5.0 SOCIAL BASELINE

The Social Impact Area (SIA) for this study was demarcated as two (2) kilometres from the proposed development area. This is outlined in the map below (Fig 5.1).

5.1 Introduction

5.1.1 Methodology

Informal interviews were conducted with residents within the communities in the study area. Other questionnaires were also administered to beach goers, vendors and shop keepers and to hoteliers (Appendix 11) and informal interviews with boat tour operators and stakeholders. These were supplemented by holding of focus groups. In addition, windscreen surveys were conducted in the communities to verify and update the information on the maps. Historical socio-economic data was obtained from the 1982 and 1991 population census and the Jamaica Journal.

Population was calculated using the formula $[i_2 = i_1 (1 + p)^x]$; where i_1 = initial population, i_2 = final population, p + actual growth rate and x = number of years. Water consumption was calculated based on the assumption that water usage is 227.12 litres/capita/day and sewage generation at 80% of water consumption. Domestic garbage generation was calculated at 0.75 kg/capita/day and garbage generate by the proposed development at 2.3 kg/capita/day.

Negril is world renown for its seven miles of white sand beach. The area has grown from its initial stages as an area of community tourism in the early1960s and has since become home to some large hotel chains, some of which are all inclusive.

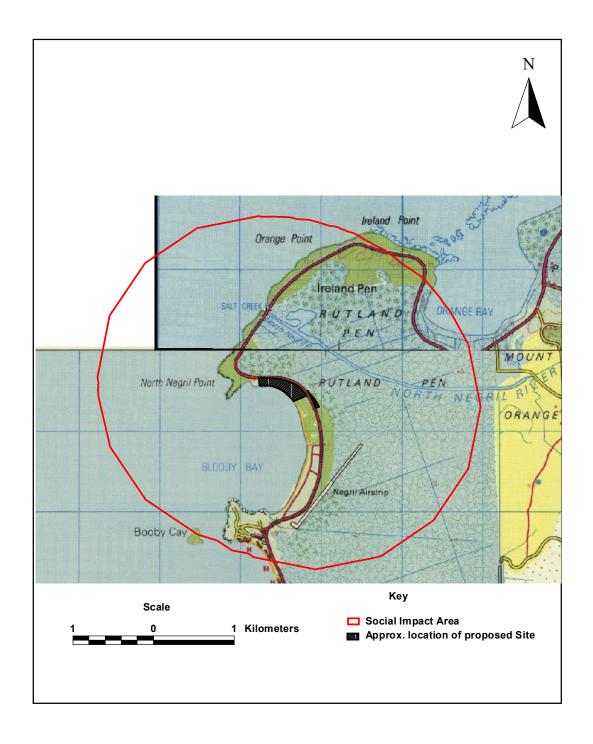


Figure 5.1: Social Impact Area demarcated

The social facilities have not been in the earlier stages been keeping a pace with the phenomenal growth of the area.

5.2 Demography

Regionally the population of Hanover and Westmoreland was 65,400 and 126,100 respectively. During the last intercensal period (1982 –1991), Hanover had an annual growth rate of 0.45% and Westmoreland 0.5%. The child dependency ratios for Hanover and Westmoreland in 1991 were 564.3 and 634.4 per 1000 persons of labour force age, old age dependency ratios stood at 61 and 166.1 per 1000 persons of labour force age respectively and societal dependency ratios were 625.3 and 800.5. The sex ratio for Hanover and Westmoreland in 1991 was 100.34 and 103.7 respectively.

Table 5.1 Percentage composition of the parishes of Hanover (H) and Westmoreland (W) over a twenty year period.

| AGE | | | 1982 | 2 | 1991 | |
|-----------|------|-------|-------|-------|-------|-------|
| GROUP | Н | W | Н | W | Н | W |
| 0-4 | 16.6 | 15.95 | 11.85 | 11.9 | 12 | 12.3 |
| 5-14 | 32.2 | 32.9 | 27.05 | 26.05 | 22.7 | 22.95 |
| 15-29 | 18.8 | 18 | 27.35 | 27.55 | 28.75 | 27.35 |
| 30-44 | 11.7 | 12.4 | 12.35 | 11.95 | 15.1 | 15.35 |
| 45-64 | 14.1 | 14.15 | 12.65 | 13.75 | 12.4 | 12.8 |
| 65 & Over | 6.6 | 6.6 | 8.75 | 8.8 | 9.05 | 9.25 |

Both parishes show a young but aging population (Table 5.1). This is further supported by the median age of the population of both parishes (Table 5.2). The median age is the age, which divides a population into numerically equal parts of younger and older persons (STATIN 1991).

Table 5.2 Median age for Hanover and Westmoreland over the last twenty years.

| PARISH | 1970 | | 1982 | | 1991 | |
|--------------|------|--------|------|--------|------|--------|
| | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE |
| HANOVER | 15.0 | 16.4 | 19.1 | 19.7 | 22.5 | 22.5 |
| WESTMORELAND | 15.0 | 16.4 | 19.7 | 20.1 | 22.8 | 22.9 |

(Source: 1991 Population Census)

The estimated population at the time of the study for Hanover and Westmoreland at the time the study was conducted were, 68,403 and 132,549 respectively. It is anticipated that the populations for Hanover and Westmoreland will reach 76,529 and 150,151 respectively over the next 25 years if the annual growth rate remains the same.

Table 5.3 Four towns and their population growth over a twenty year span

| LOCATION | 1970 | 1982 | 1991 | ANNUAL RATE OF GROWTH 1970-1991 (%) |
|----------------|--------|--------|--------|--|
| Lucea | 3,579 | 5,652 | 5,419 | 2.00 |
| Savanna-La-Mar | 11,604 | 14,912 | 16,340 | 1.64 |
| Negril | 1,166 | 2,475 | 4,040 | 6.10 |
| Green Island | 1,163 | 1,370 | 1,591 | 1.50 |

All four towns showed positive growth, however, Negril, showed phenomenal growth over these twenty years. A possible explanation for this the proliferation in hotels, villas and guesthouses which provided a pull for persons seeking employment.

The study area had a population of approximately 472 persons in 1991. At the time the study was conducted, the estimated population was 820 persons, calculated at an annual growth rate of 5.68 % (1982-1991 intercensal period). It is expected that the population will grow to 3,263 persons over the next 25 years if the current population growth rate is maintained.

The child dependency ratio for the study area in 1991 was 592.98 per 1000 persons of labour force age, old age dependency ratio stood at 70.18 per 1000 persons of labour force age respectively and societal dependency ratio were 663.16. The sex ratio for the study area was 100.39.

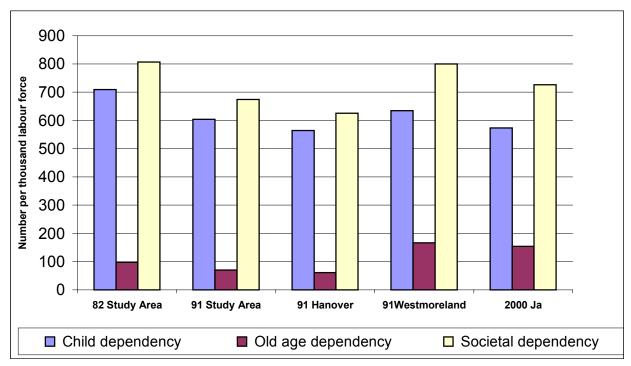


Figure 5.2: Dependency Ratios

A comparison of the dependency ratios revealed that the working population in the parish of Westmoreland in 1991 had a higher demand for child, old age and societal support when compared to Hanover. In the study area, there was a decreasing trend in these dependency ratios from 1982 to 1991. Although there has been a decline in dependency on the working class in the study area, it is still higher than that obtained in the parish of Hanover. However, the ratios are lower than those in Westmoreland are.

Comparing the resident population (1982 and 1991) within Negril and surrounding areas indicates that areas along the coastline have shown an increase in population (see Figure 5.3). This may be because of increase tourism development within the region and hence employment opportunities producing a "pull" to the areas.

The areas that showed most growth were Whitehall and lower West End, Negril, Ireland Pen, Rutland Pen, Orange Bay and Mount Pleasant.

5.2.1 Employment and Income

The economically active population as defined by the International Labour Organisation (ILO) is, all persons of either sex involved in the production of goods and services and includes persons working, those actively seeking work as well as persons not employed or actively seeking work who would take a job if offered one. The economically active population is confined to the ages 14 years and over.

In 1991, approximately 53% of the labour force of Hanover and 54 % of Westmoreland was economically active. There was a general reduction in the percentage of the economically active population over the twenty years (1970 – 1991) in Hanover. There was also a similar reduction in the economically active ratio of male to female with the population. Within Westmoreland, there was a reduction in the economically active population from 1970-1982, however, this increased in 1991. This trend was also observed in the economically active ratio of male to female obtained.

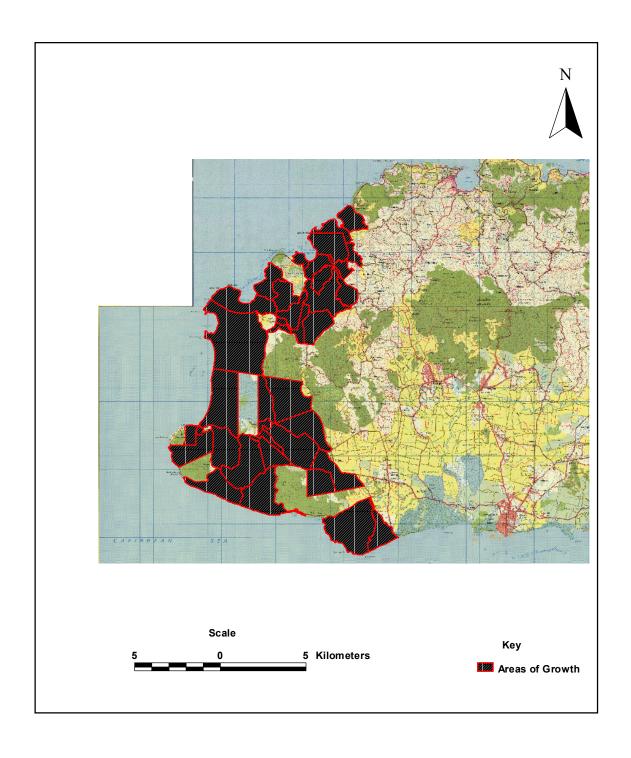


Figure 5.3: Map showing areas of increased population, 1982-1991

The unemployment rate among the labour force in both parishes in 1991 stood at approximately 57 %. It is also important to note that in 1991, although the number of males to females in the labour force population was almost similar and in the case of Hanover, there were more females, males were approximately twice more economically active.

In 1991, 63 % of the labour force in the study area was economically active. The ratio of economically active male to female was lower than that of both the parishes of Hanover and Westmoreland.

Unemployment within the study area in 1991, stood at approximately 50 %. This lower unemployment rate coupled with a higher economically active labour force suggests that persons living in the study area had a better chance of obtaining work when compared with the parishes of Hanover and Westmoreland.

The proposed project is expected to employ approximately 600 trade men and labourers and at peak construction period, this number will increase to approximately 1200 persons.

This proposed project has the potential to create a positive impact on the labour force within the study area and by extension regionally and nationally.

5.2.2 Education

The 1991, educational statistics for Hanover suggested that the 15 years and over population was largely unskilled with approximately 64 % of this population attaining a primary education. The attainment of primary education and above is important as it relates to potential employees to the hotel industry. The two largest categories are found in the primary and secondary educational attainment. There has been a downward trend from 1970 -1991 in persons attaining a primary

education with 68% of the 15 years and over male population and 61 % of the female population in 1991 attaining a primary education. However, there was an increase from 1970-1991 of this population attaining a secondary education, with 30 % and 37 % of the male and female population respectively achieving this milestone.

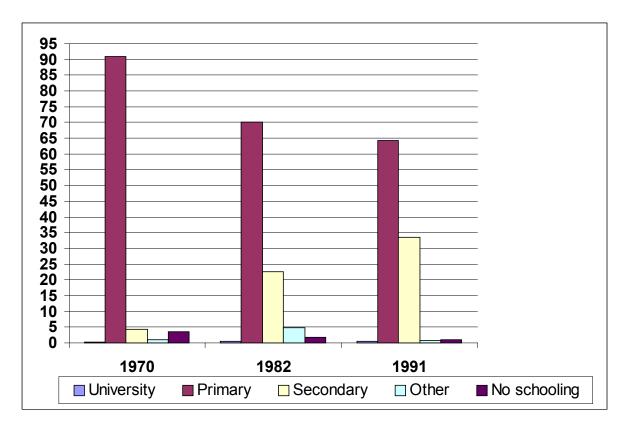


Figure 5.4 Educational attainment over the last twenty years (1970-1991) for the 15 years and over population of Hanover.

Persons within the study area attend seven main schools. These are, Orange Bay Basic School, Church Hill Primary, Green Island Primary, March Town All Age, Negril All Age, Rusea's Comprehensive and Green Island Comprehensive. They travel distances of up to 20 km (12 miles) to attend school.

Table 5.4 Schools, capacity, enrolment and percentage attendance

| SCHOOL NAME | Enrolment | Capacities | % | Comments |
|----------------------------|----------------|----------------|----------------|-----------------|
| | | | Attendance | |
| Orange Bay Basic | No information | No information | No information | No information |
| Church Hill Primary | 349 | 210 | 83 | Co-ed Whole Day |
| Green Island Primary | 674 | 545 | 80 | Co-ed Whole Day |
| March Town All Age | No information | No information | No information | No information |
| Negril All Age | 418 | 520 | 75 | Co-ed Whole Day |
| Rusea's Comprehensive High | 1,937 | 1,245 | 94 | Co-ed Whole Day |
| Green Island Comprehensive | 1,638 | 810 | 97 | Co-ed Shift |

NB. Enrolment based on the 1999- 2000 academic year. The names of schools that are in bold have exceeded their capacities.

Within the study area 43% of the population attained a primary education, 28 % attained a secondary education, 12 % had no formal education, 6% attained a nursery/infant education, 9 % did not state the level of education they attained and 2 % attained university or other educational level. The category of other includes teachers colleges or vocational institutions.

The trend in educational attainment over the 20-year period (1972-1991) suggests that there is a decrease in number of persons in the population of Hanover with only a primary education and those without formal schooling. This trend also occurs within the study area. This coupled with the fact that there is also and increase in this population of persons attaining a secondary education suggests that the population within the parish and the study area should be easier to be trained to perform their job duties and functions.

5.3 Existing Land Use

Existing land use in the study area is tourism, commercial, residential and recreational. Tourism facilities dominate the land use of the study area. There are approximately 10 hotels located within the study area. Commercial the study area has restaurants, craft shops, a gas station and an aerodrome. Residentially there are housing developments located at Orange Bay. There is a

football field located in Orange Bay and the beaches located at Bloody Bay and Long Bay are used for recreational purposes by residents within the study area.

The proposed site is currently being used as dump for both commercial and domestic waste as evidenced by Plate 5.1. In addition, both locals and tourists use the beach abutting the proposed site, for clandestine actions.



Plate 5.1: Photo showing improper waste disposal on proposed project site

The proposed development has the potential to negatively impact the recreational use of the Bloody Bay Beach as it will reduce the extent of the beach that can be used freely by locals. It will however, have a potential positive impact in the reduction of the use of the area as a dump for waste.

5.3.1 Housing

For the purposes of this study the definition of housing unit, dwelling and household are those used in the conduct of the population census conducted by the Statistical Institute of Jamaica. This definition states that a "housing unit is a building or buildings used for living purposes at the time of the census. A dwelling is any building or separate and independent part of a building in which a person or group of persons lived at the time of the census". The essential features of a dwelling unit are both "separateness and independence". Occupiers of a dwelling unit must have free access to the street by their own separate and independent entrance(s) without having to pass through the living quarters of another household. Private dwellings are those in which private households reside. Examples are single houses, flats, apartments and part of commercial buildings and boarding houses catering for less than six boarders.

In 1991, there were approximately 16,054 housing units, 17,151 private dwellings and 17,565 households in Hanover. The average number of dwelling in each housing unit was 1.1 and the average household to each dwelling was 1.0. The parish had an average household size of 3.7 persons/household.

Ninety six percent (96 %) of the housing units in 1991 in Hanover were of the separate detached type, 1 % of the semi –detached type, 1 % each for the categories of apartment buildings / town houses and part of commercial building and 1 % improvised housing, other and not stated.

Approximately 34 % of the housing stock in Hanover was constructed before 1970. Fifty-nine percent (59 %) was constructed between 1970 –1991 and 7 % of the respondents occupying the units were generally not aware of when the unit was constructed.

Nearly three quarters (72 %) of the households in Hanover occupied between 1 and 3 rooms, 26 % between 4 and 6 rooms and 2 % occupied 7 and over rooms. Most of the households in Hanover occupied (28 %) two (2) rooms.

In 1991, there were approximately 142 housing units, 160 private dwellings and 161 households the study area. The average dwelling in each housing unit was 1.1 and the average household to each dwelling was 1.0. The average household size was 2.9 persons/household. While the average dwelling in each housing unit and average household to each dwelling was similar to the parish statistics, the average household size was lower than the parish average.

Separate housing accounted for 96 % of the housing units in the study area in 1991. Three percent (3%) was semi- detached housing and 1 % part of a commercial building. With the exception of the semi-detached category, the other two categories were similar to what obtained in the parish.

In 1991, ninety one percent (91 %) of the households in the study area occupied between 1 and 3 rooms, 8 % between 4 and 6 rooms, 1 % did not state and none occupying seven or over rooms.

Although the average household size was lower than that of the parish, the fact that the majority of households occupied one room suggests that there was some level of overcrowding occurring in the households.

5.3.2 Infrastructure

Electricity

Approximately 50 % and 53 % of the households in 1991 used electricity in the parishes of Hanover and Westmoreland respectively. The use of kerosene was the next major source of lighting in households in these parishes accounting for approximately 48 % and 44 % in Hanover and Westmoreland respectively.

In the study area, approximately 64 % and 34 % of the households used electricity and kerosene respectively. There was a greater percentage of households within the study area using electricity was greater than in the parishes (Hanover and Westmoreland). The percentage of households using kerosene in the study area was lower when compared with the parishes.

It is not anticipated that there will be any problems as it relates to the supply of electricity to the proposed development.

<u>Telephone/Telecommunications</u>

The parishes of Hanover and Westmoreland are served with land lines provided by Cable and Wireless Jamaica Limited. Wireless communication (cellular) is provided by Cable and Wireless and Digicel Jamaica Limited for both parishes.

In addition to telephones, there are numerous Internet service providers (ISPs) in Jamaica. The area is not an exception, with Internet cafes located in the town of Negril. In addition, private homes and hotels have access to the World Wide Web.

It is not anticipated that there will be any problems as it relates to the provision of telephone service to the proposed development.

Water Supply

Water for Negril is sourced from the Logwood Treatment Plant in Hanover. Discussions with NWC personnel (Mr. Patrick Daley, District Manager, Sav-la-Mar, Westmoreland) revealed that the plant has a stated capacity of 6 MGD (Imperial). Only 4 MGD is currently being utilized.

An estimate of the remaining capacity was undertaken. A 20% loss to leakage was considered that resulted in an estimated additional supply capacity of 1.6 MGD or 7.28 MLPD.

Approximately 89 % of the households in the study area in 1991 received water from the National Water Commission and the other 11 % had other means of receiving water supply.

Table 5.5 contains the estimated water consumption in the parishes of Hanover and Westmoreland and the study area in 1991 and 2001. It also estimates the future consumption in the year 2026.

Table 5.5 Estimated Water Consumption (in Litres per Day)

| Location | 1991 | 2001 | 2026 |
|--------------|------------|------------|------------|
| Hanover | 14,853,648 | 15,535,689 | 17,381,266 |
| Westmoreland | 28,639,832 | 30,104,529 | 34,102,295 |
| Study Area | 107,201 | 186,238 | 741,093 |

Based on these estimates, the expected demand for water supply by the proposed development is not expected to have any potential negative impact on water supply for the area (Appendix 14).

<u>Sewerage</u>

Most of Negril was sewered and connected to a new wastewater treatment plant less than 5 years ago. The sewerage extends through most of the 'West End" in the south to as far as Tropical Bay and Negril Cabins in the north. Negril Cabins is approximately 1000 south of the proposed hotel site. Discussions with NWC personnel (Mr. Junior Francis, Operations Manager, Negril, Westmoreland) revealed that there is a UDC force main in the road between the NWC sewerage and the proposed hotel site. However, this force main has not been equipped with the two required lift stations to date.

Wastewater Treatment

Wastewater from the Negril area is collected and treated at the Negril Treatment Plant at Sheffield. The plant has a capacity that is greater than 3.0 MGPD, in two series of ponds. Less than 1.5 MGD is currently reaching the treatment plant. Only one series is currently in operation.

The plant therefore has the capacity to take an additional flow of greater than 1.5 MGD or 6.825 MLPD.

Current Issues

NWC personnel sited two issues as it relates to both the sewerage and the wastewater treatment plant that are of relevance to this project. These are as follows:

- Poor location and lack of NWC coordination with respect to the design and construction
 of terminal manholes. This situation can make maintenance and NWC assistance difficult
 during emergencies.
- 2. Odorous sewage in the lift stations and grease on the surface of the waste stabilization ponds due to poor grease trap sizing or maintenance.

More NWC/developer interaction in both the design as well as implementation phase was suggested as a potential remedy for design and operational shortcomings.

Past, current and future estimation of sewage generation are outlined in Table 5.6.

Table 5.6 Estimated Sewage Generation (in Litres per Day)

| Location | 1991 | 2001 | 2026 |
|--------------|------------|------------|------------|
| Hanover | 11,882,918 | 12,428,551 | 13,905,013 |
| Westmoreland | 22,911,866 | 24,083,623 | 27,281,836 |
| Study Area | 85,761 | 148,991 | 592,874 |

In 1991, approximately 92 % of the households within the study area disposed of their sewage by an inappropriate and inadequate manner (See Table 5.7).

Table 5.7 Comparison between the parish and the study area by sewage disposal methods as a percentage of the households.

| METHOD OF DISPOSAL | LOCATION | | | |
|------------------------|-------------|----------------|--|--|
| | HANOVER (%) | STUDY AREA (%) | | |
| Pit Latrine | 72 | 47 | | |
| WC linked to sewer | 3 | 8 | | |
| WC not linked to sewer | 12 | 17 | | |
| No established means | 1 | 8 | | |
| Other | 6 | 17 | | |
| Not Stated | 6 | 3 | | |

NB. WC means water closet.

While a lower percentage of households in the study area compared to those within the parish use pit latrines to dispose of their sewage, there is a higher percentage of households in the study area using water closets not linked to sewer or having no or other established means of disposing of their sewage.

The building of the proposed hotel development is not expected to have a negative impact as the development will be linked to the Negril sewerage system.

Solid Waste Generation

The Western Parks and Markets Department do solid waste collection. This service is provided free for the households within the area. The waste is transported to the Retirement dump located in St. James.

Private contractors do collection of solid waste from the hotels. This service is provided to the hoteliers for a fee, which is dependent on the frequency of collection. This waste is also transported to the Retirement dump. The collection of domestic waste appears to be inefficient as informal dump areas were seen throughout the study area and in particular on the projected project site.

It is estimated that households in the study area generated approximately 356 kg of solid waste in 1991. Based on the growth of the population it has been estimated that at the time of this study approximately 615 kg of solid waste was being generated and it is expected that within the next twenty five years if the population growth rate remains the same to be 2,447 kg (\approx 2.5 tonnes).

The proposed development is anticipated to generate approximately 2,508kg (2.5 tonnes) of waste per day.

Roads and Transportation

The Norman Manley Boulevard is the main road that runs through the study are. It parallels the eastern boundary of the proposed hotel development. The road surface is in an excellent state of repair.

Transportation within the study area is provided by a fleet of taxis and "robot taxis" (unlicensed). Negril has a transportation centre located along the Negril to Savanna-la-mar main road. In addition, transportation to and from hotels within the area is also provided by tour companies and Jamaica Union of Travellers Association (JUTA) buses and cars.

At the present hotel (RIU Tropical Bay), some local taxis and buses have a two-year contract to provide ground transportation to guests. It is anticipate that this arrangement will be replicated when the proposed new hotel is constructed.

Air Transport

The Negril Aerodrome is situated approximately 1.5 km (≈1 mile) southeast of the proposed project site. It provides air transport to other sections of the island. These are Montego Bay where the "hub" of Air Jamaica is, Kingston (Tinson Pen), Port Antonio (Ken Jones) and Ocho Rios (Boscobel). Five air carriers serve the Negril aerodrome. These are, Air Jamaica Express, TimAir, Jamaica Air Link, International Air Link and Burl Air. In addition, Air Jamaica Express, AirPak Express and TARA provide air courier service.

Health Care

In addition to the five doctors that work in Negril, there are three locations where persons within the study area obtain their health care. These are, Negril Health Clinic, Lucea Hospital and Savanna-la-mar Hospital. The Negril Health Clinic is approximately 14 km (\approx 8 miles) from the

study area is the closest facility. Persons travel from as far as Little London and Hopewell to attend to the clinic. It is a type III clinic offering dental, medical, anti and post natal, family planning, gynaecology, psychiatry and food handlers permit. On average, the clinic sees approximate 70 persons per day.

The closest hospital to the proposed site is located at Lucea, which is approximately 30 km (18 miles) from the study area. Savanna-la-mar hospital is approximately 35 km (\approx 22 miles) from the proposed site.

The construction and operation of the proposed hotel development is not expected to negatively impact the health system.

Shopping

The town of Negril is the main commercial centre for the study area. However, persons travel as far as Savanna-la-mar and Lucea for their shopping needs. There are approximately 3 supermarkets in Negril.

5.3.3 Other Services

Financial Services

There are two commercial banks (Bank of Nova Scotia and National Commercial Bank) that serve the study area. They are located in Negril. They are two cambios and a Paymaster also located in Negril. In addition, most hotels provide Bureau de Exchange, where guest can convert their currencies to Jamaican dollars.

Fire Station

There are no fire stations within the study area, however there is one located in the town of Negril, some 9 km ($\approx 6 \text{ miles}$) from the proposed development site. Currently, this station has one fire truck and if required backup is received from the headquarters in Savanna-la-mar which has two trucks.

The proposed development has its own designed fire control system (see Figure 5.5), with a series of fire hydrants, fire extinguishers and smoke detectors and alarms. It is not anticipated that there will be any problems as it relates to a fire event.

Police Station

The Negril police station is responsible for policing the Bloody Bay area. Highway patrol is conducted by the Green Island police station. The incidence of major crimes are low, however, *simple larceny* is the main crime committed in the area. The sale of illegal drugs also takes place within the study area.

The police station has a youth group, the Negril Police Youth Club, that is encouraging youths to stay away from drugs.

Crime is not expected to be a major problem within the study area.

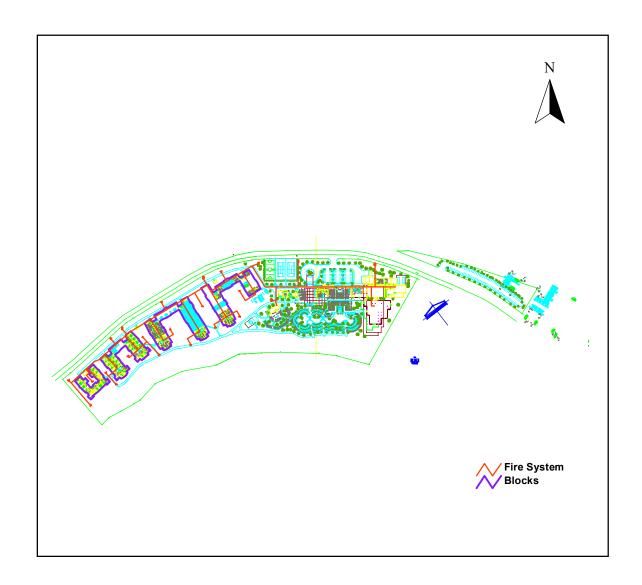


Figure 5.5: Schematics showing fire control systems for the proposed hotel

Post Office

The study area is served by one post office. This is the Negril Post office located along the West End road. It is anticipated that there will not be any potential negative impact on the post office operations due to the proposed construction and operation of RIU hotel in Bloody Bay.

5.3.4 Tourism and Beach Use

Caribbean destinations in 2000 showed good performances. Based on preliminary results from the Caribbean Tourism Organization (CTO), the region recorded an estimated 5 % in stopover arrivals and 10 % increase in cruise passenger arrivals (JTB 2000). The final figures for six Caribbean destinations showed moderate growth. Jamaica was joint third with Barbados (6 %) behind Cuba (11 %) and Puerto Rico (8 %). Aruba was fifth (5 %) and Bahamas sixth with 3 %. The position held by Jamaica is however tenuous as other Caribbean destinations with partial figures showed good growth. These were Dominican Republic (14 %) (Jan.-Sept.) and the US Virgin Island (13 %) (Jan.-Nov.).

Jamaica has increasing become dependent on tourism. Visitor arrivals to Jamaica increased 1999-2000. Stopover arrivals stood at 1,322,690 an increase of 6% and cruise passengers stood at 907,611 an increase of approximately 19 %.

The average length of stay of foreign nationals in 2000 was 10.1 nights. This was a reduction from the 10.3 nights in 1999. This suggests that visitors tend to have numerous short holidays than fewer long ones. Visitors in hotels tended to stay for shorter periods when compared with non-hotel accommodation. The average length of stay in hotels was 6.6 nights, which was a reduction from the 6.9 nights in 1999. There was also a reduction of those who stayed at non-hotel accommodation from an average of 18.3 in 1999 to 18.2 nights.

Average hotel room occupancy rate in 2000 (58.5 %) was almost 2 percentage points above the level achieved in 1999 (57 %). There was a noticeable decline in the occupancy levels of small EP hotels (less than 100 rooms) in most of the resort areas. For the resort areas of Montego Bay hotel room occupancy increased from 59.5 % in 1999 to 62.8 % in 2000, Ocho Rios remained relatively stable (59.5 % in 1999 and 59.3 % in 2000) and in Negril there was a decline from 63.9 % (1999) to 62.1 % (2000). Occupancy rates in all inclusive in the three main resorts increased in 2000 when compared with 1999. In Montego Bay annual room occupancy was 70.2 % in 2000 compared to 66.9 % in 1999, Ocho Rios 65.6 % in 2000 compared with 64.7 % and in Negril 73.5 % in 2000 compared to 67.5 % in 1999. This indicates that there is an increasing trend in visitors who require all inclusive vacations.

Gross visitor expenditure in 2000 was estimated at US\$ 1,333 million, an increase of 4.2 % of the US\$ 1,279 million earned in 1999.

There was a 2.5 % increase in the number of persons directly employed in the accommodation sub-sector in the year 2000. The number of person increased from 30,325 in 1999 to 31,080 in 2000. Montego Bay, Ocho Rios and Negril accounted for approximately 90 % of the persons directly employed in the accommodation sector. Montego Bay accounted for 10,756 direct jobs (35 %), Ocho Rios – 9,443 (30%) and Negril – 7,652 (25 %).

During the course of 2000, approximately 600 rooms were completed. Of this, 500 were new rooms and the rest from expansion to existing properties. Since the compilation of the 2000 Annual Travel Statistics, RIU's 380-room Tropical Bay in Negril opened its doors.

Negril, from 1997 – 2000, has continued to maintain its place as the third largest visitor accommodation resort town in Jamaica. In 2000 Negril accounted for approximately 21 % of all types of resort accommodation on the island.

Table 5.8 Tourist Accommodations in Negril by Category and Area (1997 – 2000)

| | UNITS | | | ROOMS | | | | |
|---------------------|-------|------|------|-------|-------|-------|-------|-------|
| | 1997 | 1998 | 1999 | 2000 | 1997 | 1998 | 1999 | 2000 |
| No. of Hotel Rms | | | | | | | | |
| ≤ 50 | 32 | 34 | 37 | 36 | 920 | 963 | 1,064 | 1,018 |
| 51-100 | 32 | 34 | 37 | 36 | 540 | 622 | 585 | 694 |
| 101-200 | 3 | 3 | 3 | 3 | 464 | 472 | 472 | 472 |
| > 200 | 4 | 5 | 5 | 5 | 1,050 | 1,284 | 1,284 | 1,284 |
| Guest Houses | 111 | 100 | 97 | 96 | 1,164 | 987 | 898 | 907 |
| Resort Villas | 190 | 151 | 244 | 236 | 510 | 626 | 709 | 691 |
| Apartments | 17 | 17 | 17 | 17 | 36 | 36 | 36 | 36 |
| TOTAL | 365 | 319 | 411 | 403 | 4,684 | 4,990 | 5,048 | 5,102 |

(Adapted from the 2000 Annual Travel Statistics)

There was an increase in the <= 50 and the 51-100 hotel room categories from 1997 – 1999 with a similar trend in the number of rooms available except for 1999 in the 51-100 room category (Table 5.6). Hotels > 200 rooms and apartments generally remained the same over this period. Guesthouses showed a decline in both the number of units and rooms offered. Resort Villas showed an overall increase although there was decline in the number of units in 1998 during this time period. Although there was a decline in the number of units in 1998, the number of rooms available showed a steady increase, suggesting that existing resort villas were expanding.

Comparing 2000 to 1999, there was a decline in the number of units in the categories of hotels with <= 50 and 51-100 rooms and guest houses. Although there was a decline in the number of units in these categories, the number of rooms offered actually increased suggesting an expansion in the existing units. All other categories remained the same.

While there was a fluctuation in the number of units available in Negril (1997-200), there was a steady increase in the number of rooms available (4,684 (1991) - 5102 (2000)) during that time.

A recent addition to the Negril tourism calendar is "Spring Break". It has been estimated that 30,000 students arrived in 2000, a 36 % increase over 1999. Of this total, the majority (64 %) stayed in Negril. The estimated gross expenditure was US \$22 million.

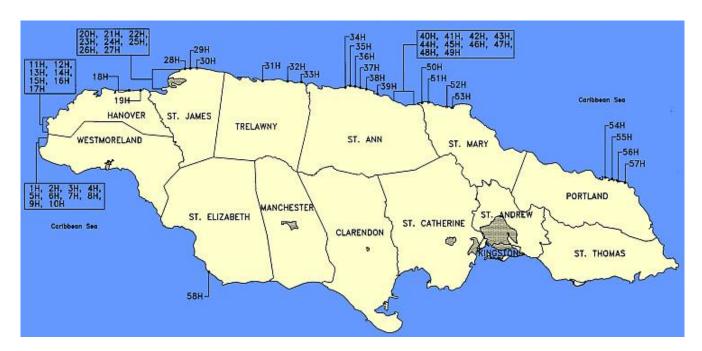
It is planned, that the proposed hotel will target the European market as is currently being done at the present property, RIU, Tropical Bay. Currently there are charter flights from Spain and other European countries. This important on three fronts. First from travel statistics it has been seen that since mid 1980's the European market has been the fastest growing market in the Caribbean and in 2000, Jamaica visitors from the United Kingdom (18.6 nights) and Continental Europe (13.2 nights) on average stayed longer than visitors from the North America (United States - 8.4 nights & Canada -12.2 nights). This has the potential to positively impact the Jamaican economy. Secondly, the fact that RIU plans to target the European market means that they will not a directly compete with most of the existing properties in Negril. Third, the fallout from the terrorist attacks on the World Trade Centre (WTC) on September 11, 2001, "Anthrax" scares and Operation Enduring Freedom – the war in Afghanistan has had a negative impact on the world economy including Jamaica, which has seen its economy impacted severely as the there has been a drastic reduction of tourists arriving from North America. This has resulting in a fall off in projected revenue and foreign exchange earnings. While this fallout is expected to be in the short to medium term, it is anticipated that the millions of United States dollars investment of the proposed hotel, will inject much needed foreign exchange earnings to the Jamaican economy.

Beach Use

"Going to the beach is a traditional recreational experience for many Jamaicans. With an increasing population, there is now greater demand for the use of beaches. This situation becomes more acute against the background of increased tourism development along the coastal strip demarcated for exclusive use. Thus, fewer beaches are available for the use of the public,

many of which are of poor quality and/or lacking of facilities. In addition, there is on going competition from fishermen who encroach on designated bathing beaches in order to carry out their livelihood."

Eight hotels are using Bloody Bay. These are depicted in the map below. Since the creation of this map, there has been the addition of RIU, Tropical Bay hotel.



(adapted from NEPA, Hotel Bathing Beaches)

11H Mahogany Inn 12H Point Village 13H Swept Away 14H Poinciana 15H Sandals 16H Hedonism

17H Grand Lido

Negril Marine Park

Bloody Bay and by extension the proposed project site fall within the Negril Marine Park (Negril Environmental Protection Plan). A more detailed zonation was obtained from the Negril Coral Reef Preservation Society. It shows five (5) main zonations within the Bay. These are (i) swimming, (ii) non-motorized, (iii) motorized, (iv) replenishment and (v) diving.

Most of the Bay is zoned for motorized crafts, however, a moratorium was placed on motorized water sports within the Bay by the Tourism Product Development Company Ltd. (TPDCO) and supported by NEPA. They essential have stopped issuing licenses to new water sports operators. There are plans afoot to zone the entire Bay for non-motorized craft.

The area zoned as the replenishment zone within Bloody Bay has been proposed as a fish sanctuary. Approximately seventy five percent (75%) of the proposed development falls within this zone. The replenishment zone does not allow swimming, recreational activities, fishing or jet skiing.

There is a potential for conflict between this zonation and the proposed development as there will be need for an area for swimming (beach). The proposed development has the potential to impact negatively on the fish sanctuary.

Carrying Capacity

There are three types of carrying capacities which are an integral part to Sustainable Tourism Development and which forms an integral part of alternative tourism and ecotourism (Attzs, 1999). These are,

- ♦ Ecological Carrying Capacity the level of visitation beyond which unacceptable ecological impacts will occur, either from the tourists or the amenities they require.
- ♦ **Tourist Social Carrying Capacity** the level beyond which visitor satisfaction drops unacceptably from overcrowding.
- ♦ **Host Carrying Capacity** the level beyond which unacceptable change will be detrimental to the host community.

Manning (1996) suggested that sample indicators that may be used to illustrate the carrying capacity for coastal zones include:

- ♦ Degradation (% of beach degraded, eroded);
- Use intensity (persons per meter of accessible beach);
- ♦ Shore/marina fauna (number of key species sightings);
- Water Quality (faecal coliform and heavy metal counts).

It is normally considered by experts that a beach saturation point varies from 6-8 persons per square metre for the average type of beach, to a maximum of 10 persons per square metre for the best quality beach" (Vassiliou 1995, 51).

However, in the light of the laid back nature of Negril, the consultant suggests that these figures should be revised to 1 person for every $3m^2$.

Table 5.9 Beach Lengths and Areas

| LOCATION | LENGTH (m) | AREA (m ²) |
|---|------------|------------------------|
| Beach from the southern border of Bloody Bay to the southern border of proposed site | 1,500 | 56,990 |
| Beach from the southern border of Bloody Bay to the fish sanctuary marker | 1,600 | 66,620 |
| Beach from the southern border of Bloody Bay to the proposed new fish sanctuary marker 100m north of the present point if negotiated | 1,700 | 73,020 |

Assuming the present beach extending to the southern border of the proposed site extends 30 metres seaward and 10 metres landwards from the water line then the useable beach area is approximately 57,000 m². If the beach is extended to the present fish sanctuary marker then the useable beach area increases to approximately 66,600 m². This translates into the beach area in front of the site of approximately 9,600 m².

Table 5.10 Hotels using Bloody Bay, number of rooms and estimated number of guests

| NAME OF HOTEL | # OF ROOMS | # OF GUESTS (≈ 2/ROOM) |
|------------------|------------|------------------------|
| Point Village | 256 | 512 |
| Swept Away | 134 | 268 |
| Beaches Inn | 130 | 260 |
| Sandals | 215 | 430 |
| Hedonism II | 280 | 560 |
| Grand Lido | 200 | 400 |
| Negril Cabins | 50 | 100 |
| RIU Tropical Bay | 396 | 792 |
| Proposed RIU | 420 | 840 |

NB. Assuming 100% occupancy levels

Without the proposed hotel, and assuming that all the guests go to the beach at the same time then it is estimated that approximately 3,300 guests use the Bloody Bay beach. With the addition of the proposed hotel an additional 840 tourists would use the beach, assuming that they all go to the beach at the same time.

Inclusive of the proposed hotel, an estimated 4,140 guests from the hotels using the Bloody Bay would use the beach. If this figure were tripled to include residents within the study area (and growth within the next 25 years) and expected visitors from outside the study area, then based on the 3 m² per person, an estimated 37,300 m² beach area would be needed. Based on the estimated areas (Table 5.9), then the beach saturation point would not be exceeded.

Using the sample indicators suggested by Manning, it can be said that the carrying capacity within Bloody Bay has not been exceeded and will not be exceeded with the addition of the proposed hotel. In addition, the relocation of the Bloody Bay Public beach to Long Bay has the potential to reduce the demand on the beach at Bloody Bay

5.3.5 Historical/Cultural Site

There are no known historical or cultural sites located within the study area. Negril Point Lighthouse is a national landmark. It is situated at South Negril Point. The French firm Barber and Bernard built it in 1894. The tower is made of concrete and is approximately 20 metres (66 feet) above ground level and the light is elevated approximately 30 metres (100 feet) above sea level. This light flashes every two seconds and can be seen for up to approximately 16 kilometres (10 miles) away.

5.3.6 Community Consultation and Perception

Persons within the study area ranked unemployment especially among the youths as the major problem within the area. They called for the creation of job opportunities for example factories.

Most persons asked were unaware of RIU's proposed to plan construct another hotel in the Bloody Bay area. There were seven (7) main responses.

- 1. Those who agreed with the development and saw it as a potential to increase business and employment opportunities within the area.
- 2. Others agreed that the development had the potential to increase business potential and employment opportunities, however, they were concerned about the potential negative impact it would have on the environment especially within the Bloody Bay area.
- 3. Those who disagreed said that while they saw the potential for job creation and increased business, the impact would be minimal, because of the hotel being an all inclusive.
- 4. Others saw the provision of a hospital or the establishment of a factory as better options.
- 5. Still others expressed the concern that there will be a reduction of usable beach area for locals for enjoyment and recreation if the development is made to go ahead. In addition, the usable portion of the beach may become overcrowded especially during public holidays. This is even more critical, as the public beach, which was relocated to Long Bay by the Urban Development Corporation is seen as small, rocky and steep (Plate 5.2). In addition, there are no public sanitary conveniences located there.
- 6. Small hoteliers have expressed reservations about the proposed development as they see it as taking away their share of the tourism market and will result in lean times and in the worst case scenario closures of property. In addition, the creation of another large size hotel would help to destroy the resort community effect that Negril is world renown.

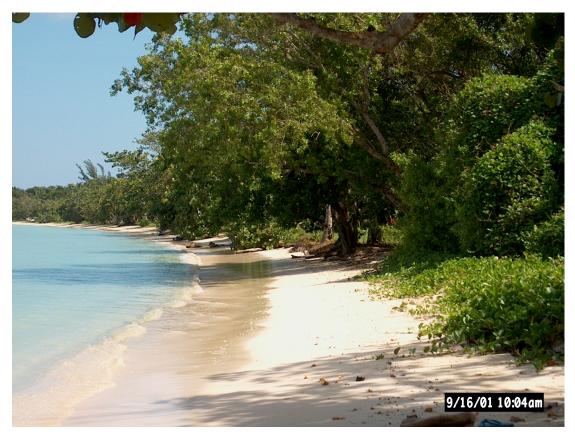


Plate 5.2: Photo showing relocated UDC Public Beach

- 7. The Negril Chamber of Commerce, Non-Governmental Organizations (NGOs) and friends of the Negril Environmental Protection Area also expressed their reservations about the proposed development with NEPA in a detailed correspondence. Their reservations can be summarised as follows:
 - a) The proposed development site will fall in an area where the last stand of *Rhizophora mangle* (Red Mangrove) in Negril is and is also within a proposed fish sanctuary, which is a protected area.
 - b) The removal of mangrove and seagrass is illegal.
 - c) Whether or not RIU will fully consider their concerns with environmental management.
 - d) Whether sewage treatment will be adequately addressed.