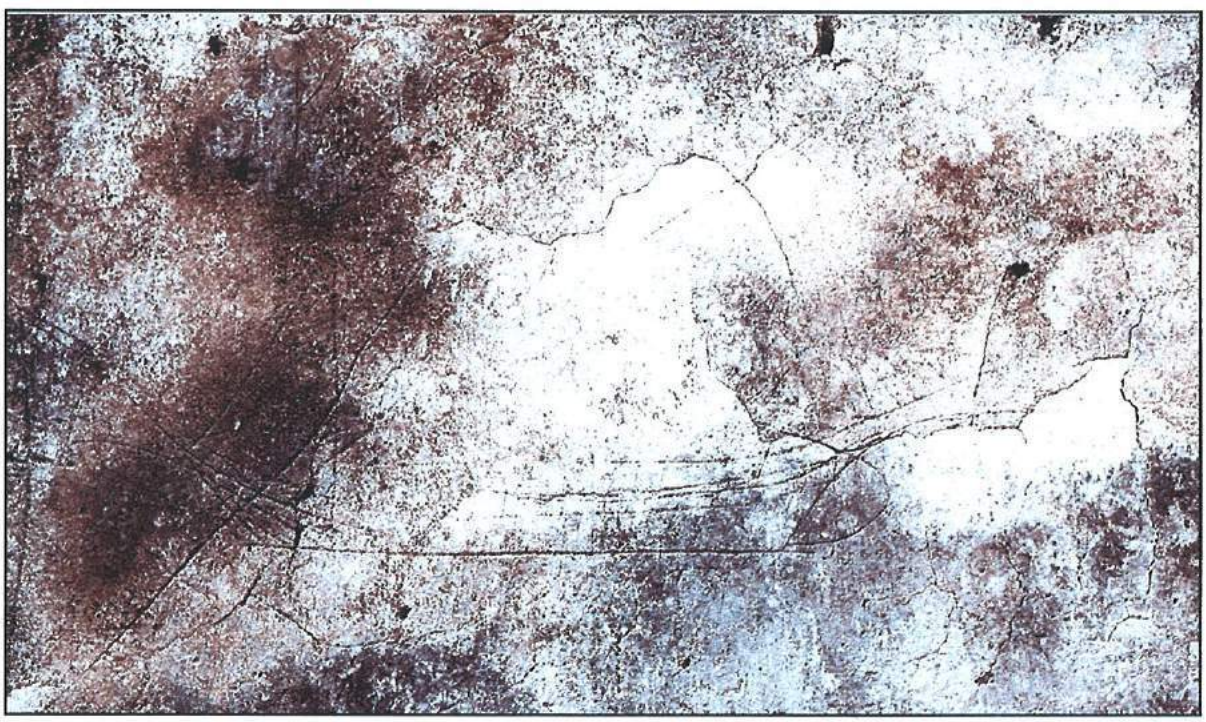


Plate I. 10: Alexandria, Structure in vicinity Plot Nos. 14 and 15.

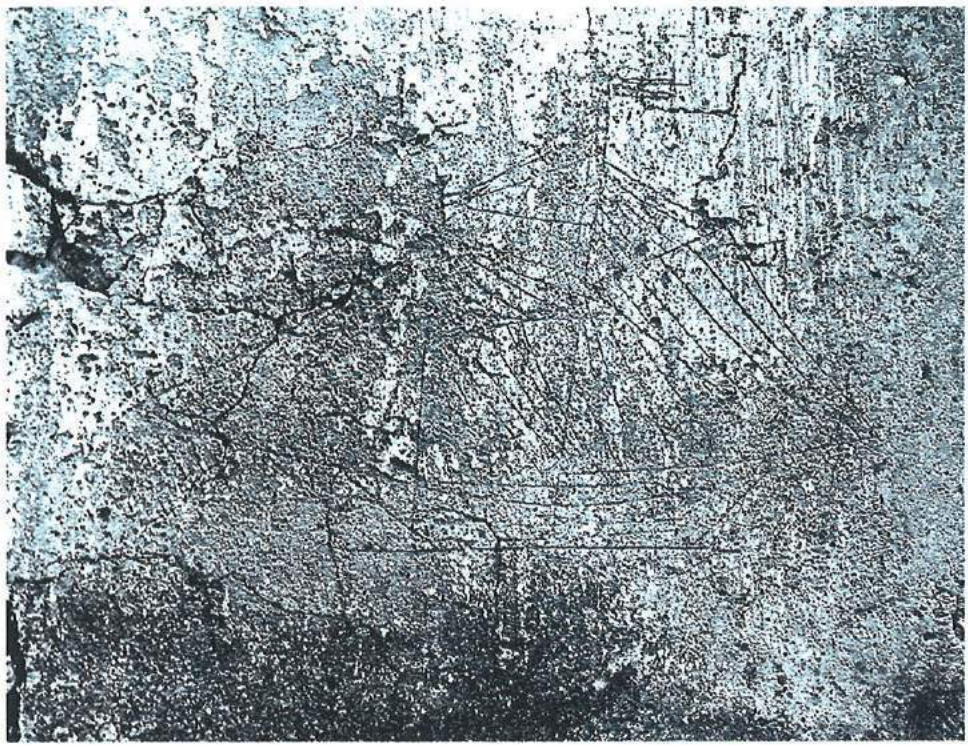
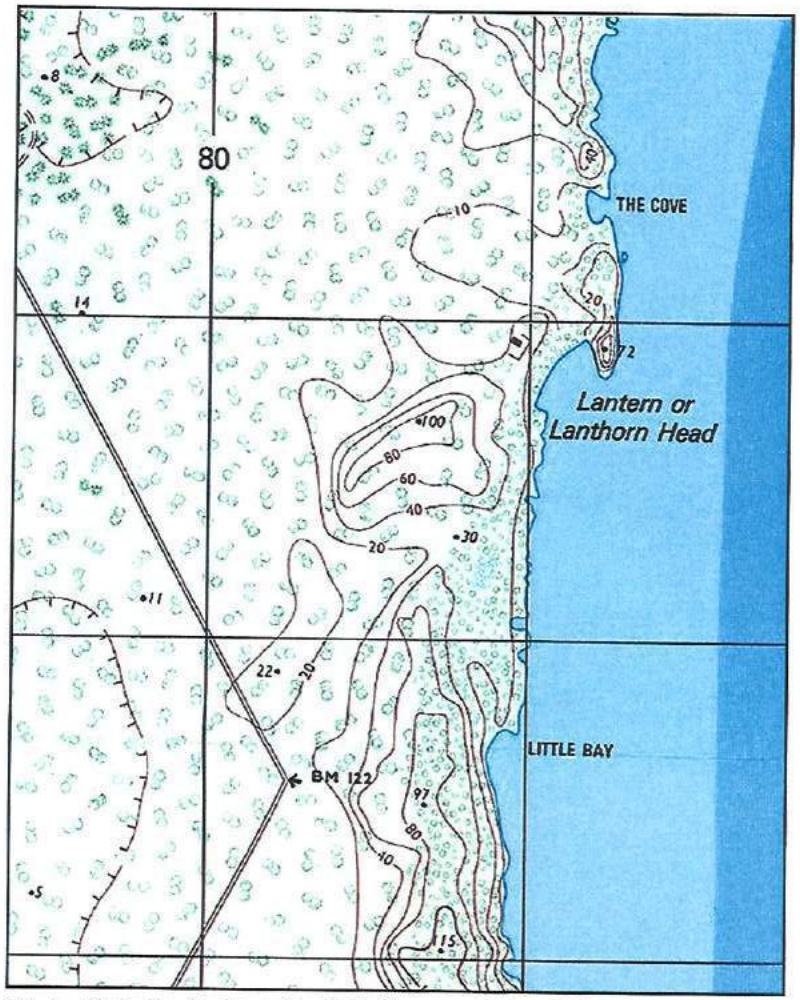


Plate I. 11. Alexandria. Structure in vicinity Plot Nos.14 and 15. Drawing of schooner (top), steam ship (bottom).



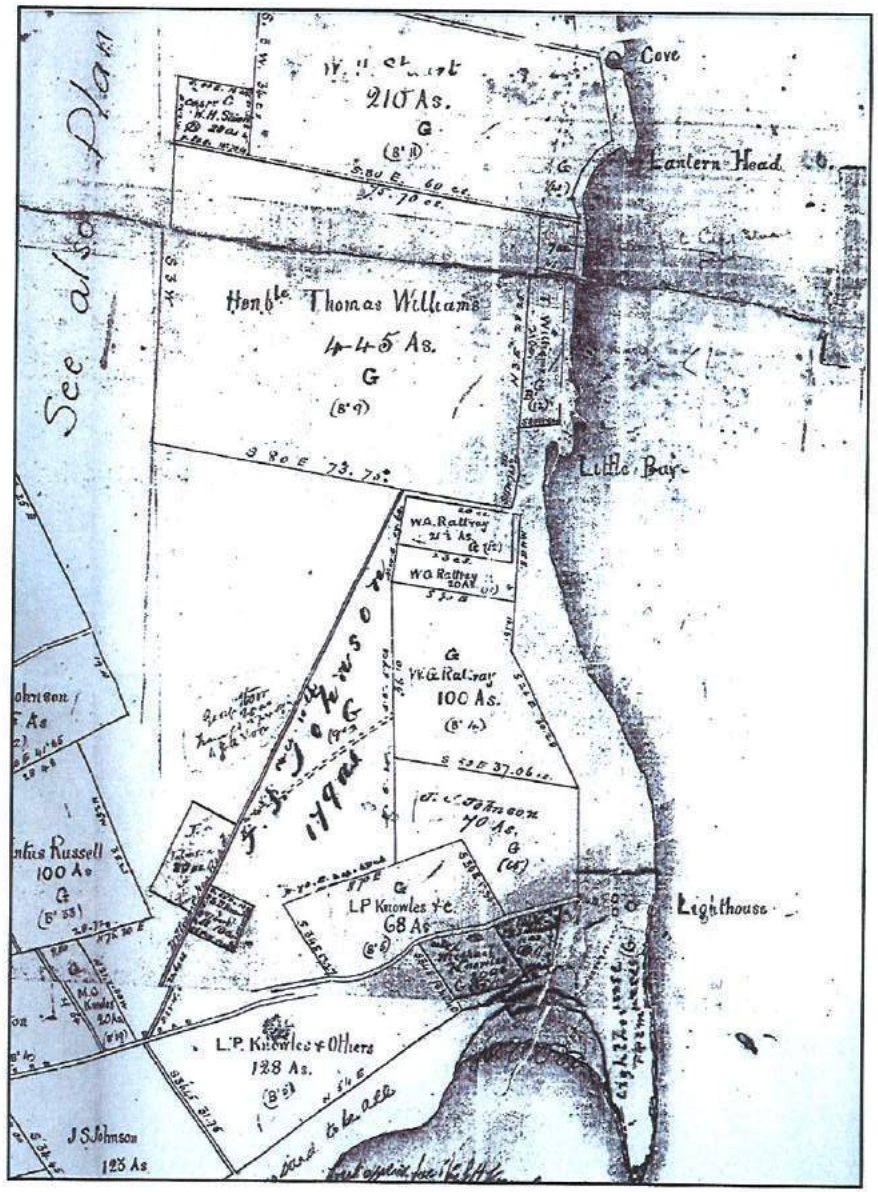


Plate II.1: Left. Detail of Ordinance Map (1975) Abaco, Sheet 27 showing Lantern Head.
Right: Detail of map showing land grants Hole-in-the-Wall, Lantern Head vicinity (Department of Lands and Surveys, Nassau).

Plate II.2: Lantern Head, Great Abaco Island, The Bahamas. View from south.

Plate II. 3: Beach south of Lantern Head, view showing shoreline, dunes and ruins (horizon, left of center).

Plate II. 4: View looking north to Lantern Head showing enclosure wall.

Plate II. 5: Lantern Head. Enclosure wall, view looking northwest.

Plate II. 6: Ruins at Lantern Head, Abaco. View of house from southeast..

Plate II. 7: Ruins at Lantern Head, Abaco. View from main house.

Plate II. 8: Lantern Head, Abaco. Kitchen block, view from main house looking north.

Plate II. 9: Ruins at Lantern Head, Abaco. Kitchen block, south face.

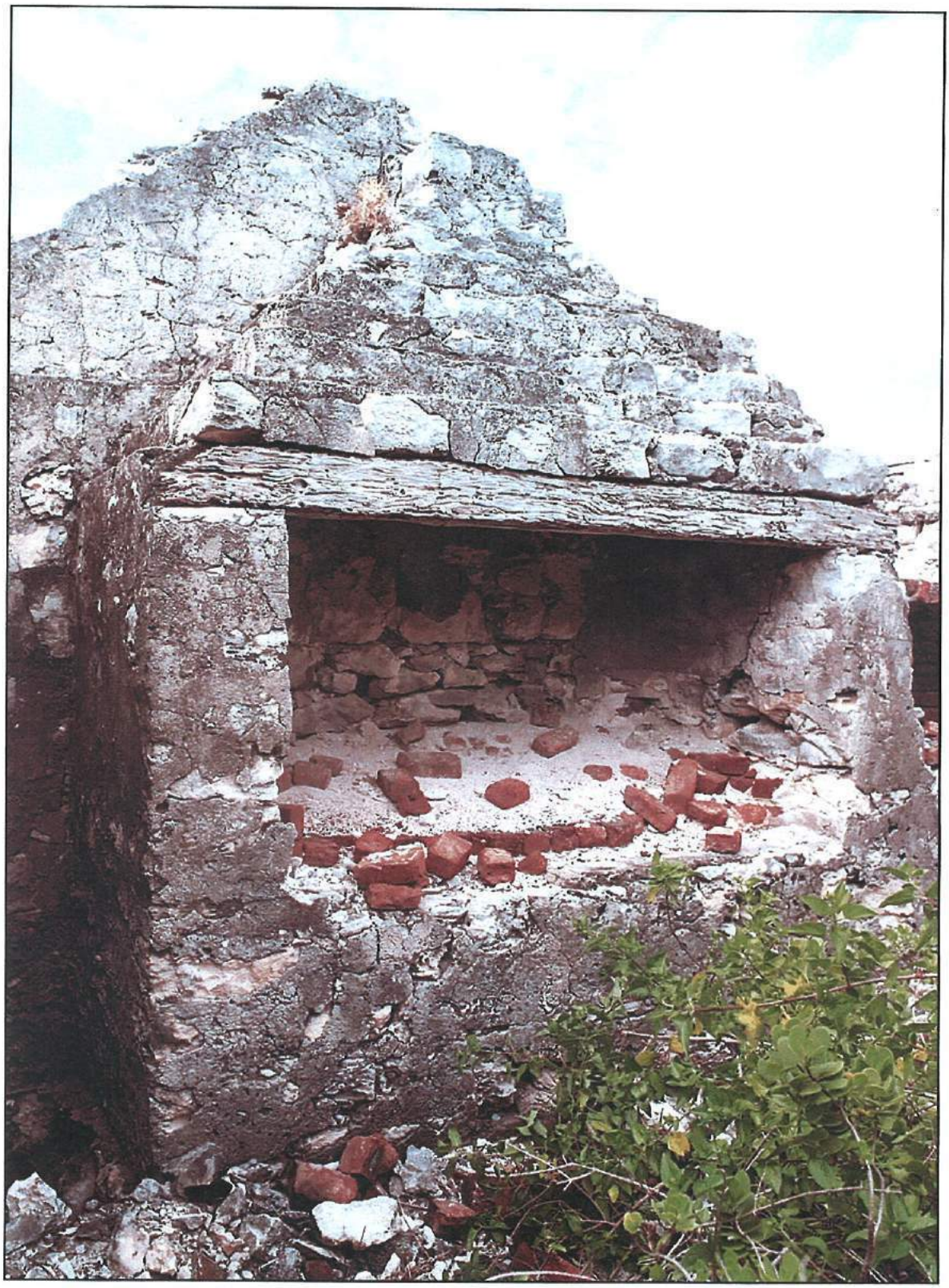


Plate II. 10: Ruins at Lantern Head, Abaco. Kitchen, detail of hearth.

Plate II. 11: Ruins at Lantern Head, Kitchen, detail of hearth.

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BAHAMAS NATIONAL TRUST

Managing National Parks • Preserving Our Future

3 December 2020

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

Dear Director Newbold,

The Bahamas National Trust (BNT) is writing in response to the Environmental Impact Assessment (EIA) for the proposed **South Abaco: Hotel, Marina and Residences** development prepared by Caribbean Coastal Services Ltd. on behalf of the Tyrsoz Family Holdings Ltd.

The BNT strongly opposes this development as proposed. The BNT notes that the organization and the Abaco National Park (ANP) have been named as potential financial beneficiaries if approved and we would like to put on record that this is initiated by the proposed developer and was not included as a result of any request, solicitation, or suggestion by the BNT. This nomination is due to the proximity to two protected areas, ANP and Cross Harbour Protected Area but this in no way influences our review of this project.

The BNT has also followed closely the review process of the Sustainable South Abaco. BNT is in general alignment with the findings and recommendations of that group of concerned scientists and other experts and shares their concerns about the impacts the current proposal will have on the Abaco Parrot and the sustainability and image of South Abaco. Of particular concern is the financial support for the proposed development – the magnitude of the development exceeds the financing secured leading the BNT to question the ability of the developer to complete this project. The financial uncertainty surrounding this project puts South Abaco and the wider Bahamas at unwarranted risk. Bahamians could lose economically relevant populations of marine and terrestrial fauna if the developer is allowed to commence construction before securing the funding needed to complete the development.

Concerns for our unique biodiversity

The first thing to note, is the sheer size of the project being proposed in an internationally recognized area listed as a Key Biodiversity Area (KBA) and an Important Bird Area (IBA). These are sites that should be treated with the highest level of conservation concern but contrary to this, the project includes a very large mega yacht marina, with two large hotels, a water park and an 18-hole golf course. It is the opinion of the BNT that this represents a massive environmental

footprint that is completely inappropriate in scale for the South Abaco area. The proposed mitigation strategies are deficient and fall short of justifying such a large-scale development.

Despite the installation of a concrete wall, there is a significant risk to one of the country's largest freshwater lens, particularly with the construction of the marina at the South West property. This is a significant national resource and should be protected as a means of resilience building for humans but also the habitat that relies on freshwater availability and should not be left for a single development to exploit unchecked. This development could influence the second largest and most pristine freshwater lens in our nation.

Considering the ever-increasing and very real threat of severe storms and rising sea levels due to climate change, the proposal has the potential to lead to saltwater inundation of the freshwater lens. Similar disruptions of the freshwater lens due to dredging canals in Grand Bahama have obliterated the pine forest of that island and the populations of endemic birds that live there. Further analysis with modeling is needed to determine the effectiveness of this mitigation strategy under severe storm and increased sea levels, which seem to not be considered. Within the project site are habitats and populations of multiple bird species of national concern, particularly three Bahamian endemic species with populations that are either endangered or in severe decline; the Bahama Warbler *(Setophaga flavescens)*, the Endangered Bahama Swallow *(Tachycineta cyaneoviridis)* and species of significant concern the Bahama Parrot *(Amazona leucocephala bahamensis)*. Additionally, south Abaco's coppice is critical habitat for stopover and winter migrant bird species. The bird surveys undertaken as a part of the EIA are considered incomplete as they were done only in January and May; they should have also been in July and October to assess for nesting seabirds and migratory birds using the area.

The improvement of the roadway (Lighthouse and Soldier Roads) goes straight through Abaco Parrot nesting sites. In addition to the potential destruction of nesting sites, this increased access would also allow parrot nesting sites to be more vulnerable to increasing the smuggling of parrots and access by predators.

The EIA mentions the management of invasive species, but seems to focus only on invasive plant species, namely *Casuarina* and *Scaevola* species. They also need to include cats, dogs and raccoons, as well as mitigation on any species brought in by the importation of plants for landscaping.

The EIA has no mention of any sort of insect, reptiles, amphibians, etc. Abaco has many species of these organisms, including the Vulnerable Abaco boa (*Chilobothrus exsul*), and an island-endemic subspecies of Bahamian racer (*Cubophis vudii*). An assessment of freshwater fish should also be included.

Failure to show case effective mitigation strategies

It is common in The Bahamas for developments to have a negative impact on biodiversity with minimal mitigation action however, this pattern needs to change. It is the view of the BNT that developers strive to increase the amount of biodiversity on a site through their landscaping and mitigating

activities. Such an approach is consistent with more progressive environmental legislation that directs developers to replace and improve habitats that are damaged by a given project. **While to be clear, the BNT feels this proposed development is totally out of scale for South Abaco, if in the unlikely event it is approved, we would suggest the following as a minimum**. The development should seek to: 1) measurably increase native biodiversity into the future; 2) be much more explicit in detail; 3) seek to go above and beyond to improve its environmental footprint; and 4) put significant effort into justifying the need for such a massive development. However, none of these are the case.

1) Outside of the native plants in landscaping or pledging funds to support conservation in the area, the proposal fails to include coral and forest enhancement activities, enhancement of Bahama Parrots and other wildlife of conservation concern. If approved, the jetty and groyne structures could be opportunities for using green infrastructure and increasing biodiversity on a local scale through the use of "living sea walls". More effort could be made to ensure that any infrastructure compliments ecological functioning into the current system.
2) There is also the concern of the general lack of detail in the EIA mitigation strategies. The beach dune mitigation strategy fails to speak to allowing for retreat due to sea-level rise over time, but this effort is undermined by the lack of a clear definition of what is meant by "behind the beach dune" and hence the impacts on that significantly important ecosystem. Similarly, the use of silt curtains in marine environments are problematic when used incorrectly as commonly seen in The Bahamas, the BNT is unable determine what type of silt curtains are to be used and how they will be used, and managed, to ensure the best desired outcome for the marine environment.
3) The development seeks to generate 30% of its energy using solar power, but the BNT feels that the development should aim for 100% solar energy and feed any additional power generated back into Abaco's power grid. This would help to offset the overall environmental footprint of this development. If this development is to move forward as proposed it needs to set an example and aim to supply some renewable energy for the surrounding communities. Any reverse osmosis plants that do later become installed should be powered by renewable energy only. The developers should also consider that in the event of a natural disaster, how they can assist the community by supplying potable water as part of a commitment to the surrounding communities.
4) The Economic Assessment does not speak to a thorough market analysis nor build an effective case that justifies the need for such a major development. For something this large in scale a more thorough analysis beyond obtaining figures from the US and other countries of the region is needed that justifies that 1) a marina of such scale is needed; and 2) If there is indeed a need for an 18-hole golf course, two large hotels and a water park. Additionally, a thorough social science assessment is needed to determine if the jobs being suggested are appropriate for the communities that live on Abaco. This should be done by a qualified social scientist and the analysis needs to show statistically appropriate representation of the community.

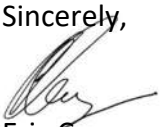
Concluding remarks

As demonstrated in this letter, and in complete support of the Sustainable South Abaco comments to date, the Bahamas National Trust emphatically opposes this development. During a time where climate change is already weakening our environment, The Bahamas needs to

change the current developmental model to one which puts the environment and the resources that we rely upon in the forefront of our planning. Hurricane Dorian brought to light the multitude of threats that climate change presents, particularly to our freshwater resources and contact with the country's administrative center. It would be careless to jeopardize the Abaco's fresh water supply when the threat of storm activity is so ubiquitous. Furthermore, the COVID-19 pandemic served as another wake up call, highlighting the fragility of the tourism economy. In contrast, the stability of the blue economy has sustained many Bahamians in these trying times. If this development proceeds as planned, the country would be jeopardizing its longest standing and most equitably distributed natural resource in favour of a fickle supply of foreign revenue. This project simply continues the business as usual model, maintains the status quo, and will go against the appropriate scale and type of development that should be considered for Abaco.

If you have any comments of concerns about anything stated in this letter, we would be happy to make ourselves available for further discussions on the matter.

Sincerely,



Eric Carey
Executive Director

F. South Abaco Chief Counsellor Letters of Support

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LOCAL GOVERNMENT AUTHORITY
SOUTH ABACO DISTRICT
SANDY POINT, ABACO
BAHAMAS
Telephone: 366-4022/3
Email:sadcouncil@hotmail.com

October 27th, 2020

Ms. Candia Ferguson,
Director- Bahamas Investment Authority
Nassau, Bahamas

Re: Tyrsoz Family Holdings Proposed – South Abaco Development Project EIA

Last year, April 9th, 2019, the South Abaco District Council Board was invited to attend a Town Hall meeting at the Hurricane Shelter in Sandy Point, South Abaco. The meeting was hosted by Mr. Ra'anan (Ronnie) Ben-Zur, the Tyrsoz Family Holdings Group's General Manager and Investor. Mr. Ben-Zur so aptly shared the overall goal of the proposed development, during which time he said the Tyrsoz Family's ultimate goal once the proposal is approved will be to create a world class environmentally-sustainable luxurious community on the site while maintaining its natural appeal as an unspoiled Island Paradise.

The hall was filled to capacity with no standing room left; approximately 500 persons were in attendance some of whom would have travelled from as far as Crown Haven in the North, including persons from Central Abaco, the communities of South Abaco and Moore's Island. The meeting was very productive as the majority of persons attending opined that this development if approved, will be the catalyst that is needed to stimulate and boost the District's economic growth; that is opening doors that remained closed for many years due to lack of vision, uncaring Governments over the years and limited knowledge. Mr. Ben-Zur's presentation was very informative, passionately shared with emphasis placed on preserving our ecosystem and the well-being of the Bahamian populace. The overall consensus was that this development will bring about the desired change and economic growth that is urgently needed at this time. The majority of persons in attendance expressed their overwhelming support for the project.

A second meeting was held on December 12, 2019 at the St. Martin's Anglican Parish Hall, Sandy Point which was also filled to capacity. Persons yet again expressed the urgent need for this project to move forward. All feedback was positive from all present including those who would have opposed the project. In attendance was the Administrator for the Southern District along with Local Government practitioners.

The South Abaco District Council Board, shares the vision of the Developer, and has sent numerous writings to our past and present Governments, for many years, requesting varying partnerships in our quest to make South Abaco the leading touristic destination in the region. We still opined that the South Abaco District is a goldmine with so many natural resources available throughout the South Abaco District and once harvested and manufactured can be additional contributors to our fiscal revenue, income increase and poverty reduction. We are confident, once the proposed project becomes a reality and work begins on the site, Mr. Ben-Zur will partner with us in our continued quest to take South Abaco to the next level. As a result, we envision the creation of jobs and the formation of many small businesses which will lend for a robust economy and more importantly increase in revenue generation with a trickle-down effect impacting not only South Abaco but the entire Bahamas.

Despite a number of negative articles circulating throughout the Bahamas in May of 2019, by various Interest Groups, with hidden agendas to perhaps frustrate and discourage the Investors and our Government to revisit and decline the proposal, my opinion remains favorable in this matter. In all of our dealings with Mr. Ben-Zur, we have found him to be a man of integrity and one that has placed the preservation of the ecosystem surrounding the proposed site as being of utmost importance and a priority as evidenced in his proposal. I commend him on his stance in this regard.

Being an environmentalist in my own rank it is my opinion that this proposed investment would impact the Bahamian economy positively, attract tourists to our shores, open up added gateways to the island, create jobs, enhance our national parks, wetlands, coppices, feeding and fishing grounds with minimal damage, all elements of this investment working for the overall good of the Bahamas and our Bahamian families.

It is the Board's opinion that partnering with the Tyrsoz Holdings Family Group will bring restoration to the declining economic growth of South Abaco and thus have an immense impact on the social and economic climate for the good people of Abaco.

Therefore, the South Abaco District Council is pleased to advise that we fully endorse and support the proposed project, in tandem with the overwhelming support from the Bahamian public who would have expressed their support as well through two Petitions, and ask kindly that consideration be given by The Department of Environmental Planning and Protection to expedite the approval to move this project forward urgently. This development will not only bring about change and stability to a declining economy that was left from the 90's to survive on its own, worsened from the impact of the pandemic and a devastating hurricane last year and is in dire need of a stimulus to revive the already declining economy but it will bring back economic stability through the creation of jobs and startups of new businesses.

We wish to commend our Government for their stellar performance to date and thank them in advance for their kind consideration and approval of this long-awaited proposed development, which will positively impact the Bahamian community at large.

Thanking you in advance.

Sincerely,

Ms. Jacquelyn Estevez
Chief Councilor
South Abaco District

JW/cd

Cc: Mr. Ra'anan "Ronnie" Ben-Zur – Tyrsoz Family Holdings Group
Ms. Serena Williams – Public Relations, Tyrsoz Family Holdings Group

LOCAL GOVERNMENT AUTHORITY
SOUTH ABACO DISTRICT
SANDY POINT, ABACO
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Telephone: 366-4022/3
Email: sadcouncil@hotmail.com

April 26, 2019

MEMORANDUM

Ms. Nicole Campbell
Permanent Secretary
Office of the Prime Minister
Nassau, The Bahamas

Attn: The Hon. Dr. Hubert Minnis, Prime Minister

Re: Town Hall Meeting -Tyrsoz Family Holdings Proposed – South Abaco Project

A Town Hall meeting was held on Tuesday, April 9th, 2019, at the Hurricane Shelter, Sandy Point, Abaco, to introduce the Investor and General Manager, Mr. Ra'anan (Ronnie) Ben-Zur who presented on the overall goal of the project which is to create a world-class, environmentally-sustainable luxury community in South Abaco, while maintaining South Abaco's natural appeal as an unspoiled Island Paradise.

The Hall was filled to capacity with no standing room left; that is approximately 500 persons who travelled from as far as Crown Haven in the North and Central inclusive of persons from the various South Abaco Townships seeking to be informed, on the project and employment opportunities. Overall, the meeting was very productive and the majority of persons left excited and expressed their overwhelming support for the project. It is the opinion of the South Abaco District, that a project of this magnitude is badly needed not only to boost the economy of the South Abaco District Council but also act as a stimulus to boost the economies of the entire Island of Abaco. The trickled down effect will positively impact and be beneficial to the entire Bahamas.

Most recently, a number of negative articles have been circulating throughout the Bahamas, by various Interest Groups, who have hidden agendas for their own personal gain and not that of Bahamian people. These naysayers have collaborated together with the intent to frustrate and discourage the Investors and our Government to have second thoughts and decline the proposal.

The South Abaco District experienced a drastic decline economically, beginning in the late nineties and this trend continues to this present date. It would appear despite the decline that for all intent and purpose the District was neglected by former Governments providing reduced budget allocations and constraints, thus creating more hardship for our people here in South Abaco. I hasten to say, that the South Abaco District has the natural resources and precious gems, once explored, to become financially viable, self- sustaining and be positioned to become the highest revenue contributor in the Bahamas. Partnering with the Tyrsoz Holdings Family Group will bring restoration to the declining economic growth of South Abaco and thus an immense impact on the social and economic climate for the good people of Abaco.

We have written many letters to the various Interest Groups requesting their partnerships to assist in the restoration of the Hole in the Wall Lighthouse, the surrounding buildings as well as to convert the National Park into a state of the art park in keeping with the International standard that we have become accustomed to. While they would have expressed interest, their response was we do not have any money, and or Government has no funds.

It is our opinion, that the Hole in the Wall Lighthouse in tandem with the South Abaco National Parks is a goldmine like no other in this hemisphere. We have received many telephone calls from International Groups, worldwide over the years, expressing their desire to visit the site. The Groups comprise of thirty (30) persons and in some cases more. Presently, we see a small number of bird watchers and wild life enthusiasts visiting the site periodically. We believe that every day the Lighthouse remains closed we have lost the opportunity to generate additional revenue for the consolidation fund largely due to the lack of vision. Mr. Ben-Zur has indicated his desire to fund the full restoration of the Lighthouse which would be welcomed by the entire community, the BNT and the country as a whole.

Being an environmentalist in my own rank, it is my opinion that this proposed investment would impact the Bahamian economy positively, attract tourists to our shores, open up added gateways to the Island, create jobs and yet enhance our national parks, wetlands, coppices, feeding and fishing grounds with minimal damage, working on a compromise basis for the overall good of the Bahamas and our Bahamian families. Birds and wild life will migrate in order to survive, that is how we are all made.

With this in mind, we are in grave opposition to the Interest Groups and their rhetoric and are indeed focused and committed to do whatever we can as the South Abaco District Council to see this proposed project to fruition. Therefore, the South Abaco District Council is pleased to advise our support of the proposed project, in tandem with the overwhelming support from the Bahamian public who would have expressed their support as well and ask kindly that consideration be given to move the project forward, despite the negative naysayers, working in collaboration to stop this project.

The respective petitions are still being circulated throughout Abaco and today 500 persons would have signed up already in support of this project. Once the petitions are returned to our office they will be forwarded to you, under separate cover.

Thanking you in advance.

Sincerely,

Ms. Jacquelyn W. Estevez
Chief Councilor
South Abaco District

JWE/cd

Cc: Investment Authority Board
Mr. Montez Williams, Permanent Secretary, Office of the Prime Minister – Abaco
Mr. James Albury, Parliamentary Secretary, Office of the Prime Minister – Abaco
Hon. Darren Henfield M.P, Minister of Foreign Affairs
Mr. Donald Rolle, Administrator, South Abaco & Moore's Island Districts
Ms. Serena Williams, Media & Public Relations, Tyrsoz Family Holdings

G. Responses to Public Comments

Table 1 The following table summarizes the comments made by four environmental groups to DEPP during the public consultation process and the Project response to those.

#	Commenter	Topic	Comment	Response
1	BTT	Bonefish	Our top concern is that increased boat traffic, fishing, jet skis, and other activities will negatively impact bonefish reproduction.	Bonefish was discussed in the EIA section 9.9 Marine Assessment, section 15.1 Methodology and section 15.4.3 Marine Resource Mitigation. On page 126 the EIA states, "Most importantly, studies show that Bonefish use the area [Cross Harbour National Park] as a breeding ground, as it is the most popular breeding ground for this species." and on page 199 of the EIA it is stated, "…Cross Harbour National Park, which is approximately 7 miles west of the proposed SW Point marina." Both statements reflect that Cross Harbour National Park which was created in part to protect Bonefish reproduction as the connection point between shallow areas and deeper waters, is beyond the Project's area of impact. It is worth noting that The Northeast Providence Channel (located in close proximity to the marina) serves as a major shipping lane for local and international vessels, with heavy marine traffic on a daily basis by large tankers, barges, fishing vessels, recreational vessels etc. (see figure enclosed). As such, we do not anticipate the traffic impacts caused by the marina to have a significant effect on the marine traffic in the area. Furthermore, the Project's location, 7 miles south of Cross Harbour Marine Protected Area (MPA), provides ample access to deep water off South Abaco, and is outside the primary spawning routes according to BTT's own research. The Project supports the effective management of this MPA in order to mitigate these threats to the protected area. The Project is committed to providing visiting yachts in the marina with information regarding any restrictions that apply to the MPA and to cooperate with any supervision efforts by relevant bodies. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. The images below depict a marine traffic heatmap for the Northeast Providence Channel in the year 2019 (left) and the live map of the channel on February 2, 2021 (www.marinetraffic.com)

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				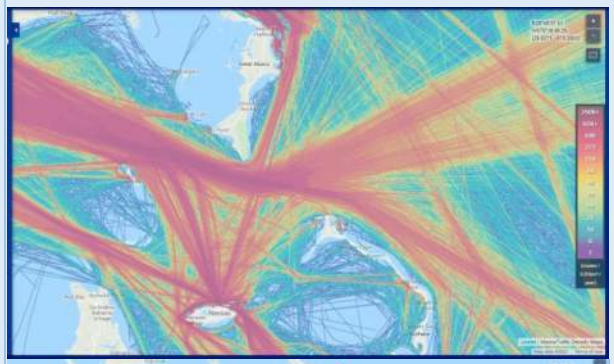 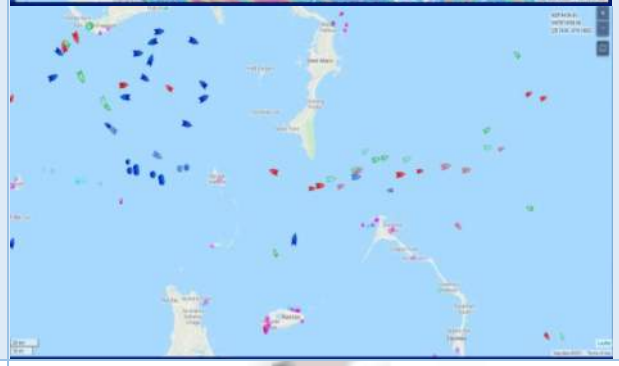
2	BTT	Sedimentation	sedimentation from construction will impact coastal waters	Sedimentation impact and appropriate mitigation was discussed in the EIA section 11.4.1 Erosion and Sediment Impact, section 11.5.4 Marine Resource Impacts, and section 15.3 Mitigation for Impacts to the Physical Environment. It is worth noting that the decision by the Developer to develop practically the entire marina on land, will reduce this issue to an absolute minimum. Furthermore, as discussed in the EIA, erosion control will be employed during all stages of construction and will limit this issue even further. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.

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3	BTT	Protected Area Management	increased fishing pressure on the resident bonefish in the Cross Harbour area will cause a decline in the fishery due to exceeding the fishery's capacity	Increased fishing pressure was acknowledged in the EIA section 11.5.4 Marine Resource Impacts and the mitigation for this is discussed in section 15.4.3 Marine Resource Mitigation. It should be noted that bonefishing requires a permit and the use of a certified guide. Thus, any additional demand will be monitored, supervised and controlled by the relevant authority. The Project will cooperate with any such authority to enhance the supervision efforts as is feasible. The opportunities for local guides, subject to these controls, will increase and improve materially with the ability to offer their services from organized locations in the marina village provided to them by the Project. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
4	BTT	Marine Traffic	recreational watercraft and yachts entering the proposed marina will disrupt bonefish pre-spawning and spawning behaviors	This matter was discussed in the EIA section 9.9, 15.1, and 15.4.3. Please also see detailed discussion on this matter in response to comment 1 above. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
5	BTT	Marina Creation	any blasting or other loud noise during construction that occurs when pre-spawning and spawning schools are present will negatively affect bonefish and may cause mass mortality	It is important to note that the majority of the work during construction of the marina will involve excavation activities on land, with seabed dredging representing a minor proportion of the marina creation work. This method was strategically selected primarily with a view to limit, as much as possible, harmful impacts on the environment. In section 15.1 of the EIA it is stated, "These practices [Best Management Practices] include capitalizing on environmental windows (opportune times outside of breeding, spawning, nesting and/or migrating seasons) for valued ecosystem components (birds, marine mammals, bonefish, etc.), as much as reasonably practicable, in an effort to limit disturbances to the natural environment during construction and operational activities.". Also, on page 199 the EIA reads, "The use of environmental windows can be employed during dredging activities to minimize potential impacts to bonefish and grouper species." It should be noted that the use of explosives is not proposed for the dredging of the marina entrance, which effectively reduces potential loud noise impacts to marine resources. This matter was also discussed in the EIA section 15.3. The EIA states, "Noise created during dredging is broadband (below 1kHz) and is not likely to cause damage to marine mammal auditory systems."

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				Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
6	BTT	Wastewater	How the proposed development will manage nutrients and fresh water is also a concern; not an adequate description of what will be done with treated wastewater and biosolids	This matter was discussed in the EIA section 15.7 where it is stated, "Wastewater will be directed to a centralized plant for processing and only greywater will be used for irrigation. Recycling of grey water will reduce water demands for the development." Treated wastewater will be used for landscaping and surplus if any will be disposed of through disposal wells. In section 9.13.3 the EIA states, "All sewerage will be collected by a centralized collection system for each site and processed in a properly sized central plant(s) per site. Each connection point will be metered so that charges to maintain the sewer plants can be levied based on actual sewerage production. These plants will be designed to produce potable water but will initially be expected to only produce product water sufficient to be used for irrigation. The lush landscaping plans for the developments are expected to create a need for supplemental irrigation even though native planting will be the primary focus of the landscape designs. The ability for the sewer plants to produce both irrigation and potable water is a fundamental part of the redundant design strategy being used for the infrastructure of the development." Biosolids meeting the EPA Class A standard may be applied to the land or disposed at the landfill. Class A biosolids have the most stringent metal limits and vector attraction reduction standards. All other biosolids will be disposed of in accordance with industry standards as regulated by DEHS and Water and Sewerage Corporation. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
7	BTT	Water Quality	greater detail on how runoff will be contained	In section 11.4.3, the EIA reads, "A storm management plan for the Project will be developed before any construction activities commence and will outline plans for diverting storm water runoff into the golf course ponds and

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				natural wetlands surrounding the property." In the EIA section 15.7 is titled Water and Wastewater Mitigation which also discusses this matter. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Nonetheless, erosion control will be employed during all stages of construction and incorporated into final civil designs of the properties.
8	BTT	Freshwater	how will freshwater be obtained?	The Project will be designed with extensive measures to collect and treat rainwater which will be the main if not the only source of water for the Project. In EIA section 9.13.2 it is stated, "The primary water system for each site will be developed based on a rainwater collection and storage system." The potential for reverse osmosis will be considered if necessary. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
9	BTT	Freshwater	If by desalination, how will the effluent be disposed of?	This matter was discussed in the EIA section 9.13.2. The EIA states, "…the development of a reverse osmosis plant will be considered as a supplement to water needs." If desalination will be used, then deep wells will be utilized as disposal wells and further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
10	BTT	Water Quality	if marina dredging perforates the freshwater lens, it will reduce salinity in the nearby coastal area	This matter was discussed in the EIA Appendix H Saltwater Intrusion Mitigation Report (Rev 2). Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Due to the porous nature of The Bahamas' substrate, fresh groundwater mixes with seawater all the time through natural hydrogeological processes, mostly underground. In addition, and in the main, rain directly over the sea, and rainwater introduced by run-off over ground into the sea are very much more notable contributors of fresh water to the marine environment, than the marina could ever be. Natural dispersion and evapotranspiration effects act to limit the negative impacts on the marine environment. Considering the minute size of the marina when compared to the extensive coastline of South Abaco the effect of any minimal additional such freshwater is so small as to be not even measurable. Nevertheless, as discussed in the EIA and will be further detailed in the EMP measures will be taken during construction of the marina bulkhead and in the excavation of the basin to mitigate the mixture of fresh and saltwater at the marina location even though it will be minimal

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11	BREEF	Bonefish	Impacts on the bonefishing industry, particularly considering there are known essential bonefish spawning aggregations immediately offshore	This comment was also mentioned by BTT and was responded to in our response to comments 1 and 5 above.
12	BREEF	Spawning Aggregations	Threat to spawning aggregation of other fish species, notably Nassau grouper and mutton snapper	The use of environmental windows to guide the Project's schedule will reduce the impact to these species, as mentioned in the EIA section 15.1. Further, as will be detailed in the EMP the Project will work to educate and warn visiting yachts about necessary measures and cooperate with relevant authorities to enhance the supervision efforts and to mitigate any such issue.
13	BREEF	Marine Mammals	Impacts to marine mammals. The waters off the southern tip of Abaco are well documented as critical habitat for endangered species of whales	This matter was discussed in the EIA section 11.5.4 and 15.4.3. Beginning on page 198 the subsection titled, "Marine Mammals and Dredging" describes prevention and mitigation for marine mammals. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Further, our response to comment 1 above is relevant here too. In addition, and as specified in the EIA and will be further detailed in the EMP during construction the Project is committed to use marine mammal spotters that will be positioned where dredging activity is taking place to limit any risk to marine mammals during work hours. We reiterate that the seabed dredging activity is a minor portion of the marina construction, the majority of which will consist of excavation activities on land.
14	BREEF	Pollution and Excess Nutrients in Marine Environment	Pollution and excess nutrients from dredging and the creation/maintenance of a golf course	This matter was discussed in the EIA section 15.4.3 and 15.7. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Further, as mentioned many times dredging activity in the creation of this marina is very small. We fail to see the relevance of this comment to the golf course. As can be clearly seen in section 5.1 of the EIA the golf course is located behind an 80-90' ridge and therefore has no direct nexuses to the marine environment. It was located there, at great cost to its attractiveness and value, deliberately for the purpose of limiting any direct effect that the golf course may have on the marine environment.
15	BREEF	Protected Areas & Sensitive Habitats	Serious threats to nearby marine protected areas, national parks and sensitive blue holes	This is a very general comment and as such cannot be responded to specifically. The EIA has an extensive discussion of these matters. It is worth noting that the Project includes many millions of dollars in environmental mitigation projects. These projects are all as described in the EIA in section 15.

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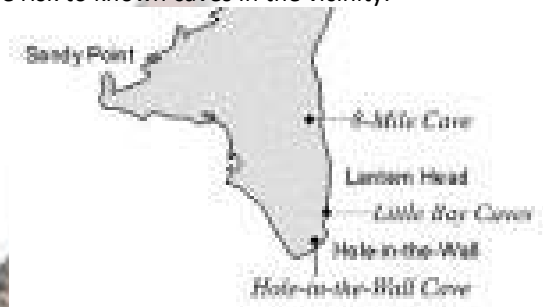
16	BREEF	Avian	EIA inadequately addresses avian fauna including Bahama parrot and the Kirtland's warbler	Impacts to avian species was discussed extensively in the EIA section 11.4.5 and mitigation in section 15.4. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. It is worth noting that Abaco is not the only stopover site for the Kirtland's Warbler which have been documented on multiple islands in The Bahamas. The Project proposes to incorporate as much native forest as possible into the development to encourage resident and migratory birds to continue to inhabit the property. Furthermore, the Project will donate approximately 174.5 acres of coppice forest to BNT for conservation and management, also mentioned in section 15.4.
17	BREEF	Historical	Impacts to Lantern Head	The Project is committed to avoid any work whatsoever or alteration to the historical ruins at Lantern Head and to preserve them in their current condition. Further details will be provided in the EMP as-is customary.
18	BREEF	Geology	Impacts to sensitive caves	Descriptions of observed karst features were provided in sections 9.2, 9.6 and section 9.9 of the EIA. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Based on the map of known cave systems (see figure enclosed) there are no known caves anywhere near the marina footprint. None are recorded directly at the Lantern Head site either. Construction in Lantern Head is generally light construction with the structures not more than two story high and therefore does not pose risk to known caves in the vicinity.  See map of known Cave systems in South Abaco below (Walker, 2006) **Full Reference:** Walker, L. (2006) The Caves, Karst, and Geology of Abaco Islands, Bahamas. A Thesis Submitted to the Faculty of Mississippi State University in Partial Fulfillment of the Requirements for the Degree of Master

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				of Science in Geosciences in the Department of Geosciences. Available online at: https://hdl.handle.net/11668/20543
19	BREEF	Hydrology	Impacts to freshwater lens	Hydrological Impacts was discussed in section 11.4.3. The relevant mitigation for the discussed impacts is discussed in section 15.7, and Appendix H. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Our responses to comments 7, 8, 9 and 10 above also have some relevance here. Considerations for freshwater management include the use of rainwater as primary water source, the use of organic fertilizers, the use of grey water for golf course irrigation, impermeable liners to be used in golf course fairway and pond construction.
20	BREEF	Climate Change	The EIA fails to adequately address climate change	This matter was discussed in the EIA section 9.9. and Appendix D and H. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. As is evident from the site topography the natural elevations present on this site will accommodate sea level rise and provide natural protection against storm surges; This is one of the main reasons the Developer chose this area for development. The Flushing Study in Appendix D of the EIA comprehensively covered the concerns relating to sea level rise and storm surge in the marina. It is worth noting that the Project has committed to spend millions of dollars on environmental and community mitigation projects including granting 174 acres of forest to the government/Bahamas National Trust (BNT) with a view to create a nature preserve. These are all part of the Developer's recognition of the need to treat the environment with care, mitigate any potential disruption to the environment and counter the effects of climate change.
21	BREEF	Support	no evidence of the support of the Bahamas National Trust and the Department of Marine Resources, although they are referenced in the EIA	References to BNT in the EIA were only in relation to contractual commitments that Developer has entered into with the Government in the Heads of Agreement (HOA). BNT were fully informed of these commitments and have never rejected these. Indeed, they acknowledged those in their response to the EIA. References in the EIA to the Department of Marine Resources (DMR) were made only to the extent of commitments by the Developer to work with and support the Department. Not in reverse. However, it is worth noting that both the Government and Local Government

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				have shown strong and clear support for the Project. Signing the HOA with the Developer being a one indicator of the support for this Project.
22	BREEF	Marina	The EIA refers to the Blue Flag marina certification which is a completely outdated statement since the Blue Flag marina programme has not been operating in The Bahamas for several years, and the developer has never had any communication with BREEF- the organization responsible for the Blue Flag programme	The EIA in section 15.4.3 and 15.7 section states that Developer will strive for the certification and the Developer is committed to apply for the Blue Flag certification, which the Developer remains committed to as soon as the programme is available in The Bahamas. Until the time that the programme is available, the Developer will aim to follow the criteria. Regardless of the current status of the Blue Flag Marina program in The Bahamas, the Blue Flag criteria is a valuable tool for general Marina operations and environmental management. The criteria will be incorporated into the Project's EMP. The marina Blue Flag Criteria is freely available online. As the Developer is committed to responsible development, the criteria will be used to guide the Developer as the Project progresses. See criteria for blue flag marinas and tourism boats https://www.blueflag.global/marinas-1
23	Sustainable South Abaco	Wastewater treatment facility	the EIA failed to provide detail about this intended facility	Wastewater mitigation was discussed in the EIA section 15.7, "Wastewater will be directed to a centralized plant for processing and only greywater will be used for irrigation. Recycling of grey water will reduce water demands for the development." Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. The Project will use scalable versions of packaged systems that are common in the Bahamas. These systems will be capable of producing potable water. They typically use a biological process such as the activated sludge process.

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24	Sustainable South Abaco	Wastewater treatment	no information was provided for the proportion of point-source water that will be filtered (and or recycled), nor at what point in the development process it will be constructed (note the development phase will be tremendous with workers themselves generating substantial sewage inputs).	This matter was discussed in the EIA section 15.7. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. The wastewater treatment plant will be built during the first phase of the development. The system will be scaled up as the development grows. A disposal well will be installed as a part of the wastewater treatment system to handle excess treated water or off spec water. During initial phases of construction, portable toilets as guided by the Department of Environmental Health Services will be installed on site. The cleaning and pump out schedule for these units will be described in the EMP as is customary.
25	Sustainable South Abaco	Golf Course Fertilizer	In no place did the EIA state the amount of fertilizer that would be applied to the golf course per unit time.	The EIA addresses, in Appendix B, fertilizer use and all best practice environmental methods that will be used in the Project. The information requested here will be addressed fully and in detail at the EMP stage as is customary. Generally, the course materials cross section will be designed to prevent leachate from going where it is not intended to go. Runoff and leachate controls are elemental in the course design. And if fertilizers are used, they will be organics, used only at the lowest effective levels to achieve necessary results.
26	Sustainable South Abaco	Bonefish	The proposed South Abaco development has the potential to fundamentally compromise this vitally important industry for The Bahamas.	This comment was also mentioned by BTT and BREEF and were responded to in comments 1, 3, 4 and 5 above. It is the Developer's position that the exact opposite of the claim made here will be the case. As stated in the EIA in section 5.2, the Marina Village will provide a fishing charter office and a fishing guide office. The presence of these amenities will significantly improve the bonefishing guides' ability to offer and provide premium services, resulting in increased revenues and improved prosperity. Simultaneously, it will provide the relevant authorities with a better opportunity to manage, supervise and control a large element of the recreational bonefishing industry.

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27	Sustainable South Abaco	Marine Mammals	does not include any details on marine mammal occurrence in South Abaco	This matter is discussed in the EIA section 11.5.4 and section 15.4.3. Our responses to comments 1 and 13 above are also relevant here. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Great care has been taken in designing the Project to mitigate to the minimum any potential disruption to all marine in the area. Marine mammals known to Abaco include Blainville's Beaked Whales, Bottlenose Dolphins, Atlantic Spotted Dolphins, Orcas, Sperms Whales and Manatees.
28	Sustainable South Abaco	Cross Harbour MPA	no mention of the proposed Park expansion	It is beyond the scope of this EIA to assess development that may or may not occur in the future. The Developer's overall approach to use best practices and encourage responsible behavior by visiting yachts will apply should such an extension become reality in the future.
29	Sustainable South Abaco	Corals	corals may be negatively impacted by Southwest Point through direct and indirect habitat destruction, including alteration caused by dredging construction and subsequent use of the proposed marina at activities, increased pollution, and, importantly, overall increased human activities along the shoreline.	This matter is discussed in the EIA section 15.4.3. As mentioned before, dredging will comprise a very small portion of the marina construction. Corals to be directly impacted will be transplanted to suitable sites, as shown in the "Coral Relocation" subsection on page 193. See also response to comment 1 in this table, where existing levels of marine traffic in the Northeast Providence Channel are discussed. Pollution control in the marina design include separate stormwater and sewage collection systems, swales, gravel surfaces, covered work areas, and strict marina operation guidelines. Marina operation guidelines will follow closely the Blue Flag Marina criteria, among other best management practices. Each of these measures are designed to reduce point and nonpoint sources of pollution into coastal water. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
30	Sustainable South Abaco	Bonefish	It is likely that during marina, jetty, and groin construction (and for years after) disturbance levels would diminish bonefish reproductive activity, possibly eliminating it, simply by deterring the fish from swimming past the disturbed area on their way to	This matter is discussed in the EIA section 9.9 Marine Assessment and section 15.1 Methodology, which states, "Following construction, these practices should be taken on by a resident Environmental Manager. These practices include capitalizing on environmental windows (opportune times outside of breeding, spawning, nesting and/or migrating seasons) for valued ecosystem components (birds, marine mammals, bonefish, etc.), as much as reasonably practicable, in an effort to limit disturbances to the natural environment

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			the spawning sites on the south end of Abaco.	during construction and operationalactivities." Section 15.4.3 Marine Resource Mitigation states, "With regards to fishery resource management in South Abaco, the Developer will work along with the Department of Marine Resources and the Bahamas National Trust. The development presents an opportunity to work along with such agencies to improve day to day management of these resources to prevent depletion and exploitation by residents and foreigners alike.". The latter section shows the Developer's commitment to responsible development through the construction and operation of The Project. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Please also note our detailed responses to comment 1 and 4 above. It is worth noting again, that according to BTT's own research, the location of the marina at SW Point is outside of primary spawning routes.
31	Sustainable South Abaco	Benthic Resources	increased activity throughout the area will harm the Elkhorn coral colonies and other valuable benthic resources.	This matter is discussed in the EIA section 15.4.3. subsection "Coral Relocation". Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. It is also covered in comment 29 above.
32	Sustainable South Abaco	Marine Mammals	During marina construction and maintenance, mitigation measures should be put in place, e.g., the inclusion of expert marine mammal observers.	This matter is discussed in the EIA section 9.9 Marine Assessment and section 15.1 Methodology, which states, "In accordance with these practices, a full-time environmental monitor will be on site during construction to ensure mitigation measures outlined in the Environmental Management Plan are always adhered to during development", and section 15.4.3 Marine Resource Mitigation which includes a subsection *Marine Mammals and Dredging.* Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. See also our response to section 1 and 13 above.
33	Sustainable South Abaco	Marina	dredging in spawning areas can be detrimental	This matter is discussed in the EIA section 9.9 Marine Assessment and section 15.1 Methodology and section 15.4.3 Marine Resource Mitigation. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. See also our response to section 1, 4 and 32 above.
34	Sustainable South Abaco	Cross Harbour MPA	inform vessels of routes and speeds through the entire proposed Cross Harbour MPA expansion	As is detailed in our response to section 1 above, the Project supports the effective management of this area in order to mitigate threats to the protected area.

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				The Project is committed to provide visiting yachts in the marina information regarding any restrictions applying and to cooperate with any supervision efforts by relevant bodies.
35	Sustainable South Abaco	Cross Harbour MPA	we hope to make this MPA an echo-sounder-free zone and would expect the marina and its users to adhere to this regulation	As detailed in our response to section 1 The Developer is committed to working with the MPA manager. The Project is committed to providing visiting yachts in the marina with information regarding any restrictions that apply to the MPA and to cooperate with relevant bodies.
36	Sustainable South Abaco	Marina	What aspects of Blue Flag will be pursued and how will they decrease impacts? How will public education initiatives be organized?	Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Furthermore, as stated by Foundation for Environmental Education (FEE), " The Blue Flag Programme promotes sustainable development in freshwater and marine areas. It challenges local authorities and site operators to achieve high standards in water quality, environmental management, environmental education and safety." Despite the local program currently being inoperable, the adoption by the Project of the criteria necessary for Blue Flag designation will serve as a guide for best practices in the marina. See criteria for blue flag marinas and tourism boats https://www.blueflag.global/marinas-1
37	Sustainable South Abaco	Freshwater Lens	areas of development could have negative impacts and lead to saltwater intrusion into the aquifer.	This matter is discussed in the EIA Appendix H. As is shown in the EIA and because of the extensive measures to be taken by the Project the risk of such intrusion is minute and will have no measurable effect on the aquifer. In the saltwater intrusion mitigation report, (Appendix H) it is estimated that the area of land occupied by the Project site at SWP represents less than 1% of the estimated area of freshwater aquifers known to the island. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
38	Sustainable South Abaco	Geology	The main cave at Hole in the Wall is in the center of the road. Heavy equipment and materials would be needed to access the Hole in the Wall Lighthouse site if any restoration, as suggested in the EIA, is to occur. There are only a few feet of ceiling rock and	The proposed restoration of the Hole in the Wall Lighthouse is not critical to the essence of the development and was offered as part of the environmental and community engagement efforts by the Developer to be a responsible member of the community. The reaction from Government, Local Government, and overwhelmingly the public was very positive to the prospect of rehabilitating this important monument and opening it to the public. The Developer and the Project's consultants are confident that this

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			heavy equipment will certainly collapse it.	can be done responsibly and will ensure that if necessary, work will be carried out only by equipment that is judged safe to do such work. Work will be guided by AMMC and specific details will be provided in the EMP.
39	Sustainable South Abaco	Bats at Hole in the Wall Caves	Roosting bat colonies are sensitive to the noise of any sort and traffic overhead or nearby will force them to abandon the cave.	See response in comment 38 above. Furthermore, if it is judged better not to proceed with this element of the Project, the Developer is willing to deploy the intended funds on a different environmental mitigation strategy. Having said that, noise associated with restoring Hole in the Wall will be localized at the site, with noise along roads limited to movement of site vehicles and equipment. No major works for this element of the Project are proposed to occur during evening hours, thereby eliminating risks of auditory interference during hunting/foraging. Preclearance surveys for bat colonies in caves prior to commencement of restoration work at Hole in the Wall can guide mitigation and noise attenuation strategies to be outlined in the Project's EMP.
40	Sustainable South Abaco	Geology	this network of caves would facilitate saltwater intrusion into the freshwater lens if (when) the geology of the areas is affected by the extensive development activities.	This matter is discussed in the EIA section 11.4.3 Hydrological Impact which speaks to the impact on the underground hydrological resources. Appropriate mitigation for the described impacts is discussed in section 15.7 Water and Wastewater Mitigation and Appendix H. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Also, please see our response to number 18 and 38 above related to caves. As stated in number 18, based on the map (enclosed in response 18) there are no known caves anywhere near the marina footprint.
41	Sustainable South Abaco	Historical Resources	The EIA briefly mentions this site and declares that it is off-site, but boundaries are not defined nor are the resources described; We urge that results of a survey of this kind be incorporated into the EIA along with recommendations regarding the mitigation of any adverse effects to historic resources	As is covered in the EIA sections 8.1 and 14.7 the township of Alexandria is not part of the proposed Project. Section 8.1 says, “As a result, and in spite of the significant financial impact, the Developer determined not to include these additional parcels in the SW Point development in order to avoid any potential disruption to the cultural and historical heritage of these resources.” Therefore, this comment is not relevant to this EIA. The Project is not involved in Alexandria in any way. The Developer has committed to the Government to grant $250,000 to BNT or any other appropriate body to support restoration work at Alexandria, but this is not

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				part of the Project. The Developer is willing to re-appropriate that amount for other environmental mitigation projects if approved by the Government.
42	Sustainable South Abaco	Avian	no information was provided on how many point counts were conducted or where the point count stations were located	Point counts were conducted at both Lantern Head (4) and South West Point (4), in coastal habitats, coastal coppice, broadleaf coppice, and roadways on the two properties. Counts were conducted in January and May 2019.
43	Sustainable South Abaco	Abaco parrot	No information was provided on how many underground nesting cavities along the path will be impacted or destroyed by the added infrastructure.	Impacts to Bahama Parrots is discussed in the EIA section 11.4.5 and mitigation in section 15.4.1. It is important to note that most reported nesting sites are located well north of both properties. See Figure 172 in the EIA. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. It is worth noting as that the proposed road improvement will have less biological impact than currently experienced on the Queen's Highway where the majority of nesting sites were identified by the most current research on this matter as referred to in the EIA. The current path through the ANP has previously been cleared to a 30 ft. width, and as a result minimal resources would need removal during road improvements. Preclearance surveys will be conducted prior to commencement of road works to determine needs for relocation and other mitigation.
44	Sustainable South Abaco	Abaco Parrot	The EIA does mention that Abaco parrots forage within the proposed development site; since this fact is acknowledged by the EIA, specific information on the minimization of habitat loss should be included.	This matter is discussed in the EIA section 15.4.1 Avian and Terrestrial Mitigation states, "During road improvements and land clearing activities, the Developer will incorporate most of the recommendations provided by Caroline Stahala, leading Abaco Parrot researcher, into the EMP for the proposed project. These include: • Surveying for parrot nests and foraging area immediately before any road construction is undertaken. • As much as possible ensure that all vegetative coppice/hardwood buffer currently existing will remain along park boundary.

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				• Efforts to leave any hardwood tree over 4cm in diameter, where possible. • Efforts to design a contiguous hardwood corridor/habitat on the Lantern Head site to provide foraging trees for parrots during the nonbreeding season. • Efforts to leave some native forest intact wherever possible." Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Furthermore, as mentioned in the EIA, habitat corridors will be incorporated into the site where possible. Retention of the native flora where possible will assist in providing foraging trees for local birds. The creation of the nature-preserve with funds provided by the Developer on the 174 acres provided by Developer all as agreed to with the Government in the HOA should provide many more opportunities for the Abaco parrot to forage.
45	Sustainable South Abaco	Abaco Parrot	A habitat corridor was mentioned to minimize impact but there does not appear to be a corridor in the plans.	Our response to comment 44 above should be referred to. Habitat corridors will be incorporated into the site. Details will be provided in the EMP.
46	Sustainable South Abaco	Abaco parrot	Secondary impacts need to be elaborated, such as how the increase in vehicle traffic along Hole in the Wall Road, Soldier Road, and Lighthouse Road will increase road mortality for birds, particularly parrots who fly low to the ground, and endemic reptile species (Bahama boa and Bahama racer).	See our response to comment 44 and 45 above. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Given the low density of the Project the traffic level is expected to be low. Most of the cars will be owned by the Project and the drivers will be educated and trained to drive slowly and avoid such mortality. Employee training will be described in the EMP as is customary. Adequate signage, speed controls and physical barriers in key locations will be established. The Project is committed to the use of electrical cars. The Project is planning on providing 100% employee housing so as to avoid the need for employees to drive to and from the Project on a daily basis thus reducing even further the number of trips on the road.
47	Sustainable South Abaco	Abaco parrot	Mitigation measures were mentioned (p. 187) but no clear plan is being provided on how these measures will be executed.	Mitigation measures were described in section 15. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.

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48	Sustainable South Abaco	Waste Management	Solid waste management is one of the most important parts of any development plan, particularly in a remote area surrounded by national parks and sensitive marine habitats. The current EIA has fundamentally neglected to address this most basic of procedures, negligence, despite the obvious implications to local communities and the environment.	This matter is discussed in the EIA section 15.6. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. As discussed in the EIA the Project proposes to enhance the local landfill near the Sandy Point airstrip to facilitate solid waste during construction and operations. Recycling will be utilized at all stages of the Project to reduce the volume of waste deposited at the landfill. The organic waste will be composted to create soil for use in landscaping on the property, while recyclable plastic and metals will be separated and deposited at the appropriate processing facility for recycling.
49	Sustainable South Abaco	Coastal Engineering	The HD model was only calibrated to water surface elevations. What about currents? Were local current measurements obtained? Were current meters deployed—if so where and for how long? How was the wave model calibrated? Were local wave measurements obtained?	Section 3.1 of the Coastal Engineering Report, EIA Appendix B states that the hydrodynamic model was calibrated using tide data collected from May to June 2019. The tidal and wave conditions at the site. Validation using tidal data is in line with industry standards and practice. An Acoustic Doppler Current Profiler was deployed at the location of the proposed entrance of the marina for a period of 30 days. The ADCP also has a pressure meter which was used to measure waves at regular intervals. Section 2.4 of the Coastal Engineering Report, EIA Appendix B, states that the WAVEWATCH III Model was validated through comparisons with NOAA Wave Buoy 41047.

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50	Sustainable South Abaco	Coastal Engineering	Wave setup and sea-level rise were noted to be excluded in the storm surge analysis. How would the effects of wave setup and/or wave run-up influence the coastal storm surge inundation? How do the results compare with Dorian? EIA stated Dorian surge levels were greater than 18 feet. What is the recommended base flood elevation for coastal structures and infrastructure? The EIA states 30 feet above sea level.	This is in line with industry best practices. Wave setup and wave run-up are not included due to the complexity of these phenomena. E.g., wave run-up is influenced by vegetation, composition of the shoreline/ground conditions etc. which is too high resolution to apply to a project of this magnitude. As stated in section 4.1 of the Coastal Engineering Report, EIA Appendix B, the 50-year storm surge elevations at Southwest Point and Lantern Head are 3.83m (12.56ft) and 3.28m (10.76ft) respectively. These should be treated as the basis of coastal engineering and waterfront design. In most cases, these elevations are achieved with the natural topography.
51	Sustainable South Abaco	Coastal Engineering	Wave energy reduction associated with the breakwater/jetty at Lantern Head appears low. A cost-benefit analysis of the breakwater relative to the usable swimming area is recommended. The cost of the breakwater may be significant when constructed to survive extreme events. Also, the 50% reduction in wave height may still be inadequate for safe swimming when considering the incident wave height. What is the required rock size/weight for the breakwater to survive extreme conditions? What are the effects of the coastal structures on sediment transport? Longshore transport is not discussed.	The economic analysis of the breakwater is beyond the scope of this document. However, the Developer and its consultants are satisfied that the economics of the Project are conservative. Figure 5-3 of the Coastal Engineering Report, EIA Appendix B, illustrates that waves behind the breakwater would be reduced to less than 1m during operational conditions. This is deemed acceptable for safe swimming during operational conditions. The armour stone/armour unit size will be discussed in the EMP as is customary. Longshore transport was not included because the beach of interest is a pocket beach, flanked by rocky shoreline to the north and south. The nearest beach is 0.65 miles to the north, outside of the littoral cell of the beach of interest. The pocket beach is essentially isolated and longshore transport is not critical. The proposed structure will reduce wave energy impacting the beach and thus reduce erosion in the cross-shore direction.

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52	Sustainable South Abaco	Coastal Engineering	Issues with wave agitation in the marina during commonly occurring swell waves are identified but not resolved. The report mentions consideration of extending and/or overlapping jetties, but the effects of this are not evaluated. Consistent swell wave energy entering the marina, and/or internal seiching potential can greatly impact marina operations (e.g., safely mooring vessels) and the overall viability of the marina.	The conditions illustrated in Fig. 6-2 of the Coastal Engineering Report, EIA Appendix B, represents the worst case non-storm condition. As described in section 2.4, and illustrated in Figure 2-10, the annual and weekly wave heights modeled represent 0.3% and 1.75% occurrence respectively of the 30-year offshore wave data set. Developer has deemed these conditions acceptable considering the low frequency of these conditions and the sizes of the target vessels. The model also considers the edges of the entrance channel to be vertical. The entrance channel sides will be designed to be sloped rubble mound structure, to further reduce reflection of waves into the basin from the southerly and southeasterly directions, reducing wave height within the basin.
53	Sustainable South Abaco	Marina Flushing Model	"The model is limited in its application and ability to replicate the true physical mixing and flushing process." How? Is that not concerning the adequacy of the model?	The type of model used is industry standard for flushing analyses both locally and internationally. This statement is in reference to the difficulty to replicate real-world conditions, such as vessel movement within the basin causing mixing, boundary conditions between the water and the bulkhead walls and/or seabed, boundary conditions between the wind and water surface etc. It is standard to qualify the limitations of the numerical model.
54	Sustainable South Abaco	Marina Flushing Model	"If further flushing is required, a pump system could be installed in the flushing channel to increase its flushing capability." Why would this be needed or mentioned if the results are conservative? Models are only useful if they apply to the specific situation which they are intended to describe.	This issue was discussed in the EIA section 9.3. Further details regarding this matter will be provided in the EMP. This possibility was specifically included in the EIA after discussion with the Developer who wanted to be sure that the Project will have the possibility of going above and beyond the recognized engineering standards. This Project is likely to make significant investment in having redundant systems to ensure, in this case, that flushing capability will be beyond the acceptable standard. From a pure engineering point of view the results of the model are conservative and meet the acceptable standards in marinas.

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55	Sustainable South Abaco	Marina Flushing Model	"A flushing reduction (the amount of a conservative substance that is flushed from the basin) of 90 percent over a 24-hour period". The difference between flushed and diluted should be clarified as it relates to this analysis.	This issue was discussed in the EIA section 9.3. and will be discussed further in the EMP. We will further distinguish between flushing and dilution within the EMP as is customary.
56	Sustainable South Abaco	Marina Flushing Model	"Representative tidal amplitudes were in the range of 0.5 m and local (tidal) currents were at the order of 0.05 to 0.1 m/s…". Are the observations/measurements from the site investigation or model results? If the latter, what were the currents calibrated against? How are the current speeds in the flushing channel determined to be reasonable?	An Acoustic Doppler Current Profiler was deployed at the location of the proposed entrance of the marina for a period of 30 days. Tide gauges were also deployed at the site for a period of 30 days. As is industry standard, the current speeds in the proposed flushing channel were not assessed within this study.
57	Sustainable South Abaco	Marina Flushing Model	The base case and full distribution of trace are deemed an example of the overall flushing characteristics. If a point source pollutant is released into the basin and disperses, but does not efficiently flush out of the basin, compounding effects can occur.	The Base Case and Case 3 assessed in the Flushing Analysis Report, EIA Appendix C are not practical examples of the overall flushing characteristics because they assume no wind. Case 4 demonstrates the practical condition of the marina, which demonstrates flushing, as can be seen in Figure 6-7. Additionally, manual methods of spill containment and remediation will be included in the EMP. These measures will limit the extent of dispersion.

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58	Sustainable South Abaco	Marina Flushing Model	How will wind affect the water circulation patterns? Is this limited to water movement within the basin, or overall tidal forcing mechanisms on the entrance and flushing channel?	Tidal forcing and wind effects are included in the flushing model mechanics. Refer to Table 5.1 and sections 6 of the Flushing Analysis Report, EIA Appendix C. The results included speak to the effects of wind on the flushing performance. Wind effects were applied to the entire model mesh, which includes the entrance channel and flushing channel.
59	Sustainable South Abaco	Marina Flushing Model	The statement about basin circulation needs clarification. Figures illustrate typical tidal exchange and dispersion common with small tidal amplitudes. The worst location may be further from the entrance and flushing channel connections, or further enclosed areas such as the SE region exhibited in Figure 6-1.	As seen in Figure 6-1 of the Flushing Analysis Report, EIA Appendix C, the SW corner and SE corner exhibited similar concentration values at the same time stamp during the base case run. The wind direction of 130 degrees, based on the wind statistics, would act to push the contaminant out of the SE corner, and towards the flushing forces. In the case of the SW corner, the wind direction of 130 degrees would force the contaminant further away from flushing forces. The SE corner is also closer to flushing channel than the SW corner while being roughly the same distance from the entrance channel as the SW corner. Therefore, the cumulative distance from a flushing source, per se, is slightly greater for the SW corner.
60	Sustainable South Abaco	Marina Flushing Model	It is unclear if Figure 6-6 is illustrating positive flushing characteristics or just local dilution of the tracer. Concentration amounts should be explored in the entrance channel to determine if containment was leaving the basin.	As noted in the conclusion, section 7, of the Flushing Analysis Report, EIA Appendix C, the no-wind scenario is not practical. Case 3 does not include wind effects, so the contaminant is mostly dispersing as opposed to being flushed. Figure 6-8 provides the results for Case 4, with wind. In figure 6-8, it can be seen that the concentration of T2 initially increases less than T3 does and then decreases notably faster than T3, which suggests that the contaminant is being driven towards the flushing channel by the basin hydrodynamics. Note that manual methods of spill containment and remediation will also be included in the EMP. These measures will work in conjunction with flushing to mitigate potential adverse environmental effects.

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61	Sustainable South Abaco	Marina Flushing Model	The EIA states marina basin depth is -15 ft MLLW and flushing channel is -10 ft MLLW. The Flushing report states entrance channel depth of 8.1 m (26.6 m), marina basin depth of 5 m (16.4 ft) flushing channel depth of 1.8 m (5.9 ft). Justification and clarity are warranted here.	The entrance channel will have a depth of an 8.1-m. The basin will have a depth of 5 m. The flushing channel will have a depth of 5 m for the first segment and 3 m for the second one.
62	BNT	Protected Area Management	The BNT notes that the organization and the Abaco National Park (ANP) have been named as potential financial beneficiaries if approved and we would like to put on record that this is initiated by the proposed developer and was not included as a result of any request, solicitation, or suggestion by the BNT. This nomination is due to the proximity to two protected areas, ANP and Cross Harbour Protected Area but this in no way influences our review of this project.	These proposals were made by the Developer as part of its intent to provide environmental mitigation and community engagement as a responsible part of the community. BNT was fully informed from day one in August of 2018 about the Developer proposals and have certainly voiced no objections. Indeed, BNT welcomed those provisions and understood their purpose. Also, see our response to comment 21 above.
63	BNT	Mitigation	The proposed mitigation strategies are deficient and fall short of justifying such a large-scale development.	The Project was conceived and is planned in every respect and element of it with the imperative to limit any harm to the environment. Examples include the very low-density, building the golf course in an off-prime location behind the ridge (as opposed to overlooking the ocean which would have been much more attractive), building the marina in the main on land (which is more expensive), and more. In addition, the total environmental mitigation and community engagement proposals contained in the HOA and discussed in the EIA amount to a total value of about $13,000,000. Developer, its consultants, and the Government by the fact that it has executed the HOA with Developer are of the view that these are more than sufficient. BNT which was fully informed by Developer about these measures from the very beginning of the Project over 2.5 years ago never suggested or requested any additional measures. Developer spoke with representative of the groups responding now to the EIA, twice, once in 2019 and once very recently and made it clear

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				to them that Developer is open to considering further mitigation proposals, yet none were forthcoming.
64	BNT	Freshwater Lens	Despite the installation of a concrete wall, there is a significant risk to one of the country's largest freshwater lens, particularly with the construction of the marina at the South West property.	This matter was discussed in detail in Appendix H of the EIA. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. As-is shown in the EIA and because of the extensive measures to be taken by the Project the risk of such intrusion is minute and will have no measurable effect on the aquifer. In the saltwater intrusion mitigation report, (Appendix H) it is estimated that the area of land occupied by the Project site at SWP represents less than 1% of the estimated area of freshwater aquifers known to the island.
65	BNT	Freshwater Lens	Considering the ever-increasing and very real threat of severe storms and rising sea levels due to climate change, the proposal has the potential to lead to saltwater inundation of the freshwater lens.	Our response to comment 20 above provides a detailed explanation why this is not the case and explains how the Project is particularly well positioned to resist the effects of climate change and severe storms. See also Appendix H in the EIA.
66	BNT	Avian	Within The Project site are habitats and populations of multiple bird species of national concern, particularly three Bahamian endemic species with populations that are either endangered or in severe decline; the Bahama Warbler (Setophaga flavescens), the Endangered Bahama Swallow (Tachycineta cyaneoviridis) and species of significant concern the Bahama Parrot (Amazona leucocephala bahamensis).	The Avian Assessment was discussed in EIA section 9.7. section 15.4.1 discusses the avian mitigation. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Our response to comments 16, 44, 45, 46 and 47 are also relevant here. As discussed there, it is our view that the impact of the Project on the Avian population will be minimal with implementation of mitigation strategies.
67	BNT	Road Improvement	The improvement of the roadway (Lighthouse and Soldier Roads) goes straight through Abaco Parrot nesting sites.	The EIA discusses Avian and Terrestrial Mitigation related to the Bahama Parrots during road improvements. In section 15.4, Figure 172 the Bahama Parrot nesting sites are shown based on the research referred to before. In

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				section 9.12, Figure 167 the route of the roads is shown. From these Figures we conclude that the road improvements to be done within the existing right of way pose little risk to the nesting sites. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
68	BNT	Abaco parrot	In addition to the potential destruction of nesting sites, this increased access would also allow parrot nesting sites to be more vulnerable to increasing the smuggling of parrots and access by predators.	The Project is committed to assisting the relevant authorities to prevent any law breaking. Specifically, this comment speaks to failure of supervision and lack of sufficient monitoring by the relevant authorities to control and prevent criminal acts. It is not in the scope of this document to address these issues. Furthermore, the likelihood is that the increased presence of law-abiding people will make the task faced by criminals harder, not easier. In addition, we would comment that the BNT could use the funds offered by the Developer, in agreement with the Developer, to increase its supervision and enforcement activity to prevent such predators.
69	BNT	Invasive Species	The EIA mentions the management of invasive species, but seems to focus only on invasive plant species, namely Casuarina and Scaevola species. They also need to include cats, dogs and raccoons, as well as mitigation on any species brought in by the importation of plants for landscaping.	In section 15.4.2 of the EIA, the development of an invasive species removal plan is stated. In section 9.6 Invasive Fauna observed during site visits were described. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. Further, the prevalence of domestic pets of all nature in a transient project such as this will be minimal if not zero. In the very few cases where domestic pets will exist within the Project, the Developer is committed to ensuring that they are very restricted in their movements.
70	BNT	Fauna	The EIA has no mention of any sort of insect, reptiles, amphibians, etc. Abaco has many species of these organisms, including the Vulnerable Abaco boa (Chilobothrus exsul), and an island-endemic subspecies of Bahamian racer (Cubophis vudii).	The habitat corridor will function for multiple species including those listed by the BNT. The invasive species removal plan (see response 69 and section 15.4.2 in the EIA) will also help improve habitat for the species mentioned. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
71	BNT	Mitigation	It is the view of the BNT that developers strive to increase the amount of biodiversity on a site through their landscaping and mitigating activities. Such an approach	We are in agreement here. More details will be provided in the EMP as-is customary.

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			is consistent with more progressive environmental legislation that directs developers to replace and improve habitats that are damaged by a given project.	
72	BNT	Mitigation	Outside of the native plants in landscaping or pledging funds to support conservation in the area, the proposal fails to include coral and forest enhancement activities, enhancement of Bahama Parrots and other wildlife of conservation concern. If approved, the jetty and groyne structures could be opportunities for using green infrastructure and increasing biodiversity on a local scale through the use of "living sea walls". More effort could be made to ensure that any infrastructure compliments ecological functioning into the current system.	Coral management is discussed in section 15.4.3 subsection Coral Relocation of the EIA in detail. The suggestion that the proposal fails to discuss forest enhancement is not correct. As discussed, in details in section 15.2, 15.4 and Appendix B of the EIA Amongst other things, Developer has: 1. Agreed to provide $1,000,000 to the BNT for their master plan to develop the ANP, which was proposed by BNT in the discussion with Developer. 2. Agreed to grant 174 acres to the BNT and commit additional $350,000 to convert that area, under the direction of the BNT, into a nature preserve with specific emphasis on creating an environment to support foraging by the Abaco Parrot and other bird species prevalent to the area. Indeed, the Developer could not have done more regarding forest enhancement under any reasonable scenario. BNT, in discussions with the Developer, did not suggest any further measures either and acknowledged the above measures. The Developer on numerous times opened the door for any of the groups now responding here to discuss further such measures. Those offers received no response from BNT or any of these other groups. BNT's suggestions re "living sea wall" will be positively considered by Developer and details will be discussed in the EMP.
73	BNT	Mitigation	The beach dune mitigation strategy fails to speak to allowing for retreat due to sea-level rise over time, but this effort is undermined by the lack of a clear definition of what is meant by "behind the beach dune" and hence the impacts on that significantly important ecosystem.	Note text from the EIA section 11.4.2 "Beachfront and Oceanfront residences …. will not remove the dune during construction of these structures." This shows the Developer notes the dune is an important feature of the site. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. The Project is committed to the enhancement of the dune from time to time as-is necessary.

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74		Turbidity Curtains	the use of silt curtains in marine environments are problematic when used incorrectly as commonly seen in The Bahamas, the BNT is unable determine what type of silt curtains are to be used and how they will be used, and managed, to ensure the best desired outcome for the marine environment.	Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. An example of Type 3 turbidity curtain: https://www.abasco.com/type3turbiditycurtainspec.html The Developer is committed to make this Project a "Best-in-class" in all respects and as such will take great care to avoid common or even not so common errors. The current thinking is for Type 3 heavy duty turbidity curtains to be used during dredging activity. However, as mentioned above full details including Installation diagrams will be provided in the Project's EMP.
75	BNT	Energy	The development seeks to generate 30% of its energy using solar power, but the BNT feels that the development should aim for 100% solar energy and feed any additional power generated back into Abaco's power grid. This would help to offset the overall environmental footprint of this development. If this development is to move forward as proposed it needs to set an example and aim to supply some renewable energy for the surrounding communities.	As discussed in section 9.13.1 of the EIA Developer has committed in the HOA with the Government to generate a **minimum** of 30% of its energy from solar. Developer is committed to make efforts to generate as much power as possible from Solar and to try and exceed the 30% minimum target by a wide margin. However, generating 100% from solar is not practical given the current state of technology. The Project will have full redundancy power generating capacity from traditional systems. The suggestion that the Project will feed power to the Abaco power grid is confusing given the isolation of the Project. Does the BNT propose that BPL or the Project run power cables for 20-30 miles through the ANP? The Project is committed to spend significant capital to generate independent power exactly for the purpose of avoiding such significant disruption and damage to the ANP and its habitat.
76	BNT	Water	Any reverse osmosis plants that do later become installed should be powered by renewable energy only. The developers should also consider that in the event of a natural disaster, how they can assist the community by supplying potable water as part of a commitment to the surrounding communities.	Like all other power generated in the Project, as discussed in comment 75 above, the Developer will commit significant efforts to generate as much as possible from solar power. However, in all cases the Developer must and will have full redundancy capacity from traditional power generation systems. The Developer has shown very strong commitment to the community and will provide any assistance feasible during emergencies.

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77	BNT	Project Economics	Of particular concern is the financial support for the proposed development – the magnitude of the development exceeds the financing secured leading the BNT to question the ability of the developer to complete this project.	This is not an environmental issue and is therefore outside the scope of this report. The Developer and its consultants are confident that the issue raised here has been taken into account and that the proposed plan for the Project is sound.
78	BNT	Project Economics	The Economic Assessment does not speak to a thorough market analysis nor build an effective case that justifies the need for such a major development. For something this large in scale a more thorough analysis beyond obtaining figures from the US and other countries of the region is needed that justifies that 1) a marina of such scale is needed; and 2) If there is indeed a need for an 18-hole golf course, two large hotels and a water park.	This is not an environmental issue and is therefore outside the scope of this report. The Developer and its consultants are confident that the issue raised here has been taken into account and that the proposed plan for the Project is sound.

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Table 2 The following table summarizes the comments made by Sustainable South Abaco in the April 15th, 2019 and the December 1st, 2020 letter to OPM and the Project response to these comments.

#	Commenter	Topic	Comment	Response
1	Sustainable South Abaco	Abaco Parrot	The paving of the road adjacent to and through the ANP and the proximity of the development to the nesting sites will increase disturbance of nesting areas and result in a population decline of this endangered, Abaco endemic species.	Impacts to Bahama Parrots is discussed in the EIA section 11.4.5 and mitigation in section 15.4.1. It is important to note that most reported nesting sites are located well north of both properties. See Figure 172 in the EIA. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. It is worth noting as that the proposed road improvement will have less biological impact than currently experienced on the Queen's Highway where the majority of nesting sites were identified by the most current research on this matter as referred to in the EIA. The current path through the ANP has previously been cleared to a 30 ft. width, and as a result minimal resources would need removal during road improvements. Preclearance surveys will be conducted prior to commencement of road works to determine needs for relocation and other mitigation.
2	Sustainable South Abaco	Kirtland's Warbler	The proposed development would have direct, negative impacts on this critically endangered bird [the Kirtland's Warbler]	In section 15.4.1, the EIA states, "The key seasons for the umbrella species as outlined in Table 37 below will be considered during construction and operational activity. Extra precautions in association with those established by Stahala will be executed during known breeding seasons." The Kirtland's Warbler is listed in Table 37 of the EIA. This concern is also addressed in our responses to comments 16 and 66 in previous table. Furthermore, stop over sites for the Kirtland's Warbler have been documented on multiple islands in the Bahamas. South Abaco is not the only site the bird has been documented in the Bahamas. The proposed development represents less than 12% of the two-mile area mentioned by the Sustainable South Abaco . Even so The Project will incorporate as much native forest as possible into the development to encourage resident and migratory birds to continue to inhabit the property. Further details about preventive measures and mitigation strategies will be

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				provided in the EMP as-is customary.
3	Sustainable South Abaco	Bonefish	The proposed development, particularly the marina aspect, would also have negative impacts on bonefish	This concern is addressed in our responses to comments 1,3, 4, 5, 26,30 in the previous table. Also, in the EIA section 15.4.3, Marine Resource Mitigation, it states, "With regards to fishery resource management in South Abaco, the Developer will work along with the Department of Marine Resources and the Bahamas National Trust. The development presents an opportunity to work along with such agencies to improve day to day management of these resources to prevent depletion and exploitation by residents and foreigners alike." Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
4	Sustainable South Abaco	Corals	The coastal area of South Abaco provides relatively undisturbed habitat for a wide array of valuable marine resources, many of which require healthy coral reefs to survive. The Southwest coast of Abaco Island includes some of the healthiest stands of critically endangered elkhorn coral in The Bahamas.	This matter is discussed in the EIA section 15.4.3. As mentioned before, dredging will comprise a very small portion of the marina construction. Corals to be directly impacted will be transplanted to suitable sites, as shown in the "Coral Relocation" subsection on page 193. This concern is also addressed in our response to comment 1 and 29 in the previous table. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
5	Sustainable South Abaco	Commercial Scale-fish	Spawning aggregation sites for critically endangered Nassau grouper and mutton snapper exist off southern Abaco. Harvesting pressure by marina visitors on all fished species (including, conch and spiny lobster) would increase, impacting the entire marine ecosystem.	The EIA section 15.4 subsection Fishery Resources states the Developer will make use of environmental windows to minimize potential impacts to bonefish and grouper species. The section also states, "… the Nassau Grouper spawning location is out of the direct area of impact caused by the development for the SW Point Marina". Abaco is already widely known as a sports fishing community and sport fishing vessels with 'state-of-the-art' equipment already very common in Abaco. Further, as will be detailed in the EMP, the Project will work to educate and warn visiting yachts about necessary measures and cooperate with relevant authorities to enhance the supervision efforts and to mitigate any such issue. This concern is also addressed in our responses to comments 1, 4, 5, 11, and 12 in previous table and response to comment 3 in this table. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.

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6	Sustainable South Abaco	Whales & Dolphins	Beaked whales are particularly vulnerable to disturbance from noise. South Abaco provides habitat for 19 different whale and dolphin species, the construction and operations of a marina at South West Point would result in a decline in the abundance of these resident populations.	It should be noted that the use of explosives is not proposed for the dredging of the marina entrance, which effectively reduces potential loud noise impacts to marine resources. This matter was also discussed in the EIA section 15.3. The EIA states, "Noise created during dredging is broadband (below 1kHz) and is not likely to cause damage to marine mammal auditory systems." Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. This concern and specifically in relation to the operational phase is also addressed in our responses to comments 1, 5, 13, 27 and 32 in the previous table.
7	Sustainable South Abaco	Fresh Water Resources	One of Abaco's four aquifers lies between Crossing Rocks and Hole in the Wall. The excavation of approximately 200 acres for the marina at South West Point dug to a minimum depth of 20+ feet could cause significant saltwater intrusion and destruction of this critical freshwater resource.	This concern is addressed in Appendix H of the EIA, which discusses saltwater intrusion mitigation. This concern is also addressed in our responses to comments 10, 64, and 65 in previous table. The marina area is about 110 acres, and it will be dug to between 15-20' depth. The Project will affect only 0.1% of the Abaco freshwater lens which extends from Norman's Castle to Hole in the Wall. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
8	Sustainable South Abaco	Negative Impacts to local commercial fishermen	A marina at South West Point will bring a fleet of private, primarily foreign, sport-fishing vessels using state-of-the-art equipment, that would compete directly with local fishing activity on commercial resources (scale-fish, crawfish and conch) and result in a decline in availability of these resources for local fishermen from local communities leading to socio-economic hardship.	Abaco is already widely known as a sports fishing community and sport fishing vessels with 'state-of-the-art' equipment already very common in Abaco. The likelihood is that the marina will not generate many, or even any, more such vessels but just provide a marina for them. Therefore, the development will not generate any negative impacts to local fishermen but it will generate positive impact on local commercial fishermen by providing a market for locally caught seafood through sale to restaurants and direct sales to residents and guests of the development. The result would be an improvement to the economic hardship many residents of South Abaco face currently. This concern is also addressed in our responses to comment 26 in previous table.
9	Sustainable South Abaco	Fishing guides and lodges	Cross Harbour serves as a primary bonefishing site for South Abaco guides and bonefish lodges	Marine Resource Impacts and the mitigation for this is discussed in section 15.4.3 of the EIA Marine Resource Mitigation. It should be noted that bonefishing requires a permit and the use of a certified guide. Thus, any

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				additional demand will be monitored, supervised and controlled by the relevant authority. The Project will cooperate with any such authority to enhance the supervision efforts as is feasible. The opportunities for local guides, subject to these controls, will increase and improve materially with the ability to offer their services from organized locations in the marina village provided to them by the Project. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. The concern regarding "rental car access" is not clear given that the existing Lighthouse Road is about 2.5 miles away from Cross Harbour at the junction of an already existing path currently used by fisherman for access to Cross Harbour. Although the potential competition to existing hospitality facilities, the lodges, is not within the scope of this document, it is worth noting that the projected price point for the hospitality facilities in this development will vary materially from existing lodges and thus is likely to attract different population.
10	Sustainable South Abaco	Tourism (Abaco Parrot)	The Abaco Parrot is a point of pride for Abaco. Parrot images adorn logos for local businesses (e.g., Abaco Chamber of Commerce). Lack of protection for this iconic species would affect Abaco's tourism image internationally.	EIA section 15.4.1 describes the protection for this species. This concern is also addressed in our responses to comments 43 and 44 in previous table. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. In addition, it is clear that this Project will significantly enhance Abaco's tourism image especially in the Superyacht industry that has been identified by the Government as a particular industry to promote for the Bahamas.
11	Sustainable South Abaco	Tourism (Birdwatching)	A development at this scale in South Abaco would cause massive habitat destruction and loss resulting in declining bird populations and biodiversity and lessen opportunities for Bahamian birding guides.	Section 15.4.1 discusses mitigation for avian and terrestrial species and section 16 in the EIA states, "The removal of terrestrial habitats will be mitigated through the preservation of habitat corridors, replanting with natives, and transplanting of rare endemic or endangered species elsewhere on the property." This concern is also addressed in our responses to comments 44 and 45 in previous table. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary. In addition, it is clear that this Project economic benefits to Abaco including to birding guides will be very significant and a net big gain.
12	Sustainable South Abaco	Historical	In his presentation, Mr. Ben-Zur did not address plans for the ruins of well-documented historical settlements at Lantern Head & Alexandria, and the master plan he presented did not	This concern is addressed in our responses to comments 17 and 41 in previous table. Alexandria settlement is not part of the Project. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.

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			include any concessions for their protection. Damage from a D8 bulldozer to the ruins of the pineapple and sisal plantation at Lantern Head has already occurred during the surveying of this parcel attesting to the lack of concern about the rich cultural value of this site. The planned marina complex completely engulfs the Alexandria settlement without any proposed buffer to ensure its protection.	It is worth noting that the damage described in this comment was done by another developer, on another project in another location and the Developer of this Project has nothing whatsoever to do with the described damage. These facts were well known to the Sustainable South Abaco group and this comment is gratuitous.
13	Sustainable South Abaco	Hunting	The areas under consideration for development contain one of the last remaining and most prolific concentrations of berry-bearing trees on Abaco and are a key food source for Abaco parrots and white-crowned pigeons. As such, this area has long been considered prime territory for Bahamian pigeon shooters and other hunting activities (e.g., wild boar) enjoyed by Abaconians.	Hunting within the Project sites will, of course, be banned. It is private land and the decision by the owner to not allow hunting should not be controversial. Ample hunting grounds lie outside of the boundaries of the Project sites. The Project supports the traditional practice of hunting, but not the destructive practices employed by some members of the hunting community as evidenced in the area. In addition, if deemed important by BNT or others, the Developer is willing to discuss creating other areas in the Forest to encourage and facilitate hunting activities in an organized and supervised manner.
14	Sustainable South Abaco	(3) Financial Sustainability & Credibility Concerns		This is not an environmental issue and is therefore outside the scope of this report. The Developer and its consultants are confident that the issue raised here has been taken into account and that the proposed plan for the Project is sound.
15	Sustainable South Abaco	Financial capacity and opacity	Mr. Ben- Zur's plans for financing this project are light on detail and highly speculative.	This is not an environmental issue and is therefore outside the scope of this report. The Developer and its consultants are confident that the issue raised here has been taken into account and that the proposed plan for the Project is sound.
16	Sustainable South Abaco	Relevant project experience	Mr. Ben-Zur has no experience in resort development that we are aware of, other than managing two small hotel renovations in Florida.	This is not an environmental issue and is therefore outside the scope of this report. The Developer and its consultants are confident that the issue raised here has been taken into account and that the proposed plan for the Project is sound.
17	Sustainable South Abaco	Labour scarcity	Due to Hurricane Dorian and the resultant rebuilding work that is going	This is not an environmental issue and is therefore outside the scope of this report. The Developer and its consultants are confident that the issue raised

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			on in Abaco and Grand Bahama, there is actually a shortage of labor on these islands, and wages are increasing as a result.	here has been taken into account and that the proposed plan for the Project is sound. It is however worth noting that this Project will start increasing the extent of construction and thus the number of construction employees just as the increased demand currently enjoyed by all these employees will start to wane down. Indeed, without this Project many of these employees who are currently gainfully employed may find themselves unemployed. The timing of this Project from this point of view could not be better.
18	Sustainable South Abaco	Economic Impact Assessment	This document is simply an abstract projection of what a similar resort in the US or the US Virgin Islands might look like under ideal circumstances.	The Economic Impact Assessment was produced by a highly qualified, industry leader, CBRE, based on best practices in the industry for such reports. Any changes to the scope of The Project are not material. Even if there was some change in the numbers the projected economic impact of $2 Billion would not be materially changed. The Project is committed, due to practical reasons and community engagement reasons, to provide Abaconians priority in available job opportunities and will deploy significant resources to train and develop qualified locals. However, job opportunities for Bahamians from other islands will be available too and should not be ignored. Furthermore, The Project provides entrepreneurial opportunities for locals too and has allocated $7,000,000 to assist Bahamians to take advantage of these opportunities. Fly-fishing and bonefishing fishermen will all have enhanced opportunities partially supported by the $7,000,000 fund to establish their businesses in the marina and generate significant improvements to their income by selling premium services to wealthy customers that The Project will bring. Commercial fishermen will have additional opportunities to sell locally and to high paying customers. The effects generated by the Project on spawning of bonefish were discussed in detail in responses 1, 4, 5, 11 and 12 in table 1. Suffice it to say that these effects are projected to be of no material significance.
19	Sustainable South Abaco	Engineering concerns		The Flushing Analysis for the marina is attached to the EIA as Appendix D. Sustainable Abaco detailed comments about the Appendix were responded to in comments 49-61 in Table 1. The concerns expressed here have been addressed in those comments.
20	Sustainable South Abaco	Golf Course	contrary to the mission of being an environmentally friendly development, The Project includes the construction of a golf course	See response to comment 25 in the previous table for discussion on golf course. The golf course will not present severe environmental impacts to the ground and coastal waters of South Abaco. The golf course at LH is far removed from coastal waters and intentionally positioned behind the high coastal ridges on the property. No ground water will be used for irrigation of the golf course, only recycled grey water. The golf course will be designed with an impermeable membrane beneath the soil, grass and ponds which will collect and redirect all

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				irrigation water used on the golf course to storage tanks for re-use in irrigation activities on the golf course. Environmentally friendly fertilizers and chemicals will be utilized during golf course maintenance, and regular water quality monitoring will be conducted during golf course operations.
21	Sustainable South Abaco	Water, Wastewater, Waste, & Power	Although Mr. Ben-Zur presented his intent to develop a self-sustaining development, he was unable to provide details of wastewater and solid waste management plans, nor the anticipated quantities of water and power required or associated infrastructure.	Wastewater concerns addressed in the EIA section 15.7 and comments 6, 23, 24 of table 1. Waste Management treatment discussed in EIA Section 15.6 and comments 48 of table 1. Power discussed in EIA section 9.13.1 and comment 75 of table 1 Water discussed in EIA section 9.13.2. and comments 8 and 9 of table 1. Energy, Water and Wastewater demands are described in tables 19- 25 in section 9.13 of the EIA.

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Table 3 Only one comment was received from a member of the public, a Ms. Lesley Brickman, through the online portal as is shown below together with the Project response.

#	Commenter	Topic	Comment	Response
1	Ms. Lesley Brickman	Economics	Please halt the progress of this project at least until the world economies level out after the current Covid pandemic has played out. There are so many empty hotel rooms in the Bahamas now, and we don't know what the world travel scene is going to look like. The current plan for that area may not at all suit the needs of future tourists	This is not an environmental issue and is therefore outside the scope of this report. The Developer and its consultants are confident that the issue raised here has been taken into account and that the proposed plan for the Project is sound.
2	Ms. Lesley Brickman	Marine Mammals	In the meantime, there is important marine mammal surveys ongoing by BMMRO in South Abaco. They are studying marine mammals in a unique environment.	The Developer does not intend to prevent BMMRO from conducting their research. Furthermore, section 15.4.3 in the EIA refers to Marine Resource Mitigation which includes the subsection Marine Mammals and Dredging. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.
3	Ms. Lesley Brickman	Tourism (Bonefishing)	There is a viable bonefishing industry in South Abaco. Let's build on these assets for future tourist development. The tourists are looking for a more interactive environmental experience.	The Developer will work with the relevant management authorities for the MPA and the bonefishing industry. Section 15.4.3 in the EIA refers to Marine Resource Mitigation which includes the subsection Fishery Resources. Further details about preventive measures and mitigation strategies will be provided in the EMP as-is customary.

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H. Residents of South Abaco Petition of Support

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TYRSOZ FAMILY HOLDINGS LTD - PROPOSED SOUTH ABACO PROJECT

Please sign below in support of the Tyrsoz Family Holdings Ltd. proposed S. Abaco project. Thank you.

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	149	Janet Wedgewood	577-0491	
	150	Tean Lowe	699 3060	
	151	Jodell Roberts	328 3691	
	152	T.R. Albury	475 1892	
	153	Judy Albury	5770274	
	154	Ray Albury	5770274	
	155	KathyAnne Sawyer	366-2317	
Kay G. A	156	Kay Gates	366 4009	
[signature]	157	Peter Gates	551.7154	[illegible]@hotmail.com
	158	Kim Rhoden	577-0408	
	159	Kimberly ~~Rodgers~~ Roberts	458 0191	kimberkitty[illegible]@gmail.com
	160	Lashue Etienne Mpke	458 5525	
	161	Lester Bootle	458-8951	
	162	Lloyd Fox	359.0511	
	163	Loretta Pinder Sands	375 8237	
	164	Lydell Ferguson	577.1228	
	165	Margo Albury	577.3279	
	166	Maria Roberts	367-4246	
	167	Ryan Roberts	577-1397	
	168	Marques Williams	357 6501	
	169	Mary Dames	458 7637	
	170	Mervin Drakes	455 5528	[illegible]@hotmail.com
	171	Michael Knowles	366-2067	
	172	Michelle Lowe	813 5264	
	173	NoDralien Heild	5598725	
	174	NormaJean Reilly	5770087	
	175	Ozzie Parker	3576505	

(175)

176	Patrice Roberts	434 8838	
177	Patrick Joseph	458 4352	
178	Paul Curry	559 8102	
179	Leslie Thompson	375 3569	
180	Raine Roberts	477-0707	
181	Ramon Estevez	375 4000	
182	Ronnie Knowles	557 9514	ronaldknowles@gmail
183	Sandra Albury	475-5951	
184	Samantha Kennedy	475 2010	
185	Shawn Deveaux	458 5173	
186	Sharon Albury	366-	
187	Shannon Etienne	391 5956	
188	Shawn Stowe	577 6526	
189	Sheila McKenzie	367 0334	
190	Ryland Owens	475 0716	my poems my life@yahoo
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194	Yolanda Levy	437 6322	
195	Zelda Simmons	359 6934	
196	Violet Roberts	366 9317	
197	Ricky Sawyer	366 9317	
198	Trevor Sawyer	366-	
Russell 199	Terry Russell	458-0303	
AB 200	Alexander Bain	375 3769	
201	Donald Antoine	425-1677	
202	Peter Watson	804-4930	pr.watsonville@gmail.co
(203)	David Collie	375-9371	

Gomez

203	Barry Gomez	551-7345	
204	Stafford Albury	375-1326	458-9231
205	NICKENSON JEUNE	456-0154	
206	Kymerlie [illegible]		
207	Devontae Simons	458-3555	
208	Timothy Russell	525-7828	
209	Gloria Russell	458-0965	
210	LEVAN Russell	475-3017	
211	LEO Russell	816-1955	
212	Kedisha Russell	475-0439	
213	Marsha Walker	458-0639	
214	Sheila Gomez	466-9462	
215	[illegible]	475-6145	
216	Javas Williams	375-9367	
217	Joseph Bodie	458 2957	
218	Kirkin Russell	458-9129	
219	Leon Russell	801-6678	
220	Albino Simons	441-3123	
221	Johnny Walker Jr	458-5702	
222	Elliot Burrows	4587692	
223	Stanley Carroll		
224	Tony Russell	829-3468	
225	Cordero Fynes	366-3227	
226	Leon Carroll	458-3691	
227	Jacquelyn Estevez	477-5799	JACQUELYNESTEVEZ
228	Amelia Burrows	458-0874	
229	Valentino Mitchell	458-0964	
230	Ireanna Burrows	819-9568	

TYRSOZ FAMILY HOLDINGS LTD - PROPOSED SOUTH ABACO PROJECT

Please sign below in support of the Tyrsoz Family Holdings Ltd. proposed S. Abaco project. Thank you.

SIGNATURE	NAME	CELL	EMAIL
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3 [signature]	~~WENDY GRAY~~ WENDY GRAY	436-9511	wendygray 12 @gmail.com
4 [signature]	Daiesha Lightbourn	458-9480	
5	CHARLES W. Smith	458 1198	C-WASHINGTON SMITH @HOTMAIL
6 [signature]	Demetrius Heymour	828-6162	~~OR~~ Heymourdemetrius @gmail
	Catherine Simms	810 9305	
7 [signature]	Dennis Cunningham	455 1924	denniscunningham78@gm
8 [signature]	Brian Huckley	577-2226	qualitypoolsolutions NBC @...
[signature]	Allison Simms	441-3123	
9	Carlis [illegible]	819 9622	C M. pain[illegible]
10	RALPH DAMES		CARLS[illegible]@gmail
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13 [signature]	Raquel [illegible]	475-5524	
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15 [signature]	Darron Sands	466-1897	darronsands@gmail.com
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20	Katherine Sicard	428-5289	
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	Darden Roker	458-7366	[signature: DRoker]
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23 [signature: FBain]	Faith Bain	554-8473	
24 [signature: D. Cornish]	Donae Cornish		

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30		Shalisa Burrows	558-4390	
31	[illegible]	Deneisha Dean	810-6083.	
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42	Michael Bowe	816-4597	
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43	Pamela Burrows	367-4758	
	Tianna Burrows	367-4758	
44	Vernette Burrows	458-6378	Vburrows81@hotmail.com
	Barbara [illegible]	551-7025	
45	Anioka Lightbourne	475-0700	anioka21@outlook.com
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	Anthon Davis	458-7345	anthon_davis34@hotmail.com
47 [signature]	Elvemore Bemesla		
	Terrance Burrows	551-4262	T.B.
48	Stephon Simms	475-0411 366-4056	S. Simms
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49	Steven Bowe		
50 [signature]			

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[illegible]	Ryder Swain	5515722	
52 [illegible]	Valeria B. [illegible]	577-0054	
	Kendal [illegible]		
53 [illegible]	Alexander Rolle	475-6317	
[illegible]	Blaze Pinder	475-3372	
54 [illegible]	Leonardo Burrows	471-0972	
Jeff Rolle	Jeff Rolle	315-9013	
55 [illegible]	Meshelle Lightbourn	475-0020	
[illegible]	Joshua Swain	4753561	
56 [illegible]	LEONA GREENE	699-4022	
[illegible]	Jerrad Swain	5515722	
57 [illegible]	CLAUDIA PINDER	458-1875	
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	Tyrone Saunders	4311815	
63 [illegible]	Tameka Adderley	551-4323	
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Pratt	Tonia Pratt	466 - 4572

TYRSOZ FAMILY HOLDINGS LTD - PROPOSED SOUTH ABACO PROJECT

Please sign below in support of the Tyrsoz Family Holdings Ltd. proposed S. Abaco project. Thank you.

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5		8 Ezra Fox	359-6969	
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		11 Richard Walker	8109235	
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		25 MARK HENRY	551-9870	
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16		28 Ricardo Pinder	551-1310	
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17		30 [redacted]	[redacted]	[redacted]
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		44 Morreece T Gibson	458-6481	
25		45 Terry Addeiber	559-8884	Sandy Point Abaco
		46 Mercy Addeiber	475	Sandy Point Abaco

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27		49 Dolly Russell		
		50 Jamal [illegible]	5515722	
28	[illegible]	51 [illegible]	458-5361	
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		62 Lottie Rolle	577-3915	lottiepinder1313@hotmail.com
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45		81	Valencia Edgecombe	423-0516	
		82	Dominique Deveaux	475-4541	
46		83	Jumena Davis	806-8039	
		84	Ella FARRINGTON	427-9494	
47		85	Sherell HUNT		
		86	Anthony Moxley	577-1717	
48		87	Ashton Cornish	475-3080	
		88	Augustine Williams	475-0665	
49		89	Avalon Miller	577-5318	C_Avalon@Hotmail.Com
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50		91	Basil Bain	375-9935	@
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51		93	Billy Roberts	806-2767	
		94	Blair Saunders	577-5829	

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	97	Candy [illegible]	[illegible]	
53	98	[illegible]	[illegible]	
	99	Carnell [illegible]	[illegible]	
54	100	[illegible]	458-[illegible]	
	101	[illegible]	[illegible]	
55	102	[illegible]	458-[illegible]	
	103	Chandore [illegible]	[illegible]	
56	104	Charles [illegible]	[illegible]	
	105	Ryan [illegible]	458 [illegible]	[illegible]
57	106	Channarne [illegible]	[illegible]	
	107	[illegible]	[illegible]	
58	108	Chris [illegible]	359-6876	
	109	Chris [illegible]	[illegible]	
59	110	Chasin [illegible]	[illegible]	
	111	Clarazion Anderson	864-[illegible]	
60	112	Collin Clear-e	441-3026	
	113	Crystal Spicer	475-3957	[illegible]
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64	120	Akira Martin	427-0179 364-2140	[illegible]
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