



VERBATIM REPORT
PUBLIC PRESENTATION
ENVIRONMENTAL IMPACT ASSESSMENT
FAIRY HILL/WINNIFRED BEACH – PORTLAND



Port Antonio Marina
Wednesday March 19, 2008

Prepared by the Urban Development Corporation and Submitted in accordance with the NEPA/NRCA Guidelines for Conducting Public Consultations for Environmental Impact Assessments

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1.0 WELCOME

The meeting was called to order by Mr. Martin Blackwood, Manager of the Portland Co-Operative Credit Union at approximately 5:38 p.m. He welcomed all persons present (Refer to the complete list of attendees in Appendix 1).

2.0 PRAYER

The meeting was led in prayer by Rev. Paul Edwards.

3.0 OPENING REMARKS

Mr. Blackwood thanked Rev. Edwards for the prayer. The Chairman commented that “this meeting is a very, very important one and, because of its importance to the people and the stakeholders of Portland, many different groups are here. But my job is simply to facilitate the discussion, the presentations and to ensure that things go smoothly. My name is Martin Blackwood for those of you who don’t have a programme.

There are a couple of things that I want to say in my welcome. We have His Worship, the Mayor, we have a team from the Consultant Company - Technical and Environmental Management Network Limited, we have the team from UDC, we have persons from various groups in Portland and I am certain that at the end of this evening’s meeting, I am expecting - and you wonder how certainty and expectations go together; one balances the other, that all the stakeholders feel a sense of satisfaction. The presenters, those who participate in the question and answer session and those who simply listen - everyone should feel a sense of satisfaction.

Now, in terms of the purpose of this meeting, it is really one of the steps in the approval process for UDC projects. So, I will tell you the purpose and the steps involved in the process and then I will introduce the presenters, the persons who will speak so that we will move on in a timely way.

The purpose of this meeting is a public presentation to be done by the UDC and TEMN regarding the project as you know it. But this evening, what we will examine is the Environmental Impact Assessment, the report presented, comments are going to be invited, discussions are going to follow and at the end of the day, I think information would flow both ways so that the presenters, UDC, which is the group responsible and the stakeholders from Portland will be satisfied.

I am just meeting all of these persons less than twenty minutes ago so that, for me to even introduce them, it’s a little difficult. We have Mr. Don Rose and he is the lead Consultant and, with him, he has a team and he will introduce the team when the respective presentations are to be made.

Beside Mr. Don Rose, we have the Mayor, His Worship, Mr. Patterson and I won't get myself into trouble to call names, I am simply going to invite the next person, Mr. Gavin Seeriram and he is the Architect from UDC and then we have Miss Joy Douglas - Miss Doreen O'Connor will explain why not Miss Douglas, and then we have Mr. Paul Williams, the Senior Project and Area Manager for the North East Coast Region - UDC, and we have Rev. Edwards and then we have Mr. Colin Davis, Chief Architect for UDC. The other persons from UDC are in the audience that I won't introduce as; they will introduce themselves when they speak, if they have to speak.

My duty is to facilitate the process; I will invite the Mayor, His Worship, Councillor Floyd Patterson from Port Antonio to give the opening remarks.”

3.1 Mayor's Opening Remarks

His Worship, Councillor Floyd Patterson, Mayor of Port Antonio welcomed everyone to the evening's occasion.

“Distinguished guests, ladies and gentlemen. In order to save time I will not go through identifying the individuals but all protocol observed.

Ladies and gentlemen, stakeholders, residents of Port Antonio and Portland at large, I want to welcome you to this evening's occasion. You, like myself, are very concerned about what goes on in Port Antonio, what goes on in Portland and you have a right to do so, because this little bit of the rock belongs to us. We call it Jamaica and if we want to narrow it down, we can call it Port Antonio or Portland at large.

It is very important that we are educated and informed of what is happening around us. A failure to demand this education might mean that we are left in the dark and things happen around us and at the end, we can only blame ourselves. The Government of Jamaica and the UDC will be embarking on various projects across the island, all in keeping with development. While we welcome development, we also want to be very satisfied that development creates a 'win-win' situation for the Government of Jamaica and for the average man on the street.

We have a right to demand but also we have a right to listen and enter into dialogue with whichever organization that is responsible for creating that change around us. There is the saying that people are resistant to change; I disagree to that. We are all adults here, I hope, no children are here. We are all adults and once the situation is presented to us in such a way that we can understand, we can balance and then we will ensure that our mental

faculty is so engaged so that we can make decisions. So the saying that people are resistant to change, I don't buy. Let us as key players, stand up to our end of the bargain and carry out our duties in the proper way so that people can be informed and educated and in doing so, then we can nullify that argument that people are resistant to change.

Now, based on what I have gathered, this change should be taking place in the Fairy Hill / Winnifred Beach area and the UDC will speak more on that. My concern as Mayor of Port Antonio and Portland at large is satisfaction for the average man in Portland. We want to make sure that at the end of the day, that whatever development takes place in Portland, the average man will identify himself as a part of that change. The average man in most instances, I hope, will end up feeling a positive effect from that change. If that can be achieved, then we can make this environment, Portland a better place for us all.

Gone are the days when organizations, institutions and governments impose themselves on the common man, not realizing that the common man has a right to belong. As the Mayor of Port Antonio, I represent every player but, I must stand up for the common man. Once he is satisfied, then we have a Jamaica with less crime, less questions and everybody can go about his business feeling much better, having gotten the respect, having gotten the recognition that he ought to receive.

I want to thank UDC for coming here this afternoon and I am quite sure that when it is time for the question and answer section, most of the concerns will be addressed but I do hope that when you shall have left here, you would have had a 'win-win' situation.

Thank you very much ladies and gentlemen and enjoy the rest of the afternoon."

The Chairman thanked the Mayor for his opening remarks. He acknowledged the presence of Mr. Dayne Buddo, Marine Biologist / Chief Environmental Scientist with UDC. Mr. Blackwood advised that Dr. Donald Rhodd, Member of Parliament would arrive late to the meeting because of some other engagements.

Mr. Blackwood outlined the following steps involved in the NEPA approval process of projects:

- 1) UDC will submit the Development Proposal via the Parish Council to NEPA then the evaluation process is to be done. The Environmental Impact Assessment would then be carried out and for that to be done, it can either be carried out by

- NEPA or it can have or employ a number of teams which would be under a consulting company or any other such agent as it may see fit which is credited with the capacity to conduct the necessary studies.
- 2) Terms of Reference established and discussed with the consultants or the persons or groups that will be undertaking the assessment. Once that is agreed on, the work would then begin and when completed, the work would be submitted to NEPA, that is if NEPA was not the agency that did the work.
 - 3) Public presentation of the findings at which time opinions and comments are invited which should be supported with valid points. Those opinions have up to 30 days to be sent to NEPA. That is, after today, comments can be submitted within 30 days. At the end of those 30 days, NEPA, having all the information, now takes a decision either to approve or reject the proposal.

That is the process and because that is the process, this meeting, what we will be having is the public presentation of the Fairy Hill Environmental Impact Assessment. I will now invite Miss Doreen O'Connor to give the overview.”

4.0 OVERVIEW OF PROPOSED DEVELOPMENT

4.1 Message from Ms. Joy Douglas - Acting General Manager, UDC

Ms. Doreen O'Connor, Director for Corporate Relations, that is, Head of the Corporate Communications Team at UDC, welcomed everyone in attendance. She went on to acknowledge the Chairman, His Worship, the Mayor, members at the head table, Minister Daryll Vaz, Member of Parliament and State Minister in the Office of the Prime Minister.

Ms. O'Connor apologized for the absence of Ms. Joy Douglas, Acting General Manager of UDC. Ms. O'Connor went on to say that the Acting General Manager of the UDC had wanted to be here with us this evening and had dutifully cleared her calendar and re-scheduled her meetings by working overtime to meet tight deadlines.

Ms. O'Connor reported that, it is national budget time and with Ms. Douglas as CEO for the UDC, there are, invariably, last minute, unscheduled meetings at the Ministry of Finance and Miss Douglas was called to one such meeting today. Regrettably, she cannot be here today and does however send her sincere apologies and, wishes for you a productive meeting. She has also asked me to read this brief message on her behalf:

“Although I was not born in the Parish of Portland, I have had a long standing

relationship with this Parish and in particular with Fairy Hill and surrounding communities. Many of my friends are Portlanders and I visit the Parish quite frequently. I am sure that had I been here with you, I would have recognized many faces in the audience. My disappointment at not being here also springs from another fact; as a Master Planner by profession, a former Director of the Corporation and a Director on the NRCA Board, I am fully aware of the long standing issues surrounding the Fairy Hill Property and Winnifred Beach, specifically.

Planners have this great need or impetus to see development on the ground but, because we know that the process has to be at times slow and deliberate, drawing together diverse inputs into a coherent whole, we become overtime patient professionals who understand only too well that what we do has fundamental implications for the future of society. While I cannot profess to have acquired the degree of patience which I am sometimes called upon to exercise, I can say, I am a work in progress.

I feel very strongly on the issue of the public's access to beaches, albeit within the legal parameters of the Beach Control Authority. So a public beach does not mean free and untrammled permission to do whatever you wish. There are stipulations laid out. For example, by the Natural Resources Conservation Authority, the Beach Control Authority and the Ministry of Health, by which we must abide. The Corporation will be putting in the appropriate infrastructure and there will be entrance fees in accordance with the Authority's recommendations.

Our long-standing relationship with the Portland Parish Council on this Beach is finally coming to fruition, with the proposed co-management agreement for the Beach. The proposed Development Plans for the Fairy Hill Property were very carefully crafted, taking into consideration the concerns raised by citizens when it was last presented approximately two years ago.

The Portland Parish Council, critical stakeholder organizations, civil society and importantly the citizens of Portland all have a stake in guiding the direction in which you wish to see your Parish move. We therefore look forward to your full participation this evening as we publicly present and discuss the findings of the Environment Impact Assessment which were used to inform the Development Plan.

Portland is a very special Parish and we have sought to incorporate this uniqueness in the plan. We are very cognizant of the fact that we have been charged with the business of development for people. We must therefore consult with you and seek your endorsement of our proposals.

Having been established in 1968, the Corporation is this year celebrating 40 years of service in the business of development and very recently we were charged by Prime Minister, the Hon. Bruce Golding who has portfolio responsibility for the Corporation to return to our core function of Urban and Regional Planning island wide in order to seed secondary development.

We thank you for affording us the opportunity to share again with you this evening and I look forward to a full report on the deliberations of this evening. May I also use this opportunity to wish for you and your family a blessed and safe Easter Weekend.”

Mr. Blackwood acknowledged and welcomed the presence of the Member of Parliament for West Portland, Mr. Daryll Vaz and Deputy Mayor, Mr. Derron Wood. The Chairman said that as the evening goes by, he would recognize other persons as they arrive.

4.2 Mr. Gavin Seeriram - Architect, UDC

Mr. Seeriram apologized for the late start of the meeting. He went on to say that one of the most fascinating thing that he had discovered is that turtles nested on the beach and he had never seen it before. He indicated that the presentation would be focusing primarily on the Beach Park and references will be made to the meaning of Winnifred Beach to Portlanders and in a broader way, the meaning to the nation and painting a picture of an intervention of harmony with nature.

Mr. Seeriram then delivered a PowerPoint Presentation as outlined in Appendix 2.1.

The Chairman commented that there had been presentations from Ms. O'Connor and Mr. Seeriram. He went on to say that he is aware that the questions would be forthcoming but asked that persons make a note of their questions so that when it is time for the question and answer session, all points will be remembered. He said that when the questions are posed, they will be noted in order to guide the process.

Mr. Don Rose, the Team Leader of the Consulting Group was invited by the Chairman. Mr. Rose was asked to name his team members.

5.0 PRESENTATION OF THE EIA

Mr. Rose introduced himself as the CEO of Technological & Environmental Management Network Limited. He reported that this company carried out the Environmental Impact Assessment for the project. He went on to explain that an

Environmental Impact Assessment relates the development plans to the natural environmental conditions at the time and identify impacts which may be positive or negative for the project on the baseline environment.

Mr. Rose said that in this case, there was a team composed of four main teams as follows:

- Mr. Paul Kerr - Environmental Chemist
- Mr. Brian Richardson - Hydro-Geologist
- Mr. Peter Gayle - Ecologist
- Mrs. Allison Richards - Socio-Economic Practitioner

All of the above teams worked on the various aspects in their areas of discipline and identified the baseline conditions, identified the impacts which may on these baseline and determine mitigation or correction if possible on the impacts found. The teams will make their presentations in the order in which they were introduced.

5.1 Environmental Chemistry: Mr. Paul Kerr - Environmental Chemist

Mr. Kerr said that he is here to share the findings of the Water quality Assessment of the Environmental Impact Assessment and by do doing helping to contribute to your education and awareness as your Mayor rightly exhorted you to do. Because indeed, if we are not educated and aware of, not only developments, but the resources to be developed, then we really can't make a meaningful contribution to the preservation and protection of these resources. Mr. Kerr continued by saying that the Water Quality Assessment is basically an assessment of the water quality at Winnifred Beach and its environs.

Please refer to Appendix 2.2 of this report for full presentation.

During this presentation, a member of the audience raised their hand but was asked to hold the questions until the question and answer segment.

Mr. Kerr gave an undertaking to try to make the presentation simple and asked that, whatever is not understood, there will be a question and answer period during which the issues can be raised. He went on to say that the data being presented will allow for preliminary conclusions to be made.

A slide of garbage piled on the beach was shown (Slide 22) and Mr. Kerr commented that it is obvious that there are no formal arrangements for solid waste.

Study data of 1997 and 2006 were put on bar charts and the findings were compared with the standards as described in Appendix 2.1 of the EIA.

5.2 Drainage & Hydrogeology: Mr. Brian Richardson

The full presentation is outlined in Appendix 2.3 of this report.

This presentation will relate the site development to the rocks underneath the surface and ground water issues to determine the positive or negative impact of the development. The site is on a coastal aptitude which means water on the ground is not usable. Previous slides showed salinity level increase in beach area showing that the water is impacted by saline. Water is therefore not potable. Ground water is about one to two meters below the ground surface in the area of the beach and there are two fresh water springs along the coast. There is also a well to the south and a few natural drainage gullies. ODPEM have highlighted storm surges of up to thirty feet during previous hurricanes which have been taken into consideration by the UDC for the proposed development. Consideration has been given to water run-off as the development progress on site from pre-development when the rain falls to post development after the infrastructure has been put in place. The increase is about 30% due to paved surfaces on the ground; therefore water will not soak into the ground but will run off. Mitigation measures endorsed by the UDC will mitigate the increase to zero, which can be achieved after the development. The drainage system will consist of a minor and a major system. The Minor system consists of kerbs and channels leading to an oil water separator -oil/solids manholes/traps prior to discharge to the major system. The oil water trap will ensure that there is a limited amount of debris of hydro- carbon or anything hazardous to the environment getting out into the ocean. The Major system consists of suitably open culverts collecting runoff from the minor system with final outlet with scour protection. Location is to be agreed with NEPA.

The basis elements of the housing subdivision are:

- 1) Source control via permeable driveways and roof capture to black tanks for storage of run-offs which can be used for watering plants. Also, landscape features such as depressions which can be made in built up green areas for collection of water which reduces the amount of water that comes out at the discharge point and slows the release of water which is helpful for the environment.
- 2) Landscape features such as infiltration strips, holding ponds or swales, etc. will be designed into amenity areas. Also, landscape features such as green areas with depressions which can be built in for collection of water which reduces the amount of water that comes out at the discharge point and slows the release of water which is helpful for the environment.
- 3) Engineered features such as infiltration trenches, along natural drainage courses. Drains should be designed for the 1 in 25 events to cover rainfall in Portland. On the short-term basis there may be water supply and water quality issues in Portland and action will be put in place to address this with the assistance of the NWC. Sewage

disposal can also have an impact therefore, prevention will have to be taken to avoid seepage into ground water by the use of liners and the treatment of sewage above ground instead of absorption pits which makes ground water vulnerable to pollution. Also, measures will have to be taken to eliminate sources of pollution that are a threat to the aquifer. Provision will be made for adequate arrangements for the disposal of solid waste. Longer term monitoring will be necessary to enable a continuous assessment of impact. The UDC has been monitoring the water quality since April 2006 which will provide additional data to continue the process so that Winnifred Beach can maintain its reputation as an international resort.

5.3 Ecological Survey: Peter Gayle

The full presentation is outlined in Appendix 2.4 of this report.

The presentation begins with an aerial survey which provides an overview and a brief description of the terrestrial and marine environment. This will be followed by a more detailed account of the presence or absence of specific animals and plants on the site or adjacent. In the terrestrial section are plant species typical of a wet limestone forest. Photos were ground-truthed to confirm the presence or absence of ecologically or commercially important species of flora/fauna at or immediately adjacent to the site. In the terrestrial section floral species were typical of a wet limestone forest. Also, botanical species near the stream were typical of fresh water output. The canopy branches were close which created a shaded interior which is good for the birds. At the periphery of the forest it was more open and had been subjected to some amount of grazing by livestock. Approximately 46 native and introduced plant species were identified. Some of the plant species include guango, cotton and trumpet trees, as well as guinep, almond, guava and other fruit bearing trees - banana, breadfruit, sugar cane and corn. Many of the native plant species (herbs, shrubs, flowering plants) identified have medicinal or artisanal uses, while others, are primarily food species such as banana, breadfruit, mango, sugar cane, corn and red peas. The area is used both as feeding and nesting grounds for the avifaunal species observed. Bird species observed in the area included 12 resident species, 8 endemic species and 1 migrant species.

5.3.1 Marine Environment

Winnifred Beach (Fairy Hill Bay) is a sheltered cove, 1.6 sq km in area, with a small stream on the east side of the bay. The bay is sheltered by a modest submerged reef crest

formed primarily by a ridge of dense fire coral on the east side and mounds of coral colonies on the west side of the bay. On the western side of the bay there is a small, shallow, natural channel on this protective ridge which provides boat access to and from the beach. Seaward of the reef crest, the barren hard pavement is interspersed with mounds of coral and urchins. Main spurs support sclera Tinian corals, sponges and gorgonians & plenty of algae. Coral species observed on the ridge and on coral patches in the lagoon included Fire coral, Brain Coral, and Elkhorn Coral, both mature and recruits; as well as Boulder and Smooth Star Coral. Corals are small to medium size, with average diameter of 20-30 cm. Coral recruitment on the reef crest and substrate sloping seaward is approx. 2-3 juv/ sq. m which is low in comparison to other reefs. There is a healthy population of corals attributed to the presence of a relatively abundant population of long spined black urchins as well as other species of urchins. The shallow sandy lagoon is 1-1.5m and contains dense turtle grass beds extending to the reef crest. Mean shoot density is 806 shoots per sq.m. which are comparable to other grass beds substrate on east side of the lagoon - bright green filamentous turf which is indicative of localized eutrophication in the lagoon near the stream. Substrate composition of the main buttress is at 10m and 15m which is not different to anywhere else on the north coast. There are a lot of algae in excess of 40%. Corals are between 10 to 17%. A lot of sponges were found in shallow water which is a little unusual and would suggest there is not much wave energy in that particular site. Overall species diversity includes coral, algae, sponges, gorgonians. Diversity is comparable to other north coast reefs. There was a reef under pressure which may be from over fishing. There was a similar number of species (28) to those observed previously in the nineties. The size of fishes was smaller than those previously noted and there were few mature, commercially important fishes such as (grunts, parrot fish, goatfish, and groupers). There was underwater debris such as remnants of traps, nets and boat anchors in the reef. Other stressors to the reef are bleaching, disease and heavy algal overgrowth which have smothered the reef and harbours the pathogens that cause disease which is not good for the reef.

5.3.2 The Proposed Development

Anticipated environmental impact to the area, resulting from Phase II of the Fairy Hill Development include: loss of habitat and diversity, soil erosion and change in drainage patterns & volume, Pollution and disturbances during construction, noise and dust, transportation and storage of construction material, construction debris, sewage and litter if improperly disposed.

The impact on Winnifred Beach and the reef include: increased human effects, increased levels of nitrate, and people trampling the seagrass beds, loss of beach itself from walking on the hard ironshore, coral damage and decrease in coral cover.

With respect to habitat and diversity, an increase is proposed in the allocated area of wetland reserve and conservation area by creating an ecological buffer zone by reducing

the number of units in the estate section by decreasing units to twenty three (23) instead of twenty nine (29). This would create an ecological buffer zone between the units and the forest conservation area and also help to insulate the forest conservation area. Other standard acts of mitigation include tree conservation, relocating mature trees, replanting native plants and shrubs, monitoring the area and minimizing the drainage impact on the marine environment. Beach development will also be minimized to protect the stability of the beach and also the turtles that are nesting there.

Pollution resulting from transportation and storage of construction materials are all standard mitigation procedures: Covered trucks are to be used to minimize dispersal of dust producing building materials. Storage site selection will be located away from the drainage areas. The use of enclosures will be used for building materials, to cover stockpiled sand, cement, etc. and secured storage of any hazardous materials. The UDC has agreed to most of these mitigation procedures.

Comprehensive waste management plan include: site clearance and removal of vegetation to a composting site to make use of what is taken out of the area. Suggested development of appropriate waste storage areas on site, removal of construction debris to an approved dump site, sanitation facilities for workers on site and scheduled removal of garbage and sewage.

5.3.3 The Impact on Winnifred Beach and the Marine Environment

The beach, the surrounding area and the reef comprise a fragile environment. All efforts should be directed to maintaining or improving the natural state of the beach.

Conservation Measures include: avoiding the development of infrastructure other than sanitation facilities directly on the beach; maximizing the area for forest conservation and wetland reserve; off-site parking; expressly prohibit harmful practices, such as dredging, the removal of beach sand / sea grass beds and iron shore features on the beach.

In evaluating the development of the project alternatives were also considered. These include: no project; agricultural use only; conservation area and mixed development.

Without the project, the feeling was that the uncontrolled use of site would continue and contribute to gradual degradation and continue to impact the environment resulting in low economic return to the people using the resources. In addition, without the proposed development project the site would continue to exist as a public beach with potential problems arising from: lack of sanitary facilities, lack of security, and lack of proper waste disposal facilities, poor access roads and parking facilities. The illegal use of the site for commercial purposes would also continue. Also, the loss of potential for employment, as well as direct and indirect revenues derived from the proposed development. This alternative was deemed least favorable.

Concerning agriculture, there are some subsistence level activities on site; however the soils and the terrain are not really appropriate for farming or rearing livestock. This is therefore not a favourable alternative.

The creation of a Nature Reserve Conservation Area is the most environmentally friendly alternative. The area could be declared as a Nature Reserve to be used for education and eco-tourism (snorkeling, diving and bird-watching), research and education. The Beach infrastructure would be limited to sanitation, garbage disposal, and off-site parking facilities. Access to the beach area would be fee-based and would be restricted to pedestrian traffic only. Car access to the beach would be prohibited. Revenues generated through entrance fees would be directed toward supporting a beach maintenance crew as well as environmental wardens to monitor the conservation area. This would maintain and protect the current state of the marine and terrestrial ecology and offer long-term protection from future development initiatives. It would curtail uncontrolled deforestation of the area and conserve ecological integrity and inherent value of the habitat for use by endemic resident and migrant species of avifauna. Although this was attractive, based on other consideration it is less recommended.

The mixed development scenario contributes towards the national goals to expand opportunities for tourism development, add to the housing stock, provide for diversified recreational project, produce and earn both local and foreign exchange. The development as proposed especially with the mitigation caveats would be compatible with future plans, land uses and would allow local sourcing of construction material and employment opportunities. This would still ensure the maintenance of the woodlands by creating forest conservation and wetland reserve. This is the one that was most recommended.

In parts of the evaluation, certain standards were used. Habitat conservation plans developed in Florida and California codes which call for habitat conservation at ratios ranging from 1:1 to 3:1 was the basis for some of the recommendations made. For example, reducing the number of residential lots from 29 to 23, to bring the ratio as close to 3 as possible. By doing this the conserve to develop able will be 2.8. to1.

In summary there are impacts to this proposed development. It will require mitigation as the sensitivity of the marine environment calls for measures that eliminate or minimize adverse effects resulting from construction activities. Construction activities should include an environmental management plan based on fundamental coastal and watershed management principles. Monitoring is essential to respond in a timely manner if adverse effects are detected.

5.4 Socio-Economic Impact Assessment: Mrs. Allison Richards - Socio-Economic Practitioner

The full presentation is outlined in Appendix 2.5 of this report.

The Socio-economic Impact Assessment (SIA) identifies the socio-economic and cultural impacts of the proposed development. The study area for the SIA includes the proposed site and areas within two kilometers (2 km) of the site. Based on investigations there are impacts which are local and are limited to the study area. There are regional impacts which are parish wide and there are national impacts that are island wide.

The methodology for the SIA included: desktop research, socio-economic and public perception survey, review of existing reports and assessments, site reconnaissance study on April 24, 2006, a socio-economic survey on May 20-21, 2006, and a third visit when a land use survey was done. The land use survey included a review of previous survey, a review of IKONOS satellite imagery of Jamaica; and a site investigation conducted on June 18, 2006.

The land use areas are within 2km. The site consists of a public beach, sloped area containing woodland and open space. The site is used for recreational and commercial activity and woodland and open space which is consistent with land use designated in the Portland Coast Development Order. There was also, a small swamp and spring located on site. The spring was reportedly used for bathing and by local churches for baptism and also a church from Kingston. Four structures are located on the beach: bathroom and shower facilities which were out of use, an empty restaurant and a hut in a state of disrepair. In addition, there were fourteen small vending stalls which were reportedly used to sell craft, fruits, coconut water and juices. There was also a fishing boat on the beach.

The beach is reportedly the only public beach in the area with unrestricted access and is used by community members, tourists, and visitors, international and other parishes. The beach is more used on weekends and public holidays.

Regarding the potential of socio-economic impacts, the team spoke to people in the area, targeting 10% of the population but only got a 43% response rate as some people were not home multiple times, and others refused to speak.

Construction impacts were both negative and positive. A short term negative impact is the displacement of on-site vendors. Mitigation would include planning development activities in a way that has minimal displacement. Secondly, include the community and especially those persons who will be displaced in the development activities whether by providing jobs or through compensation for loss income.

There are negative impacts on employment and income. These include loss of income by the on-site vendors which could be mitigated by compensating displaced persons through employment opportunities during and after construction or by monetary compensation. During construction, a positive could be the creation of jobs during the construction phase of the development.

Transportation impacts on a short term basis are limited to the lack of access routes to the beach during construction. No major roads within the community will be affected.

Community development short term impact includes a loss of access to the beach for residents and visitors during construction. Mitigation by the UDC is to do the development on a phased basis. It should be noted that during construction there may also be dangers to persons. If the residents are included in the planning of the development to foster pride and understanding, the overall impact on the community and the nation might be a little more welcomed.

Post construction impact on a positive long term basis will see an increase in housing stock nationwide. Another positive is the generation of employment through long term operation of the Beach Park and a potential for employment in the housing development, in resort for helpers and landscapers. This will contribute to sustainable tourism development which is one of the goals of the Tourism Master Plan.

Regarding land use, there is potential for the vendors operating on the beach, there is also potential for provision of proper facilities for the vendors and visitors, thus improving working conditions and improving the services and product the vendors will be providing to the visitors.

There will also be improved recreational and infrastructure for the community in the long term and the development will also contribute to enhancing environmental awareness through the nature park aspect and the opportunities for tours. This could also be used by school children as an educational aspect. A number of stakeholders were consulted during this assessment.

The Chairman thanked Mr. Don Rose and his team for their presentation. The Chairman then invited persons to ask questions and seek clarification and make comments. He invited the team leaders to the head table to facilitate questions. He also recognized the presence of Dr. Donald Rhodd the Member of Parliament for East Portland. Microphones were set up in the centre aisle for persons wishing to ask questions. He stated that persons would be allowed to speak on the matter once unless further clarification is needed. The segment would last for approximately 40 minutes. The most appropriate person would respond to the questions from the floor.

6.0 Question and Answer Section

Comment - Angela Whyte: stated that the UDC & Company had over two hours to make their presentations therefore the audience should be given equal time to express their views and ask questions. She further stated that she does not appreciate the manner in which the discussion is proceeding as the UDC seems bent on dictating the terms on how the discussion should go and the audience must just fit in. The Chairman then extended the time for response to 1 hour. Ms. White asked for it to be noted that the audience is not satisfied with the time they have been given to respond to the presentation.

Question - Angella Whyte: What is the definition of a public beach, and will Winnifred remain a public beach?

Response- Paul Williams: It is a beach that is accessible by the public. There are three different classifications by the Beach Control Authority: Firstly, public beaches that you pay access to use all facilities, secondly, don't pay an entry fee but pay to use each individual facility such as bathroom and thirdly it is an undeveloped and open beach. Yes, Winnifred will remain a public beach.

The Chairman reminded the audience that they will still have thirty (30) days after the meeting to submit comments to NEPA.

Question: Pauline Petinaud known as Sister P: The socio-economic presenter did not mention culture in her presentation and Winnifred Beach is a cultural place of Portland. The people talk about the low crime rate in Portland and part of it can be attributed to the fact that people can go to Winnifred Beach. She further stated that she considers it an insult to the people of Portland that it was stated that jobs would be there for helpers and landscapers which we know as garden boys which is an insult to the people of Portland.

Response: There was no intention to insult. There are various job opportunities that will be presented in terms of the development such as housing jobs, security, managers of facilities. In terms of culture there is a section in EIA on culture. The Jamaica Heritage Trust was contacted to enquire if there are any cultural sites pertaining to the Social Impact Assessment. There was none reported.

Comment - Pauline Petinaud: responded by saying that the presenter obviously did not know much about culture as Winnifred Beach is used for birthdays, graduation and it is a cultural place which has nothing to do with a cultural site but it is for the use of the people of Portland.

Comment - Colin Davis stated that the UDC's process is to engage the Portlanders in defining the final design so persons who are aware of the culture such as the last respondent will be asked to participate in the final plan. So that the end result will include

what the Portlanders have practiced over the years. Then the Kingston people will come and incorporate.

Comment – Barbara Walker: stated that a guest from England wrote that it was a good experience visiting Winnifred Beach because of the interaction with the local people and enjoying the activities on the beach, they therefore consider that upgrading will change the atmosphere and character of the beach. Its strength is its traditional atmosphere totally in keeping with its surroundings. Port Antonio, which is totally reminiscent of an earlier and slower pace of life is being sought by tourists more and more these days. Therefore, any alteration will not be development but desecration which could not be reserved. In addition, I have over 1200 signatures on a petition who do not want the development at Fairy Hill.

Question – Barbara Walker: will the comments from this meeting be considered. Is the UDC interested in the 1200 signatures? Is the UDC interested in anything else but going ahead with its ill-conceived plans? Even if the beach is preserved and the UDC goes ahead with the development on the rest of the property it will change the entire face and character of the place. In addition, when the fancy investors buy their villas, they won't want the local residents on their beach. Why should the residents be convinced by the UDC's presentation given their track record all over the island and in particular Reach Falls? Why does development always have to be concrete and steel, why can't we have soft development, why should we in Portland agree to this after seeing the downgrading of Reach Falls? Why can't we have green areas, green spaces, conservation areas from which we can make money? We don't need any more villas in Portland and, if we have them, where are the people that work in the villas going to live? With the development, it may be better to find some government lands and build some low income housing for workers to live in and have a decent standard of life.

Response: Colin Davis - Winnifred Beach is a public beach, accessed and used by the public, and the public alone. It is going to be co-managed by the local representative at the Portland Parish Council and local interest will be taken into consideration. The beach park does not consist of any cottages it is merely a place for recreational purposes. It consists of sanitary convenience, lifeguard stand, vending facilities which will be incorporating the present vendors; parking, access for all persons including persons with disabilities, showers and picnic areas. There will be no concrete jungle, we will sit with the citizens of the community, vendors, guest house owners etc, and have discussions. The UDC will be putting soft light structures on the beach, that work with the environment merely to provide those functions that are required to enhance the enjoyment of the beach. If you listen to the presentation of the General Manager's statement you will see that we have a positive approach. We have a new General Manager who is a Planner and is sensitive to the need for planning for total community sustainability. The fact that the UDC team is here presenting the EIA you will see that it is a new approach, a comprehensive all inclusive approach.

Comment/Question - Carla Gullotto: I may have misunderstood the concept of a public. For me a public beach is a place where people can go without paying any fee. There are not many places in Portland where people can go and not pay. The UDC is running Reach Falls which cost JA\$700 for Jamaicans. The other beaches are private. Who can spend fifty percent of their salary to go to the beach? I want to know, what is the meaning of public, people, and community rights in this area? Secondly, nobody denies that Winnifred Beach needs development so there is a proposal by a bunch of people from Portland who have created a benevolent committee; it has been formalized and is composed of people from the beach and other stakeholders in the area. The Chairman interrupted and asked the respondent to ask her question.

Comment: Mr. Mayor the twenty one (21) persons from the benevolent society are requesting a meeting with an ambitious programme to work together with the Parish Council in respect to the commitment of the UDC. Thirty million dollars is too much to build bathrooms. If you give the money to us we will spend much less and produce something good for the community.

Comment: Danielle Andrade –Jamaica Environment Trust

I am a Kingstonian, but Winnifred Beach is important not just for Portlanders but for Jamaica on a whole so I am here representing others.

Question: Was the beach ever gazetted as a public recreational beach under the Beach Control Act? NRCA which is the authority that can prescribe fees for public beaches can only do so once a beach has been gazetted. If the UDC is not setting the fees but they will be fixed by NRCA is there some guarantee for the people about the fee structure which is not from the UDC but from the Control Authority.

Response - Paul Williams –UDC

The fees are set in conjunction with NRCA (the Beach Control Authority), and co-managers: it would not be a fee set by the UDC in isolation.

Comment - D. Andrade: The General Manager of the UDC sits on board of the NRCA; we would like her to be excluded from the decision concerning Winnifred Beach at the NRCA Board. It is quite misleading and dishonest not to disclose all the facts.

Response - P. Williams: The general practice in all board rooms is that where there is a conflict of interest, that person has to be excluded from the board meeting. Therefore, the UDC through the General Manager would not be a part of that decision making.

Comment - D. Andrade: The public will not be a part to the meeting when those decisions will be made.

Response - P. Williams: JET is on the board of the NRCA? You (JET), being a member of the board ensure that you take it to the board.

Comment - D. Andrade: The recommendation then is that the UDC's General Manager excuse or refuse herself from any deliberations concerning the Fairy Hill Development.

Secondly, you have to understand the strength of the feelings in the room. There is an increasing perception among Jamaicans that we are losing access to our beaches with increasing coastal Development. It affects people deeply so you need to understand the concerns.

Comment/Question - D. Andrade: Mention was made in the presentation that these vendors would be incorporated; in the Fairy Hill development. Can you please let us know how as the same vendors have had to take UDC to court just to secure a right of access to the beach for the public. That court case has not been determined as yet, it has been adjourned.

The Chairman reminded Miss Andrade that the time frame is limited therefore she must minimize her questions so that others will get an opportunity to speak. Miss Andrade pointed to the NRCA, NEPA guidelines which stated that adequate time must be provided for concerns to be noted and the role of the facilitator is to ensure this.

Response - Paul Williams: I understand that because the lights are on so bright people's blood is kind of hot. We can answer the issues and we know you have a lot of questions.

Comment: You need to apologise, do not make condescending remarks.

P. Williams: It is not my intent to insult anyone.

Comment - Larry Robertson: This is a very burning issue and I have been involved with it for some time now and, for the past twenty years the people have taken the UDC to court and they are determined to go this route if the matter is not resolved in a very amicable way. I don't believe in the top down discussion, it must be a bottom up discussion. The UDC and the other consultants must facilitate the lobby group and hear their presentation and then go to the general public for discussion and recommendations. There will be a problem if you don't allow time for this discussion as the people are opposed to the UDC.

Response - Colin Davis: We are not here to confront anyone; we are here to find a solution. We respect the questions and the remarks of every person and we intend to have all the persons exhaust all their remarks. We believe our process is to facilitate development, not to hinder it and part of that process is to hear what people have to say. Therefore, I am going to open the period of questioning by an additional hour. We are

not in a position to comment on a legal issue before the court. However the question can be submitted in writing which allows for contemplative response. It does not mean that we are being deceptive or hiding from questions. It means that we need to consider and provide reasonable and clear response to such matters. Matters before the court cannot be reasonably discussed here.

Comment - D. Andrade: The EIA stated that vendors would be incorporated. Are you saying that you are not going to address or take any questions on this issue in your study?

Response - C. Davis: You can say what you have to say politely as we are not here to confront you.

D. Andrade: I have been asking the question for the last fifteen minutes without an answer. I have heard that it is the light why my blood pressure run hot. I have heard the matter is in court and we can't talk about it, I have heard I can't ask any more questions, what do you expect from me but this attitude. You say you are going to be honest yet I feel as if I am not getting a response from you. Let it be noted on the record that this particular question remains unanswered. I have submitted nineteen questions to NEPA who is in authority to receive those questions and I have never once received a response from them and they are detailed comments of concern; so I do not feel safe that there is a thirty day comment period.

Question - D. Andrade: On page 2 of the EIA it states that the Fairy Hill Development is a four phase development and this you have presented today is a phase two. I would like to know what are phases three and four; why no mention was made of those, why the cumulative impacts; if these phases were not taken into account by yourselves why the cumulative?

Response - C. Davis: Yes, there are four phases, the beach is one phase, the site and services that have been developed already are the second phase, the residential agricultural plot is a third phase and there is another phase of residential development. If you recall in one of the presentations made by the Environmental Consultants the recommendation was made for the number of lots adjacent to the beach to be reduced in order to create a stronger buffer zone between that development and the beach. You would have seen on the slide that the UDC accepted this recommendation and will pursue according to the recommendation. The residential lots will be reduced in number as the fourth and final phase.

Question - D. Andrade: Why did you not explain all those four phases in as much detail as you have done the beach? Why did you not present us with a cumulative impact of what this will entail? I think it should have been approached in a more holistic manner. The four phases were not addressed in your EIA.

Comment .Paul Williams: Because of the pace of development, an EIA was done in 1996 but because the development has been so slow, part of the recommendation was not to do an impact assessment until we are close enough to being ready with a phase. Otherwise, by the time we are ready or close enough to implement that plan the EIA would be out dated and would have to be re-done. That was the recommendation of the consultants; therefore we have not gone into the additional phases and tried to do the EIA of those at this point.

Question - D. Andrade: I went on UDC's website and noted that there is an advertisement for commercial lots at Fairy Hill Estate. No mention was made of that here. I would like to know what that plan is about?

Response – Paul Williams: The commercial lots advertised actually have nothing to do with the development that we are speaking of. The advertisement relates to the Fairy Hill Sites and Services sub-division which is the phase completed in 1997 and the residential lots were sold. The commercial lots however have been on hold.

Question - D. Andrade: Where is that in relation to the plan? Can you show us on the plan?

The request was granted and Mr. Williams explained the layout of the plan showing that there are three commercial lots to the front of the subdivision which is a completely different project.

Question - Maria Terez: With the various options and proposals, what can be done with Winnifred Beach to keep it as a nature resort, as the less recommended option?

Response - TEMN: Many considerations were given to what was recommended and what was not. We liked the concept of having a purely environmental approach to this issue. However, there were other considerations such as revenue generation, housing and tourism product. Everybody has an opinion; this is something for you to come to terms with the UDC.

Question - Colin Davis: How do you see the beach currently being used?

Response - Maria Terez: The beach is being enjoyed by the people as a cultural space and it is very important as it is. As a public beach, which public has access when there is a fee?

Response - Colin Davis: In an earlier presentation, fees were discussed and a letter read of what a guest impression is of the beach. My understanding is that someone have an understanding of the diversity of the beach and enjoy it in a particular way, which means they have interacted with the features of the beach and the persons on the beach, that is what a public beach is.

Comment - Hopeton Smith (Chief Planner – UDC): We want to work with the people of Portland to develop the beach. You will agree if the beach continues as it is we will lose it. Therefore we must all sit down together to come up with a solution that satisfies all of us. Secondly, I have used the Winnifred Beach and it is the best beach I have ever been to. However, when I approach the entry of the beach a number of men approached me for money (a contribution). I thought it reasonable if it is to be used to help to maintain the beach. They did not deny me access but they saw the need to contribute to the maintenance of the beach. We therefore need to sit together to work things out. We are here to listen to you. We have presented a proposal and the Consultant's presentation was objective to find out what is happening with the beach, and to find out how to make it sustainable. So, there should be no antagonism as we are here to listen to you, to come up with a solution that is amicable to all.

Question - Sherine Martin - The second presenter and the third presenter contradict each other. The second spoke about the minor systems and major systems in the Fairy Hill Sector where there will be some underground water in the system and there would be no structural development to the beach. The third presenter stated that his proposal is one, no project, two, agricultural use only, three, conservation use, four mixed development. How do you propose to implement these systems without any structural changes to Fairy Hill?

Response - TEMN: It is the same as having a piece of land and trying to build a house on it. You have to do some structural changes to actually implement it. Proper control is needed such as storm water treatments. The development actually reduces its impact during construction. There is therefore no conflict. The drainage system applies to the development. If there is no development then there is no drainage system.

Question/Comment - Sherine Martin: With regard to the no project scenario, there are two bodies of water, the sea and the stream. There are differences in temperature; we are also prone to earthquakes, so where do you propose to put in this main system?

Response - TEMN: The minor system will be on the kerbs on the sides of the road which will go into a channel which then feeds into a larger channel then into a larger drain. Interceptors will then take the water off the roads to ensure there are no sediments or oils. Then it will move on to the larger system. Final discharge will go to the sea. It will be just rain water therefore there will be no difference in temperature. The final outlet is not yet confirmed but it will be the most viable one.

Comment - Shericia Williams (Engineer, UDC)

The sewage system will be away from the beach.

Question - Eric White: What do we do with all the sewage and the wastewater from the development? Why can't the beach be made into a national nature reserve for everyone in Jamaica to enjoy instead of having private investors.

Response - Hopeton Smith: The beach now is not sustainable. The UDC intends to arrive at a solution.

Question - Angella White: Question directed to the Chief Architect who she thought was very respectful. What have you gathered from our comments so far?

Response - Colin Davis: Portlanders are interested in their beach and want to preserve it, and need ready and easy access to the beach. We gather that you want a participatory approach in which we sit down with you as an implementing arm and come up with a solution that is satisfactory to you.

Question - Angella White: Is there a specific plan to fulfill that particular interest?

Response - Colin Davis: The proposal and the Consultant's recommendation are before NEPA and will comment and indicate what changes are to be made. Once that is carried the UDC will then sit down with the community and the Parish Council to determine the final design of the beach development.

Comment - Angella White: I am fascinated by the fact that on the one hand we are saying that this is a proposal yet when the UDC and the Consultants speak it is as if it is a done deal. It is in a tense as if it is already in progress and is working and is a matter of how the residents are going to respond to it. Is it a foregone conclusion?

Response - Colin Davis: It is not a foregone conclusion.

Question - Angella White: If it is not a foregone conclusion and the people who you are interested in hearing what we have to say, decide that we do not want this development at this point in time, will that impact your steps from here? You can't be going into a \$30M development and don't know for sure if you are not going to go ahead.

Response - Colin Davis: It is a dialogue, a two way discussion, you are expressing your view.

Response - Paul Williams: The proposal is not a foregone conclusion; your overwhelming views will have a significant impact especially as it relates to NEPA approving or not approving if we can have a development.

Question - On the one hand the UDC has expressed that the beach is unregulated, there is degradation, and sustainability is in question. On the other hand residents want to have access to "their beach" Couldn't there be dialogue to have representation from among the

citizens to say what the people of Portland want for Winifred Beach? Dialogue is needed with the people with some level of guidance, what about that as an option?

Response - Paul Williams: That is the way we are trying to move forward. This meeting is proof that this is the way forward.

Question - In your study, it speaks to beach cottages. How do you have beach cottages that are not on a beach? The EIA study page 2 mentions beach cottages and residential lots. Is there some error in the document?

Response: The document speaks truthfully to a plan that was developed sometime ago. In the proposal going forward there are no cottages just a beach park.

Question - Donagan: Portland Environment Protection Association (PEPA). The comments made tonight and the comments submitted to the UDC over the next thirty days are to be considered and possibly incorporated into the development. Is the May start date that was on one of the slides feasible.

Response - Colin Davis: Your comments are sent to NEPA and are considered in the application and the decision is made. We have to await that comment to proceed but what you see here is a proposal.

At approximately 8:40 p.m. the Jamaica Public Service Company Limited electricity supply went off at the Old Marina and surrounding areas in Port Antonio.

The Chairman re-convened the meeting at approximately 9:10 p.m. and the meeting continued with the aid of candle light.

The Chairman, Mr. Blackwood said that the question and answer period would be continued and that the Deputy Mayor and the Councillor would also address the meeting.

Mr. Derron Wood, Councillor for the Fairy Hill Division and Deputy Mayor for Port Antonio said that he had listened to the presentations and was very impressed with the Environmental Impact Assessment Report. He went on to say that the real concerns are centered on sewage and the safety of the community.

Mr. Wood said that the presentations so far had confirmed that the survey done on the beach can be accepted by the wider community. He said that there was however one concern and, it is that the development should include the people of Fairy Hill in a collaborative way and that the community members should not be left out, particularly vendors on the beach.

Mr. Wood said that as the Councillor for the area and also a member of the community, he thanked the Urban Development Corporation for this long overdue development project and commented that it is his fervent wish for the project to be fast tracked and commence at an early date as it will be welcomed. Mr. Wood thanked the Urban Development Corporation and said that the project comes at the right time and thanked the Urban Development Corporation for coming and participating.

The Chairman acknowledged the presence of Mr. Ainsley Henry from NEPA and Mr. Jerome Smith from the Ministry of Health and Environment.

The Deputy Mayor thanked the Urban Development Corporation and the staff that prepared the meal and organized the meeting room. He also thanked the cleaning crew for their worthwhile input.

His Worship, the Mayor indicated that this venture is long overdue and, in the interest of development, no-one should feel faint-hearted about the matter as all players took time out to complete the required studies and assessments, both from a scientific and the layman's approach. He went on to comment that the necessary homework was done although the presentations could be considered to have been too long in duration. He however said that all questions were brought out in the presentation.

The Mayor said that the effort was a gallant one and expressed the belief that as progress is made, there may be obstacles and went on to say that nothing should be allowed to stand in the way of progress as long as the development is legal and there is no evidence of human rights violations. He continued by saying that if all protocols are observed, the project should go ahead as decisions have to be taken. He commented that in some countries decisions that are considered draconian had to be taken but persons will however at a later date understand the reasons for such decisions.

Ms. Tracey Edwards of PEPA commented that she is not convinced that each time an Environment Impact Assessment is done, due consideration is always given to the possible negative impact there could be when certain activities are carried out. She cited the Dragon Bay experience with the birds and said that due consideration must be given to the natural and social implications as more infrastructure most times only create mediocre jobs. Ms. Edwards went on to say that she is not totally against the UDC and its activities but is however uncomfortable with the project as it is and she suggested that the UDC plan is not ideal.

Mr. Colin Davis of UDC asked for clarification from Ms. Edwards as to what plans she is referring to and she replied by saying that the specific plans are the beach park and villas. Mr. Davis responded that the plan does not include villas. Ms. Edwards questioned whether or not the beach park would correct the problem and she proposed that UDC should stick to the beach park concept.

Mr. Dixon, proprietor of the Esso Service Station and a member of the Portland Chamber of Commerce indicated that the development of Winnifred Beach is well needed to benefit persons both in and outside of Portland and that the project is welcomed.

7.0 CLOSING REMARKS

The Chairman commented that the meeting was very lively and worthwhile and that UDC had received information to refine the process and it is strongly felt that the development will be widely welcomed. He continued by commending the process as the comments from the public had been good, warm and sensible. Mr. Blackwood closed by saying that he appreciated facilitating the meeting.

Mr. Colin Davis thanked the Chairman and expressed his appreciation to Mr. Blackwood for facilitating the meeting in order for UDC to learn what is required and the way forward.

8.0 ADJOURNMENT

The meeting was adjourned at approximately 9:25 p.m., on a motion moved by Mr. Samuel Dixon and seconded by Mr. Derron Wood.


APPENDICES





Appendix 1: List of Attendees

1. Afflick, Rochelle
2. Allen, Hortense
3. Allen, Yvonne
4. Anderson, Roy Albert
5. Andrade, Danielle (JET)
6. Beckford, Collin
7. Beckford, St. Aubyn
8. Berry, Easton
9. Blackwood, Martin (Chairman)
10. Brown, Junior
11. Brown, M.
12. Brown, Neisha
13. Brown, Samantha
14. Buddo, Dayne (UDC)
15. Campbell, Donette
16. Carr, Beverly
17. Chin, Andrew
18. Clarke, Leonie
19. Coulson, Sharlene
20. Coulson-Holland, Nelka
21. Crawford, Phyllis
22. Crosdale, Winsome
23. Curtis, Kerry-Ann
24. Davis, Colin (UDC)
25. Davis, Gareth (Gleaner)
26. Deecke, Kaspar
27. Dekie, Loris
28. Dixon, Charleen
29. Dixon, Samuel
30. Dixon, Saveina
31. Donegan, Machel
32. Douglas, Simone
33. Dunbar, Roc
34. Duncan, Carole
35. Dunkley, Herbert (UDC)
36. Edwards, AnnMarie
37. Edwards, Paul
38. Edwards, Tracy
39. Eva, Kirk
40. Evans, Sharon (UDC)
41. Fahl, Peter-Paul
42. Farr, Joyce
43. Farr, Winston
44. Francis, Denise
45. Gayle, Peter (Ecologist)
46. Gibson, Sharon (UDC)
47. Grey, Rhona (UDC)
48. Gullotto, Carla
49. Guy, Morris
50. Hall, Terry
51. Harding, Sister G.
52. Harker, Latoya
53. Harrison, Kereshia
54. Helps, Hugh (Port Authority)
55. Henry, Ainsley (NEPA)
56. Higgins, Lascelles
57. Hill, Brent
58. Hinds, Claudette
59. Hume, Lorenzo (Portland Heath Dept.)
60. James, Samara
61. John, Kimberly
62. Kerr, Paul (Env. Chemist)
63. Kidd, Lyndon
64. Knight, Frank
65. Knight, Jeremy
66. Lawrence, Nellie
67. Leader, C. C.
68. Lewis, Sharon
69. Martin, Sherine
70. Massop, Sydney
71. Mayer, Nishen Nicole
72. McDonald, Garfield
73. McKenzie, Lorna
74. McKenzie, Wayne

75. Milbourn, Maureen (JET)
76. Miller, Ann-Marie
77. Miller, Cynthia
78. Morgan, Carmen
79. Morris, Errol (NEPA)
80. Morris, Rosemarie (UDC)
81. Murphy, Shawn
82. Niel, Christine
83. O'Connor, Doreen (UDC)
84. Oumey, Lascelles
85. Owen, Everal
86. Palmer, Kareen
87. Parkes, Patrick
88. Patterson, Floyd (Mayor)
89. Patterson, Linett
90. Petinaud, Sista P.
91. Phillips, Margaret
92. Pike, Charles
93. Rease, Shannon
94. Rhodd, Donald (M.P.)
95. Richards, Allison (Socio-Economic)
96. Richards, D.
97. Richards, Wendell
98. Richardson, Brian (Hydro-Geologist)
99. Ricketts, Ernie
100. Robertson, Larry
101. Rose, Don (TEMN)
102. Rowland, Myrna
103. Sankey, Brentley
104. Schwartz, Fred
105. Seeriram, Gavin (UDC)
106. Simpson, Lavern
107. Slimforte, Joanna
108. Smalling, Joan (UDC)
109. Smith, Hopeton (UDC)
110. Smith, Jerome (Min. of H & Env.)
111. Smith, Joy
112. Spence, Nadia
113. Spencer, Tomlinson
114. Sullivan, Stephanie
115. Swearine, M.
116. Taylor, Edison
117. Taylor, Karene
118. Tennant, Ingrid
119. Tyson, Leroy (UDC)
120. Vaz, Daryl (M.P.)
121. Venster, Vera
122. Walker, Barbara
123. Walker, Gordon
124. Walker, Nellie
125. Weir, Shermaine
126. Whyte, Angella
127. Whyte, Dennis
128. Williams, Icilda
129. Williams, Paul (UDC)
130. Williams, Sherica (UDC)
131. Wilson, Caster
132. Wood, Derron (Deputy Mayor)
133. Wright, R.
134. Zuckerman, Naomi

Appendix 2.1: Overview of Proposed Development –Gavin Seeriram

<p>FAIRY HILL DEVELOPMENT</p> 	<p>INTRODUCTION</p> <ul style="list-style-type: none"> → Winnifred Beach represents to Portlanders, the broader Jamaica, Jamaicans in the diaspora and foreign visitors one of the premier recreation spots in the Eastern end of Jamaica and indeed within Portland → The beach has provided economic livelihood for Portlanders with significant multiplier effect → Winnifred Beach represents a significant element of our natural heritage → Over the years the heavy traffic and uncontrolled use patterns have led to degradation which has threatened its long term survival → As a national treasure, the UDC recognizes the need to: <ul style="list-style-type: none"> • Arrest degradation • Establish a formal framework in which recreational and economic opportunities as well as environmental preservation can be realized in a sustainable manner
<p>OVERVIEW-WHERE</p> <p>Location: Fairy Hill, Portland</p>  <p>Aerial Shot of Winnifred Beach</p> 	<p>OVERVIEW-WHERE</p> <p>FAIRY HILL SUBDIVISION PLAN</p> 
<p>OVERVIEW</p> <ul style="list-style-type: none"> → Part of overall Plan for Fairy Hill Development → Presently the beach has an occupancy range of 75 (weekdays), 200 (weekends) to approx. 800 (public holidays) persons → Exists within a fragile ecosystem with wetland reserve → Nesting site for sea turtles → Used by international and local patrons 	<p>PURPOSE</p> <ul style="list-style-type: none"> → Recognized need for a formal framework to support recreation activity that is ecologically sound → Need to manage and control use of natural attraction to mitigate environmental degradation by illicit use patterns as follows: <ul style="list-style-type: none"> • Parking on beach • Building structures on beach • Event over population • Destruction of Dune and vegetation • Lack of formal solid and human waste management → Obtain and maintain environmental and safety standards for a beach specifically for ascertaining licensing by NRCA and for achieving blue flag status
<p>WHAT-SCOPE AND CONTENT</p> <ul style="list-style-type: none"> → Public beach park managed by UDC with paid access at a rate established by the NRCA → Eco friendly environment → Natural wetland and forest <p>Comprised of facilities for:</p> <ul style="list-style-type: none"> • Picnicking • Swimming • Lifeguard and first-aid stations • Sun bathing • Un-motorized water sports • Eco-friendly parking • Other nature friendly beach activities • Food concession • Restrooms/changing rooms • Provision for persons with physical disabilities 	<p>WHAT-SCOPE AND CONTENT</p> 

 <h3>HOW-METHODOLOGY</h3> <p>Site Possession: -Incorporating vendors who presently utilize the beach in our development plan -The beach park will be co-managed by Portland Parish Council and the UDC</p> <p>Precedence: -Portland parish council previously managed the beach and has the capacity to represent and include the interest of the Portland and Fairy Hill community</p> <p>Approvals: -Prepare and submit all documentation to relevant authorities to fast track approval process</p>	 <h3>HOW-METHODOLOGY</h3> <p>Phased Implementation: -To commence in May 2000 for phased completion over a 9 month period -Phase 1 – May to August (sanitary conveniences + lifeguard stations) -Limited opening for Independence holiday -Phase 2 – Remainder of facility</p> <p>-To minimize period of beach closure (conflict with user groups) -Creating short term goals and schedules to ease implementation of overall plan -Based on the sensitive environment and the merits not to disturb it</p> <p>Stakeholder Management: -Identifying all stake holders -Buying in of all stakeholders -Clear and concise communication planning</p> 
 <h3>PROJECT COST</h3> <p>Overall Development Cost J\$ 30 million</p>	

Appendix 2.2: Water Quality Assessment: Paul Kerr - Environmental Chemist



**WATER QUALITY ASSESSMENT
WINNIFRED BEACH AND
ENVIRONS**



**WHY DO A WATER
QUALITY ASSESSMENT?**

CONTENTS

- WHY DO A WATER QUALITY ASSESSMENT?
- STUDY COMPONENTS
METHODOLOGY
RESULTS
IMPACT SUMMARY

**WHY DO A WATER QUALITY
ASSESSMENT?**

- To review background levels of critical environmental indicators
- Identify and quantify actual and/or potential impacts associated with the implementation of Phase 2 of the Fairy Hill Development.

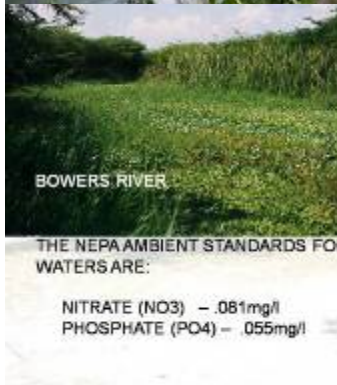


WATER QUALITY

- WATER QUALITY NUTRIENTS (NITROGEN (N) & PHOSPHOROUS (P)),
- COLIFORM BACTERIA (TOTAL (TC) AND FAECAL (FC))
- DISSOLVED OXYGEN
- SUSPENDED SEDIMENT (TSS)



**N AND P ARE GOOD
ON LAND:
MAKE PLANTS GROW**



BOWERS RIVER

IN SURFACE WATERS (HARBOURS, LAKES, RIVERS) TOO MUCH N & P DISTURB THE ECOLOGICAL BALANCE

THE NEPA AMBIENT STANDARDS FOR MARINE WATERS ARE:

NITRATE (NO3) – .081mg/l
PHOSPHATE (PO4) – .055mg/l

COLIFORM BACTERIA



ALL COLIFORM BACTERIA ARE FOUND GENERALLY IN SOILS AND IN THE INTESTINES OF WARM BLOODED ANIMALS



FAECAL COLIFORM BACTERIA ARE FOUND ONLY IN THE FAECES OF WARM BLOODED ANIMALS SO IT IS USED TO INDICATE THE PRESENCE OR ABSENCE OF SEWAGE, LIVESTOCK WASTE OR...



... GUANO (BAT FAECES).
THE STANDARD FOR FAECAL COLIFORM IN MARINE BATHING WATERS IS <200



OXYGEN (O2) IS JUST AS NECESSARY FOR MOST ANIMALS IN WATER...



IN THE SAME WAY THAT ANIMALS ON LAND NEED IT. IN WATER WE CALL IT DISSOLVED OXYGEN (D.O.)



WITHOUT SUFFICIENT AMOUNT IN WATER MANY ANIMALS CANNOT FUNCTION PROPERLY E.G. (FEEDING AND REPRODUCTION ARE AFFECTED)

THE MAXIMUM THAT WATER CAN HOLD UNDER NORMAL SITUATIONS IS CALLED (DOsat)

FOR TROPICAL SEA WATER DOsat = 6.1 – 6.4MG/L



THE USEPA DRAFT STANDARD 1999 CAPE COD TO CAPE HATTERAS IS:

- DO ≥ 4.8MG/L (REQUIRED FOR MAXIMUM GROWTH EFFECTS)
- DO > 2.3 MG/L (MINIMUM SURVIVAL REQUIREMENT FOR JUVENILES AND ADULTS)



TOTAL SUSPENDED SOLIDS (TSS) ARE ONE OF THE MAIN STRESSORS OF CORAL REEFS. THEY CAUSE:

- SMOTHERING
- REDUCED LIGHT PENETRATION DUE TO INCREASED TURBIDITY
- RELEASE OF ASSOCIATED NUTRIENTS/POLLUTANTS

THE PROPOSED STANDARD FOR TSS IN CORAL REEF WATERS IS <10MG/L

TERMS OF REFERENCE
WATER QUALITY:
N, P, DO, TSS, Coliform, Salinity

STUDY COMPONENTS

- Methodology – Standard Methods For The Analysis Of Water And Wastewater (19th Edition).
- Summary of Results (1997 and 2006)



WATER QUALITY SAMPLING SITES

SAMPLING SITES - COORDINATES

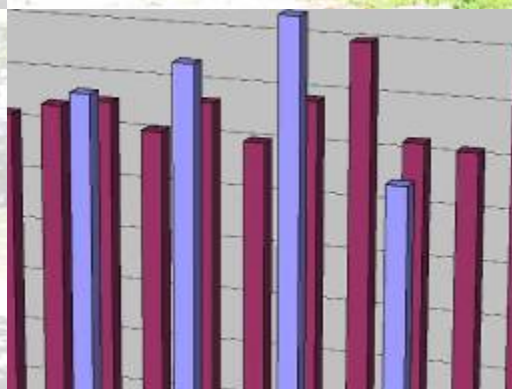
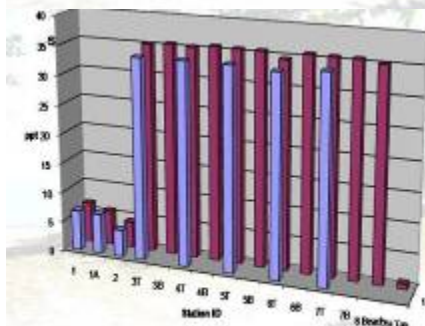
Station	Description	18oN	76oW
1	Spring - Winnifred Beach	10.208	22.432
1A	Spring - Outlet to Sea	10.212	22.451
2	Spring Just East of Station 1 - Em The Coastline	10.212	22.441
3T	Bay - East	10.340	22.367
3B			
4T	Bay - Approx 15m W of 3T	10.342	22.459
4B			
5T	Bay - Approx 15m W of 4T	10.375	22.555
5B			
6T	Bay - Approx 15m W of 5T	10.360	22.607
6B			
7T	Bay - W Shore	10.355	22.641
7B			
8	(Beach)Winnifred Beach - Bathing Area	10.218	22.343
SF Well	Residence At Zion Hill	9.668	22.794

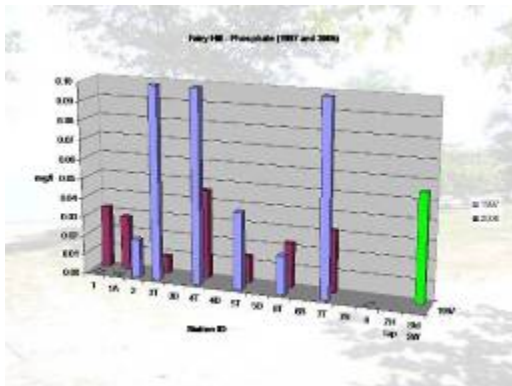
Ambient Standards For Marine Waters

Parameter	Draft Standard (NEPA)
Nitrogen as NO ₃	001 - 681 mg/l
Phosphorus as o-PO ₄	001 - 055 mg/l
BOD	57-110 mg/l
Dissolved Oxygen	4.8 mg/l*
Suspended Solids	<10mg/l**
Faecal Coliform	<200***

QUICK OVERVIEW - COMPARISON OF DATA FROM 1997 WITH CURRENT DATA

PARAMETER	STATUS	COMMENT
Nitrate	Increased Noticeably at all sites	Increased Impact From Sewage and/or Animal waste
Coliform	Increased Noticeably in Spring	*
TSS	Improved	Decreased Impact from surface run-off
Phosphate	Decrease	Possible decreased impact from agricultural activity
Dissolved Oxygen	Very similar	Eutrophication in the bay might not be at an advanced stage
Salinity	Very Similar	No drastic change in fresh water contribution





PRESENT IMPACTS

Projected impact from the development on water quality is associated with the need to dispose of sewage/grey water and expected increased storm water runoff.

RECOMMENDATIONS/MITIGATION

In order to reduce the possible impact of the development on local water quality it is recommended that consideration be given to the following:

- Provision of adequate land area for water management.
- The containment and reuse of storm water as far as possible.
- Prevention of seepage by using appropriately lined containment areas for treated sewage/storm water.
- Treatment of sewage/grey water above ground.
- Elimination of local sources of pollution especially those that are a threat to the aquifer.
- The provision of adequate arrangements for the containment and disposal of solid waste.
- Longer term monitoring to enable continuous assessment of mitigation efforts.



Appendix 2.3: Drainage and Hydrogeology: Brian Richardson

Drainage & Hydrogeology, Fairy Hill, Portland

Brian Richardson, BSc., MSc., FGS,
MIAH, mCWWA

Geology/Hydrogeology

- Site underlain by coastal aquiclude - soft marly limestone. The overlying deposits, are a combination of reddish-brown pebbly, calcareous sands, gravels and clay
- Groundwater is likely to be 1-2m below ground at the lowest parts of the site and is likely saline impacted.
- Two freshwater springs are along the coast
- The closest well is >1km –
- Natural drainage gullies occur within the site
- Storm surge hazard reported by ODPEM

Projected pre & post runoff

Site Catchment Area	Storm Runoff with a 4% (1:25yr) exceedance probability
Pre-development (ie existing)	10 m ³ /s
Post-development (ie predicted)	12.5 m ³ /s
Increase above existing	2.5 m ³ /s
Percentage increase above existing	25% increase

Basic Elements of site Drainage System

- **Minor system** consist of kerb and channel leading to oil/solids manholes/traps prior to discharge to the major system.
- **Major system** consists suitably open culverts collecting runoff from the minor system with final outlet with scour protection. Location to be agreed with NEPA.

Basic Elements of the Housing Sub-Division

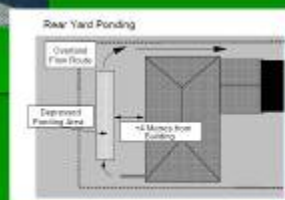
- 1) **Source control** via permeable driveways and roof capture to black tanks
- 2) **landscape features** such as infiltration strips, holding ponds or swales, etc. designed into amenity areas
- 3) **engineered features** such as infiltration trenches, along natural drainage courses.

Conclusions

- Drains designed for 1:25 year event. No blocking of natural drainage courses.
- Short term supply may be an inadequate. Long term solution commence in 2008/2009.
- Sewage disposal can be an impact but the treatment system to be implemented will protect coastal water quality.
- All final outlets, discharging to the sea, will have strategically placed oil/water interceptors.
- Sufficient setback to reduce to storm surge risk for sub-division.



Examples of Drainage Systems



Environmental Monitoring Plan


- **Bunding construction:** Bunding all temporary fuel, oil and chemical storage areas, cut-off trenches to control silty water flow off site
- **Pool construction:** coastal springs and beach should be monitored for faecal coliform, BOD, turbidity, nitrates, sulphur, pH, oils and grease

Appendix 2.4: Ecological Survey Presentation: Peter Gayle

ECOLOGICAL SURVEY OF ENVIRONS AT PROPOSED FAIRY HILL DEVELOPMENT

PHASE II – WINNIFRED BEACH
2008


Fairy Hill Aerial Survey



- aerial survey May 8th, 2006; altitude of approx 1,500 feet
- documents the current state of the area to provide a general overview of the terrain and vegetation

DESCRIPTION OF THE TERRESTRIAL ENVIRONMENT

Aerial Survey





Photos ground-truthed to confirm presence / absence of ecologically or commercially important species of flora/fauna at or immediately adjacent to the site.

Terrestrial Survey


- Disturbed woodland area
- Floral species typical of a wet limestone forest
- Botanical species found near the freshwater stream

Swamp fern,
Eucharist lily,
Reedmace
Typha domingensis






- Canopy closed throughout the forest creating a shaded interior providing an ideal habitat for various birds heard in the area
- Under canopy layer is open towards the periphery where the forest gives way to dense shrubs
- Presence of mature trees (>0.3 m in diameter, 15 m in height)



- Cleared areas, presumably for grazing of domestic livestock, are overgrown with short grasses.



Approximately 46 native and introduced plant species were identified. Some of the plant species include, Guango, Cotton and Trumpet trees, as well as Guinep, Almond, Guava and other fruit bearing trees.

Many of the native plant species (herbs, shrubs, flowering plants) identified have medicinal or artisanal uses, while others, primarily food species such as Banana (*Musa* sp.), Breadfruit, Mango, Sugar cane, Corn and Red Peas (*Phaseola* sp.) appear to have been introduced or cultivated.



Area is used both as feeding and nesting grounds for the avifaunal species observed

Bird species were observed in the area

- Twelve resident species
- Eight endemic species
- One migrant species

DESCRIPTION OF THE MARINE ENVIRONMENT

Marine Survey



Winnifred Beach (Fairy Hill Bay) is a sheltered cove 1.6 sq km in area, with a small stream on the east side of the bay. The bay is sheltered by a modest submerged reef crest formed primarily by a ridge of dense fire coral on the east side and mounds of coral colonies on the west side of the bay. A small, shallow, natural channel on the western side of this protective ridge provides boat access to and from the beach

Marine Survey Sites



Seaward of reef crest - barren hard pavement interspersed with mounds of coral and urchins. Main spurs support scleractinian corals, sponges and coronarians & plenty algae

Lagoon and Reef Crest

Coral species observed on the ridge and on coral patches in the lagoon included Fire coral, Brain Coral (*Diploria* spp.), Elkhorn Coral (*Acropora palmata*, both mature and recruits) as well as Boulder and Smooth Star Coral (*Montastraea annularis* and *Siderastrea siderea*)



Thriving Reef Community



- Corals small to medium size, with avg. dia. of 20-30 cm.
- Coral recruitment on the reef crest and substrate sloping seaward approx. 2-3 juv/sq. m. - low in comparison to other reefs
- attributed to the presence of a relatively abundant population of long spined black urchins (*Diadema antillarum*) as well as other species of urchins such as *Echinometra viridis*.

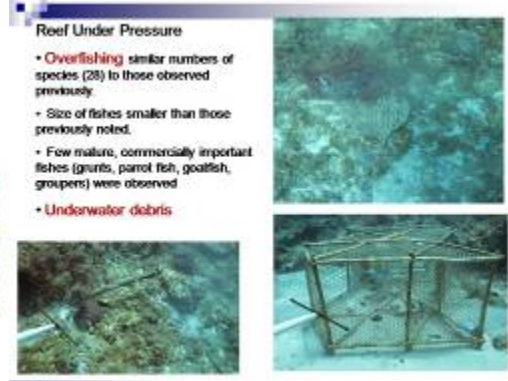
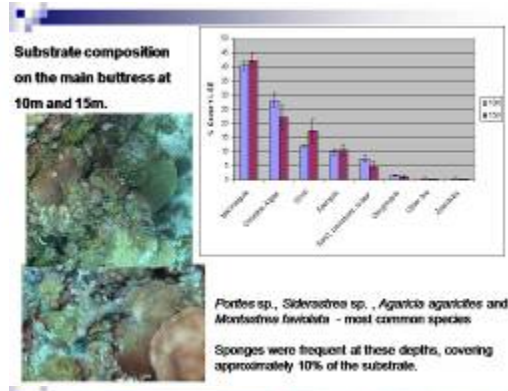


Seagrass beds

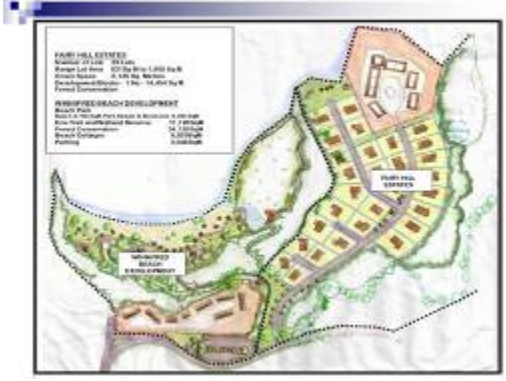


- The shallow sandy lagoon (~1-1.5m) contains dense Turtlegrass beds extending to the reef crest.
- Mean shoot density 886 shoots per sq. m. - comparable to other grass beds
- Substrate on east side of the lagoon - bright green filamentous turf (possibly *Lynbya semiplena*) indicative of localized eutrophication.





THE PROPOSED DEVELOPMENT



Anticipated environmental impacts to the area resulting from Phase II of the Fairy Hill Development:

- **Loss of habitat and diversity**
- **Soil erosion and change in drainage patterns & volume**
- **Pollution and disturbance:**
 - Noise and dust
 - Transportation and storage of construction materials
 - Construction debris
 - Sewage and litter
- **Impact on Winnifred Beach and the reef**
 - Increased anthropogenic effects
 - Eutrophication
 - Trampling of seagrass beds, loss of beach ironshore, coral damage and decrease in coral cover

Impact: Airborne and Noise Pollution

Mitigation: UDC AGREED TO ALL OF THESE

- **Green buffer zones (10-15 m) along roadsides and drainage ways to dampen noise**
- **Use of water trucks on road to minimize dust**
- **Hours of operation for heavy machinery restricted to daylight hours**

Impact: Pollution resulting from transportation and storage of construction Materials

Mitigation: UDC AGREED TO ALL OF THESE

- **Transportation:**
 - Use of covered trucks to minimize dispersal of dust producing building materials
- **Storage:**
 - Storage site selection located away from drainage areas
 - Use of enclosures for building materials
 - Cover stockpiled sand, cement, etc.
 - Secured storage of any hazardous materials

Impact: Winnifred Beach and the marine environment

Mitigation: UDC AGREED TO ALL OF THESE

- **The beach, the surrounding area and the reef comprise a fragile environment. All efforts should be directed to maintaining or improving the natural state of the beach.**
- **Conservation Measures:**
 - Avoid development of infrastructure other than sanitation facilities directly on the beach
 - Maximize area for forest conservation and wetland reserve
 - Off-site parking
 - Expressly prohibit harmful practices, such as dredging, the removal of beach sand / seagrass beds / iron shore features

Impact: Loss of habitat and diversity

Mitigation: UDC AGREED TO ALL OF THESE

Protect and restore natural aspects of site:

- **Increase allocated wetland reserve and forest conservation area to minimize loss of habitat and biodiversity by creating a 14,000 sq.m ecological buffer zone**
- **Phase specific landscaping plan**
 - tree conservation
 - relocation of mature trees
 - replanting of native plants and shrubs
- **Maintain and monitor wetland reserve**
- **Minimize possible drainage impact on marine environment**
- **Minimize beach development to assist turtle nesting**

Impact: Soil erosion and change in drainage patterns

Mitigation: UDC AGREED TO ALL OF THESE

- **Minimize area of exposed soil at all times:**
 - Staged site clearing
 - Cover exposed soil
 - Re-establish plant ground cover
 - Proper storm water drainage systems to minimize direct runoff to marine env

Impact: Waste and Sewage Disposal

Mitigation: UDC AGREED TO ALL OF THESE

- **Comprehensive waste management plan:**
 - **Site clearance:** removal of vegetation to a composting site
 - **Development:**
 - Appropriate waste storage areas on site
 - Removal of construction debris to an approved dump site
 - Sanitation facilities for workers on site
 - Scheduled removal of garbage and sewage

**EVALUATION OF
DEVELOPMENT
ALTERNATIVES**

Development Scenarios

- No project
- Agricultural use only
- Conservation area
- Mixed development

Agriculture Scenario

- Currently used as pasture for small stock rearing at subsistence level
- Soil characteristics
 - thin, clay soil in patches between extensive limestone outcrops.
- Terrain not suitable for major agricultural use
- Alternative deemed **not optimal**

Creation of Nature Reserve cont'd

- Maintain and protect the current state of the marine and terrestrial ecology and offer long-term protection from future development initiatives
- Curtail uncontrolled deforestation of area
- Conserve ecological integrity and inherent value of habitat for use by endemic resident and migrant species of avifauna.
- Loss of employment and revenue potential associated with proposed development
- Alternative, although attractive, is **less recommended**

Enhanced Habitat Conservation

Essential for mitigating decline in biodiversity due to development by establishment of conservation areas which hold economic value

- protecting biodiversity
- flora and fauna habitat
- protecting watersheds from erosion
- supporting recreation and tourism industries
- providing for science and education
- supporting local livelihoods

Habitat conservation plans developed in Florida and California call for habitat conservation at ratios ranging from 1:1 to 3:1 (conserved/developed) depending on the ecological sensitivity

• Ratios were used as general guidelines, in the formulation of the mitigation for main alternative.

Without Project Scenario

- Socioeconomic perspective:
 - Uncontrolled use of site would contribute to gradual degradation of environment and low economic return to people using the resources
- Without the proposed development project the site would continue to exist as public beach with potential problems arising from:
 - Lack of sanitary facilities
 - Lack of security
 - Lack of proper waste disposal facilities
 - Poor access roads and parking facilities
- The illegal use of the site for commercial purposes would continue
- Loss of potential for employment, as well as direct and indirect revenues derived from the proposed development
- Alternative deemed **local favorable**

Creation of Nature Reserve Scenario

- **Most environmentally friendly alternative**
 - Declare the area a **Nature Reserve** for used for education and **eco-tourism** (snorkeling, diving and bird-watching), research and education
- **Minimal infrastructure**
 - Beach area infrastructure would be limited to sanitation, garbage disposal, and off-site parking facilities
 - Access to the beach area would be **fee-based** and would be restricted to **pedestrian traffic only**
 - Car access to the beach prohibited
- **Revenues generated through entrance fees** directed toward supporting a **beach maintenance crew** as well as **environmental wardens** to monitor the conservation area

A Mixed Development Scenario

- With project scenario' contributes toward a national goal to
 - expand the opportunities for tourism development
 - add to housing stock
 - provide for a diversified recreational product
 - earn local / foreign exchange
- This development would also be **compatible with the existing and future planned land uses**.
- Significant forward and backward linkages associated with the local **sourcing of construction material** and **employment opportunities** during construction would be created.
- Other advantages include the maintenance of woodlands by the **creation of forest conservation areas and wetland reserves**
- Alternative **recommended**

Mixed Development

- **Fairy Hill Estates**
 - Conserved/developed ratio of 0.45, based on a developed area 46,213 m² and a conservation area of 20,566 m²
 - Despite the proposed forest conservation area, this **low ratio is indicative of a high density development area** which is not in line with habitat conservation principles.

The high density of residential lots in such close proximity to a conservation area could exert immediate and long-term negative impacts on the ecology of the area which the plan sets out to protect.

Winnifred Beach Development Plan

• Development area of 14,011 m² - beach cottages, parking and 50% of the Beach Park and associated structures.

• Eco-trail, the wetland reserve, forest conservation area along with 50% of the beach occupies 39,290 m². The resulting ratio (conserved to developed) for this part of the development plan is 2.8

•Some of the negative impacts minimized by **reducing the number of residential lots from 29 to 23**, in favour of expanding the forest conservation area to facilitate the creation of unique ecotourism attraction.

•Decreasing the number of residential lots by 6 represents a **potential increase of 31%** (resulting in a ratio of 0.8) to the **forest conservation area** contemplated for the immediate vicinity of the Fairy Hill Estates.

•Increase in the forest conservation square footage represents an **8% increase in the overall habitat conservation area** for Phase 2 of the development, increasing the ratio of conserved / developed land from 0.99 to 1.27 which is consistent with habitat conservation criteria.

•Eliminating development lots closest to the proposed forest conservation area would **increase the ecological buffer zone** between the development and the more fragile (and minimal) wetland reserve.

	Proposed				Alternative		Ratio Conserved/Developed
	Initial Plan Parameters	Developed Area (a ²)	Conservation Area (a ²)	Ratio Conserved/Developed	Developed Area (a ²)	Conservation Area (a ²)	
(A) Fairy Hill Estates	29				23		
Number of lots (N)							
Small Single Lot Area	621	21,859		0.88	621	18,285	1.17
Large Single Lot Area	1,281	42,647		0.47	1,105	36,823	0.86
Green space (a ²)	3,123	2,583			3,115	2,588	
Forest conservation (a ²)	28,586		30,566			30,566	
Total		68,211	30,566	0.45	17,121	28,154	0.80
(B) Winifred beach development							
Beach	8,180		4,050				
Path, fence & structure	4,231	4,111					
Ecological and wetland areas	11,120		11,120				
Forest conservation	24,126		34,120				
Beach cottage	8,820	8,820					
Prising	3,044	3,044					
Total		54,611	39,290	1.80	14,911	11,542	
Ecological Conservation Ratio Fairy Hill Development Phase 2:		61,124	38,816	0.89	11,184	41,696	1.17

SUMMARY & CONCLUSIONS

- Impacts of proposed development, mainly loss of habitat and the possible disappearance of endemic species of flora and fauna, **require mitigation**
- Sensitivity of inshore marine environment calls for measures that eliminate or minimize adverse effects resulting from construction activities
- Construction activities to include **environmental mgt. plan** based on fundamental coastal and watershed management principles
- **Monitoring and timely response** to negative indicators

Appendix 2.5: Socio-Economic Impact Assessment: Allison Richards



Introduction


- The socioeconomic impact assessment (SIA) identifies the socioeconomic and cultural impacts of the proposed development.
- The study area for the SIA includes the proposed site and areas within two kilometers (2 km) of the site.

Introduction (cont'd)

- Impacts:
 - Local (study area)
 - Regional (parish)
 - National (island-wide)

Methodology

- The SIA included
 - Desktop research
 - Socioeconomic and public perception survey
 - Review of existing reports and assessments
 - A site reconnaissance on April 24, 2006
 - A socioeconomic survey on May 20-21, 2006
 - A land use survey
- The land use survey included
 - a review of previous survey
 - a review of IKONOS satellite imagery of the Jamaica; and
 - a site investigation conducted on June 18, 2006





Potential Socio-Economic Impacts

Construction Impacts

	Impact Negative	Mitigation of Negative Impacts
Land Use	1. Displacement of on-site vendors (Short-term Negative)	1. Plan development activities in a way that has minimal displacement. 2. Include the community and especially those vendors who will be displaced in the development activities before the proposed development is completed.

Construction Impacts			Construction Impacts (cont'd)		
	Impact Negative	Mitigation of Negative Impacts		Impact	Mitigation of Negative Impacts
Employment & Income	<ol style="list-style-type: none"> Loss of income by the on-site vendors (Short term, Negative) Creation of on-site vendors and on-site employees (Short term, Positive) 	<ol style="list-style-type: none"> Compensate displaced persons through employment opportunities during and after construction (e.g. temporary construction) 	Transportation	<ol style="list-style-type: none"> Transportation impacts are limited to the lack of access routes to the beach during construction. An impact route will be the temporary A1C6 driveway (Short term, Negative) 	
			Coastal Erosion	<ol style="list-style-type: none"> Loss of beach and dune area (Short term, Negative) 	<ol style="list-style-type: none"> Replenish beach and dune area to restore and understand
Post-Construction Impacts			Post-Construction Impacts		
	Impact	Mitigation of Negative Impacts		Impact	Mitigation of Negative Impacts
National/Regional Development	<ol style="list-style-type: none"> Increase housing stock nationwide (Long term, Positive) Generate employment (Long term, Positive) Construction industry and services nationwide (Long term, Positive) 		Land Use	<ol style="list-style-type: none"> Potential for the regularization of the vendors currently operating on site (Long term, Positive) Retention of properties of the vendors and related businesses (vendors, suppliers, and services) for development (Long term, Positive) 	
Post-Construction Impacts (cont'd)			Post-Construction Impacts (cont'd)		
	Impact	Mitigation of Negative Impacts		Impact	Mitigation of Negative Impacts
Employment & Income	<ol style="list-style-type: none"> Increased employment (local, regional and national scale) (Long term, Positive) 		Community Development/ Recreation	<ol style="list-style-type: none"> Possible charge for utilizing the improved facilities (Long term, Negative) 	<ol style="list-style-type: none"> Community participation
Coastal Erosion/ Beaches	<ol style="list-style-type: none"> Improved beach and dune area (Long term, Positive) 200 ft. beach and dune area (Long term, Positive) 			<ol style="list-style-type: none"> Replenish beach and dune area (Long term, Negative) 	<ol style="list-style-type: none"> Replenish beach and dune area (Long term, Positive)
<h1>THANK YOU</h1>					

Appendix 3: Photo Gallery



Brian Richardson - Hydro-Geologist



Copy of Winnifred Beach, Portland - Wed. Mar. 19, 2008



Dayne Buddo heading to EIA Presentation



Dayne Buddo of UDC in discussion with Mockingbird Hill proprietor



Don Rose - TEMN Lead Consultant



Doreen O'Connor delivering greetings on behalf of Ms. Joy Douglas, UDC General Manager



Doreen O'Connor



EIA meeting attendees



Engineer and Snr. Project Manager in discussions



Food refreshment service area



Front Row - Minister Daryll Vaz



Gavin Seeriram UDC Architect - Project Overview



Jamaica Palace Hotel

Hopeton Smith of UDC during Q & A session



JIS Team



JPSCo Power Outage



L-R Brian Richardson and Paul Kerr - Consultants



L-R Colin Davis and Hopeton Smith are keen listeners during the power outage



L-R Colin Davis and Hopeton Smith keenly listen to Larry Robertson



L-R Colin Davis, Hopeton Smith, Larry Robertson



L-R Colin Davis, Rev. Edwards



L-R Don Rose, Martin Blackwood



L-R Gavin Seeriram - Architect and Sherica Williams - Engineer of UDC



L-R Hopeton Smith of UDC gives a listening ear during the power outage



L-R Joan Smalling and Doreen O'Connor - UDC Corporate Relations Team



L-R Joan Smalling, Martin Blackwood, Dayne Buddo and Paul Williams



L-R Larry Robertson in dialogue with Colin Davis of UDC



L-R Martin Blackwood and Joan Smalling



L-R Paul Williams, Doreen O'Connor, Gavin Seeriram, Mayor Floyd Patterson



L-R Peter Gayle and Mayor Patterson in lively discussion



L-R Rev. Paul Edwards, Paul Williams, Doreen O'Connor, Don Rose



L-R Sherica Williams, Colin Davis, Martin Blackwood and Hopeton Smith during the power outage



Martin Blackwood - Chairman



Mayor Floyd Patterson - Opening Remarks



Mayor Patterson being served with refreshment



Meeting Attendees e



Meeting Attendees a



Meeting Attendees b



Meeting Attendees c



Meeting Attendees d



Meeting Attendees f



Meeting Attendees



Min. Daryll Vaz confers with Mayor Floyd Patterson



Paul Kerr - Environmental Chemist



Paul Kerr



Persons at microphone lined up to ask questions



Persons lined up at microphone to ask questions



Peter Gayle - Ecologist



Presenters Setting Up Before Meeting



Rev. Edwards conducting devotion



R-L Dayne Buddo of UDC listens attentively to comments being made during the power outage



R-L Mayor Floyd Patterson, Gavin Seeriram, Doreen O'Connor, Paul Williams, Rev. Edwards



Sewage Drawings being explained by UDC Engineer



Sign at Winnifred Beach



UDC and TEMN Teams



UDC Environmentalist and Engineer



UDC Staff Preparing Venue



UDC Team at Registration Desk



UDC Team Briefing



UDC Team Checking Technology



UDC Team Preparing for Meeting



View from Winnifred Beach



View of Navy Island



View of New Marina



Winnifred Beach, Portland - Wed. Mar. 19, 2008



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Winnifred Beach, Portland - Wed. Mar. 19, 2008



Winnifred Beach – Portland – Thursday, March 20, 2008