September 14, 2007

FALMOUTH PUBLIC MEETING ON ENVIRONMENTAL IMPACT ASSESSMENT ON FALMOUTH'S PROPOSED CRUISE SHIPPING DEVELOPMENT

Resumption at 5:45 p.m

MR. ROYLAND BARRETTE: Good afternoon,

we are about to start. Please pay a little attention. This evening we are here at the invitation of the Port Authority to examine an Environmental Impact Assessment in relation to their proposed project to develop the Ports of Falmouth, and I, as Custos of the parish of Trelawny, would like to heartily invite you all here to this meeting, and especially the Port Authority and their representatives.

Now, as you know, once upon a time, not very long ago, this port boasts itself as the busiest port in the Western Seaboard of America, would you believe that, the busiest port in the Western Seaboard of America. It had more ships coming into the port than by far any other, and that stage was brought about by the industry of the people of Falmouth and Trelawny, in that, those were the days of Sugar Company, and Trelawny had about eighty-eight sugar factories. They produced so much rum, sugar, molasses, that many many ships had to come into the port to take away the goods to the United Kingdom and to the rest of the world, people, they trained themselves during the days of slavery, trained themselves to the point of virtual perfection, as slaves as they were, they had to be paid. They paid them; they paid the slaves, they were called urban slaves and they manned the ports for a very long time until economic circumstances all over the world began to change and the port became irrelevant.

Now, the Port Authority has taken upon itself to make this bold move, and that is to reincarnate as it were, not only the ports of Falmouth but the attendance and glory and historical heritage of the town of Falmouth. As part of their application they had been called upon by the Environmental Authority to do an assessment, and that has been done, and it has been placed in various areas for members of the public to see, because I know a copy is at the library, at the Parish Council and other places.

The Environmental Authority has ordained that the Port Authority have a meeting like this to give the public notice, mention how many days notice, three weeks notice minimum, and ask the people to come to listen to the report and to ask questions about it and get whatever assurances there are to be gotten because the development has to meet the needs of the local people, and that's not a bad idea, isn't it? Good idea. So, I am very impressed with the attendance and we hope that we will have a vigorous meeting, that questions will be asked and proper answers given, and that we leave here at the end of the evening or night ad idem to this very bold project.

I would like to make one apology,

Mrs. Marissa Dalrymple has accepted an apology that she is not able to attend and I convey it to you. I want to let you know that this notes of this meeting will be taken for posterity, in other words, anybody say anything in here it will be noted both ways, it will be recorded and it will be noted by electronic device, and it will be kept for posterity. Anybody want to bring up anything in the future they can consult with it but for my part and on your part, I would like you to give the Port Authority of Jamaica a very big hand for this very big project.

(A P P L A U S E)

And in that vein I would like to introduce to you, to address you for a short while, Mr. Noel Hylton, who is the President and CEO of the Port. Mr. Hylton.

(A P P L A U S E)

MR. NOEL HYLTON: Thank you very much,

Mr. Custos. Ladies and gentlemen, I feel very happy to be here this morning and to see how many people turn out for this meeting. Just before I say too much about the project, let me just say to you, that the Port Authority is a Regulatory and a Development Organization. We regulate all Seaports in Jamaica and we develop Seaports and development that takes place along the sea, and, therefore, we have been developing Seaports and other facilities all over Jamaica for the last thirty years. Our principal function is to ensure the safety of vessels in Jamaica, and the security of vessels. We have developed the Port of Kingston, which you probably have heard about, the hub port, which is a transhipment port, and is the largest hub port in this region, and when I say this region, I mean including the United States of America. Our port...

(A P P L A U S E)

Our hub port is ranked number forty-eight in the world; of the world's top one hundred ports we are number forty-eight.

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So, we then develop the Mariner in Port Antonio. I don't know how many of you may have seen the mariner in Port Antonio, as a first phase development, and we are proceeding to carry out the second and third phase in Port Antonio. Our object in Port Antonio is to bring back Port Antonio to its glorious days when it attracted the top-end of the tourism market, and so we are pursuing to put Port Antonio back in that position, and I am sure that we will be very successful in doing that.

We developed the ports in Montego Bay, in Ocho Rios and so on. And during the last three years we have been dealing with Cruise Shipping in Jamaica, and we felt that we should move further to develop cruise shipping further in Jamaica, and to make cruise shipping one of the big tourism attractions for Jamaica.

We -- you probably know that we hosted the world's largest ship, which was 'Freedom of the Sea', and then we hosted its sister ship, probably a year after. There is a new ship that is being built, which is called 'The Genesis of the Sea', and this ship is capable of taking ten thousand (10, 000) passengers and crew, and we would like to host that ship in Jamaica.

So, one Sunday morning I drove along the North coast and on arriving in Falmouth I went over the wharf area, actually I had to jump the wall.

(L A U G H T E R)

And I looked at the place and I thought this is such a beautiful place that we should develop. Looking at the historical charm of the place and so on, I thought here it is. So, we invited one of the major shipping lines down and we walked this whole town on foot. We walked the whole town, and we thought that there was sufficient materials here to reconstruct the waterfront of this city to bring it back to its original glory.

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And that morning when the shipping line and myself walked this place, we sat down and we said, let's do it. And that was the decision, and so we decide to do it. But we at the Port Authority have a policy that whatever we do and whatever area of Jamaica we work in we need to have the community with us. We need to have the community involvement and we need to listen what the community is saying because we don't know it all, and we are one of those organizations who know that we doesn't know it all, so we have always been consulting with the community one way or the other, either on a one-to-one basis, either on a group basis, and so forth.

We now come to the position where we feel, subject to all the Government approvals, and we, like anybody else, have to obtain all Government approvals, all the building plans approvals, all the environmental approvals and whatever those approvals are. We are not exempted, so we have to obtain all these approvals.

One of the things we do at the Port Authority, and do it very well, is to get the best people in the world to advise us. Whatever we do at the Port Authority is always concentrating on getting the best technical people in the world, and today, if you go to Kingston over this weekend, and look in the ports you will see four new cranes that just arrived today on one ship, and those cranes are the most modern cranes in the world, they are there and they will be unloaded over the next week. We invite any one of you that come into Kingston to come and have a look at them.

So, we looked around and say who are the best people in the world to advise us and to do this port, and we came, it was not difficult, because when you are good everybody know about you, just like Asafa Powell.

(L A U G H T E R)

So, it was not difficult to come up with the best people. So, we came up with three organizations, and I will just briefly tell you about these organizations. The first one is MOTT McDonald. An organization name MOTT McDonald out of England, and they are out of England, and they are experts in the type of things that we proposed to do in Falmouth; and MOTT McDonald is one of the world's top players in delivering Management, Engineering and Development Solutions for their clients. They work in a hundred and forty (140) countries with eleven thousand (11,000) staff worldwide. The key sectors: Transportation, Energy, Buildings, Water and the Environment, Health, Education, Industry and Communication. I think that speaks for the breadth of their involvement in industrial development all over the world.

Then we look around the United States because we didn't want to give everything to England, and we came up

with a company that is called Idea Ink, it is an International Design and Entertainment Company. It has developed story lines and thematic approaches for destinations all over the world, and is currently developing port projects in four other Caribbean Islands and Mexico, also a consultant to the world's two major cruise lines, Royal Caribbean and the Carnival Cruise Lines. Its president is with us today, Mr. Hugh Darley, he is the Projects Vision Planner. He is a past Walt Disney Imagineer and has experience in developing projects in over 70 countries. He has developed concepts for the Walt Disney Company, Universal Studios and Paramount Marks, and, of course, development project for us here in Falmouth.

Then for which everybody is concerned with in Jamaica, the environmental work, and it's a Jamaican Company, which is called TEMN, Technical and Environmental Management Network. They provide comprehensive services in the field of Environmental Management, including Environmental Impact Assessments, Environmental Audits, Feasibility Studies and Waste Management, all of which are geared towards sustainable developments. Its team of engineers, planners and scientists has combined knowledge and experience that extends across the broad spectrum of environmental concerns. They have worked on several projects throughout Jamaica and other islands in the Caribbean and we are also pleased to have them here.

If this project goes off, we hope that the project will employ in the first instance in the construction stage about six hundred (600) people, and during the operational stage about a thousand (1,000) people. We -- depending on what happen here today and the other regulatory approvals, we hope to start this project as early as possible because we have a deadline. Our estimate is that we will finish the first phase. Now, remember the first phase of this project by August '09, and guess what, the first ship will arrive here in November '09. So, we have booked the ship for November '09.

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So -- and, that ship, I believe when it docks here, it's probably the first place in this region that it will dock, apart from I believe Miami where, of course, it will be coming from. It will be the largest ship that ever docked anywhere in the world. So, you will have an opportunity.

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And I won't keep you too much because the other technical areas, but when you look at the -- what you are going to see, you will observe that the ship stands way above any building in Falmouth. So when the ship docks here you will not see any building you will only see the ships. Thank you very much.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Thank you very much, Mr. Hylton. You know, I have been given a brief to read before I came here, and I think that the size or the challenge to this project can be judged by the fact that one of these mega boats can accommodate fifteen thousand (15, 000) passengers, fifteen thousand (15, 000) passengers is exactly twice the amount of people who live in the town of Falmouth. So, you can just imagine the sort of infrastructural work that would be have to be done to the town in order to accommodate an onslaught of people coming from time to time, and by the way, the Port is going to be built that the gate can accommodate more than one of the ships. At this time we are going to call upon the gentleman from idea incorporative Mr. Hugh Darley, Vision Planner and President to address us. Here is he. Mr, welcome.

(A P P L A U S E)

MR. HUGH DARLEY: Good morning. It is a pleasure to be here, and I have had the opportunity for the past year speaking to many of you, from some of the projects that were proposed in the past, and the thing we are going to do this afternoon is to talk about what a vision plan is. I will tell you what a vision plan is.

A vision plan is like a story and today what we are going to have is the beginning of a conversation that we are going to have with the community of Falmouth over the next two years while we develop this port. I was very fortunate to grow up near Savannah Georgia, and Savannah and Falmouth have a lot of things in common. Primarily they were planned in the same year, 1733. So, we also are coming here to look at the heritage and the culture to take a part in telling a story, and the story is not our story; I think it's very important for the people of Falmouth to understand, this is your story, and what we are doing in the vision plan, is we are allowing you to tell your story to what will become one of the pre-eminent ports in the world.

The Genesis class vessel which has been discussed today is the world's largest cruise ship, it will have the ability to bring ten thousand (10,000) passengers and crews, and for those who have been familiar with vision class ships which probably visit Jamaica, it would be the same as seeing four of those ships in port at the same time, so that you can understand, we have taken great care in planning our vision plan so that you can absorb these future guests, and not having overpower the community, the charm and the human scale which make Falmouth such a location as Mr. Hylton said, for us to showcase Jamaica.

The first slide -- I am going to do this myself I think. The -- first you will see in the logo, the logo is design also to help tell the story. This will be the logo that we will use to market and tell the story of Falmouth. The idea with our story is to begin with the heritage and the culture, which makes Falmouth at one time, was the pre-eminent ports in the world. The logo takes on a Georgian-style in an year when Falmouth was in its heyday, and usually the story, because that's how we want to sell Jamaica now. From this standpoint Falmouth has become the historic port of Jamaica. The first drawing here is our land used diagram, our vision plan then took into account the design of the waterfront, what you see here looking in brown is the reclaim soils that we are going to re-establish. The red line that you see that runs along there, even with the existing walls, that's the historic waterfront from Falmouth. We went back in history and help determine where that actual line is. So, you will see in the past seventy years or so you

have actually had a great deal of erosion. Particularly for those of you who are familiar with where the Hampden Wharf is, now you will notice the sea actually is against those existing building walls, which are located in this area right here. So, what we are doing is we are re-establishing the shoreline and building a world class, first class MOTT McDonald design seawall and marine infrastructure; this infrastructure will not only secure the almost mile-and-a-half of shoreline but will also make sure that it helps us protects us against future storms and changes in the environment. To do that you will see the berth located to the east, we did many strategies, I believe there was actually twelve models that located the pier from anywhere within the existing Port Authority House, all the way to the far eastern end of Upper Harbour Street. The location allows us also to have a dredge line, which you see here, which is the dredgement of the old harbour basin, which allows us very little impact into the environment, which we will discuss later. The idea is that the ship is going to make its turn outside of the reef so that the ship can come in a

straight line, one bow first, one stern first, which allows it not to have a great deal of motion inside of the reef, which that limits the amount of silt and change in the water, which will allow the ship to come in at a mere three knots, so you will see it coming for quite some time. It is going to be moving very slowly in. What it does it moves in directly against the berth and then slides over using its bow first against the edge. So, it will come in very easily and just push itself against the berth. To do that also we had to study all of the land uses related to the waterfront. You will notice some locations here, the Scotia Bank is located here, the existing courthouse is located here. The Port Authority has actually created about a thirty-four acre piece of parcel or land along the waterfront, which it will develop into the Phase 1 of the project. To support that we have also applied the ninety acres of the Hague Properties, which is the fish farms and the rice pottage, which the seaports are located.

The idea here is that we are going to build a new roadway, which I'll show you in a transportation plan. One of our concerns is when is this ship comes in the morning it is going to carry in those ten thousand people, as you notice there are two ports, so your location could also bring in a second ship which could bring in between fifteen to sixteen thousand guests per day coming into the Falmouth. To allow us good facilitation of that, we have actually had to create a parking structure which will allow thirty-five hundred guests in two hours to exit the port in the morning, so to do that we have created a new road system with some round-a-bouts because we didn't want to interfere with all of the downtown, with what we think is the charm of Falmouth, those streets were all designed in the days of carriages, not in the days of fifty-five passengers buses. The idea is that none of that bus and heavy traffic would actually use the interior roadway. We have created a roadway which will allow us to get those guests out to their great house tours and out to the eco tours, and out into all of the Trelawny Parish, and then at the end of the day we will bring them back in to have an opportunity to blend into the town on a more gradual basis.

You will see located here also, is the Upper Harbour Street, and the idea is to close pedestrian out, and I will show you that in the plan. The idea is that on a ship day we would use ballots that will be placed in the roads, and we plan that to be a new break street and that becomes a pedestrian passageway from the cruise dock into the city of Falmouth.

The next land use plan actually shows the building configurations and how we propose to develop the port. Again located where the pier is, here guests would come and travel in a trolley, one of our issues is, we are going to develop a downtown trolley system to support locals if you familiar with San Francisco you might be familiar with trolleys that are used in the Caribbean, during the Eighteen and early Nineteen Hundreds. The trolley will actually allow you to be able to bring some of the people into towards the terminal building. Once in the terminal building the properties here will be developed into what we call Market square. Market Square will be the bulk where the retail centres are and there will be a multitude of shops,

and also a downtown almost like the town centre which is part of the whole of the Upper Harbour Street design here. The parking will be located across so the guests will come into here, the pre-book tour come through the terminal building and enter Market Square, they will walk across the pedestrian street into the large parking complex here, taxis here, general parking here and bus parking on the side. They will then exit the roadways leading out to where Glistening Waters is and also leading out to the highway to travel both east and west on the North Coast Highway.

There will also be a requirement here to develop a recreational centre and we have got a cricket pitch. I was accused of being a cricketer, but there is a cricket pitch, recreational area design it's almost like parking lot for local residents.

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There is also the need for us to develop new commercial areas, and the reason is, the amount of traffic and the growth of Falmouth based on the development of this pier is going to be pretty significant. So we had to plan

between 250 and 300 thousand square feet of retail to allow the community businesses to have new places to operate and for any businesses that needed to be relocated from along the Upper Harbour Street. The parking lot here will be used for downtown businesses as well as open parking for employees that work within the port complex. On the west end of the property, you see the west end parking, which is beyond where the Scotia Bank is. We actually have a station here, which is all of our water transportation. The hotel also being built in Oyster Bay will bring a water taxi over to this area and we will have all of our water excursions go out from our pre-book tours from there. We also -- existing -- we have actually created a trolley station so the trolley will actually run all the way along the water front. Eventually we would like to see that trolley run all the way up Market Street and actually carry guests all the way to downtown Falmouth. The water square is under redevelopment, we have the Heritage Trust, we have been working with them to also help incorporate all of the historic structures, and one of the nice things about our

programme is that we are building all these historic structures as part of our programme. The Hampden Wharf area that you see here is the current warehouse, we are actually leaving it for Phase Two, because we need to take more time in developing how we will actually use that parcel as well new parcels along what is currently the Fisherman Beach Area fill. You will see we fill all of that in and for future retail.

The transportation plan is very important. Again we did not want to overpower the downtown streets and change the charm which we really think makes Falmouth a unique destination for the cruise passengers. The idea is the guests can actually disembark the ship, come in through the terminal building and then exit into the taxi lot, into the bus lot and then exit using these routes out of downtown. When you come back into the city we bring them back into Upper Harbour Street. They have an entrance like; again this is currently where the existing Foundry Yard, courthouse and the old historic wharf. What we are developing here is a commercial area here that will have all the high-end pedestrian travel. They can depart at the waterfront and then enter the city at any point along the waterfront. The idea is that we also don't want any of this traffic to have a direct impact on downtown, we want to pedestrianize as much of downtown as possible so that will allow our guests as also the residents to move freely without having a high volume of traffic. There is no way we can take the number of buses, for example, approximately a hundred and ninety large buses will leave the port at any one time in the morning in those two hours. Then you will also see the residential and the commercial opportunity to develop the commercial centre here, the parking lot and again the recreation area.

This is a view looking from the northwest; you are actually looking in, you will see the waterfront being developed. This is the new land between seventy-five and ninety-three degree reclaim soils, these are two replica ships that we plan to have at the wharf to tell the story of Falmouth. One of those will actually be a permanent museum ship that will stay in place. One will be an

excursion vessel and we have actually contend and are working and hopefully, we will acquire one of the Disney Ships from Pirates of the Caribbean. That will create an historic wharf along with some shops; the port also will be redeveloped working with Falmouth Heritage and then we are going to develop a road tour, an attraction component, but this is a view looking into Falmouth and the future development. You will also see the trolley car here that will actually run along lines. This will be an electric vehicle and it will run the operating hours, and what's unique about our port here, is the port doesn't open and close until the ships come. This is a part of the city of Falmouth, it will run on what we call 24-7 clock. It's always open it, it won't open and close with the cruise ship. With the development of the hotels along the North Coast we feel like Falmouth becomes the downtown for all of Trelawny. We believe that this will be open late into the evening or early morning hours just as any city where there is redevelopment for industry or commercial area downtown.

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The modes of transportation are important. The trolley line will be established to allow us to have hop-on hop-off traffic for anyone within the development. It will not be a paid transportation. You will actually hop on the trolley like just like you do in the San Francisco or other urban environments and travel that trolley throughout the development. Pedestrianize: We are going to pedestrianize as much of downtown and all of our properties as possible so guests might have the open-ability to walk around the entire property.

Taxis location: A dedicated taxi lot will be developed for those pre-book tours as well as independent tour taxis, a carriage horse and buggy, one of our biggest city tour projects is going to be horse and buggy, and for those of you who have been in some of the other destinations in the Caribbean, much like in Nassau which this picture is on Bay Street, we plan to have some 36 horses and carriages that will run up and down Upper Harbour Street and into the downtown to provide a city tour. We will also have a dedicated bus lot, and again we are going to keep all those busses out of downtown. We will have the traffic go in and out of those parking structures and again have all the visitors downtown by pedestrian means.

The building, really quick, I wanted to just show you the look. We have been working very hard with the Jamaica National Heritage Trust and working with Falmouth Renewal in developing Georgian Buildings. This is the Terminal building that will be owned and operated by the Port Authority. This is the port of entry, it's a great featured building, we wanted to have it erect up nearer to the existing courthouse which we hope to also develop into a museum and a civic opportunity. The idea is that when you come in through the terminal, this is where all your clearances will happen, the Port Authority, customs, the immigration and services will be in this building. It sits about a meter above the existing grade and it will allow you also to have handicap ramps, but it's also a great place to do special events, as it will also sit on what we call Market Square. You will see in this picture here especially where

the guests come down, they walk through, the trolley will drop them off at the back of the building, they will walk through the terminal and then enter into Market Square or into Merchant Square.

The other building is the services building. The services building is developed for twofold, one, it provides all the services for the port operations and it will allow the Officers of the Port Authority and it will allow us to bring in cargoes. It will be a protected area as part of the inbound and outgoing cargo area. This is developed as the old wharf buildings, very similar again in the Georgian-style, this will also allow us in the future to possible homeport which will allow vessels to actually leave from here where guests can fly into Montego Bay, come and spend a few nights before cruise and a few nights after cruise and actually leave from the cruise dock here as the homeport for facilities. The services building is located here, we will also be able to facilitate again ingoing cargo and services for provisions for the ships.

The view here is of Merchant Square, again we talk about the ships, they are nineteen stories tall, 'Genesis' will be nineteen stories tall, and again you see in the background there. The idea was, we created these Georgian Squares with the buildings so that the pedestrians are there you don't get the sense of this big ship being there but you get more of this imminent scale so we have located the terminal building at the end and we have created the great Georgian Square between these two merchant buildings. Again, if you look at Merchant Square as a whole, this is where the primary part of retail will be located, about a hundred and fifty thousand square feet of retail shops, cafes, restaurants and even some things that might open into the night, you know, having nightclubs, cafes and clubs. The buildings that are predominant here, again we are designed along the water, style Georgian architecture, these buildings will also allow and have an arcade that run all the way through, so if you are standing in the upper harbour you might actually be able to look through to the water. The idea was to keep it also open so no matter where you were in the development

you have the idea that you are on the waterfront; so we have actually taken the opportunity to make this a real waterfront property. The three buildings again, will maintain most of the retail on the bottom floors, these are offices not only for the stores and merchants below, these were very much as the then traditional, you have shops downstairs, your offices upstairs or your residences. This is a view looking at what we call Union Street, North Union is a new street that we have created about where the Union Wharf is, so you are looking out to the water, you are looking north and this is one of the merchant buildings and these are buildings One Hundred North Union, Two Hundred North Union, and Three Hundred North Union which I will show you in a moment. This is the central trolley location where most of the guests would walk down between the merchant buildings, board the trolley and then travel down the waterfront or travel down to the parking lots. Other buildings are located along the trolley station. The trolley station is actually located here in the middle of the square which will allow guests to also have all of their maps, all of

their tourist information, it will be all of the services, we will actually have employees there that are the Guests Services Officers that will allow them to also understand more information about the city of Falmouth; so this is a kind of an introduction to the city. One Hundred North Union, again the Georgian-Style buildings, these are designed to have retail restaurants and cafes on the bottom floor, offices on the second floor and residential units on the top floor. These will actually be townhouses and these will actually be long leasehold townhouses, there is twelve proposed in each of the three buildings, so you will actually have 36 residences within the downtown development. This is also something that is a new trend in developing ports, what they are doing is populating the downtowns at nights, you notice how quickly the cities can close up at nights, at the end of the day by building residences that which they use you actually now have that twenty-four hour clock so you have patrons that goes to the cafes, to the restaurants or even the convenient stores even into the early morning hours. So this will be development of Number

One Hundred North Union; Two Hundred North Union is a similar building also designed in the Georgian-style has downstairs retail, second floor offices and two floors of residential units involving townhouses; Three Hundred North Union is that what we will call our trophy building, this is the one that sits on the waterfront design in the Georgian-style very much like you would see also in a Savannah or Charleston. This is develop where we have a bar, restaurant, a cafe built on the First two floors, you will actually step down a couple of steps into what would have been the tavern or the pub, traditionally built in the Seventeen/Eighteen Hundreds and above would be a nice restaurant that faces out to the water, above that again two floors of townhouse units above.

The next development is the historic attraction, to show that to you and to identify where we are there, this is the Old Foundry on the corner; this is what we call Foundry Yard. Foundry Yard is going to be used as a living museum. We are going to do glass, metal, wood and carriage works just as you see in (Louisburg) Virginia. All

of the products that we plan to be able to supply for anyone restoring a building in downtown, be it shutters or doors or windows, our wood shop will be able to manufacture those. The carriages that we are going to build, we plan to bring people in to train Jamaicans on how to rebuild carriages and carriage works and those will be the carriages that we use on our downtown stores as well as the 36 carriages that will be used in Downtown Falmouth. We are also proposing to redevelop the courthouse into a living museum; it will be a tour that will describe the life in the 1700 and 1800's of Falmouth. It will be the merchants' townhouse and the export of goods out of the wharf. The idea is that we have a Rum Tour Attractions we want to develop and we have got several opportunities with different companies here in Jamaica to develop an actual working Rum Tour Facility here, much like you have been to Appleton and seeing their tour. We will show you in the great house, when you go to the great house you come back and you end your tour. At the end of the day you go to the Foundry Yard and see the arts and crafts of Jamaica, then you see the Historic

Attraction, the Rum Tour, this is the port museum, that's the end of the story when all of the merchandize goes out and gets on to the ship and is then being transported around the world. The story will allow us to create an opportunity to tell the real Falmouth story and we are very proud of this part of our development. The idea is that the courthouse could be a living museum; it would be restored and developed to represent what was originally there. In the uses it will be a practical museum, so when you walk into the living room it will look like a living room, and when you walk into the storage department it will look like the storage department, all of those things will be a living opportunity to tell the Falmouth's Merchant Story. The Rum Tour concept was developed so we use the Appleton logo here to describe what it would be but guests will be able to see the entire development of the rum and sugar process that you will experience in a real working rum tour; they will go all the way out to the wharf and the loading of the ship and that will give us an opportunity to have a static

museum as well as also have one that will go out as a rum runner type tour.

Again I mentioned the Foundry Yard. Foundry Yard will have the carriage works, the glass works, the metals and the woods. Again we would like to incorporate and develop a programme not only for young people but also for local Jamaicans to learn these crafts and then retrain in the redevelopment and the restoration of the rest of Falmouth.

On the wharf; the shops on the wharf will be opportunities in chaos for those who want to provide more local arts, crafts and products, spice, all of those will be developed along the wharf and it will be right at where the trolley drives by every couple of minutes, it will be hot traffic area between the rum tour and on the wharf where the ships are. This is also -- we will have a fish stall and we will also have fruits and vegetables stalls that will be built in chaos all along the waterfront, it will be numerous opportunities for locals to participate in sales within the development through these types of chaos opportunities all along the waterfront.

We also have the Harbour Street Retailers, the Craft Market which is located between the major part of the port, if look you see it here, this is where all the transportation travel takes place, so it's kind of the centrepiece, we will have the bus travel, parking and taxis. We also have the retail shape structures where displays are, where you have sixteen thousand people possibly walking around, you got to have a lot of places for shades. So, you are going to see the development with a lot of open arcades and posted beams constructed buildings that also allow you to have retail chaos and stalls within those. This is also for the taxi and then for the bus also located along Upper Harbour Street and that's our story for now. We are just waiting on you to finish.

(A P P L A U S E)

MR. ROYLAND BARRETTE: We want to thank you for that magnificent presentation and I hope I will live long enough to see some part of the realities of this town.

(A P P L A U S E AND L A U G H T E R)

We are going to call upon Mr. Donovan Rose, who is the CEO of Technological and Environmental Management Network, MOTT McDonald, oh, sorry. Sorry. Yes, sorry. Mr. David Evans, MOTT McDonald is going to give you an overview of the marine. Wait a moment. Come, sir.

(A P P L A U S E)

MR. DAVID EVANS: Good evening. I am going to talk briefly about the Maritime Engineering issues related to this development. You can see here that's a satellite image of the site as it is at the present time. You can see the town over here, you can see Oyster Bay over to the east and just offshore of the town you can see the coral reef, which protects the harbour from the incoming waves. And right in the corner here you can see a wave rose that indicates a
predominant wave direction from the east and northeast of the site. We have carried out a very extensive process to try and find the best possible solution for the port and the best possible configuration out.

Some of the opportunities and constraints that the sites presented to us are shown on this slide. We have to see one to minimize the impact on Oyster Bay, we want to minimize the impact on the coral reef, and we wanted to minimize any individual impact on the town. At the moment inside the coral reef we have got relatively shallow water, too shallow for the cruise ship and we have got fairly limited water area inside the reef, so it's very tight to manoeuvre a cruise ship.

Some of the opportunities: We got deep water relatively close offshore. Just offshore the coral reef the water becomes very deep very quickly, and we also have an existing channel. From an historic point, this is slightly too small at the moment for the cruise ships we need to access the ports but it's there all the same, and we have a relatively sheltered harbour. Behind the coral reef the harbour is relatively sheltered from waves and winds. One of the first things we did was do some research and find historic charts of the area to show the seabed levels right back to the 1860's. You can see here a chart from 1877, I think you can just about make out Oyster Bay over here, Falmouth Town is here and the existing entrance town is to here. So using these charts we have been able to plot cross-sections through the harbour to demonstrate how the bed levels changed over the last a hundred and fifty years and from this we can produce whether there is likely to be any archaeological data with shipwrecks and that sort of thing. So, you can see here the red line is a survey that was done in 1879. The blue line is a survey that was done in 1932 and the green line is a survey we have done a few months ago, and you can see very little change over almost a hundred and fifty years. Seabed levels are fairly constant in the harbour.

So, what's the design vessel? The main design vessel as people said previously is the 'Genesis of the Seas' when this was launched in 2009, it will be the largest cruise ship

afloat, over 360 meters long and over eight thousand passengers and crew. A secondary design vessel was 'Queen Heart, Queen Mary 11. You can see this is slightly shorter and fewer passengers but it does need a deeper draft, so we need to consider that one when considering how deep to dredge the harbour. So as just been mentioned previously we looked at a whole range of different liable options, I think twelve or thirteen in all. Then next we will try to summarize those, you can see at different locations from the pier, different alignment for the pier, different locations for the turning circles for the vessels, you can see here we have got the turning circles offshore, on the right-hand side here to try and minimize the dredging inside the harbour. Right here we have got the turning circle inside the harbour, to try and minimize the exposure of the turning circle to waves, which we are trying to gain protection provided by the coral reef in this section here. Here we have looked at various different alignments for the cruise ships pier or east here, one more, south here, one here. Further options six and seven: You could see on the

left hand side getting the turning circles offshore the reef and this minimizes the dredging that we have to do inside the harbour because we don't have to dredge our turning circle over here. Two further options here, and that's the final one. You can see we have looked at the cruise ship vessels along side the board, a key part instead of having it projecting from the shore.

So, having looked at all these options we evaluated each one in terms of the important criteria, and the top one is obviously minimizing the environmental impact on the area. We also wanted to make sure that the vessels could navigate into the harbour safely and we wanted to minimize the exposure of the boats to small waves coming in through the entrance channel. We are going to minimize the dredging and we need to minimize the loss of coral caused by the dredging, and we want to limit as far as possible the impact you may face on Oyster Bay. So having evaluated all the options we turned up with three preferred options, which are listed here. We took a further study, we did detail wave model and we did a ship simulation exercise to

simulate the vessels arriving and departing the berths ports to see how easy it was for the vessels to access the ports.

So having done a more detailed assessment we came out with our preferred scheme not shown here, and this scheme out of all the schemes we looked at the minimum lost of coral. You can see the turning circles is offshore, the blue area is the entrance channel in the manoeuvring basin, the red down here is the cruise ship pier which will be three hundred meters long and join back to the shore within a closed structure, the. orange is the area of reclamation that Hugh talked about earlier.

Here is a visualization of the preferred scheme. You can see the Genesis class cruise ship, more than one of the berths. You can see the pier here and the town in the background. This is a cross-section through the cruise ship pier; this is going to be an open structure. It will be a concrete deck supported on steel tubular posts. And this sort of open structure minimizes as far as possible any impact on the environment, and the flows and hydrodynamics in Oyster Bay. It will be Three hundred meters long, as I said and thirty meters wide, and it will be designed to withstand the wave impacts from waves coming through the entrance channel.

So, this slide gives an indication at the bathymetry at the moment. The existing bathymetry is on the left-hand side. You can see the blue over here is the deep water offshore and the red and orange in here, that's Oyster Bay, and this is the shallow water in the harbour at the moment. between two and five metres of water. On the right-hand side is the situation after the proposed dredging. You can see the green area is the dredged basin for the cruise ship vessels to come in and the pier will be just in here. This area will be dredged to eleven-and-a-half meters in depth. Now, the dredging is going to be carried out using methods to minimize the impact on the environment including silt screens to limit the suspended sediments moving around the harbour. I think this will be discussed in more detail later.

This slide gives an indication of the wave climate; the existing situation is on the left-hand side. You can see the reds and oranges, offshore are the large waves outside the coral reef and inshore we have blues which indicates very low sheltered water, very low waves in there. After the dredging we need to widen the entrance channel from its current width of about one hundred and fifty meters, we need to widen it to about two hundred meters, and you can see the increase green area here, indicates increase wave disturbance inside the harbour due to waves penetrating through deeper entrance channel.

During the annual storm, a storm that might happen once a year with the existing situation, the wave height is specifically a half a meter in the harbour and once the dredging has been done this might increase to about one meter, however the flood protection measures that we are proposing will be designed to protect against these waves. This slide gives you an indication of the sea levels at Falmouth. You can see down at the bottom here, relatively low tidal waves probably about a half-meter. We also need to design for a storm surge of about a meter and we also have to take into account sea level rise over the next fifty years, which is the design life of the pier of five millimetres per year, so we end up with a level of one point seven up here. You can see the existing four levels over here and after the development has been completed the increase protection provided by our new seawall, and a slightly increase promenade level here.

So this slide gives some more detail of the proposed flood protection measures. The orange again is the reclamation area, down the bottom here we have a length of vertical seawall which will form the edge of the new dredge basin for the manoeuvring area, and just to the north of that we have the length of rock preventment, that is a slope protected with rock armour and that will form the edge of our new reclamation, and then further to the north the flood protection measures will be continued as appropriate to provide the necessary protection to the town. The exact extent of these measures are yet to be confirmed, we are writing some survey results to confirm that.

So, this is a cross-section through the seawall. This is going to be like directly opposite the entrance channel. We have a vertical seawall with a concrete crest wall on the

top here and this will provide protection against normal storm events, say events that might happen once every five to ten years. We have set the crest level of that wall to limit the overtopping caused by the waves to acceptable levels while minimizing the impacts, the visible impacts on the wall, on the development and on the town. However, in more severe storm events such as hurricane events it might happen only once every fifty years or so; we are proposing to use demountable structure that can be raised in places on top of the permanent wall when a hurricane is expected, and this will provide protection against the increase waves and the increased water levels expected when a hurricane arrives. The exact details of this scheme is being finalized at the moment but we understand it's definitely feasible to erect this within eight to twelve hours notice of a storm approaching.

Finally, this is a cross-section through the embankment which will form the edge of the new reclamation. You see here in orange, is the rock armour that protects the slope from erosion of the waves and the small crest wall at the top here that limits the overtopping to acceptable levels during storms. That's all I have to say on the engineering aspects. Thank you very much.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Yes, sir. Thank you very much Mr. David Evans for that graphic presentation and now we are going to call upon Mr. Donovan Rose, who is the CEO of Technological Management Network Limited. Quite a mouthful. Mr. Rose, aah, here he is. Please come.

(A P P L A U S E)

MR. DONOVAN ROSE: Thank you. Good evening, the Environmental Impact Assessment provides an examination of all the development plans which you have heard before and relates that to the current environment and determines what impact these developments would have on the environment and suggests mitigation that is a way to prevent these damages as much as possible. In no kind of development is it possible to completely protect every

aspect of the environment but you can go a far way in preventing the loss, preventing any impact and to do as much as you can to provide for the natural resources, which we pride so much. We have so much pride to be protected. In this case the EIA, Environmental Impact Assess with the team of environmental chemist, Hydrogeologist and social chemist, except for the socio-economist part, is a very important aspect in that it provides for human beings and the effects on human beings.

In this case we will now provide a little, as short as possible, a description of the work and the impacts, which were carried on in the section. Mr. Paul Kerr over there, he will be followed by Mr. Bryan Richardson, he will do something on hydrogeology, I will do something on ecology and it is followed by Mrs. Ayisha Richards who will give a description of the socio-economy. Mr. Kerr.

(A P P L A U S E)

MR. PAUL KERR: A very good afternoon to you all, ladies and gentlemen, and allow me to say, in my over thirty years of involving in environmental management in Jamaica this is the best participation I have seen at a public meeting. Give yourself a big round of applause.

(A P P L A U S E)

Let's hope this is a sign of how you intend to follow through with your involvement in the development. Now, if I can use this. If I can find my way around here to get the Environmental Chemistry presentation. Thank you.

My task is to make the presentation on environmental chemistry. The aspect of the study that I was in charge of. Now, before we can talk about environmental chemistry in a way that we all can understand I have to go through some of the terminologies that we will encounter whenever we speak about environmental and environmental chemistry so that you can get, you know a better sense of what is happening and you can ask related questions. When we speak about Environmental Chemistry, we have some terms that we have to deal with. Terms like ambient, point source, water quality, air quality. Over on the left you will see an example of ambient, ambient water, that's the environment around us, ambient air and on the right hand

you will see an example of what we call point sources or sources of pollution. When you talk about a source you usually speak about a bite or a stack or a chimney. Okay.

Now, when we speak about ambient quality, we speak about, for example, the quality of our bathing waters, the quality in our harbours and the quality of air we breathe. When we speak about water quality there are certain parameters or constituents on the water that we have to focus on. Things like nutrients, nitrogen and phosphorous are particularly important. Coliform bacteria, dissolved oxygen and suspended sediment or we also call it suspended solids. You will see TSS there, it really means Total Suspended Solids.

Now, nitrogen and phosphorous, these are good nutrients. Farmers pay a lot of money for them, certainly can make their banana grows and other crops, of course, but in a situation where you have say an overabundance of nitrogen and phosphorous, say for example, in our rivers, harbours, lakes and so forth. That is actually a river you are looking at, that's Bowers Rivers. It has so much nutrients in it coming from the runoff of the surrounding areas where they rear a lot of livestock, that is just totally out of control, because what happen is that the river is now clogged with water -- water plants. Okay. The NEPA ambient standards for marine waters, for nitrogen and phosphate, is something that we should be concerned with. It's a range, we have put an upper range, the upper value is point zero eight one for nitrate and point zero five five milligrams for phosphate. You don't have to worry about remembering those right now because when we show you what the characteristics of the Falmouth water bodies are we will have those standards on the graph so you can see them, so, don't worry that you don't remember them when I switch to the next slide.

Coliform bacteria is used as an indicator of sewage pollution mainly. Now total -- Coliform bacteria have two types, you have what you call total coliform, which you will find anywhere in the soils or anything like that, but the fecal coliform is what we are interested in, because that is typically found in the intestines of warm-blooded animals like yours truly and company.

(L A U G H T E R)

Fecal coliform bacteria, therefore indicates, the presence of or absence of sewage from livestock, sewage, livestock waste or backdown which we call guano. The standard for fecal coliform in marine bathing waters is less than a hundred and the units of that is a thing we call MPN, The Most Probable Number of organisms in one hundred mills of water. Okay.

Now, Oxygen is just as necessary for most animals in water, fish feel quite relaxed when they have enough DO, as it is for, you know, us animals on land, in water we call it Dissolved Oxygen or DO, so very -- after this you probably won't hear me talking about Dissolved Oxygen anymore, you just hear me say DO now you will understand what we are talking about. Without sufficient amount of DO in water many animals can't function properly. Example feeding and reproduction and things like that, you might live you know, but they are not reproducing properly and they are not feeding properly, so they really not healthy. The maximum -- another thing that concerns us about DO is knowing the maximum amount that a water body can hold, because unlike air where you probably have an infinite amount of oxygen, in water it will only hold a certain amount right, and that amount that it will hold we call it DO, SAT; sat means short for saturation, in other words, under normal circumstances that is the maximum amount of oxygen that water will hold. For tropical sea waters like ours the DO SAT, just to give you a feel of figures now, is usually between six point one to six point four, the unit of that is in milligrams per litre. We don't have a standard for DO in Jamaica, we are getting there. So we have compared our results that we have found to the standard of the USEPA, the draft standard of 1999 for Caldecott near to the Caldecott Tunnel and that standard is that the DO must be greater than four point eight milligrams per litre, right and that's required for maximum growth effects of fish, adults as well as juveniles. They have a bottom limit of two point three milligrams per litre and that's just a survival level, in other words, they can survive in 2.3 but they won't

reproduce normally, they won't feed normally, things like that.

Suspended solids, possibly one of the main stressors of coral reefs, they can cause smothering of the reef by descending on the reef; they can reduce the life penetration. You see that picture of a coral reef there, where you have a healthy coral reef; it is typically crystalline, very clear waters above it. Reduce life penetration; they also have on certain cases where you have dealing with certain toxic sediments you can get release from these solids when it hits the water. Of course, we don't have that case in Falmouth because you don't have the kind of heavy industries that would make that an issue.

The proposed standard for TSS in coral reefs, according to the NEPA Draft Coral Reef Protection Policy is less then ten milligrams per litre, notice I said proposed, now, that's the stage where it is at now.

Terms of reference: Terms of reference, meaning to say the areas that our study had to cover by the document given to us by NEPA to work with They want us to assess the water quality or the water chemistry of Falmouth waters in terms of nitrogen or nitrate, phosphate, DO, and TSS. Okay. And for the air quality, they have asked us to characterize the air in terms of particulate matter and noise. So, to carry out the terms of reference, we are dealing with water chemistry, we had to set up some sampling sites and we took that photo while we were out there sampling from the sea. And the sampling sites are these: number one sampling site was Bush Cay and we are going to see a little map later on of the sampling sites so we can get a feel of where we took those samples. so Station One when you see it is Bush Cay, Station Two would be the entrance to Glistening Water Lagoon; Station Three Martha Brae River mouth; Station Four Little Bridge Falmouth near the drain outfall, Station Five between the channel marker buoys and the marine environment and Station Six we went a little bit outside of the harbour to get a feel for what the background conditions are outside of the immediate influence of runoff from Falmouth. And these are the stations. I saw a pointer around the place. Okay. That's Station One there at Bush

Cay, the great water quality there, Station Two, the entrance to Oyster Bay, Three, that's the mouth of the Martha Brae, that's Little Bridge, Five in the entrance, the entrance to the channel and Six, our background station. So, those are our stations that we collected the water samples from.

Now, the results of our investigation as far as water quality was concerned. Let's look at the nutrients first, nitrogen and phosphorous, nitrate and phosphate. Now, as I told you we put the standards over on the right-hand side. The green bar is the standard for nitrate, the light blue bar is for phosphate and these are our results. Now, you notice there is a peak there at Station Two which was, if we recall 2T, is the entrance to Oyster Bay, remember that.

Now, reason for that, see the high nitrate value there. Now, notice that that high value is at 2T, bear this in mind, wherever we collected a sample, as long as we have a depth greater than two meters or around six feet, we always collect at least two samples, one at the top and one at the bottom because we recognize that in the marine environment, in the aquatic environment and all the water environments, there is a strong chance that you have a different water quality at the top from the bottom for various reasons. In this case Oyster Bay receives main fresh water input from the Martha Brae. Okay.

Now, basic chemistry, when you have salt water and fresh water unless you have some artificial thing mixing them up the salt water is going to tend to stay at the bottom because it is heavier and the fresh water is going to stay at the top. And we know that generally fresh water has much more nutrients than salt waters, than marine waters. As a rule of thumb and in our experience, we have found that the Jamaican fresh water is generally of a factor of ten less nutrients than the surrounding marine waters. Of course, we are having problems with that because the nutrients levels around the island are generally increasing, as we need to take more care in terms of how we dispose of our sewage. Okay. That's the basic thing, but as you can see in most of the marine sites pretty well close to the standard. Pretty well close to the standard, but note, very close to the

standard so that tells us we have a little room in terms of increasing these nutrients.

Dissolved oxygen, now remember we spoke about DO SAT, that's the maximum amount of oxygen that the water can hold under normal circumstances and the DO SAT is the brown bars, and you will see that there is not much difference between the DO SAT and the actual do that we found and look at the standards, they are generally a little bit above the standard which is fairly good. Now at 4T, at 4T we have a pretty high result, more oxygen much more than that the maximum that it could hold and that is -the explanation for that is quite likely the higher nutrient levels in the fresh water. Okay. Wherever you have higher nutrients you have that accompanied by increase growth in the little animals, sorry in the little plants that can grow in the water, and we know what plants do plants makes oxygen. So, this is a daytime result because during the daytime plants do a thing they call photosynthesis where they make oxygen. However, we know that, don't be fooled by this, because this high result could very well be reduced

if you go back in the night and take a reading when the plants aren't producing oxygen and they are only consuming oxygen at that time. But nevertheless in the marine sites seems pretty healthy. Coliform bacteria in the marine sites, here is the standard for bathing and if you notice you are getting a little elevation at three and four, those, remember are your fresh water sites, that tells us that you have some little issues there in terms of possible sewage contamination or livestock contamination in the Martha Brae or in the Little Bridge, the culvert under Little Bridge.

Total Suspended Solids: Again marine sites, here is our proposed standards for coral reef and here are all our marine sites, notice again we are getting some peaks, but they are in the fresh water outputs and they are still below. But what this shows is that at the time of our sampling these weren't enough to terribly influence what was going on in the marine environment. Okay.

So what can we say about the environmental impact. First of all, present impact, at most sites the critical parameters were pretty much within the NEPA and USEPA Standards that we looked at. So, as far as the water quality in the harbour and Oyster Bay is concerned is pretty good right now and the data indicates right now little impact from TSS at the time of sampling. The impact from coliform -fecal coliform that we saw appear to be confined to the stations in the vicinity of the Martha Brae and Little Bridge, that's the fresh water outputs and the DO levels are generally within the USEPA Standard and in one case they were well above but we explained that by the high nutrients that were in the water.

Projected impact from this development in terms of water chemistry: The main impact is going to be increased sediment associated with the dredging and there are going to be some conversion of soft areas into hard areas so we will be looking at some increased fresh water runoff, and there is also going to be improved storage. So we are looking also at possible increase in the nutrients associated with the increased fresh water as well as with the improved storing of Falmouth. And, of course, ships going to be in so there is always a high potential for oysters; and in terms of TSS levels that we can expect, I took -- we took this from our present monitoring exercise in the development of the Kingston Container Terminal Number Five in Kingston Harbour, and here we can see these are the stations. One to four are the immediate stations in the dredging zone and Station Five is what we call our control site, that's about a half a kilometre away from the actually dredging site, and we can say that in the immediate dredging site on this particular day we had some elevated levels above our coral reef standard but was pretty much confine to the actual site where dredging was concerned, the adjacent sites didn't seem to be affected that much, and certainly the control sites seem to have been not under the influence of that and this is being carried out with the use of silt screens.

So, recommendations for mitigation: Main mitigations strategy we think should be focused on deployment of sediment screens, the control of storm water, and of course, having in place a complementary oil spill contingency plan. Now, let's look at each one of these. Deployment of the sediment screens; these should be carried out prior to the commencement of dredging operations and should be verified not only visual monitoring but the collection of samples.

Now, the screen should be deployed at critical points to ensure or to prevent or control, or to control rather, the spread of suspended sediments associated with the dredging operation and the screen should be deployed or it should be placed at strategic locations around the dredged site as well as at the entrance to Oyster Bay Lagoon and the monitoring sites should focus on the dredge sites, nearby reefs and the entrance to Oyster Bay. Control of surface runoff certainly this has to be dealt with to minimize the impact of the projected increase both in terms of fresh water runoff and any associated nutrients with the improved storing.

Air quality: The terms of reference air quality study, we were, as I said before, we were asked to look at PM 10 levels. PM 10 Particulate Matter and the 10 stands for the size of particulate matter that we have to look at, and there is a PM 10 Standard, a ambient standard that is actually legislated by NEPA and that standard we will see it later on. Oh, by the way PM 10 is also called respirable particulates because that is the particulate, let me just tell you for academic interest the 10 is 10 microns, very very very small. So, that PM 10 are particles with a diameter less than 10 micrometers. The standard for that -- the 24-hour for that is a hundred and fifty micrograms per cubic metres. We will see that a little more. And, of course, noise we measure in decibels.

Now, let's look at the standard. I have shown you pretty much all the parameters that we have standards for, but I have put in yellow, highlighted the standards which we have to deal with for our assessment, and that's the PM 10 Standard. You can see we have two standards, the annual standard and a 24-hour standard. The annual standard is fifty; the 24-hour standard is a hundred and fifty.

Now, these are the sites that we used to get our background values for PM 10. Station one was at the Falmouth Police Station. Now, when we were placing these, our air quality monitors, it was a very unique system that allows us to put them out in remote areas because they have their own power, they don't need any juice from JPS but we have to sort of consider security when we were putting them out, you know, but the Falmouth Police Station provided us with that. And we had to place one at the Williams Knibb High School, which we consider that another significant receptor, and we placed one on the old main road near to the Pebbles Hotel. Okay. Just a little about the sites. Station One utility pole at Falmouth Police Station, old Falmouth Police Station. There was very little traffic and pretty much no source of note. Station Two at the William Knibb High School that's a rural main road, you have traffic, private and public transportation and station three as we said by the FDR Pebbles you have occasional traffic and is a vegetative soft shoulder as opposed to station two where there was some denuded embankments, and near the Hampden Wharf was where we did the monitoring for noise as this was going to be pretty

close to where a lot of the movement of the traffic involved with the development is going to be.

And these are the results we got. Here is your standard and by promise wherever you see a diagram you are going to see a standard. So, here is your standard of a hundred and fifty micrograms per cubic meter, and these our results. You can see pretty way below the standard right now. Falmouth has pretty pretty clean and healthy air and these are the actually filters that we got from the samples; as you can see Station One, the Falmouth Police Station, Station 2 William Knibb High School and Station 3 at Pebbles Main Road and that's the blank, the unexposed blank so you can see very little difference between them as depicted by the actual results. For noise, these were the levels we got. The average SDL was 71db, the maximum was 85 and the minimum was 61. Incidentally a project that we just completed the NEPA prescribed a standard of 70db, must be greater than 70db from the boundary perimeters boundary of the project, and the maximum, for your

knowledge, you might want to know, was due to a boom box operated from a motor vehicle.

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Present impact: Levels measured were well within the national standard for PM 10 and noise was pretty typical of a bustling town.

Projected impacts: Impact mainly from earth moving operation and the movement of heavy-duty vehicle in the area. Noise and vibration from pile driving operations. And I showed you this from a project that we just finished completed where we -- and this is a monitoring station that we have in Half-Way-Tree in Kingston, and I am saying that by the time we finish this development you know the level of traffic that you have, as a worst case, may approach Half-Way-Tree. So, your results may look like this over a year. Notice the annual average here; the line across here represents the standard. You can see most of the results, they are below the standards, significantly below the standards, and the average we got for little over a year was 49.87 micrograms per cubic meter, remember the standard

for this, the one year standard was 50. So, we are saying that this is possibly what Falmouth air quality could look like.

Recommendations: As far as controlling PM 10, or dust for a simpler name for PM 10, dust protection gear for all personnel including particular security personnel at sensitive locations. We have found that to be a big issue in construction sites. Wet suppression alone or depending on the situation with approved binding agents to be used on sites on a routine basis using a water truck, wet spray, power vacuum, street sweeper to be used on paved roadways to prevent accumulation and build-up of soil which can later be transformed into dust by movement of traffic. Use of windscreen fabric or solid wood barriers around the perimeter of the development.

Another useful mitigation: Control dust pollution from sites, the use of wheel wash stations or crush stones, we also call that a gravel bed, for vehicles to pass over when they are entering or leaving the site. Covering of active stockpiles with plastic tarps and the sealing or using of approved soil stabilizers on inactive stockpiles to prevent them from being converted, you know, into fugitive dust, if you would like to call it. Of course covering of dump trucks during material transport on the public roadways and the screening-off activities to modulate noise impact.

Of course to provide notice to the community concerning any possible serious impact from noise or vibration and the scheduling of high impact activity during hours where human exposure is likely to be at a minimum, and of course, to provide noise protection gear to personnel at risk to exposure. Thank you very much.

(A P P L A U S E)

MR. DONOVAN ROSE: The next presenter, Mr. Bryan Richardson who will do something on the hydrogeology.

MR. BRYAN RICHARDSON: Hi, good evening, ladies and gentlemen. My presentation basically will look to address or just summarize the geology, the soil, the surface water, the ground water and one of the engineering

plans that are being put in place to control that and to ensure that you wouldn't have any issues that you might be enduring currently in Falmouth. What you seeing in front here is just the location map, it just shows where Falmouth is located, and you all know where it is and just a general idea of what the existing drainage lines look like. That's mostly open chambers, not chambers, the channels that you have and they feed into this drainage channel which goes underneath Little Bridge and goes up into the harbour, and here is the Martha Brae down here, and this is the fish pond, I believe within the Hague lands; and this is just an overview of the plans that they intend to put into place. And looking at the drainage I consider the entire area in terms of how it look presently and what the changes in terms of land would be in the future, and seeing if that will give an increase in the runoff, the surface water runoff or any issues that might come up due to the changes in land use.

Predevelopment noise as it exist today: The runoff from the area of land which I showed you previously is

roughly one point five meters cube per second, and after the development takes place the runoff from that same area will be roughly two point five, so it is an increase of point six meters cube, which is roughly about 40%. A lot of this is due to the increase or the reclaimed area that's there and frankly that area will be drained or let me just move on, I am a bit uncomfortable with such a large crowd. So, if you will forgive me.

(L A U G H T E R)

I am beside myself. Predevelopment, so, in order -when they are doing a construction or they are looking at the drainage and they are touring the site and doing the infrastructural works, what they have to look at is to identify the areas they are going to be clearing and grading and identify the permanent drainage features, like the channels that we showed you previously, the open channels, and the extent of how they are going to divert those open channels if they will because they need to have that plan in place, so they can ensure that any construction that takes place, any runoff that may occur because of an afternoon rainfall or a tropical depression that might come by is actually controlled, is taken to a point where it doesn't goes straight into the harbour, it can go to detention pits or detention areas where the silt or the TSS, like the previous presenter said, settles out before it moves on to the harbour. So, it is going to be planned in such a way that you won't see an increase during the construction but you must expect that there will be some change, some increase, some amount of runoff, but everything will be done by the engineers to ensure that this is reduced to the minimum that can be handled within the harbour.

Other things that they can do. Like I said before, suitable sediment control measures like detention, the points, you also have areas that might keep existing green areas during the construction of the project so they can use them as that, how could you say, as polishing area so the runoff coming off say stockpiles from material that they may bring on site or from the dredging that can be routed through those green areas and polish before it goes off anywhere and additionally these stockpiles will have like diversion canals around them and silt barriers to ensure that any rainfall that impinges on top of these stockpiles, you know is collected, taken to a central area and not allowed to go off as you may see in some construction projects across the country. Again this go through some of the steps that you have to look at in terms of what needs to go into the sediment control plan and the drainage control plan during development before construction, so it's pre-development.

Post-development, I will just bring you back to the table that I put up there, the runoff comes out to be about two point one; and that is roughly one in twenty-five year storm. So, it's a storm that is expected to hit one every twenty-five years, but what it really means is, it's a storm like that can hit 20% 25% chance of hitting in any one year, and so the engineers will be designing the drainage system to cope with that on a daily basis basically, and then for an extreme event we will be looking at one in one hundred year event which is a massive event, similar to what you might consider happen in 2003; 2003 when you had the flooding in Moneague and those other areas. They will also

be looking at flood routing analysis and this is to take into consideration the Martha Brae itself and the Hague Lands which are being considered for development and just to say, those areas are going to be lifted above the present level, and in doing that they are going to ensure that there will be no flooding because they are going to do the model and they are going through and ensure that the engineering aspects are all taken care of in post-development.

Also what will be is a foul drainage system, basically what will happen is -- currently you have culverts taking water from paved areas and it just probably goes into a model that goes out to sea but in post-development in the drainage designed plan you have water coming off of the parking areas which you saw and these parking areas they will then go to sedimentation chambers such as penstock chambers or larger drywalls where water will collect, settle out before it moves on to the other drainage system, and then at the end are certain key places, they will also have oil water separators, so you know you might have a vehicle coming on, it drips a few drops of oil, and that might get
mobilize when the rain falls, it will go into these, they call them class one oil water separators and that will separate the oil from the water and allow basically clean water to come out the other end.

Another key design feature within the post-development drainage system is that it also have the channels, which actually do the final discharge, which might be within the harbour or towards Martha Brae. It will use flat valve, so basically if the water level rises outside of these drainpipes it will close off so it doesn't go back up into the system and overspill on the landside. You currently don't have that here in Falmouth and you do get surcharges coming back in when you have heavy rains or heavy winds coming back through. This design will ensure that that will not happen or minimize it as best as it can.

Other key features that will put in -- I jumped the gun, I said oil water separators - you will also have trap screens upstream so you are looking at the development which are not apart of the current scope but when the drains come into the area they will be putting trash screens in place to ensure that they don't have blockages within their property boundaries. Of course, those trash screens will have to be checked and they will have to be cleaned and that is going to be apart of the entire operational plan when the design comes on stream.

Another key feature as well is that the green spaces that they will be creating within the design environment they will be using those green spaces as polishing areas as well, to hold water as well, so it detains a certain quantum of that water before it is discharged to the outlet, so what you don't have is basically a huge dealage of water going through the system coming off the car park to just go in straight into the harbour, it is going to be held on site for a bit, you know it's going to polish itself, the sediments are going to come out and then it's just gonna go off as slowly as it can into the harbour.

In terms of impacts: The pre and post-run off calculations show an increase and this increase in runoff is expected because you have the increased paved areas. The design criteria will ensure that that increase is handled

within the overcall drainage system and it isn't seen as a negative impact, it will be controlled and dealt with in a very, I think, novel way. There is in a short-term some tendencies to increase siltation, because you all know if you dig a hole somewhere and rain falls you do have a bit of rain it runs off and there is muddy water coming off. The control measures that they will put in place include catch bits or diversion trenches to ensure that any water coming in out is kept out of key areas that might mobilize sediments and take it off into the existing water bodies and in doing that it will reduce the silt content and the TSS or the increase in the suspended solids that you may get in the surface water during the construction of the project.

Long-term you will be looking on the potential flooding impact along the areas within the reclaimed Hague Lands but as I said previously the engineers are looking at design options where when that land is developed they are going to be lifting it at least two meters above; they are going to be looking at the materials that's going to be won from sites such as the dredging operations and looking to put that in places where it can work to increase the level and that will ensure in a large event, like a one and one hundred year event; you shouldn't have any flooding within those areas within the Hague Lands or within the other parts of development.

Again, some of the mitigation measures they can use within the paved areas can include permeable pavements and that design will have to be looked at carefully because the busses are not that light and they can't break permeable pavements but it's a design consideration that will be taken into by the engineers and they will be looking at it and if it can be incorporated within the design, the overall design, it will be put into the overall design and in doing that what it does, it controls any rainfall at that area and keeps within that area, so it is not discharged into the harbour it just goes in and percolates into the ground and goes into the ground water.

Again the pollution control measures for reducing sediments during construction will include, as I said before, penstock chambers and the oil water separators. So, the water going up to the harbour the system that they put in place will ensure it is much cleaner than what exists currently.

And, again, I mention the lifting of development above the model that deals with events such as storm surging and flooding.

Including the off side interest which they are not many because the development out puts to the harbour is generally within the Falmouth community, persons who were used to seeing flooded roads and you know garbage within the drain system that should be a thing of the past when the development comes on stream, because the design plans that are on the books right now give a much better control for the overall drainage design. Overall I believe and the assessment shows that the project drainage improvement will be a positive a plus for the entire Falmouth area and short-term the saltation that may occur because of clearing and some dredging that will be control but it will be short level. Thank you very much.

(A P P L A U S E)

MR. DONOVAN ROSE: Good evening, I am substituting to do the ecological study, and I will run through it as quickly. As I can imagine you are tired but this is a very important aspect of the EIA.

Now, the objectives of the ecological study as noted here, is to provide a baseline assessment for the biological status of the area, that is to look at what is currently there, what resources are there and their conditions. The study would also identify direct as well as indirect, as well as short and long-term impacts to the ecology of the area resulting from the proposed activities, which has all been detailed before. The study would also suggest appropriate mitigation for the proposed development for any impacts, which I have formed for the proposed development.

Now, the area around Falmouth as you can see there, is -- was looked at in three areas as we identified three main areas, one is the harbour itself, it has a shallow natural harbour sloping from the one meter to a maximum of twelve meters at the ship channel share common to most of the reefs and north coast of Jamaica.

Third area which we focused on Oyster Bay, which bores the harbour on the eastern side, very very shallow, depths ranging from half a meter to two meters. I'll spend a little time on Oyster Bay; as you know, it is one of the four in its kind in the world, famous for its bioluminescence, water is highly turbid, a mud bottom interspersed with sea grass or seaweeds of variable density, and a cover -- a variable current velocity direction and intensity coming from both the Martha Brae and from in the larger harbour. There are red mangroves which grow on the northern and eastern shores of the bay which are very critical to the maintenance of the bioluminescence. On land, our terrestrial study covers the areas you see there, we did bird studies, we did vegetation studies and identified any impacts which we could find for that area.

Now, we will go straight into the impacts: In the construction phase, operation phase and dredging phase, we have three kinds of impacts which we have identified, in the construction phase the impacts arising from construction of terminal buildings and associated infrastructure; in the operation phase the impact arise from cruise ship traffic and accumulative impacts of increased tourism in the area; in the dredging phase impacts arise from dredging of the harbour required for deepening and widening the ship channel and the turning or docking area. In the dredging activities the short-term impacts are as follows: There will be increased sedimentation and turbidity as is the process of dredging would stir up various kinds of sediments as it goes along.

The disposal of the material and land reclamation also has its impacts. There is possibility of offshore disposal of material which is not suitable for use of reclamation as well as land disposal for those which are. In the long-term impact is the potential for coastal erosion and there is the need for ongoing maintenance dredging.

The dredging itself has its own sets of impacts, there is the possibility of loss of habitat and biodiversity that is a mixture of plants and animal, flora and fauna in any particular area, and the loss of approximately twenty hectares of sea grass beds and coral reefs and associated fish habitat. The fish mainly found out there are Bermuda Chub, and in the seagrass there are nursery and feeding areas for juvenile fish. There is also the potential loss of bioluminescence.

The result -- impact result for construction of the terminal buildings and associated infrastructure have caused changes in drainage patterns, airborne and noise pollution, vegetation clearing, transportation and storage of construction material, having fauna, that is birds and fauna, other animals, disposal of construction debris and sewage and garbage disposal.

The impacts from the operation phase, that is after the thing has actually started working, the ships are coming and going, the potential for loss of biodiversity, the damage to coral reefs, ballast water if any because most cruise ships don't carry, and the potential to endanger species. It's a possible increase flushing in Oyster Bay from mass water movement created by the arrival and departure of cruise ships and increased turbidity and sedimentation to the reefs immediately adjacent to a downstream of the ship channel from resuspension due to prop wash. Cruise ships also have to discharge solid waste to land-based facilities. There is also potential for oil pollution, potential for ship grounding and anchor damage to the reefs, as well as other accumulative impacts.

Now, to mitigate these impacts which we have identified there are several avenues we can take. The first and most important is coral relocation; this is to be executed prior to dredging. This involves removal and relocation of corals destined for removal by the dredging operation at the mouth of the channel, specifically reef communities in on either side of the channel and the turning basin outside of the channel. We have had a lot of experience in such operations both in Kingston Harbour, in Ocho Rios and others part of the country where corals are taken up and move to sites which are outside of danger, and consequently they are maintained in a viable condition. Seagrass can also be harvested from affected areas prior to dredging and replanted, what we plant is a hundred and thirty percent of the area removed to compensate for predictive loss, if you

move the sea grass around you may loose some of it, so they are there to move a hundred and thirty percent of what we had actually planted somewhere else to maintain the juvenile nursery function. The loss of habitat and biodiversity, the modelling study of the existing current patterns in and out of Oyster Bay and the potential factor proposed dredging operations and subsequent changes to the activity that is the depth of the bay entrance of these currents. Such a study is already underway and is in an advance stage and the results are showing that there is very little scouring or very little impact will take place on to Oyster Bay from both the construction and from operation of the port. There is also a requirement for restoring the mangrove area on the eastern side of the harbour. Now, some mangroves will be removed by the dredging operation when reclamation takes place. There are currently mangroves growing along the shoreline and the area that is going to be reclaimed will be -- will cause the death of these mangroves, however, NEPA has been requiring replanting of mangroves in appropriate areas and our plans involve

replanting mangroves to the east as close as possible to the Oyster Bay where they will provide for the Oyster Bay nutrients. What is happening is that the Oyster Bay function as one of the key components of the bioluminescence plankton, for those who are interested, is that they have a high content of B vitamin, B12 and other nutrients, and this is provided by the mangroves, the red mangroves specifically that are in the area. The dredging itself, the proper deployment of silt curtains to contain the spread of the sediment plume.

Now, the plan involves extremely detailed amount of silt screen deployment around the dredge as it is operating. There are very valuable corals around, and the location of the screens is extremely important. This will also be monitored on a daily basis, to ensure that no material passes through the screen. Initially, this is noted double-screening will be done and there will be no -- and the objective will be that there would be no sediment passing the screens and impacting on the corals during activity. The monitoring plan which is being developed involves very strict parameters on this issue. All dredging activities will be avoided during rough weather and we will dredge to a slightly greater depth as absolutely necessary to reduce the need for maintenance dredging. Further, monitoring and an emergency response plan for dredging operation will also be in place. It will monitor the direction of the plume, it will monitor for it to prevent malfunctioning and dredge spills, and it will monitor the effectiveness of the silt screens. The arrangements we have had in the past with the Port Authority is that if any major breach is detected from the monitoring programme the Port Authority has undertaken to immediately suspend the operations until this is corrected. The use of the material in designated sure reclamation area is also very important and it would include containments, including berms as well as the aforementioned silt screens as mandatory aspect of this.

The resulting from construction port site, and that is on land now, the vegetation clearing, there will be watershed protection or remediation in the mangrove areas and landscaping to maximize the green areas during and

after construction. Changes in drainage patterns, I spoke to quite a bit, there will be an improvement in the existing drainage channels and channelization. The drainage channels will be maintained and erosions will runoff and flooring direction will take place to the wetland areas which can absorb this. The transportation and storing of construction materials is also very important as piles of gravel are notorious for generating dust as a nuisance to both construction workers and to the town. So, the use of covered vehicles for transportation of dust generating material will be mandatory and proper storage of all building materials will be undertaken. Operations will also be limited in daylight hours for transportation of materials. The disposal of construction debris will also be very important and there will be a site waste management plan underway and waste storage areas on construction site will be controlled. The removal of construction debris will take place to an approved dump site so piles are not left on site to generate dust and there will be provision of proper collection, storage and removal of any hazardous waste

used in the construction process. Sewage and garbage disposal is also very important as portable restrooms and garbage dumpsters will be established on site and regular garbage collection and the removal of sewage from the construction site will be undertaken.

Mitigating, again plan would involve again disposal of construction debris, a site waste management plan, waste storage areas on construction site, removal of construction debris and provision for the collection, storage and removal of waste. Sewage would involve portable restrooms as I mentioned before. Regular garbage collection and the availability of potable water that is clean water, drinkable water for the construction workers.

Now, there are operations of cruise ships which we need to lay down the rules of any ships using the area would have to fit these conditions, that is sewage water will not be discharged in the port or to the site, it will be required that they retain this on board. The discharge -- no discharge of untreated sewage from cruise ships in Jamaican waters, any bilge water; now cruise ships do very little of this, but any

bilge water would have to fit the conditions and no discharge of bilge water will take place in the harbour. Solid waste, there will be a requirement for cruise ship lines to adopt and comply with MARPOL. MARPOL which is an International Maritime Convention have guidelines pertaining to solid waste disposal. There should be adequate portside waste reception facilities and waste management strategies to accommodate waste generated by passengers while onshore. We suggest that provision of fee-based waste disposal services, that is, the ships actually pay for disposal of waste as is discharged, this is a suggestion, but we think it would work very well. The mitigating from the operating, the damage to coral reefs, loss of biodiversity would include damage to coral reefs which would prohibit anchoring of cruise ships in ecologically sensitive areas such as coral reefs and environmental refuse retribution where a designated percentage of profits generated by the cruise industry is injected to coral reefs restoration projects in the area, this is again a suggestion. We dealt with ballast water, there

should be no discharge within two hundred miles from the shore. As far as air pollution is concerned there is a requirement for air emission to be curtailed within twelve miles of the port. We also suggest the use of no sort of fuels although this is going to be dictated by economic factors. We would also suggest that they prohibit the use of the ships incinerators while in port and explore the possibility of providing a hub to the shore power grid for shops - ships while in port. Now, this is a new thing and it may not work here because of the large amount of electricity used by these boats while in harbour; and NEPA should issue regulations for use of air emission from cruise ships visiting Jamaican waters. There should be a present convention to reduce emissions from ships worldwide and work with international regulatory agencies to develop and adopt air sampling programmes especially for cruise sips idling in port. There is a requirement for visiting cruise ship liners to install the latest pollution control equipment. Thank you. I hope I haven't rushed.

(A P P L A U S E)

MR. DONOVAN ROSE: The final aspect of the environmental impact and socio-economic impact assessment will be done by Mrs. Allison Richards.

(A P P L A U S E)

MRS. ALLISON RICHARDS: Good evening, ladies and gentleman. I am here to present the socioeconomic assessment of this development. The socioeconomic impact assessment identifies the social and economic and cultural impacts of the proposed development.

The study area for the SIA includes the proposed site and areas within two kilometres of site. Impacts: We identified impacts as construction impacts; post-construction and these impacts are either on a local scale, which is the study area, regional which is the parish level or national which is islandwide.

The methodology used for this assessment: We did desktop research and we also did a socio-economic and public perception survey which was conducted on March three to four, of two thousand and seven. We also did a land use survey and sent perceptions survey out to some stakeholders. The land use survey included the review of satellite imagery as well as historic maps of the study area and we also did an onground land use survey on March fourth and April first.

This is the picture of the current land use in the Falmouth area, the study area which is the site which is on the waterfront as well as within two kilometres, and this is zooming in on the waterfront area. We can see, we can identify -- can I borrow your pointer, please. You can see this right here, this is Water Square so that can help you get your bearing, and then you can see what's around. Going back we see that we have a couple churches in the area, we have lots of commercial land use in the downtown area, we also have recreational, we have education right down here, the Heart Trust is at the bottom of that, see right in that area, and outside we have a lot of swamp land that also includes the fish ponds which is agriculture. We also have -- what I found also is a lot of mix used building,

where you have commercial and residential in the same structure.

We now present the potential socio-economic impacts, and this is basically what we got from talking to people and doing background research on the area. We have construction impacts, include land use and what we found in land use was that we would have displacement and relocation of businesses and residences. If you recall from the land use that you see in the area, that's the project and you remember the previous slides of the previous presenters, there are lots of businesses and also houses in the area and what this will result in is in relocation and displacement of these.

Now, to mitigate against these; to minimize the impact on the community and individuals who will be affected, we are recommending that we include the community and especially those persons who will be displaced in the development activities, whether by providing jobs or through compensation for the loss of income or through purchasing of properties that will be taken into the development. We also suggest that a relocation plan be developed and agreed upon by all relevant parties prior to any preparatory work for construction. Additionally, adequate notice should be given to the public regarding the expected changes to the community.

Another land use impact we found was the potential or increased squatting by migrant workers, and history has shown us in Jamaica, that yes, the workers come in for work and they often times move onto different sites but they often times also stay where they found land to build their temporary houses on. To mitigate against this we would encourage that the developers develop and or identify housing solutions for these people concurrently with other developments.

During construction we also have impact on employment and income. There will be temporary loss of income for displaced businesses during relocation activities. This is short-term. We recommend compensation for loss of income and or provide employment for affected persons to offset those losses, and apparently compensation would be through payment for their properties. A positive impact is that jobs will be created during construction and as the Honourable Hylton said, they are proposing estimating approximately six (600) hundred jobs during construction. Construction impact also includes transportation, there are proposed changes to the road network and this will disrupt the flow of goods and services to the community.

Again, we believe that including the community, the residents and the affected persons in the development is crucial for fostering a sense of pride. So, if you know what is happening, I think it would be more acceptable if you believe that this is for the betterment of your community. So, again we recommend including the residents in the planning of the development and provide sufficient and timely information on road closures and alternative routes.

Community development: Access to certain areas of the community, some services and use of some infrastructure will be disrupted, and again we recommend including the residents in the planning of the development to foster pride and understanding.

Post-construction impacts: Now, this we have -- we formed that they are national and regional development impacts. A potential impact is that the development would contribute to heritage tourism development for the country. There would be increased visitor arrival and foreign exchange earnings for the country as well as the community. It will contribute to employment and or reducing unemployment rate for the country and for Falmouth. It would also contribute to enhancing our historical awareness and restoration of historical sites and buildings in the area.

A -- our post-construction impacts on land use would be improved infrastructure in terms of the market facilities which will be relocated. Again they will be renovating historical monuments and buildings and there will be upgrading of roads and introductions of new roads. There would also be the value -- property values of those people within those communities that are close by or even to a distance would possibly increase in value and that would be a good thing. There would also be improved living conditions of residents of relocated squatter settlement. We have a couple informal settlements in the area currently, and development is proposing to relocate these. So providing that the proper infrastructure and services are incorporated into the new site this would definitely improve the standard of living of these people. Post-construction impact on employment and income: Again there will be increased employment which would have local, regional and national impact.

Transportation: Improved transportation system, there will be the creation of new roads and improvement of existing roads. There would also be upgraded taxi and bus system. In terms of community and recreation, the existing social services might not be, an infrastructure may not be able to facilitate the increased activities in the study area. So, In terms of garbage collection, in terms of the number of ATM machines in the area, this might be inadequate, so we are proposing that these services be upgraded and the infrastructure and the roads have already been proposed to be upgraded to facilitate current and future residents of the community as well as the visitors.

A positive impact on the recreation and community would be improved community infrastructure and recreational facilities, the community would be aesthetically pleasing in that it would be cleaner, it would be more sanitary and as there would be monitoring plan and maintenance of the facilities. Thank you.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Identify and go ahead. All this is quite a mouthful. I would like to thank you, all the presenters, for coming here and educating us as to the proposed development and the planning and so on.

Now, the whole purpose of this meeting is to be materialized at this time. Your participation, you have two mikes here that you can come to the mike, identify yourself, if you want to address the questions to a particular person and you know that person then you can go ahead and ask the question and I will try to have it answered for you. This exercise will take about an hour if that long. So, who is going to ask the first question? The gentleman behind you, identify and go ahead. It's working.

MR. GAYLE: Good evening, my name is Roland Gayle and I work with the Office of Disaster and Preparedness and Emergency Management. I coordinate activities in the west. There are a couple things I need to query in terms of risks and the analysis as well as to point out some omissions. For one, there has been baseline studies done in the past. For example, in 1998 the Martha Brae River Estuary Project which was funded by the...

(A P P L A U S E)

...EFJ and nothing was mentioned in the whole analysis so you have ignored existing baseline. Secondly, in terms of flooding potential, it seems to be concentrated on the development site and not on the rest of Falmouth, and it also ignores the impact of Hurricane Gilbert in 1988, where we had boats ending up in the Water Square area of Falmouth; so that means the storm surge was way above the projected, given the analysis that was done. Further, the

January one floods of two thousand and one that was totally ignored in the analysis of the flooding of the town and the potential for flooding. Also if we are going to channelize the eastern part of dragline, what is going to happen to the western part, and the natural flow of the town during flood waters from the southeast, right, when you are going to Bogue Gate. Now, a lot of those channels have been close off by the development of the wetland areas so what you are actually creating in my view is a pond because you are going to raise the eastern side, you are going to raise the southeast by dumping up that rice field which acts as a sponge for a lot of water coming in from Martha Brae, so you are going to send all the water to Falmouth Gardens and other areas that have been developed. So those areas need to be addressed.

I also query the data about return period, with global warming, with climate change, we don't know much about it, it is still something to happen, and the analysis seem to ignore what is happening in the interior, in the hills of Daniel Town, the whole stadium developments and the fact

that sewage from the stadium, the effluents are going to enter Oyster Bay, those things are not taken into the analysis. The data also ignored previous things, so to make an analysis without adequate historical data is a bit flawed in my view. The ignoring of local knowledge which is very critical, and the Ritz Carlton is an example where local knowledge should never be ignored, when people told them that they were building in flood-prone areas the engineers said, no, they can engineer the problems away, it has been flooded four times already. The destruction of Oyster Bay is a possibility, right, because we are going to increase the channel so the wave regime in Oyster Bay is going to increase.

Also lacking from the analysis in my view, the whole water chemistry, it didn't say anything about the wind regime at the time, as well as the wind direction, wind speed, stuff like that, what was the ambient temperature in measuring oxygen because if the water is warm as opposed to being cold, and the time of year is very critical because in March usually the flow from the Martha Brae is very low and therefore that will mitigate some of your findings and if you had gone to the two year study of the NDRA project you might -- you would have a better basis for you data. Finally...

(L A U G H T E R)

I am talking on behalf of Falmouthian...

(L A U G H T E R)

Lot of you here don't have the technical ability. The hydrogeology analysis spoke of about percolation that you going minimize flooding by allowing water to percolate, I don't know, that is going to be a big problem in Falmouth because the watertable is very high and water don't usually percolate much here. It runs off, either to the sea or southwest. So, if relying on percolation to remove water from the town, it is going to be a big problem and those are my early views. Thank you very much.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Is there any comments by any of the presenters who would like to make on any points that have been raised?

MR. PAUL KERR: With regard to the -- well, first of all, let me thank the commenter, questioner, very good questions, very good comments in terms -- well, first of all, let me say that as far as the water chemistry is concerned, the environmental chemistry is concerned, we did not present here tonight all the results that are in the report, okay.

Now, with regards specifically to the measurement of ambient temperature as it relates to the levels of dissolved oxygen, you are quite correct, that's one of the main things that governs the solubility of oxygen in water, however we did present, if you recall, the parameter, we call Dissolved Oxygen SAT, the DO SAT which is to say the maximum concentration of oxygen that water will hold and that parameter is particularly dependent upon temperature, but if you check the report you will find the data on temperature at all the sites where dissolved oxygen was measured. The report, as I understand it -- well, first of all it's in the public domain on the NEPA website, and it ought to be in the public library as well.

MR. ROYLAND BARRETTE: Okay. Thank you very much. Yes, sir.

MR. CHRISTIE: Yes, sir. Mr. Christie, sir. President of the Fishermen Association of Falmouth.

MR. ROYLAND BARRETTE: Just a minute, Mr. Christie, there is a response here.

MR. BRYAN RICHARDSON: Just to address some of the issues that was raised in terms of the analysis. Flooding in terms of the analysis in the EIA Project, you have to look at the project at hand and within a certain area, the ODPEM was queried regarding flooding we have on record and that is shown within the document and some localized issues which we may have within the town may have not been considered or if it's not been reported to the ODEPM it may not have been considered within the report. Now, in terms of the issue in terms of storm surge that will be looked at in a much more detailed study when it comes along. But if you consider this, when you have a storm surge event, we are talking about an extreme event and there is very little, you have to weigh your engineering design against costs, right, and you must expect that even when you build your house, that when you have a really hard wind you might lose some shingles, you might lose some stuff, so both may come in, that is suppose to be expected, you can't engineer that design, you can't engineer that out of happening within the design structure.

MR. CHRISTIE: You...

MR. BRYAN RICHARDSON: Just allow me to finish. You spoke about percolation as well and being having a high watertable, that is an issue in Falmouth, but I said it was just a consideration or mitigation consideration for just the paved areas that we were looking to have permeable pavements to not concentrate runoff into a single discharge point but try and basically accommodate within smaller zones, so if you have a walkway and that has permeable areas you are talking about that stretch of walkway not contributing to the end discharge and there is more than sufficient percolation just from -- to actually hold that material over a small storm event, if you are having a larger storm event anywhere you go that will be saturated and you will have that normal runoff and that will be controlled with the drainage system.

MR. GAYLE: Let me just mention something, in the whole analysis, the bias is towards storm surge activities but the town is also impacted by flash-flooding and by riverining projects which the analysis has not, to my view -in my view, it was not dealt with adequately and you probably need to revisit that. The flow from the Martha Brae and the runoff from Granville and all around the town that needs to be addressed as well as when you have a flashflood and we do have them regular.

MR. DONOVAN ROSE: Can I respond to one thing? You raised the question of the increase in water coming through the channel and the possible impact on Oyster Bay; I had mentioned in my presentation that there was a study which was underway, it is almost complete now, that dealt with the precise potential problems and the results at the moment are showing that there is no significant changes and there will be no significant change as a result of this channel.

MR. CHRISTIE: Mr. Christie. President of the Fishermen Association. There is the town of Falmouth and there is also another town which we looked at; it's an underground, I have not heard anything about our underground. There is a town under Falmouth, below Falmouth, the entrance is on Market Street; I think the Custos know something about that, and I have not heard anything mention in that regard. Another thing is on our location at the Fishing Beach, we know that there is -- we are supposed to be relocated but presently we think that we won't be leaving Falmouth, and we won't be going into the swamp, so we would like them to provide something especially for the fishermen so when we are relocated we won't be put in the swamp and we won't be leaving Falmouth, because we have been here -- there for over a hundred years at that location, so I hope provision is prepared for us.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Anybody wish to comment on that?

MRS. FAY PICKERSGILL: Good evening ladies and gentlemen. I am actually a little surprised that Mr. Christie has got up and raised that point, because I have had two formal meetings with Mr. Christie and several informal discussions, the last one was today, another one was last night and one was two months ago, and in between, and what we have said, is that we know that adequate provisions will be made for the fishermen, because the fishermen are going to be impacted by the project. Right. There is no question that we will have to deal with the relocation. The Chairman and President and the Members of the Port Authority are fully aware of this. We have identified what seems to be perhaps the most logical area where they could be relocated to. We are in some negotiations with the property owners, it's a large parcel of land, the fishermen know that we are looking at ten acres, Mr. Darley has actually planned the entire project, which

will be, I mean a mega improvement on what is there, not only a mega improvement but we expect based on what we foresee that it will become apart of the attraction for the visitors who are coming and could be included on one of the tours once we get the fishermen raising the standards as I have been saying to them, because as it currently exists and in the current state that they operate we could not send visitors to those facilities.

(A P P L A U S E)

So, if we agree, and the fishermen, I think are committed to the principle that I propose, then we all can work together. I have discussed it with Mr. Darley already; it could be included as one of the stops on a tour in Falmouth. We have had some difficulty settling with the property owner because the property is over three hundred acres, the owner does not want to sell ten acres, okay, and that's really what we need. Now, how you buy three hundred acres, albeit much of it is swamp land, but how you spend that much money to get ten acres is something that obviously economics has to be considered. In the meantime
we have found two other properties, because we have been speaking to members of the community as to where else we could possibly relocate the fishermen. They know, the fishermen know that there are two other sites that are under consideration, one of them we have been to is not suitable because it is a breeding ground for the fishes, so we know from the fishermen, although we heard from other technical persons that it was possible to relocate them there, the fishermen themselves have said in meetings, no, Mrs. Pickersgill, we can't go there because that's a breeding

ground, so we are left with the other site for us to investigate. The technical team at the Port Authority headed by the Senior Vice-President, Mr. Edgehill here at the table, is looking at that other site, so at the moment we are exploring this second site, while we still have that original site to contemplate, because although they are saying it is three hundred acres and they have to sell the three hundred acres, we are saying, before we settle off, let us explore other options, but the important thing which I have sought to assure the fishermen about, is that one way or another a site will be found for them to be relocated to, and this is the commitment which the Chairman of the Port Authority has said that I can give to the fishermen. This is what, sir, I have communicated, and as I said, given the discussions that we have had I am a little surprised that Mr. Fitz Christie would get up and say what he has just said, but it is important for us to have public participation as we discuss this environmental impact study. So let all views contend and let us get the views out so that we can deal with them as we need to. Thank you very much.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Yes, sir.

GAVIN MYERS: Gavin Myers, National Center for Youth Development.

MR. ROYLAND BARRETTE: Okay.

GAVIN MYERS: Just a pointer here. It's best if we speak about everything on our minds before rather than saying it in the dark.

MR. ROYLAND BARRETTE: Agreed.

GAVIN MYERS: So, hence the fishermen has a very important point, they do not want to be moved, and one of our problems in the past has been that we have moved persons because we have seen them as indispensable or dispensable, so we just throw them wherever we want to. So maybe what we need to do is to ensure that all persons are taken into consideration. Just want to ask a question, re the youth, will there be training for the workers and where will this training be offered and to what extent will this be continued over the life of the project and after the life of the project whereby some youths are trained in certain areas and as a part of a long-term plan for the area? And also the other question that comes in now is, where will there be if any the spoil be dumped offshore if there will be any dumpage of spoil offshore? The third one is, how will it be dealt with onshore? And also I would like to look at the impact upon the youths in the area in terms of the impact on the culture; nothing was mentioned upon the impact of the culture of the town within the SIA.

MR. HUGH DARLEY: Let me answer a part of that question because I figure it cover several of our responsibilities. From the training and activities, we have a couple of initiatives. One is, we are going to use all the existing Jamaican Programmes, that include a National Programmes for training for youths as well as retraining for tourism. So all the existing programmes, we were already meeting with the national officials to develop all of these programmes. We also were going to include, really a local initiative for arts and crafts, someone mentioned about the kids; one of the things that we want to do is build a living museum, so all of the arts and crafts and trades that are traditional to telling the story of Falmouth, just like in Colonial days which we are using as our model, we are going to develop training classes for all of the arts, glass, wood, metals and the building of those carriages that we have discussed so that we could train those to be used as also in other jobs that will be in the redevelopment in all of Falmouth. So if you are restoring a small home or another business or another building we want to create a cycle

where we can train people that can then go in the construction fields and the craft fields that can then help the extended growth of Falmouth.

(A P P L A U S E)

GAVIN MYERS: Can I just ask a question on that. Will this impact upon within the schools now presently within Falmouth? There is William Knibb, there are several schools here, how will it impact upon these schools, one, and two in terms of preserving the local heritage, in terms of our stories, how will this project impact upon the stories so that other people know it, not just the impact upon the Georgian structures but rather on the people here, the story of slavery, the story of the struggle of the people of Falmouth against this?

MR. HUGH DARLEY: As I said in the beginning, this is your story. One of the things we are beginning is that we have got a year worth of data collected. Starting in October we are going to begin having meetings with Mrs. Pickersgill to identify, we want the community to tell their stories. What we will do is take those local stories and take the local culture and the heritage and we are going to retell it and we are going to tell it in a way that we can package it for tourism and it can be understood. So, the idea is that we will collect all the stories and we want the community to write the story. Those are just our graphics; it's really your story. All the aspects that you saw, inclusion of the two ships there, are going to be included in part of that storyline. So, again it's your story to tell. You'll start to see us around here; we are going to be here for a long time collecting those stories and we are going to help you retell those stories so that we can package it as we said in a living history tour for tourism in Falmouth.

MRS. ALLISON RICHARDS: And if I might add, in terms of culture, during the socioeconomic survey we did interview people on what cultural activities they do, what they do for fun in the area and we found out that sports was big. A part of the proposed development is a recreation centre. There is also existing a youth club in the community. I think that the development in terms of the historical restoration and the tours which would also be open to the Jamaican populace, it's not just the tourist, so the youth could have organized tours within their groups to these sites and learn more about our culture. Schools could develop school trips to take tours; they could go on these hikes, these trolley rides and take the tour just as the tour is, just organize ourselves and take advantage of our resources.

MR. ROYLAND BARRETTE: Thank you very much. Go ahead.

MIKE SHORTS: Good evening, Mr. Chairman, ladies and gentlemen, Mike Shorts of Windsor. Two questions on biodiversity. First of all, you propose to dredge four-and-a-half million cubic meters of dredge from the harbour, that's the equivalent to two hundred thousand truck loads, so it's quite a significant amount, and I don't think you covered the environmental impact of disposing of that. You said you would dump it either on land or in the sea but you didn't say what the impacts would be or what mitigation strategies will be taken. Despite -- obviously you have talked about silt screens, I understand if you are dumping it at sea you probably going to dump it via a floating pipeline over the edge of the reef but it still is going to have the impact and it may even have an impact way down.

MR. DONOVAN ROSE: The material that will be reclaimed that will be used for reclamation and for land. There will be a burned area and screened area to prevent any sediment impact outside of the burned and the reclaimed area. In terms of material being dumped offshore, the materials which will be dumped offshore would largely be materials which is unsuitable for construction and the standards which we use, it will be at least at the thousand meter contour, it will not be piped out to a dump site, it will go onboard a hopper dredge which will be carried several miles offshore to the thousand meter point, to a point where the currents are in such a way that they will not be washed back up onshore. The idea is that it will be deep enough to be dissipated properly and there will be very minimal impact if any and it will not be deposited in an area which is known for good flora and fauna conditions which will cause an impact.

MIKE SHORTS: I conclude that it comes out by a dredge as a sort of point source of pollution out to sea.

MR. DONOVAN ROSE: Yes, it will be effective but if you see if you dump it far enough out, is over three thousand feet deep, we have run models of this kind of thing already, and it shows that the dissipation is from the fines and heavy materials fall to the bottom and it does not have an impact but it is very far from the point of deposition. We have photographs of it in Kingston Harbour and in other areas.

MIKE SHORTS: The second question for you, was that you talked about dredging twenty hectares of grass and coral including the fifty meters widening of the channel but you -- but it didn't cover the methodology. I understand you are dredging the silt by using some sort of suction pump which seems rational but I presume that to widen the channel you are going to have to use explosives.

MR. DONOVAN ROSE: No. No, explosives will not be used it will be a cutter suction dredge.

MIKE SHORTS: Cutter. Okay. Finally, thank you. One question for the socioeconomic lady. The impact assessment talks about the market being in a deplorable state and it will be moved and improved, however, will it remain compatible then with the present socioeconomic uses as a farmers' market which is not necessarily concerning -- compatible with craft market, people coming in with truckloads of yam not truck loads necessarily, but truckloads of farm produce don't fit very well with pretty delicate craft items, so my question really is, what are you doing about that and where will the farm market be? And I noticed that there are no craft people here tonight, saw no market people here tonight because of course it's farm market so that seems to be a lack...

MRS. FAY PICKERSGILL: Excuse me, Mr. Shorts, sir, if I might. Is Prudence Rose here? Prudence is one of the key craft persons in the community. Prudence, stand up so that they can see you, and she has her team of persons with whom she works. The point is that there are craft persons who are aware of the project and with whom

we intend to work more closely as we advance the project. Your comment regarding the market, there will be one market for the craft vendors which is sort of within like within the scope of the project as outlined, sort of like along what is it, Harbour Street, Upper Harbour Street, that's where that market will be devoted to the craft personnel, the other market which will deal with your food and bend down which is critical to the fabric of this town will be located across the road, do you know where Mr. Seivewright has his storage space there with his trade and thing, yes somewhere in that vicinity is where the regular market for the town with the produce and all the activities of this market town will be accommodated at that location. That's the intent. So, it's actually two separate markets that we are talking about.

MIKE SHORTS: Thank you. You have answered my question perfectly.

MRS. FAY PICKERSGILL: I am happy to know I did.

MR. CHRISTIE: I just need to correct the gentleman that was saying, the fisherman didn't said they won't be moving we just want to know that adequate provision will be made for us. We didn't said that we won't going move. Just need to correct that.

MR. ROYLAND BARRETTE: All right. Thank you. Go ahead. Name.

WENDY LEE: Good evening.

MR. ROYLAND BARRETTE: I can hardly hear you.

WENDY LEE: Can you hear me now?

MR. ROYLAND BARRETTE: Yes. Yes.

WENDY LEE: My name is Wendy Lee and I represent the Northern Jamaica Conservation Association which is an organization dedicated to the conservation of natural and cultural resources in Jamaica. We have over two hundred members around the island. I also have with me comments that were gathered from a large number of members of an environmental advocacy network I don't have everyone's comment but I have some that were sent to me. So, I have a few points that I would like to make.

We would just like to make a gentle reminder that the purpose of this meeting is really for the Government to express its commitment to participation, openness, accountability, involvement of the people and that the input that is gathered here today must be taken into account and the decisions for this project should not be treated, it should not be treated as if the decisions have already been made. We have been told tonight that the first cruise ship will be docking here in November two thousand and nine and I don't think that that is good.

MR. NOEL HYLTON: Can I just correct you straight away?

WENDY LEE: Yes.

MR. NOEL HYLTON: It will be docked in Jamaica not necessarily here.

WENDY LEE: Okay. My impression was -- okay. Thank you. Anyway, just a reminder, a lot of what we are talking about the development of Falmouth and preservation of its heritage and tourism opportunities here can be done without a huge cruise ship terminal being put into the town with its very severe and long-term environmental impacts, so I just want to make that point.

MR. ROYLAND BARRETT: May I just mention something to you...

WENDY LEE: Could I just make my point, sir?
MR. ROYLAND BARRETTE: Pardon.
WENDY LEE: I have a few points to make.
MR. ROYLAND BARRETT: No, May I just
mention something to you right now. And I told you at the
beginning, the entire proceedings of this meeting is being
recorded.

WENDY LEE: Yes.

MR. ROYLAND BARRETTE: Even the questions that you ask now and the answers that you are given are being recorded, and in your own interest if you care to follow them up, then if somebody said, if you are given the assurance that this is to be done then you will be given the opportunity to see whether it is being implemented or not. WENDY LEE: Thank you.

MR. ROYLAND BARRETTE: Go ahead, please.

WENDY LEE: Okay. Some of the environmental concerns have already been mentioned. The removal of twenty hectares of coral reef, seagrass, eight-and-a-half hectares of wetlands, they are going to have some very long-term effects on the biodiversity, and I haven't heard tonight how this really will impact the bioluminescence lagoon and the increase turbidity, the impacts of cruise ships over the long-term coming and going, and that possibility, I don't think it has been covered and I don't know what value has been given to that precious resource that might be destroyed by the - because of the cruise shipping activities. There are huge volumes of waste that are associated with cruise ships, and I haven't heard these volumes quantified. The amount of water -- waste water that is generated that can be over a million gallons in this scenario based on the average per passenger figures that I have record of. Sewage, based on, again the average figures, looking at approximately fourteen thousand

passengers, you might have a hundred and twenty-eight thousand per day generated. I know the mitigation recommendations have said that the infrastructure will be critical for managing the waste and the impact of bringing in twice the population of the town on a regular basis, and I really have not seen the concrete answers to the sewage treatment problem that will arise, will arise not only from the cruise ship passengers but from the construction work force, the likely escalation of squatting in the area. And ladies and gentleman, I am not talking in a hypothetical way, I am coming from an experience where concerns were raised over a kind of a development in an area, they were not addressed and the predictions have all come through, so it's not something to be taken lightly for the people of Falmouth. Those are some of the...

MR. ROYLAND BARRETTE: Would you like some answers now?

WENDY LEE: I just would like to make some points on the socioeconomic and the culture.

MR. ROYLAND BARRETTE: Okay. Go ahead.

WENDY LEE: I won't be very long.

MR. ROYLAND BARRETTE: Go ahead.

WENDY LEE: In terms of the socioeconomics, I found the EIA to be very weak. There seem to be a measurement of perception more than anything else and not necessarily the real figures that will benefit who are the local people? Are we qualified to be employed in this development?

(A P P L A U S E)

Is it going to be a lot of investment? Port Authority, I am not sure of the finances but if the Port Authority is doing some of this then it got to be some of our money going into it. Are the people who are here going to be the ones who are going to benefit or is it going to create a platform for an influx of retail merchants that have nothing to do with Falmouth?

(A P P L A U S E)

WENDY LEE: I have noticed that you are going to pave over some two hundred and fifty thousand square feet to provide retail space, not only will this have environmental impacts with the runoff but you really don't know where you are going to put, but what is going to happen to the heritage that lies underneath that two hundred and fifty thousand, if I have gotten the figure right, square feet, which brings me to the issue of archaeological heritage. I must ask a question, is the EIA complete? Is this all we are going to get? Because if that is the case the terms of reference has not been met because there is no archaeological, there is not adequate archaeological assessment of this town which is the heritage gem of the North Coast. And I can't imagine you are going to reclaim such a huge area of the coast, what is going to be buried under it might be the very heritage that you should be seeking to learn about and preserve. So I think that it gets a failing grade in the archaeological assessment. And also in terms of culture and heritage, Falmouth is a market town that is the living heritage of this town. When I hear talk about relocating the market and then we have a lovely sanitized old time but all new square that looks like a Georgian Square and is full of shops, no doubt inbond

shops, and the real market which is actually the living heritage of Falmouth, is simply to be dismissed and relocated in a new facility, put somewhere else. The market is not just about walls, it is about the place. It's the heart of Falmouth.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Can I get an answer for you?

WENDY LEE: A final point here. The EIA makes a big point here that all of the mitigation measures for the environmental impacts that have been recommended, they hinge upon the fact that laws will be in place to prevent, to address sewage and environmental impacts, and that there will be adequate monitoring and enforcement, and I would like to ask, whether Jamaica has actually promulgated and passed the Shipping Act, which speaks to prevention of marine pollution, and whether Jamaica has ratified an extract from MARPOL which speaks to the dumping of sewage outside of or not in our local waters because if we have not put those in place then there is no legal remedy

when the cruise ships decide that they might want to discharge the waste, and Royal Caribbean Cruise Lines have -- are notorious for having violated environmental laws wherever they have gone, and they have been fined millions of dollars by the US Government for violating their Sewage and Waste Dumping Provisions, and they were also found in '94 to have constructed bye-pass line for their waste that were -- that absolutely took the waste away and when inspections were done they were, the situation was put back as it should have been. So, there is no good track record in the cruise line that is contemplating this project, nor is there any good track record of enforcement of environmental laws in this country. So, promises will just remain promises; and I think that almost everything that is being described in the positive sense for the tourism opportunities of this town can be done from an approach of land-based tourism, and that's why we have this big highway, remember we are only half an hour away from Montego Bay. So, those are the main points I would like to make. I don't think EIA has addressed that. Thank you.

(A P P L A U S E)

MR. ROYLAND BARRETTE: A reply is coming.

MR. HUGH DARLEY: Let me see if I can remember all the comments. First and foremost, as Mr. Hylton mentioned earlier, Falmouth was only one of several sites still under consideration for this growth and cruise traffic that we plan to have here in Jamaica. One of our biggest considerations and one of the biggest negatives for Falmouth is quality of water and the issues with the sewage. So let me start to address that a bit. We are proposing as the developer to develop a seweage plant, first world tertiary plant to trade one hundred and fifty percent of all the lands we are developing, which means we are providing added capacity, for as you noticed in the earlier diagram the open channels which currently carry open sewer into the canal and into the harbour, we are going to be claiming all that into a water treatment facility. We are then going to polish our water beyond tertiary. We are going to polish and put potable water back into the environment, so that's the first thing. Then the Water Commission is involved in

that process as we are also providing to the added capacity because we know how much Falmouth is going to grow over the next 10, 15, 20, 25 years.

To address the ship, the ship that's coming here has probably the finest water treatment facility in the world on board. It doesn't have to deposit one gallon of water off of that ship, and when it does it can put it out as potable water, you can drink it. So, the old ships that you knew that were build in the eighties, yes, that's true, they did dump a lot of tertiary what we call effluent water at sea. You won't have any water discharged in the harbour here from these modern vessels. And again, literally you can drink the water, I wouldn't recommend it but you can drink the water that comes up from under the sewage system on the Genesis, Vision and Voyager and Freedom Class Ships.

The next thing was to talk about the self-contained: Our two existing plans is two provide two high volume storm water control systems, one load all of the new reclaim land. We are going to be able to capture all of the rain water and any storm surge or overdraft of water first. We

are going to send it within the property development, the thirty-four acres, and we are going to take it to our water treatment facility. We are also going to put a new sewage line in the Upper Harbour starting at where the courthouse is which will run in the centre of the town. The existing flooding conditions, I think someone mentioned earlier, some of the conditions that are flooding out, we are going to capture all the water, both on our property and whatever inflows into our property and take it to the water treatment facility. And then as in the report, we have several different means to treat all of that water, so that all of your solids stay on land and what you are getting is higher quality water than you get. So, our desire to pick this location, we had to make the water quality better than it is today to even allow the cruise ship and the guests to actually come to Falmouth. So I want you to know that's what the developers do, it is making a better environment than what was currently here today.

(A P P L A U S E)

MR. LINNEL McLEAN: My name is

Linnel McLean. I wear a number of different hats. In respect of the environmental situation, I think most of the questions have been asked the and answers have been given, except that I am a still a little bit unclear on the matter of a hurricane surge for the rest of Falmouth outside of the development area, I haven't heard anything on that yet. You had some discussions - you had some comments on Oyster Bay, and there was some talk that some tests are going on right now, and the indications are that that position would not change. Well, I am not too sure when you say that position but when you say Oyster Bay we know we talking about the plankton, the phosphorous out in Glistening Waters, what is the situation with that; would that situation change; is that what you are talking about when you say that your tests are happening now and we won't see much change there?

MR. DONOVAN ROSE: Dealing with the Glistening Waters situation, it was identified by our ecologist that there was a potential that if the currents change as a result of widening the channel there may have been a situation where there was increase scour out of the Bay to get into the Bay we could move the dinoflagelettes out into the harbour. So we immediately commissioned a study to examine the changes if any in the current regime and in the space of the currents running in that direction. Also it was found that solidities are very critical elements in the survival of the dinoflagelettes, so the study address both. The results which are currently coming out shows that there is no increase in scour as a result of the widening of the channel and from the building of the shoreline facilities, nor is there any variation in the salinity, not a significant variation in the salinity which would be adverse to the bioplasmas.

MR. LINNEL McLEAN: But the salinity, the concept of salinity would be adjusted because you have a situation where you have the morass, well, being dumped up to build a hotel, so you have three different sets of water that creates the vision that we have for the natural situation that we have here, so it's the morass water, the salt water, the fresh water and the different temperatures that happen. We are dumping up over there to building a hotel. We are going to have the dredging opening up so we have changes, obvious changes in the salinity is going to be happening.

MR. DONOVAN ROSE: First of all as part of the hotel is concerned we are not part of that development.

MR. LINNEL McLEAN: I know but it impacts on Oyster Bay.

MR. DONOVAN ROSE: Just a minute. The major impact as we can see from the Port Authority Development with the widening of the channel and consequent increase in wave energy coming through, the danger we conceive was that the possibility that reflection and there would be changes in the circulation in the bay which could cause damage to Oyster Bay and that is why the study was commissioned.

MR. LINNEL McLEAN: And it is not conclusive yet?

MR. DONOVAN ROSE: I didn't say that it is not conclusive, sir. We have had conclusive results. The final

document has not yet been print. We have seen the drafts and we have approved the drafts and it's going ahead. It seems to be all the results that are coming in that there is no additional scour from the widening of the channel which could damage or affect in anyway the ethnicity in Oyster Bay.

MR. LINNEL McLEAN: As the Custos says, we have to sometimes let you all prove yourself. Unfortunately this is something that you can't change back because there are only four places in the world that have this type of situation.

MR. DONOVAN ROSE: And we are very aware of it, sir. Indeed we have done some studies on it to show that it is excellent right now and it is probably the best in the world, and we would not want to see anything happen to cause any change in that condition, and this is why we have spent quite a bit of money to get the study done in order to ensure that this doesn't happen.

MR. LINNEL McLEAN: In terms of relocation, the situation of relocation of the waterfront, you speak

relocating businesses and people getting an opportunity, I think you spoke of people getting an opportunity in another area but in that area where you are relocating people from, you have schools and churches, I didn't see anything significant in terms of your redevelopment for the schools and churches.

MR. HUGH DARLEY: Let me address the last part of the question that you brought some of the relocations. We have two initiatives that we are doing. We are actually entering at Mrs. Pickersgill influence. Again we have talked and worked with both churches and the relocation and we have those properties being done. Those proposals are already in so most of those congregations that are underway. The relocation of any of the existing businesses or a couple of the residences that are affected, we are actually creating a commercial development which will allow us a year advance of development of the port. Relocation of those businesses, so literally any of the relocations that we are currently negotiating will have to build and move into a new facility but the day after they

close their existing facility it should mean that they would not be out of their work not one day rather than do business one day. That way we then can clear that property that we need. The Port Authority has already made the combinations to purchase and buy all of those properties that are affected within our plan. Some properties we would like to have we don't have but most of all the property we need is already underway.

MR. LINNEL McLEAN: The final section, I guess is the socio-economic part. In terms of the market I heard Mrs. Pickersgill saying the market will be the "Bend Down Market', will be relocated along, I am not sure where exactly you say, you just said out by Seivewright, I am not sure which side of the road.

MRS. FAY PICKERSGILL: Same side.

MR. LINNEL McLEAN: The right-hand side. The same side as where Mr. Seivewright is on or the same side as your development?

MRS. FAY PICKERSGILL: The same side as Mr. Seivewright.

MR. HUGH DARLEY: You can actually see the diagram over there on the wall. There is a location right there. There is the location for the 'Bend Down Market'. So after the meeting is done please come up and look at it.

MR. LINNEL McLEAN: In respect of the opportunities for local business people, how are we able to access the situation of ensuring that we can participate?

MR. HUGH DARLEY: In October we are going to begin our process and we are going to allow the community to look at what the plans are there for chaos, stalls, businesses locations, from everything from small spaces to large spaces, from tens by tens, twenties by twenties, to large square footage in the buildings. Again remember this is your story to tell; the developers coming here, if all of these things get in place and we come to Falmouth, don't underestimate the power of telling your story, the biggest reason we, as a -- representing the cruise line and wanting to tell a story about Jamaica is because the story you have to tell, this isn't Montego Bay, this is not Ocho Rios, we want to tell the Falmouth story in Falmouth. The participation

will have to come from people in this room and the developers made a commitment to include as many vendors, operators and craft people as we can into the new development that can tell that story for us.

MR. LINNEL McLEAN: And we won't have a situation where you come in October and certain things are blocked out already, like you have a Appleton Rum Tour rather than a Trelawny Rum Tour.

MR. HUGH DARLEY: We are going to, again the world works into what some people call the Golden Rules, but not necessarily in all cases then we have historic attraction which has a different economic basis than a retail location in the new Market Square. So we will work very hard at making sure that we have the economic formula that will allow locals to participate in all of those attractions as well as all the retail locations.

MR. ROYLAND BARRETTE: Thank you very much. Yes, ma'am.

MISS JACQUELINE GREENE: My name is Jacqueline Greene. My question, first of all, let me say that this project looks very exciting. And I for one would love to see it happen. So we are very grateful that you have picked Falmouth.

(A P P L A U S E)

The fact that we are having this discussion means that we are at a very advanced stage of this planning and we would like for it to go on. In preserving I heard -- in preserving what we call our story and being able to maximize on such a huge project I think we have not looked at all, there is some suggestions probably for the socio-economic impact and this goes straight to training as far as the younger adults are concern. And I have just a few practical suggestions to lay out at this time.

MR. ROYLAND BARRETTE: Go ahead. Go ahead.

MISS JACQUELINE GREENE: Okay. Back to the schools, if we -- what this is, this is a new area of expertise, we are saying that we know that some jobs, we have spoken about jobs in construction, perhaps it is the time now to actually bring in training from a more technical or a wider base where the whole Port Authority other than just tourism, the whole base of that gets broader, so in terms of the schools, we have some high schools, we are saying that throughout the constructions phase if we could get in at the Career Day at all the high schools to actually tell about, educate the students about some of the opportunities in this field that they could look into in terms of moving on and carrying along with that probably some commitments to scholarships that could be extended to our local people so that we could preserve and grow some different type of expertise that would filter into the socioeconomic aspect and changing lives. Thank you.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Mr. Hylton is going to reply to that. This one is very serious.

MR. NOEL HYLTON: Thank you for that comment. I think it is a very good comment. But you know in a project of this nature we have to go step by step. As of tonight we don't know if the project is going to go off, so there is no point talking about training but in our programme for the project, at some point in the programme we will be carrying out a skills programme in Falmouth to see what skills are available, what training is required, as a matter of fact I have been talking to some people of the University of the West Indies about this but the time is not yet, but I can assure you that we will do that, and I can also assure you that we will concentrate on the young people who has the ability to work in the various areas of this project if the project is off. So as soon as a final decision is taken that the project is ago then we will start that part of it. That will be the next stage of the project. So I thank you very much for that.

MR. ROYLAND BARRETTE: Thank you, Mr. Hylton. Yes, sir.

MR. HUGH DICKSON: My name is Hugh Dickson, of Southern Trelawny Environmental Agency. Hugh Darley and Mrs. Pickersgill, we have had a meeting with you, we pointed out some environmental concerns, and we certainly would like to, as you promised, to provide them back to us in writing, so I won't raise them and I must congratulate Wendy Lee and our other environmentalists for bringing out some of the issues that are critical that we get a response. I have two other comments. One is, I think that there is a need for an ongoing process that will engage the community in this way, but with the hope that it carries an indicator of the economic opportunities for the community so that we could start a participatory process from now, that people begin to understand what are the small, medium and large scale opportunities that they can access and begin to prepare themselves for, so if it warrants credit, if it begins begin to require a specific kind of occasion, that those things are presented at this point so that people can start to target the opportunities for themselves, and I think that it is for the developers, Mr. Hylton, the Port Authority to capitalize on this forum because it may be a model for development throughout.

The second thing I would like to suggest, is that some of the questions asked here this evening speak to things that neither you as developers or people who have done the research have not fully comprehended or responded to but I

would like to get some kind of commitment that in the period of the two years between now and the docking of the ship, which we hope is going to happen, you could provide still more answers to some of these things because we wouldn't like it to be left on record but not being addressed when in fact they may secure a development for a longer and more sustained period because I want the town to appreciate the fact that, as a developer you may bring this massive improvement here but if it proves to economical or feasible you can be out of here in ten years, and we are left with a white elephant, and that's why I think that the approach of the participation is critical at this stage and during development the phase so that we extend the long term into infinitum. I would like to bring that forward, and lastly to say to the community of Falmouth, that if you come out this way, I urge you to look for Mr. Hylton, search out Mrs. Pickersgill, look for Hugh Darley, who is not necessarily based here, to be constantly hammering for an understanding of what is to take place, and just to say to you Mr. Hylton, as a resident of Trelawny
we welcome the project, we don't feel intimidated by the questions, we want to be clear, we want to feel satisfied that it's coming for the goodwill of all of us. Thank you.

(A P P L A U S E)

MR. NOEL HYLTON: I am very constructive, sir, but let me just say something to you. Every investor take a risk when we invested some money, I heard somebody and I allowed it to pass me by taxpayers money, there is no taxpayers money in this, neither what we invested in Kingston or here. We invested 26 Billion Dollars in the Port of Kingston. 26 Billion. Right now as I speak to you, we are completing a project costing Two Hundred and Fifty Million Dollars. We don't know whether we are going to get cargo ships to come there, but it's the chicken or the egg, if you don't have the facility you can't sell it, so we put the facilities in. We have certain commitments from certain shipping lines but we don't know long they are going to come here but those are the chances we take in investment. If we did not have certain reasons to believe that cruise ship will continue for a long time, and we also know that cruise

shipping around the world forty-six percent of that cruise shipping come to the Caribbean, forty-six percent of the total worlds's cruise shipping, we would not have gone into this project. So you ask me the question, will this continue after ten years, if you ask me if it will continue after five years, I will tell you that I don't know. Those are the risks that investors take. But we have to find -- let us say cruise shipping stop all the over the world, we need to find another avenue and our opportunities will always come in business but we need to find other avenues but I am very grateful for the comments you made and I will bear them in mind.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Thank you very much.

MR. HUGH DARLEY: Mr. Dickson. We actually have your eleven points. We have them in writing. We wanted to wait on this meeting tonight to see what other public interest may have bearing on those eleven answers that we have prepared for you. I will see you before I leave and we will discuss those. MR. ROYLAND BARRETTE: Okay. Please go ahead identify.

MR. DEAN BURROWES: Dean Burrowes from Ocho Rios. I just want to thank the panel for the presentation, I really appreciated it. Well done guys. I think this project is fantastic, I think Falmouth needs this project in the worst way.

(A P P L A U S E)

I do have some questions though. First one on Phase One of the development. Could you give us an idea of what percentage of Jamaicans will be employed for that.

MR. NOEL HYLTON: About six hundred.

MR. HUGH DARLEY: We believe about six hundred Jamaicans for construction.

MR. DEAN BURROWES: Excellent. Excellent. Second thing. I didn't see any mention of refuelling the ships in Falmouth, and that concerns me slightly, will these ships be going to Ocho Rios to be refuelled?

MR. NOEL HYLTON: No, we are not planning to refuel the ships in Falmouth. Secondly, they will not go

from Falmouth to Ocho Rios, it is just not economically viable.

MR. DEAN BURROWES: Another meeting, sir. Another question I have, this is for the water expert, water expert, I read somewhere that fecal coilform doesn't live in salt water very well or in sunlight, is that a correct statement?

MR. PAUL KERR: Well, let me tell you. I have never heard that. I have heard that there is a certain amount of what they call die-off in marine waters, but certainly, and we are not alone in this, Internationally wherever they are bathing waters there is a recreational standard for fecal coliform. So, let's bear something in mind also, we have to be very careful about this, fecal coliform itself is not necessarily dangerous to your health but what it does signify, remember we said that fecal coilform is typical to the intestines of warm-blooded animals Okay. so, if there is fecal coliform there is a likelihood that there is some sewage or some sewage type material around, and therefore, okay, say for example it was your faecal coliform, all right mine, let's say mine.

MR. DEAN BURROWES: That's all right, that's shit.

(L A U G H T E R)

MR. PAUL KERR: Say it's mine and I happen to have something like say cholera or dysentery or something that is really really terrible, chances are that that pathogen is also around, but if I am pretty healthy, you can have fecal coliform and it still not causing a problem, a health problem.

MR. DEAN BURROWES: I have never seen algae bloom. I am not an expert and I yield to your expertise, sir, but I have never seen algae bloom in the sea.

MR. PAUL KERR: You have never? Come to Kingston Harbour, I can show you around.

MR. DEAN BURROWES: My last point, sir, I wish I had a question for Bryan Richards, I know he is a super scientist. Thank you.

(A P P L A U S E).

MR. ROYLAND BARRETTE: Okay. Thank you very much.

MR. RONALD BECKFORD: Ronald Beckford, Basketball Coach. I realized Mr. Darley said that the recreational area would be a cricket area, I know that he is just speaking off of the top of his head, but I want to say to the people of Trelawny, that right now there is a son of Trelawny, son of Falmouth who is ranked Number One in the United States in basketball.

> MR. ROYLAND BARRETTE: What is his name? MR. RONALD BECKFORD: Samardo Samuels.

> > (A P P L A U S E)

And in another few months, he has gotten a scholarship to go to you Louisville University and he will be on his way to the NBA, and what we are simply saying, that there are number of things still here in Jamaica to be developed. So, as a basketball coach I am pleading that at the recreational area that an indoor court be built, and that indoor court can be used as an arena to host meetings like these, so that we can have a like a mini-convention centre so to speak.

Also I want to say this in closing though, I want to say this in closing that Falmouth as it is cannot adequately support its residents and Trelawny and we need serious development for Falmouth and Trelawny. It's time to make a change in Falmouth where that is concerned and we support what you are doing enormously.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Thank you very much. Go ahead. Quiet please. We are near to the end now.

(ANNONYMOUS): (He did not state his name.) Hello, short list of questions. I just want to deal with seagrass relocation. First, it's really a rhetorical question, I ask where, but in my experience seagrass habitat is limited in Jamaica, so to put it somewhere 'it's habitat is not recruitable, so you are basically taking away the fish habitat when you put it somewhere where there already is habitat. So, it's fishery management question, and I haven't heard the fisherman bring it up, it doesn't seem to be brought up often. If you are removing habitat you are not being able to do things there is already habitat somewhere else to do that same thing. Your mangrove remediation for Oyster Bay, the hotel that's going on over there is already doing that in that same location. I am not sure how that's going to work. If I was to make a suggestion, the lower Martha Brae has been turned into fish ponds some of which you are going to refill but there is above that which is the rice and currently other types of fish ponds and so on, they could really use some reclamation which would help with the sediments coming down in the harbour and reduce your long-term needs for continued dredging. Is there any thought of doing any cutting in any protected areas where there is fish sanctuaries in and around Falmouth? To help us settle and improve tourist product is there any thought of leaving ships on the outside...

MR. HUGH DARLEY: I am going to address some of the ship-related tendering methodology. If the ship stays outside the reef, larger vessels today it makes it not only inefficient, in six or eight hours to get the passengers off, so for the large number of passengers opportunity we need to look at how we can minimize the narrowness of the channel-way that the ship comes in at less than 3 knots to minimizes all of that. So we have done everything that we can do just in the MOTT McDonald study, twelve different ways of doing that, so from the standpoint of minimizing it we minimized as much of the coastline change as we could and tried to make sure that in the storm condition that we mentioned that they minimize - certainly he can explain better technically about the thirty foot surge.

MR. DONOVAN ROSE: Could I respond to the two questions you have about storm surge. A storm surge study was carried out on the present situation and on the new situation, and there is a very minor change in the height of the static storm surge and this has been taken into account in the development of the seawall that you heard described earlier and the demountable block which would go on top of it. So the storm surge has been modelled and we are taking steps to protect the area. The entire coast of the -- could be affected from Falmouth model and the areas of critical needs are the ones which were addressed.

As far as seagrass movement is concerned, any movement of seagrass and or mangroves will have to be approved by NEPA before it is undertaken. There is the use of this as a mitigation, and we have not selected an area to move the seagrass yet but any reclamation or any restoration will have to go through NEPA and would have to meet the criteria that it is in the area of a need, it wouldn't be done randomly.

MR. ROYLAND BARRETTE: Thank you. Where is the other gentleman? Two more questions. What's your name?

MR. JOE JAMES: My name is Joe James.

MR. ROYLAND BARRETT: Hi, Mr James.

MR. JOE JAMES: Joe James. I am from Rio Bueno. My concern, ladies and gentlemen, I have listened to all the technicalities of this evening's talk. I heard there will be one hundred and something busses taking tours and so on, this is Trelawny, what have we done to locate areas of interest for these guests that will be going on these tours, Number One. Number Two, Trelawny is known for its high standard of wood carvers and artists, painters and sculptors, what in your plans have you got for your tours to incorporate studios, galleries and areas of artistic developments? I think we are looking forward, I am sorry, we are looking forward for this development.

I think the concept is a great concept and I will not put myself in involvement in anyway to deny the development, but I am asking you kindly that you give consideration for the local people here. It is seen in many of these developed areas, not only speaking of Jamaica but elsewhere that I have travelled also includes this, that majority of the people who makes successes from this are not people of the area. We need to see that this is given, I will rephrase that, we need to give opportunities to locals of Trelawny to grow with the development, and I am asking kindly that this should be taken into very serious consideration. We have waited for roughly a hundred years for this kind.

(L A U G H T E R)

Rio Bueno has been the first port of Jamaica. Its history is steep. Trelawny has a tremendous amount to offer. This is a parish which at one time was probably one of England's richest parishes, there were ninety-two sugar mills, ninety-two docks and these are things of our history. This, sir, I ask you kindly to take into consideration and make the parish and its people proud that you are here. Thank you.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Thank you very much. The line is getting longer than shorter.

MR. PATRICK BECKFORD: My name is Patrick Beckford and born Falmouthian representing the Trelawnyites in the Diaspora of friends of Trelawny in the North American region.

MR. ROYLAND BARRETTE: Go ahead.

MR. PATRICK BECKFORD: What I want to do is to congratulate and commend everyone for the fine

presentation, but especially the Jamaicans guys from TEMN, wonderful.

(A P P L A U S E)

I have all confidence in you guys that the concerns I had, some environmental concerns, but you addressed them, but based on your presentation today I have no doubt that you guys will address it. So, I am just saying this, is that all those coming and talking about the concerns, give the guys a chance, this is just a presentation. We in the community of Falmouth, because even though I am living elsewhere I have never left, we in the community of Falmouth are ready for this. We will work with it. One of the other things I would like to say to the community in general, all of us say we are Christians, go back and read the story about Noah's Ark in the Bible, and I hear all the question and everybody saying how we going to do with the youths them, you have two years to prepare for this, organize yourselves in the community. Find out from the Port Authority...

(A P P L A U S E)

...what kind of jobs that are going to be available for the youths. I am surprised I don't see a lot of the principals here from the schools because we have to start in the schools, teach the children how this is going to impact them in the long and the short-term. So, community let's come together; this is coming in our house, is just like a person building us a house and we want bed and we want refrigerator. We getting a house, let's furnish it and we have the potential to do it. Thank you.

(A P P L A U S E)

GAVIN MYERS: Just a follow up. It's a house that is being built and trust me as a thing that is being built in the Caribbean, there is nothing that can come near to this thing, it is really good. And in terms of International standards, in reading it and looking at the environmental impact it is near to perfect. We just wanted to ensure that the things that are local knowledge get spoken about. I just want to follow up on the aspect regarding our culture and development, we want to ensure that local persons are first and foremost where there is something that we can benefit from, in terms of getting shops in the promenade or wherever it is, that there is a certain amount set aside for local persons or persons within the parish. We would just like to ensure that this happens so that persons from outside, whether from the Jamaican or from the other countries who would come in for such a big project, ensure that there is local preservation and that there is some amount of circulation of money within the local market. That's one of the things that we want.

(A P P L A U S E)

I just want to ask, sir, if there is a football field over there, Elleston Wakeland Centre, if you going to build something here, let it be something that develops the football or the multipurpose courts because of a wonderful and big and nice cricket stadium that can be used for something else. So mek we look pon building the other sporting facilities for the other youths. Thank you

(APPLAUSE)

MR. ROYLAND BARRETT: Last question.

MR. DORRET GREY: Good night. My name is Dorret Grey.

MR. ROYLAND BARRETT: Please speak up. MR. DORRET GREY: My name is Dorret Grey, and I am an Archaeologist from the Jamaica National Heritage Trust.

MR. ROYLAND BARRETTE: Okay. Welcome.

MR. DORRET GREY: And I just want to express our support also for this project. However...

MR. ROYLAND BARRETT: You are speaking on behalf of the Trust?

MR. DORRET GREY: Well, I am speaking on behalf of the Review Board, when the information was sent to us and we looked over we were all in full support.

MR. ROYLAND BARRETTE: Okay.

MR. DORRET GREY: One small challenge we have though is Falmouth is a History District. We have the buildings around, we have the history about Falmouth that we all know but today we can still learn a lot about Falmouth from the material remains that have been left behind, and this is where Archaeologists like us are working to try and uncover this information. Since Falmouth is a Historic District therefore and it's a port, it's an historic port, we know that there should be some material remains out there in the sea.

MR. ROYLAND BARRETT: The sea and under the land under the earth.

MR. DORRET GREY: More so in terms of where the cruise ship is going to be. So I think other persons have raised the issue upon Archaeological Impact Assessment, and we also think that this is important, and it is in no way going to hold back the project in anyway, it is just to ensure that if we are going to carry people into an Historic District then we need to at least know what we have out there, and ensure that we don't destroy it. That's all I am saying.

(A P P L A U S E)

MR. ROYLAND BARRETTE: Thank you very much. Thank you very much.

MR. DAVID EVANS: I'll just answer that quickly. In my presentation, I don't know if you saw it. We did a lot of research; we went back a hundred and fifty years. I don't know if you saw in my presentation, right in this dock area and we went back a hundred and fifty years and look for charts and bathymetry of the harbour, so we have collected all that data from various sources and draw a cross-section through the harbour to show the development of the bed level over the one hundred and fifty years. We have drawn sections and there is very little change over the time period that we have looked and this would indicate that this is unlikely that there will be any significant archaeological features or shipwrecks. So I think we have covered that to some extent.

MR. ROYLAND BARRETTE: Thank you. There is a ship call Fonta Bell that sank there many years ago and nobody can find it and gold is in it. Gold.

(L A U G H T E R)

Ladies and gentlemen we have come to the end of a very useful and wonderful afternoon, and I want -- please give yourselves a big hand.

(A P P L A U S E)

I want to thank you very much for the interest you have displayed, your attendance, by your attendance, and the questions that were asked, and we know that this project is a big one that will impact on all of us who live in and around Falmouth.

So, in our interests it is for us hereafter to continue to pay attention to it, and it is an execution, and whenever you find any aspects that you are not concerned -- that you are not comfortable with then please bring it to someone's attention. Thank you very much and good night. Thank you. There is refreshment over there.

(A P P L A U S E)