



COMMUNITY DISASTER RISK MANAGEMENT PLAN

For
OLD HARBOUR BAY COMMUNITY



Facilitated through the
Building Disaster Resilient Communities Project,
An Office of Disaster Preparedness and Emergency Management (ODPEM) Project
Funded by the Canadian International Development Agency
in collaboration with the
St. Catherine Council
and other partners.

Prepared February 2012



TABLE OF CONTENTS	PAGE
Glossary of Terms	4
Abbreviations	7
Preamble	8
Community Profile	11
The Zonal Programme.....	12
Disaster Risk Management Organization Structure	15
 PR Pre-Impact	
PR1 Historical Overview of Disasters	19
Community Hazard Map	21
SWOT Analysis	22
PR2 Future Hazards	23
PR3 Vulnerability Summary, Possible Impact & Corrective Actions to Reduce Community Vulnerability	25
PR4 Reducing Vulnerability	28
PR5 Priority Listing of Hazards	32
PR6 Capacity and Resource Analysis	33
PR7 Areas for No Development	39
PR8 Areas for Development	40
PR9 Special Areas for Development	41
PR10 Community Mitigation Activities	42
PR11 Mitigation Activities Requiring external assistance	44
PR12 Risk Transfer	46
PR13 Training	47
PR14 Public Awareness and Education	48
PR15 Community Monitoring Programme	50
PR16 Community Early Warning system	51
PR17 Community Early warning Activity and Responsibility	53

PR18	Areas to be Evacuated	54
PR19	Evacuation Routes and Mode of Transportation to Emergency Shelters	55
PR20	Evacuation Procedures	57
PR21	List of Official and Unofficial Emergency Shelters	58
PR22	Preparedness Action Plan	59
PR23	Simulations and Drills	60

PO – POST IMPACT

PO1	Response and Relief	61
PO2	Community Damage Assessors	62
PO3	Community Response Action Plan	64
PO4	Welfare and Relief	65
PO5	Community Recovery Action Plan	66

APPENDICES:

<i>Appendix 1</i>	-	<i>Stakeholder Relationship.....</i>	67
<i>Appendix 2</i>	-	<i>Problem Tree</i>	69
<i>Appendix 3</i>	-	<i>Terms of Reference CDRM Group Concept.....</i>	70
<i>Appendix 4</i>	-	<i>Hurricane SOP</i>	79
<i>Appendix 5</i>	-	<i>Earthquake SOP</i>	99
<i>Appendix 6</i>	-	<i>Fire SOP</i>	116

Acknowledgement	133
------------------------------	------------

GLOSSARY OF TERMS

TERM	MEANING
Capacity	A combination of all the strengths and resources available within a community, society or organization that can reduce the level of risk, or the effects of a disaster. Capacity may include physical, institutional, social or economic means as well as <i>skilled personal</i> or collective attributes such as leadership and management. Capacity may also be described as capability.
Capacity Building:	Efforts aimed to develop human skills or societal infrastructures within a community or organization needed to reduce the level of risk.
Climate Change:	The climate of a place or region is changed if over an extended period (typically decades or longer) there is a statistically significant change in measurements of either the mean state or variability of the climate for that place or region.
Coping Capacity:	The means by which people or organizations use available resources and abilities to face adverse consequences that could lead to a disaster.
Disaster:	A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources.
Disaster Risk Management:	The systematic process of using administrative decisions, organization, operational skills and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impacts of natural hazards and related environmental and technological disasters. This comprises all forms of activities, including structural and non-structural measures to avoid (prevention) or to limit (mitigation and preparedness) adverse effects of hazards.
Early Warning:	The provision of timely and effective information, through identified institutions, that allows

TERM	MEANING
	individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response.
Emergency Management:	The organization and management of resources and responsibilities for dealing with all aspects of emergencies, in particularly preparedness, response and rehabilitation.
Hazard:	A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.
Hazard Analysis:	Identification, studies and monitoring of any hazard to determine its potential, origin, characteristics and behaviour.
Mitigation:	Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards.
Preparedness:	Activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.
Prevention:	Activities to provide outright avoidance of the adverse impact of hazards and means to minimize related environmental, technological and biological disasters.
Recovery:	Decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk.
Relief/Response:	The provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short-term, or protracted duration.

TERM	MEANING
Resilience:	The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures.
Retrofitting:	Reinforcement of structures to become more resistant and resilient to the forces of natural hazards.
Risk:	The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions.
Structural/Non-Structural Measures:	Structural measures refer to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant and protective structures and infrastructure. Non-structural measures refer to policies, awareness, knowledge development, public commitment, and methods and operating practices, including participatory mechanisms and the provision of information, which can reduce risk and related impacts.
Vulnerability:	The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.
*Zone:	Means a Disaster Risk Management Area/Zone which is a specifically defined geographical area (Local Level) in which Disaster Risk Management issues are discussed, planned for and executed in the context of the local area. This Zone maybe one or more communities, depending on the demographics of the community, nature of hazards, established governance structures, and the sociopolitical environment, as defined by the respective parish.
*Zonal Committee:	Means an organised community group within a zone that has accepted the responsibilities for leading the charge of disaster management issues of the zone, has a wide cross representation of the zone and has elected officers to serve as the execute of the committee under the guide of

TERM	MEANING
	the Parish Disaster Committee through the Parish Coordinator-Disaster Preparedness.

Source: The International Strategy for Disaster Reduction; Terminology: Basic Terms of Disaster Risk Reduction. Internet Resource at <http://www.unisdr.org/eng/library/lib-terminology-eng%20home.htm>

* Not from source quoted above

ABBREVIATIONS

CBDRM	Community-Based Disaster Risk Management
DRM	Disaster Risk Management
IDB	Inter-American Development Bank
MP	Member of Parliament
MLSS	Ministry of Labour and Social Security
NGO	Non-Governmental Organisation
OHDAC	Old Harbour Development Area Committee
ODPEM	Office of Disaster Preparedness and Emergency Management
PDC	Parish Disaster Coordinator/Committee
PEOC	Parish Emergency Operations Centre
CBO	Community Based Organizations

Preamble

Name of the Plan

The name of the plan is the “**Old Harbour Bay Community Disaster Risk Management Plan**”

Purpose of the Plan

This plan provides:

1. The residents with a workable emergency system to minimize loss of life and property to prevent disasters from occurring
2. A basic outline of shelters, welfare and relief system as well as some focus on evacuation planning that will make preparation, response and recovery from a disaster more effective
3. An emergency contact list and identification of vulnerable population living in **Old Harbour Bay**.
4. A basic guideline for the community as to who is responsible for what and who is in charge of critical functions in managing a an emergency
5. An overall framework for reducing risks in the community including mitigation and preparedness.

Actors

1. Old Harbour Bay Community Development Association
2. Members of the Old Harbour Bay Zonal Committee
3. Old Harbour Bay Community Emergency Response Team (CERT)
4. Jamaica Public Service (Old Harbour Bay Power Plant)
5. Jamaica Energy Partners (Doctor Bird Power Plant)
6. Jamaica Boilers Ethanol Plant
7. Old Harbour Development Area Committee (OHDAC).
8. Jamaica Fisheries Co-operative (Old Harbour Bay)
9. Food For the Poor
10. WINDALCO
11. Catholic Relief Agency
12. Old Harbour Bay Fishing Council
13. Caribbean Coastal Area Management Foundation
14. St. Catherine Parish Council

- 15. Office of Disaster Preparedness and Emergency Management
- 16. Ministry of Labour and Social Security (MLSS)
- 17. Social Development Commission

Disaster Risk Management in Old Harbour Bay will be taken on by the **Old Harbour Bay Zonal Committee**. The table outlines the membership of the committee and the roles and responsibility of each member is outlined in the DRM Group Terms of Reference.

Scope of Plan

The plan will cover Pre and Post-impact aspects of disaster management, that is, prevention, mitigation, preparedness, response and recovery

Authority

The model plan is developed by the Office of Disaster Preparedness and Emergency Management which is the government agency charged with responsibility for management of all hazards which threaten Jamaica. Under the Disaster Preparedness and Emergency Management Act 1993, ODPEM has the responsibility for ensuring development of hazard management plans.

Responsibility

Responsibility for updating the model plan lies with the ODPEM. Responsibility for testing and updating community plans lies with the communities.

Assumptions

- i. There will always be a CBO in place that will continue to assume leadership role for disaster risk management in the community
- ii. In a disaster utility services may be unavailable for extended periods (i.e, electricity, water, and telephone)
- iii. Police and fire response services will be overrun within the first 3-5days after a major disaster, do not expect help from them initially
- iv. The community will largely be on its own in the initial days following a disaster

- v. There will be serious problems with transportation. Road closures will occur and access to outside help will not be possible
- vi. The community and the parish disaster committee will work together identify and source resources to continue the development and maintenance of the plan

Relationship to Parish and National Plans/Structure

The Old Harbour Bay Community Disaster Risk Management Plan represents the operational procedures and strategies to be employed at the community level in response to, recovery from and preparing for a number of hazards. The community will be supported by and will work through the St. Catherine Parish Disaster Committee and will be closely integrated with the Parish Emergency Operations Centre. Therefore, the community disaster risk management plan will draw on other existing parish plans and national plans where necessary for the mounting of an efficient response and preparedness programme. The ODPEM collaborates with the St. Catherine Parish Council on Disaster Risk Management matters through the Parish Development Committee and the Parish Disaster Coordinator

Community Profile

The Community of Old Harbour Bay is a geographic area comprised of twenty one (21) districts. The districts within the Community are Old Harbour Bay Proper and Blackwood Gardens. The area is bordered to the north by Old Harbour, south by Sea, east by Lloyd's Pen and west by Port Esquivel. The predominant terrain of the community is flat. The climate is predominately dry but experiences periods of heavy rain fall. There are storm reliefs systems present in the community which remove flood waters from the area in these times. The natural resources present within the community are ponds, rivers and forested areas.

The Community of Old Harbour Bay has an estimated population of 7,388 and an educational institution enrollment rate of 70.9% of school aged residents. The household head employment rate was 61.6%. The most common employment category was full time employment which accounted for 51% of all employed persons. The highest rate of unemployed males was 20-24 years accounting for 9.6% of unemployed males while for females the highest level of unemployment could be seen in the 60+ age cohort accounting for 12.8% of unemployed males. A significant amount of the respondents involved in this project reported the presence of a longstanding health problem within their household (35.5%). Among household heads and family members, hypertension was the most common illness. There are no health care facilities present within the Community as such residents usually travel to Old Harbour to access these services. The main difficulty to accessing health care reported by respondents was financial constraints (40%).

The top five developmental challenges reported by the respondents are; high levels of unemployment and youth unemployment, limited/no opportunity for training, poor drainage facilities, poor roads and poor representation by elected leaders. The community of Old Harbour Bay has twenty one (21) Districts. They are Old Harbour Bay Proper and Blackwood Gardens. The Old Harbour Bay community is located in the South Westerly section of the parish and is located 29km from the capital town of Spanish Town. The main economic activities of the area are farming and fishing.

The Zonal Programme

Disaster Risk Management at the Parish and Community Level (ODPEM's perspective)

The parish organization structure stipulates that there be the mobilization of persons at the community level in organizations called Zonal Committees. These committees are the responsibility of the Parish Disaster Health & Welfare Sub –committee. The Parish Coordinator shall be responsible for providing secretariat support to both the committee and zonal committees.

The Zonal Programme

Within the National Disaster Management Framework, “The Zone” is envisaged as the smallest organized unit, outside of the family, that is empowered to prepare and respond to emergencies and disasters at the local level. The Zonal Programme conceptually represents the establishment of a formal organizational structure at the community level. This will provide an enhanced level of capacity, within communities, to prepare for and respond to emergencies/ disasters at the community level

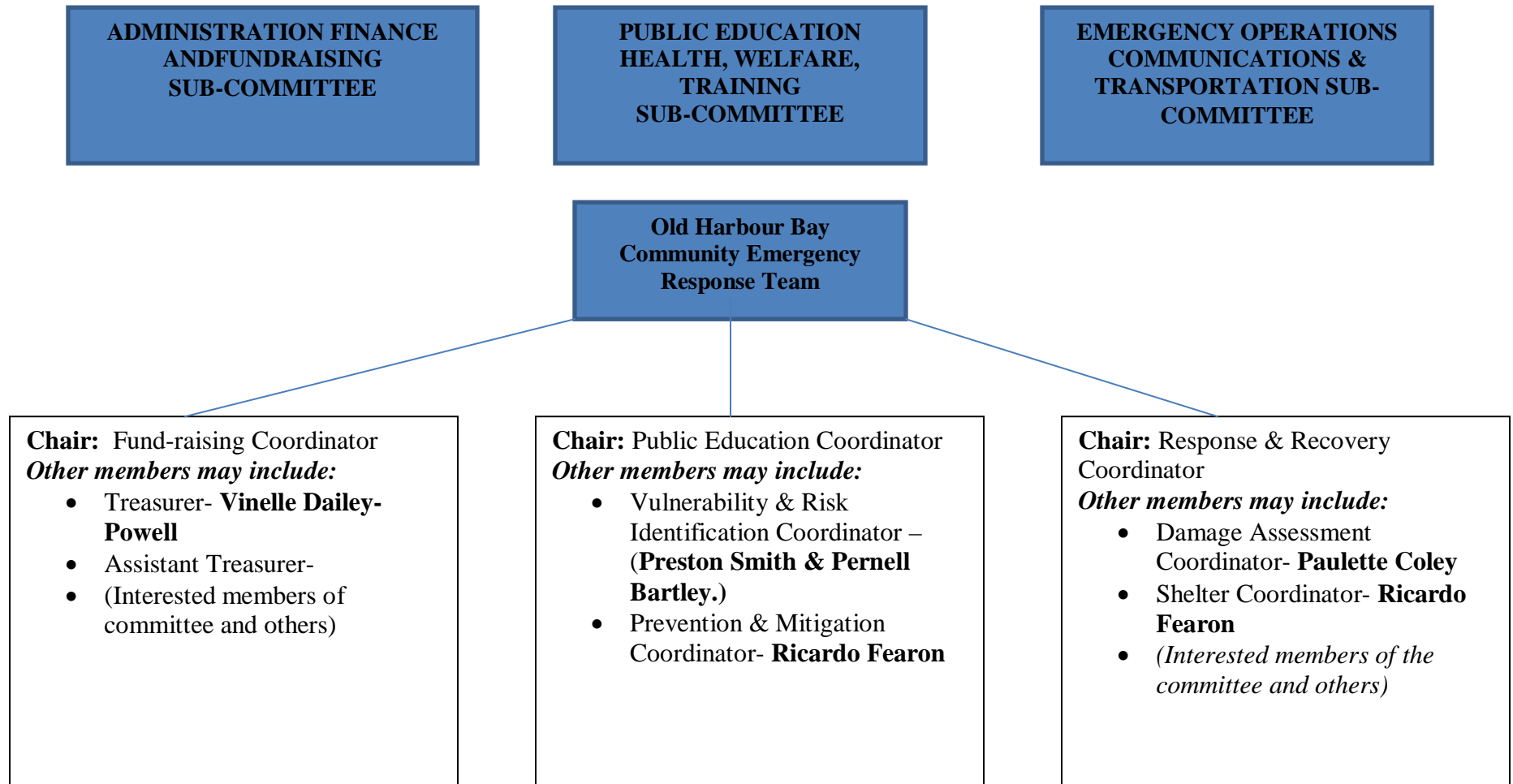
Objectives of the Zonal Committee Programme

- The objectives of the Zonal programme include the following:
- Organizing communities to prepare for emergencies/disasters and utilizing local resources.
- Conduct hazard identification and analysis for communities within the zone
- Management of emergencies and disasters utilizing local resources and other resources that may be channeled into the community
- Develop the local capacity to survive the first 72hours three (3) days of a disaster without external assistance
- Implement training and sensitization programmes as part of the preparation of local population for local population for emergencies/disasters
- Conduct damage assessment exercises for adverse events impacting “zone”
- Mobilize the community to undertake disaster mitigation programmes

ADMINISTRATIVE CHAIRMAN
Mr. Wycliffe Frater

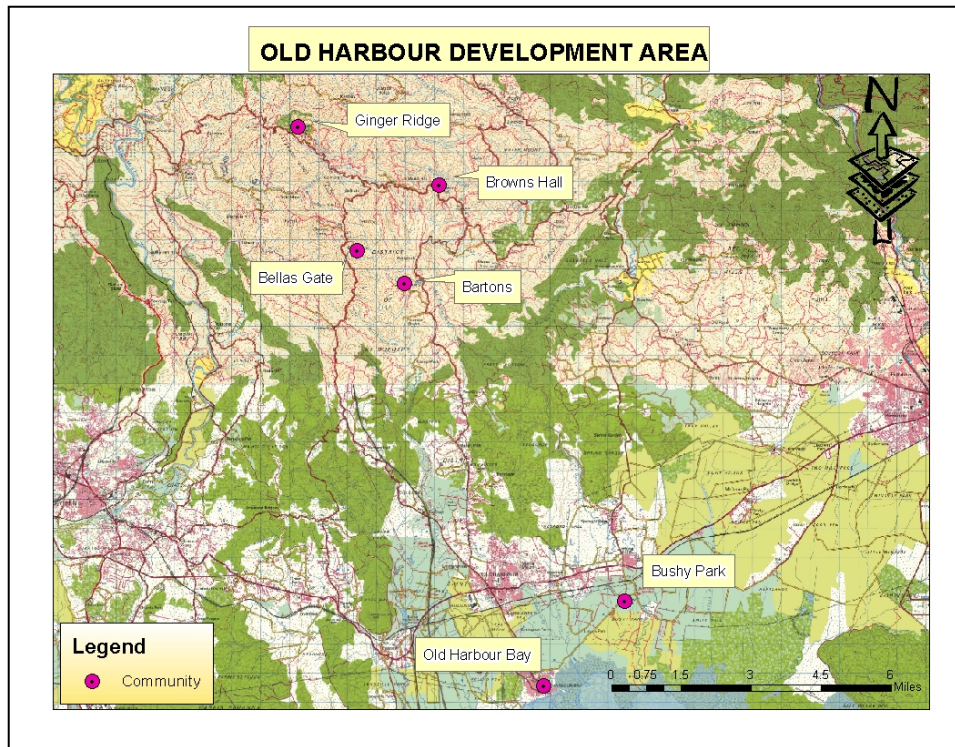


ZONAL COMMITTEE STRUCTURE CONT'D



Disaster Risk Management (DRM) Organizational Structure

A Community Emergency Response Team (CERT) has been established in the community of Old Harbour Bay. This CERT reports to the Old Harbour Zonal Committee. The CERT is one of the four (4) operational CERTS in the Old Harbour Development Area. The CERT team leaders are executive members of the Old Harbour Zonal Committee. The Old Harbour Zonal Committee is responsible for disaster risk management across six (6) communities that comprise the Old Harbour Development area. These communities include Bushy Park, Old Harbour, Old Harbour Bay, Bartons, Browns Hall, Bella's Gate and Ginger Ridge. The Old Harbour Zonal Committee is a functional arm of the Old Harbour Development Area Committee (OHDAC). The table outlines the membership of the committee and the roles and responsibility of each member is outlined for the DRM Group in Old Harbour Bay.



Old Harbour Bay Zonal Committee - Disaster Risk Management Sub-committee Group Structure

POSITION	PERSON ASSIGNED	CONTACT DETAILS (Telephone, cell, address, email)
President	Andrew Gordon	402-7873,9437533. rananev@gmail.com
Vice President	Sandra Nembhard	478-7381 sandranem@yahoo.com
Secretary	Camille Cheese	355-9930, cwilliamscheese@yahoo.com
Treasurer	Vinelle Dailey-Powell	863-2889 dez_mom@yahoo.com
Assistant Secretary	Karen Dixon	423-6599
Public Education & Fundraising Coordinator	Narda Nicholson	840-5325 adrana77@yahoo.com
Vulnerability & Risk Identification Coordinator	Preston Smith Pernell Bartley	848-7533, preston_pooh@hotmail.com 389-7373 pernell.bartley@yahoo.com
Prevention & Mitigation Coordinator	Ricardo Fearon	368-8085, fearonricardo@yahoo.com
Response and Recovery Coordinator	Paulette Coley	441-9639

OLD HARBOUR BAY- DISTRICT CONTACT LIST

NAME	ORGANISATION	POSITION	CELL NUMBER	EMAIL ADDRESS
Wayne Thompson	OH Bay Primary School	Principal	574-4594	enyawthompson@yahoo.com
Vinelle Daily- Powell	OH Bay Primary School	Guidance Counsellor	863-2889	
Debby Hutchinson	Blackwood Garden Basic	Principal	813-3091	
Lucilda Thomas	St. Wade Basic School	Principal	422-8712	
Vivienne Myers	SDA Basic School	Principal	332-2465	
Iris Jewray	Prophecy Basic	Principal	943- 4179	
Evon Bartley	Baptist Bay Basic	Principal	489-6868	
Janet Taylor/Dinal Simpson	Station Lane /Peter Lane	Leader	405-1303/ 562-0560	
Herman Coley	Dagga Bay	Leader	435-4896	
Preston Smith * Movia Bromfield	Bay Bottom and Wilkie Football Club	Leader	848-7533/ 8394779	preston_pooh@hotmail.com
Clyde Grant Llian /	Buddo	Leader	877-3131	
Navado Whyte *	Cross Roads	Leader	457-4355	
Camehia Henry	Moore Pen	Leader	845-5438	
Lorna Hutton	Panton Town	Leader	403-6258	
Peter Davis	PNP Caretaker		436-8881	levite_7@yahoo.com
Michael Simpson		Taxi Operator	424-8469	hgscarlett@gmail.com
Kerry -Ann Robinson	New Harbour Village Cit. Assn. Phase 1	President	579-7141	newharbourvillage@yahoo.com , kerry1898@yahoo.com
Barrington A. James	New Harbour Village Cit. Assn. Phase 2	President	875-0010	levite_7@yahoo.com

Hubert Scarlett	New Harbour Village Cit. Assn. Phase 2	Vice President	365-9781	hgscarlett@gmail.com
-----------------	---	----------------	----------	----------------------

HAZARD HISTORY

History of Hazards and Coping Mechanisms

The hazard analysis provides a detailed timeline account of the disaster history and significant events that happened in the community of Old Harbour Bay and includes the impact as well as the coping strategy and/or mechanism.

Table PR1: Historical Overview of Disasters

HAZARD, YEAR	IMPACT	HOW DID THEY COPE?
T Storm Charley, 1951	Death, Destruction of homes and fishing equipment , Flooding	Unification Area was not densely populated as such persons sought shelter with relatives on higher grounds.
Hurricane Gilbert 1988	Loss of power, water, livestock, piles up of garbage. Level 3	Unification Persons sought shelter with relatives, friends and at established shelter located at Old Harbour High on higher grounds.
Lili/Isidore 2001/02	Flooding (2days) Level 1	The community was now prepared in terms of the battening down of houses, storing of water and non perishable items, to heed hurricane warnings etc.
Ivan 2004 Category 4	Flooding ,wind destruction of houses ,fishing equipment ,erosion of quays Level 3	The community was now prepared in terms of the battening down of houses, storing of water and non perishable items, to heed hurricane warnings etc. More citizens went to the designated shelter in Old

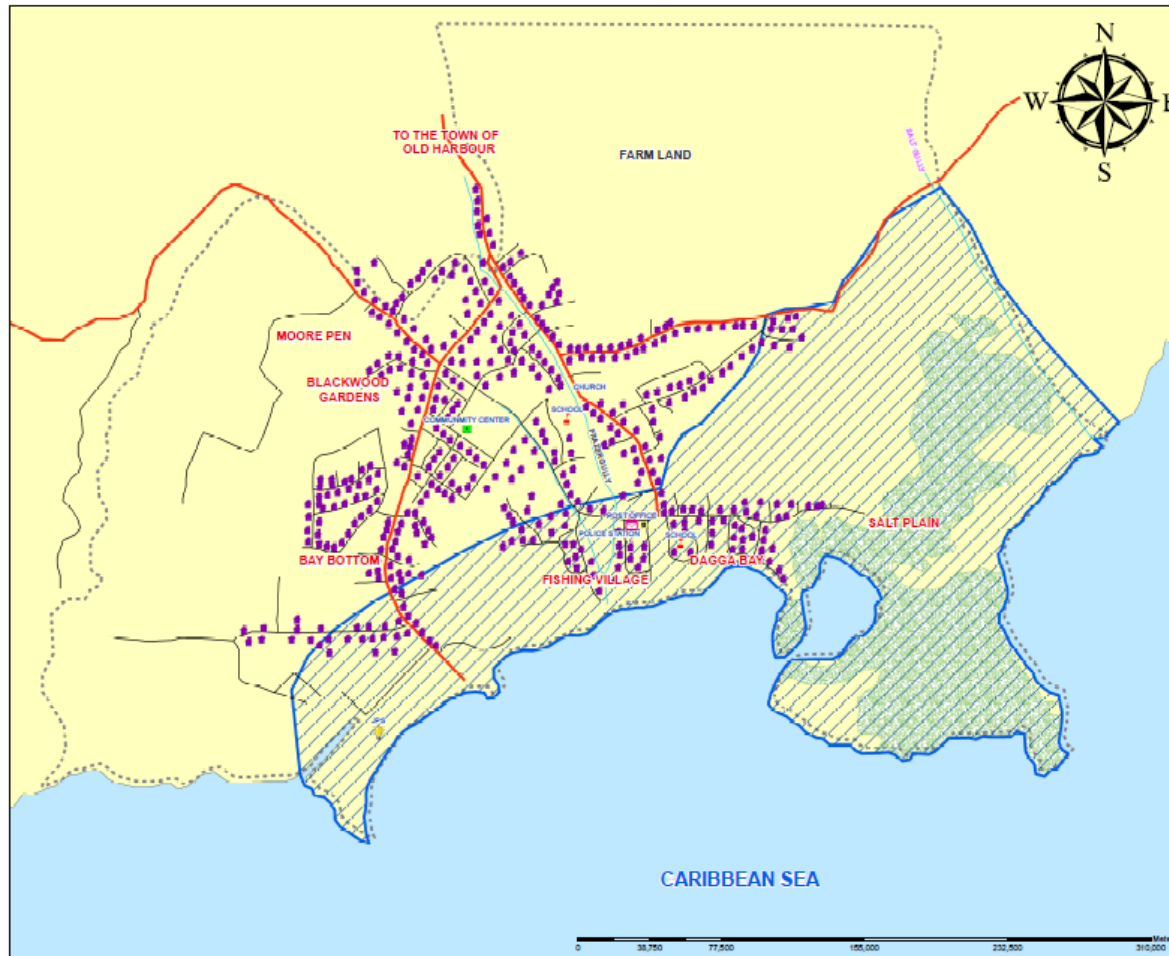
HAZARD, YEAR	IMPACT	HOW DID THEY COPE?
		Harbour.
Dennis 2005	Heavy rains and flooding	
Emily/Wilma	Level 1	To heed hurricane warnings etc.
Dean 07	Level 3 Death, destruction of houses roof, fishing equipments, utilities House items	The community was now prepared in terms of the battening down of houses, storing of water and non perishable items, to heed hurricane warnings etc. More citizens went to the designated shelter in Old Harbour.
Gustav 2008	Heavy rains and flooding level 2	To heed hurricane warnings etc.

The community identified several key lessons learned from the occurrence of the events highlighted above. These include:

1. There is the need for sections in the community to be identifies “no build zones”
2. Sections of the community which lie closest to the sea must agree on a setback from the high water mark
3. There is need for a formal Early Warning System (EWS).

OLD HARBOUR BAY COMMUNITY HAZARD MAP

COMMUNITY HAZARD MAP - OLD HARBOUR, ST CATHERINE



LEGEND

- BAPTIST CHURCH
- COMMUNITY CENTER
- JPS POWER PLANT
- OLD HARBOUR BAY BASIC SCHOOL
- POLICE STATION
- POST OFFICE
- SCHOOL
- HOUSES
- GULLIES
- MAIN ROADS
- MINOR ROADS
- COMMUNITY BOUNDARY
- MANGROVES
- STORM SURGE BOUNDARY (HURRICANE IVAN 2004)



Canadian International Development Agency / Agence canadienne de développement international

PRODUCED BY ODPEM AND THE OLD HARBOUR BAY COMMUNITY BDRP PROJECT

SWOT ANALYSIS

<p style="text-align: center;">STRENGTHS</p> <ul style="list-style-type: none"> ▪ Home of JPS Co Power Plant & JEP Barge Entrepreneurship ▪ Access to Public Services-Police Station, etc. ▪ Unity through annual football competition ▪ Community Umbrella Organization (CDA) & other community groups ▪ Largest Fishing Beach 	<p style="text-align: center;">WEAKNESSES</p> <ul style="list-style-type: none"> ▪ Unemployment ▪ Construction in no build zones ▪ Illiteracy ▪ Inconsistent support in terms of community development ▪ Inability of people in authority to work together on a regular basis ▪ Lack of adequate shelter facilities ▪ Lack of skills training centre ▪ Inadequate employment opportunities ▪ Lack of funding to rehabilitate community centre
<p style="text-align: center;">OPPORTUNITIES</p> <ul style="list-style-type: none"> ▪ Fishing Industry-Employment ▪ Jamaica Energy Partners & JPS Co -Minimal Employment ▪ Basic & Primary Schools-Education ▪ Football Competition 	<p style="text-align: center;">THREATS</p> <ul style="list-style-type: none"> ▪ Flooding ▪ Storm surge ▪ Drug & Gun trade ▪ Tsunami

Identification of Future Hazards

Table highlights the future hazardous events or changes in circumstances which may alter prevailing conditions in the community. Detailed consideration of the location and number of exposed households, physical infrastructure and critical facilities and their exposure to the different hazards is identified.

Table PR2: Future Hazards

HAZARD	POSSIBLE IMPACT
Tsunami	This will ultimately lead to total destruction of the community, causing complete demolition of the livelihood of the community due to the harsh waves associated with this phenomenon.
Overland Flooding	Loss/damage roof, broken windows, damage to contents/ important documents, damage to building, separation of family members, food shortage, looting cost of repairs/rebuilding, food poisoning
Hurricane	Damage to utilities and important infrastructure such as road ways, Loss/damage roof, broken windows, damage to contents/ important documents, damage to building, separation of family members, food shortage, looting cost of repairs/rebuilding
Bush Fire	Fire to housing stock, damage to mangroves or wetlands in the community, separation of families, depression, disruption of livelihood in the community.
Earthquake	Damage to utilities and important infrastructure such as road ways, Loss/damage roof, broken windows, damage to contents/ important documents, damage to building, separation of family members, food shortage, looting cost of repairs/rebuilding
Coastal Erosion	Eroding shoreline, damage to beaches, disruption of livelihood
Possible explosion of the Barges	This may cause the release of harmful chemicals and pollutants

	into the sea. The release of such chemicals could have severe implications on fishes in the ocean, causing severe disturbances to the livelihood of the community.
Climate change	Disappearance of cays (linked to sea level rise), loss of coastal and marine ecosystems – damage to reefs and mangroves; coral bleaching and mangrove retreat observed, Flooding, Changing habitats of crocodiles, Increased mosquito infestation, Changes in hurricane patterns

Identification of Community Vulnerability, Possible Impact and Corrective Actions to Reduce Vulnerability

Vulnerability is the condition or circumstance of the community which makes it susceptible to being damaged by a hazard or disaster.

The vulnerability analysis identifies the exposure of the different assets within the community to hazards.

Table PR3: Vulnerability Summary, Possible Impact and Corrective Actions to Reduce Community Vulnerability

HAZARD	VULNERABLE ASSETS	POSSIBLE IMPACT	CORRECTIVE ACTION/ACTIVITIES
Flooding	Roadways, Fish Nets, Fishing Huts, Boats, Housing Stock, Shops, Fishing Market, MOA&F Gas Station, Power Plant, Barges, Ethanol Plant, Schools (basic & primary), churches, lobster condominiums, artificial reefs.	Loss of lives; Destruction of property and livestock; Loss of crops.	Mitigation: drain cleaning. Authorities setting standards for building zones.
Heavy winds	Citizens	Destruction to property and livestock	Hurricane straps, trim trees
Oil Spill from Old Harbour Bay Power Station and Power Barge	Marine Life	Oil spills which causes death of flora and fauna, erosion of coast line. Destruction of coral reef. Loss of livelihood.	Cleaning of the beach, inflatable booms, sanding and hosing down. Buoy. Temperature at which the water is released is not detrimental but the system could fail.
Storm surge	Roadways, Fish Nets,	Death of flora and fauna,	Relocation for residents. Using sand bags and

	Fishing Huts, Boats, Housing Stock, Shops, Fishing Market, MOA&F Gas Station, Power Plant, Barges, Ethanol Plant, Schools (basic & primary), churches, lobster condominiums, artificial reefs.	erosion of coast line. Destruction of coral reef. Loss of livelihood.	erecting sea walls to break waves.
Building in no building zones (squatter settlements)	Citizens and livestock	Increase poverty, unemployment. Social unrest. Unplanned expansion of the community psycho-social impact on children	Getting the directives from the relevant authorities to build. Relocation.
Mosquito infestation		Loss of lives and livestock	Mosquito fogging
Hurricane	Roadways, Fish Nets, Fishing Huts, Boats, Housing Stock, Shops, Fishing Market, MOA&F Gas Station, Power Plant, Barges, Ethanol Plant, Schools (basic & primary), churches, lobster condominiums, artificial reefs.	Loss/damage roof, broken windows, damage to contents/important documents, damage to building, separation of family members, food shortage, looting cost of repairs/rebuilding, food poisoning	Use of hurricane strips, proper fixing of roofs (seal eaves) batten down windows with ply or shutters, store documents in water-proof containers, elevate furniture, construct buildings according to building code / retrofit buildings to standards
Unprotected coastline	Citizens	Influx of illegal immigrants	To strengthen boarder patrol/marine police
Gun and drug trade	Citizens & Business Interests	On the coastline n trade is very active with Haiti	Law enforcement

		so the communities are heavily impacted	
--	--	---	--

Reducing Community Vulnerability

The vulnerabilities identified above can be addressed and the impact of the hazards reduced if the appropriate actions are employed. It is important that corrective actions be put in place as the table above shows that the value of the assets exposed is significant.

As most hazards cannot be controlled, the following corrective activities/actions were identified to reduce the environmental, social/economic, health related and political vulnerability of the community and the resources needed to achieve this objective.

Table PR4: Reducing Vulnerability

VULNERABILITY	CORRECTIVE ACTIVITIES/ACTION	RESOURCES NEEDED
A. Environmental		
Mangroves (retreating further inland)	Replanting/monitoring the progress of retreating	CCAM, Community volunteers, Ministry of Agriculture (Forestry Department), seedlings.
Solid Waste Management	Public Education, provision of additional skips, drums, etc., Dialogue with NSWMA to provide service to communities not presently benefitting from service, recycling and sorting of garbage, utilization of compost,	Pamphlets, NSWMA resources, Ministry of Health (Public Health Inspectors), St. Catherine Parish Council
Mosquito Infestation	Spray the area Public awareness on related diseases Provide Window netting/repelant	Ministry of Health (Public Health Inspectors) Vector Control, St. Catherine Parish Council
Air Pollution (from JPS and Power Barge)	The plant should try to institute new technologies that would limit the emission of harmful bacteria into the atmosphere. Also the company should try and adopt the	JPS

VULNERABILITY	CORRECTIVE ACTIVITIES/ACTION	RESOURCES NEEDED
	usage of cleaner fuel.	
B. Social/Economic		
Unemployment	Offering of skills training at the community centre, offer reading programme for adults, developing economically viable projects in the community eg. Tourist attraction, Farming (gaining access to available land)	Land for farming, HEART/NTA, Retired teachers and other volunteers
Crime and Violence (Proliferation of Gangs)	Training in anger management, more social activities, greater input from churches in community events, improvement in churches' support for each other's activities, counseling, formation of a ministers' fraternal	Police, Food for the Poor, Church Pastors, Teachers, Dispute Resolution Foundation
Heavy Reliance on Fishing	Diverse the economic base, introduce different areas through which the community can earn a living, address gender imbalance in fishing trade	MOA&F , CCAM, JBD, Ministry of Industry and Commerce, Small and Medium Enterprise
Irregular Migration		JCF, CDA
Gun for Drugs Trade	Develop economically viable projects in the community to engage the youths in the community eg. Tourist attraction, Weekly events Farming (gaining access to available land) Have the community relations arm of the police force have give workshops on the pitfalls of youths entering the trade, More coastal patrols by JDF & JCF	Social Development Commission, CDA, JCF, Dispute Resolution Foundation, Church Community

VULNERABILITY	CORRECTIVE ACTIVITIES/ACTION	RESOURCES NEEDED
Human Trafficking	Report suspected cases of human trafficking	JCF, CDA, JDF
C. Health Related		
Respiratory Illnesses	Limit the emissions of harmful bacteria into the atmosphere, also provide residents with information on what they are being exposed to.	Ministry of Health, JPS
D. Political		
Lack of Political Presentation	Not Applicable	Not Applicable

Priority Listing of Hazards

The objective is to rank the main hazards affecting the community. The hazards were listed in the first column and then the likelihood that the hazard may occur in any given year was assigned a number using the “**probability of occurrence**” scoring system in the second column. In the other columns, the impact of each hazard on the community was identified using the “**impact**” scoring system below.

IMPACT
High - 3
Medium - 2
Low - 1
None - 0

PROBABILITY OF OCCURRENCE
Very Likely - 3
Likely - 2
Unlikely - 1

Formula to determine total: Total Impact x Probability of Occurrence

Table PR5: Priority Listing of Hazards

HAZARD	PROBABILITY OF OCCURRENCE	IMPACT ON COMMUNITY					
		PEOPLE	BUILDINGS	INFRASTRUCTURE	CRITICAL FACILITIES	LIVELIHOODS	TOTAL
Hurricane	3	3	2	2	2	3	36
Storm Surge	2	2	2	2	2	3	22
Flooding	2	2	1	2	2	1	16
Tsunami	2	1	1	1	1	1	10
Earthquake	3	2	3	2	1	3	33

Community Resources and Capacity Analysis

Having prioritized the hazards above, an analysis of capacities the community's to cope and manage disasters was assessed and a listing of the resources and capacities of **Old Harbour Bay** are provided below.

PR 6: Capacity and Resource Analysis

Capacity	Type of Resource	Task
Skills	Welders, fishing, carpenters, teachers, nurses, drivers, electricians, shelter managers, evacuation managers, technicians	Making grills, provide food, build houses, teach children, nurse the injured, taxi drivers help in transport, etc.
Knowledge		To warn persons of emergencies
Networks		
Transportation	Commercial, ODPEM will provide buses etc.	Help in relief efforts
Building/Structures	Churches	To take in persons during disasters
Means of Care		
Medical Care	Bayview medical centre/Old Harbour Bay Medical Post @ Baptist Church	Operates normally
Means of communication	Mainly cellular phones, few land lines, JPS Siren	Aids in the warning process but there is a lack of credit.
Commercial Enterprises	Wholesale, companies, Jamaica Boilers, the barge, C-CAM through OXFOM, Yard Project, Habitat for Humanity	Through ODPEM, parish council and other organizations, wholesales would distribute relief items. Jamaica Boilers supplied chickens to assist a feeding program. The barge

		supplied water tanks. They assist in building homes, etc.
--	--	---

CAPACITY	TYPE OF RESOURCES	TASK
Skills	Fisher folks	Catching and Selling fish to community and wider Old Harbour Area
	Refrigeration Technician	Assist community members in performing routine and preventive checks on their cold storage systems.
	Construction Workers/Carpenters	Assist in reinforcing buildings prior to a disaster, assist in the reconstruction of buildings/houses after a disaster, provide voluntary service, assist in providing building materials (donations)
	Dress Makers	A person who makes custom clothing for both men and women
	Teachers	Assist children with homework, assist in the shelter management programme (managing the shelter and teaching children in shelter), assist in public education programme, temporarily take home children affected by disasters and teach them (based on parental consent)
	Nurses	Assist in the following areas: Basic first aid and medical treatment, health service at the emergency shelter
	Business persons	Assist in fundraising activities, provide building material, provide food and other emergency supplies

CAPACITY	TYPE OF RESOURCES	TASK
	Plumber	Assist in the following areas: emergency shelter, general members of the community (at a cost or voluntary)
	Welder/Mechanics	Assist in repairing emergency vehicles, general service to the community
	Fire Fighter	Assist in training emergency response team members, basic first aid, assist in search and rescue operations
	Cabinet Maker	Assist in the repairing of furniture damaged during a disaster, assist at the Emergency shelter
	Sound System Operators/Disc Jockey	
	Boat Repairs	
	Lawyers/Judge	Is a person learnt in law who may offer legal advice to community members
	Doctors	May offer first aid assistance and other medical procedures.
Transportation	Motorbikes	Assist in emergency transportation – taking messages, small supplies, small quantities of food, etc.)
	Buses	Assist in emergency transportation – taking messages, small supplies, small quantities of food, etc.)
	Bicycles	Assist in emergency transportation – taking messages, small supplies, small quantities of food, etc. to the needy)
	Cars	Assist in emergency transportation – taking messages, small supplies, small quantities of food, etc. to the needy)
	Vans	Assist in emergency transportation – taking persons to hospital, transporting food

CAPACITY	TYPE OF RESOURCES	TASK
		and other emergency supplies, evacuation process
	Trucks	Assist in emergency transportation, transporting food and other emergency supplies, evacuation process
	Boats	Assist in emergency transportation, transporting food and other emergency supplies, evacuation process
Medical Care	Nurses	Provide basic health service to the community during an emergency, assist with public education programmes, assist in first aid training, provide first aid items.
	Community Health Aids	Provide basic health care, assist in emergency shelter operations, assist with public education programmes
	Doctors	Monitor threats of disease outbreak, provide health care, assist with public education programme
Building/Health	Health Centre	Serve as medical post in time of emergency
Schools/Churches/ Other Buildings	Listed in critical infrastructure	
Means of Communication	Telephone (Cell)	Day-to-day and emergency communication
	Word of Mouth	Daily and emergency communication
	JPS Sirens/ Church Bells	To be used as interim early warning system
	Internet	Emergency communication as required.
Commercial Enterprises	Old Harbour Bay Fishing Market	
	Wholesale Supermarket	Availability of foods and other emergency supplies

CAPACITY	TYPE OF RESOURCES	TASK
	M.O.A&F Gas Station	Provides fuel for the boats in the fishing village
	Shops & Bars	Source of food supplies, alcoholic beverages
	Barber & Hairdressing Salons	
Networks	Fisheries Division	
	JPS/ Doctor Bird Power Plant/ JB Ethanol	Assist community projects – before and after a disaster
	WINDALCO	Assist in community projects – before and after a disaster
	Old Harbour Bay Fishing Co-operative	Provide financial assistance to community members before and after a disaster
	CCAM	Assist in community projects – before and after a disaster
	OXFAM	Assist in community projects – before and after a disaster
	Catholic Relief Agency	Assist in community projects – before and after a disaster
	Food for the Poor	Assist in community projects – before and after a disaster

CAPACITY	TYPE OF RESOURCES	TASK
	CIDA	Assist with the development of community business plan and the funding of flood mitigation project.
	St. Catherine Parish Council	Provide technical assistance on community projects, support to community activities
	Social Development Commission	Assist with training and planning – general community development
	Office of Disaster Preparedness and Emergency Management (ODPEM)	Provide technical assistance, facilitate training assist with community disaster risk management activities, support to general community Disaster Risk Reduction activities
Networks Cont'd	National Solid Waste Mgt. Authority	Assist with garbage collection
	National Works Agency	Assist with road repairs and rehabilitation, also the construction and improvement of drainage systems

MITIGATION

In order to ensure that future development in the community is not exposed to the same hazards as in the past, implementation of a mitigation plan is deemed essential to facilitate sustainable development as well as create an enabling environment for reducing disaster risks. The elements of the community's overall mitigation plan are set out below.

Areas Which Should Not Be Developed

The following areas in **Table 7** below were identified by the community as being unsuitable for future development because these areas are vulnerability to natural hazards.

Table PR7: Areas for No Development

AREA	REASON FOR NO DEVELOPMENT
Dagga Bay	▪ Flood prone area
Seaside (Near Fishing Village Station Lane Peters Lane	▪ Flood prone area
Buddo Salt gully Panton Town Terminal (In close proximity to power plant	▪ Flood prone area

PR 8: Identify what type of development will be permitted where in the community

AREA	TYPE OF DEVELOPMENT WHICH WOULD BE SAFE
Bourksefeld	▪ Housing
Kelly Pen	▪ Housing
Cross Roads	▪ Housing
Brampton Farms	▪ Housing
Settlement	▪ Housing

Areas Which Can Be Developed With Appropriate Mitigation Activities

These are “**special areas**” in the community which could be developed or could be made safer if certain mitigation activities were implemented.

Table PR 9: Special Areas for Development

AREA	MITIGATION MEASURES NEEDED
Terminal (section furthest from power plant)	Dumping of sand and create buffers to lessen the effects of storm surges/shoreline protection

Community Mitigation Activities

The following are some activities that the community can do itself to reduce the impact from hazards.

Table PR 10: Community Mitigation Activities

HAZARD	ACTIVITY	TIMEFRAME
Flooding	<ul style="list-style-type: none"> • Cleaning Drain/ Frazer Gully • Construct and improve storm water drains • Construction of housing on elevated floor levels • Construction of more culverts 	February - April
Tsunami	<ul style="list-style-type: none"> • Drill • Public awareness (brochures/pamphlets) • Formalizing EWS 	Jan- Feb (annually)
Garbage	<ul style="list-style-type: none"> • Install garbage bins and skips • Improve collection (more trucks and more frequent collection) • Collection in areas that presently do have garbage collected • Public education 	January - December
Fire	<ul style="list-style-type: none"> • Public awareness exercise • Drills 	October
Hurricane	<ul style="list-style-type: none"> • Public awareness exercise • Strap-it-down programme (Hurricane straps) • Shelter inspection and update • Secure storage items and emergency supplies • Conduct training workshops 	May - June

Earthquake	<ul style="list-style-type: none"> • Public Awareness exercises • Conduct drill • Conduct hazard hunt 	January - February
Deforestation	Create Reaforestation Campaign	
Mosquito Infestation	Spray the area Public awareness on related diseases Provide Window netting/repelant	
Dynamite Fishing		

Mitigation Activities Requiring External Help

The mitigation activities are beyond the scope of the community and as such require external assistance for successful implementation.

Table PR 11: Mitigation Activities Requiring External Help

HAZARD	ACTIVITY	TIMEFRAME
Flooding	<ul style="list-style-type: none"> • Cleaning Drain/ Frazer Gully -NWA and Parish Council • Construct and improve storm water drains • Construction of housing on elevated floor levels • Construction of more culverts • Public Sentisation- ODPEM 	February - April
Tsunami	<ul style="list-style-type: none"> • Drill Drills-CERT/ Jamaica Fire Brigade/Jamaica Public Service/Parish Council/ ODPEM/ Old Harbour High School/ Police • Public awareness (brochures/pamphlets)- Formalizing EWS –CERT/ Parish Council 	March - April
Garbage	<ul style="list-style-type: none"> • Install garbage bins and more skips –, NSWMA • Improve collection (more trucks and more frequent collection) –, NSWMA • Collection in areas that presently do have garbage collected –, NSWMA • Beach Clean up Activities- volunteer groups, MOH, CCAM/ • Public education – ODPEM, Parish Disaster Committee, Zonal Committee, NSWMA 	January - December
Fire	<ul style="list-style-type: none"> • Public awareness exercise – Jamaica Fire Brigade/Jamaica Public 	October

HAZARD	ACTIVITY	TIMEFRAME
	Service <ul style="list-style-type: none"> • Drills-CERT/ Jamaica Fire Brigade/Jamaica Public Service/Parish Council/ ODPEM/ Old Harbour High School • 	
Hurricane	<ul style="list-style-type: none"> • Public awareness exercise – Parish Disaster Committee, ODPEM • Strap-it-down programme (Hurricane straps) – Political representatives, ODPEM • Shelter inspection and update – Parish Disaster Committee, Old Harbour Bay Zonal Committee • Secure storage items and emergency supplies • Conduct training workshops 	May - June
Earthquake	<ul style="list-style-type: none"> • Public Awareness exercises • Conduct drill • Conduct hazard hunt 	January - February
Mosquito Infestation	Fogging the Community –MOH, St Catherine Public Health Department, Vector Control Unit/Public awareness on related diseases MOH/Old Harbour Bay Baptist Church, Bayview Health Centre Provide window netting/repellant- Parish Council, Food For the Poor, Red Cross	
Deforestation		

Mitigation Action Plan

The mitigation action plan identifies the disaster risk reduction measures for implementation which will enable the community to become disaster resilient in the long term. The community's Action Plan sets out a prioritized list of activities, timeframe and cost, and responsibility/partner for successful implementation.

Table PR 12: Risk Transfer

Risk transfer is the process of shifting the financial cost risks from the community to another party so that if there is a disaster the affected community or persons can get some form of compensation.

INFORMAL risk transfer options	Major stakeholders may give a helping hand to the community in the event of a natural disaster (e.g. Jamaica Boilers, JPS, JEP)
FORMAL risk transfer options	Insurance through Credit Unions

TABLE PR: 13 TRAINING

Community Member/Team	Area of Training	Provided by	Who responsible to Organize	Time Frame	Cost
CERT/ CDA/Community Members	Dispute Resolution	Social Development Commission (SDC)/ Dispute Resolution Foundation	Narda Nicholson Vinelle Daley Powell	January- May	To be determined
CERT	Community Emergency Operations Centre Training	ODPEM and St. Catherine Parish Council	Narda Nicholson Vinelle Daley Powell	January-May	To be determined
CERT	Leadership Seminars	Social Development Commission (SDC)/	Narda Nicholson Vinelle Daley Powell	January-May	To be determined
CERT	Initial Damage Assessment (IDA)	ODPEM and Parish Disaster Coordinator	Narda Nicholson Vinelle Daley Powell	January-May	To be determined
CERT/ CDA/Community Members	Swift Water Rescue/Life guard Training	Jamaica Fire Brigade/ St. Catherine Parish Disaster Committee/ JDF	Narda Nicholson Vinelle Daley Powell	January- May	To be determined

TABLE PR 14: PUBLIC AWARENESS AND EDUCATION

Hazard	Public Education Action	Public Education Strategy	Timeline	Responsibility
Fire	-Inform persons of a Community Disaster Plan -Public sensitization	-School workshops -Public meetings -Brochures	January -May	Old Harbour Bay CDA/ Fire Department/ ODPEM Narda Nicholson Vinelle Daley Powell
Hurricane	-Inform persons of a Community Disaster Plan -Public sensitization	-School workshops -Public meetings -Brochures	January -May	Old Harbour Bay CDA/ODPEM/ Narda Nicholson Vinelle Daley Powell
Earthquake	-Inform persons of a Community Disaster Plan -Public sensitization	-School workshops -Public meetings -Brochures	January -May	Old Harbour Bay CDA/ Fire Department/ ODPEM/ Narda Nicholson Vinelle Daley Powell
Flooding	-Inform persons of a Community Disaster Plan -Public sensitization	-School workshops -Public meetings -Brochures	January -May	OldHarbourBay CDAODPEM/ Narda Nicholson Vinelle Daley Powell
Landslides	-Inform persons of a Community Disaster Plan -Public sensitization	-School workshops -Public meetings -Brochures	January -May	Old Harbour Bay CDA/ODPEM/ Narda Nicholson/ Vinelle Daley Powell

Tsunami	Inform persons of a Community Disaster Plan -Public sensitization	School workshops -Public meetings -Brochures		
---------	---	--	--	--

PREPAREDNESS AND INITIAL RESPONSE

Monitoring

Table PR 15: Community Monitoring Programme

SITUATION	RESPONSIBILITY
Hazards or dangerous situations in the community	Preston Smith Pernell Bartley, Ricardo Fearon
Listening to the radio for official information	Ricardo Fearon Preston Smith Pernell Bartley,
Monitoring marine weather forecasts	Ricardo Fearon Preston Smith Pernell Bartley, Comton Campbell, Mr. Moodie
Liaising with Parish Disaster Committee and Coordinator and ODPEM	Andrew Gordon, Wycliffe Frater

Warning

The community must be alerted to the possibility of a threat or dangerous situation. **Table 13** identifies the traditional warning systems to be used by residents to warn of impending disasters- hurricane/flooding, landslide, storm surge and fire for protection of the community.

Table PR 16: Community Early Warning System

Currently, there is no formal early warning system in the community. However, the community seeks funding in acquiring any of or a combination of the following in order to set up an effective early warning system:

- JPS Siren
- Church Bells
- Wayside Announcement (Town crier)
- Callers and Runners

HAZARD	TRADITIONAL WARNING	RESPONSIBILITY (for alerting DRM Team)
Flood	Church bells, word of mouth via residents	Mr Preston Smith, Mr Pernell Bartley, Mr Ricardo Fearon
Fire	Word of mouth, sounding of bull horn	Mr .Preston Smith Mr Pernell Bartley, Mr. Ricardo Fearon
Hurricane	Radio, word of mouth via residents, sounding of bull horn	Mr. Preston Smith, Mr Pernell Bartley, Ricardo Fearon
Tsunami	Cellphones	Mr Preston Smith, Mr Pernell Bartley, Ricardo Fearon

Earthquake	Word of mouth, sounding of bull horn, cellphones	
------------	--	--

The following focal person(s) will be responsible to give warning signals to alert the vulnerable groups and other persons in the community.

Table PR17: Early Warning Activity and Responsibility

ACTIVITY	RESPONSIBILITY	MEANS
Special needs residents, Old and sick persons	Ricardo Fearon-(368-8085)	Word of mouth, Cell phone, telephone and house visits
Mothers with babies and young children	Ricardo Fearon-(368-8085)	Word of mouth, Cell phone, telephone and house visits
The Schools: St Wade Basic School Blackwood Gardens Basic School Prophecy Basic School Old Harbour Bay SDA Basic School	Ricardo Fearon - (368-8085)	Cell phone, Telephone, word of mouth, visits
Members of the community who are sea	Ricardo Fearon -(368-8085)	Cell phone
Evacuation zones residents	Ricardo Fearon -(368-8085)	Cell phone, word of mouth, visits

ACTIVITY	RESPONSIBILITY	MEANS
Rest of community	Ricardo Fearon (368-8085)	Cell phone, word of mouth, visits
Update PDC and ODPEM	Andrew Gordon (402-7873), Ricardo Fearon (368-8085)	Cell phone, Landline, e-mail, fax

Evacuation

The evacuation plan will be a guide for the whole community to coordinate their efforts with disseminating early warning to ensure timely and orderly evacuation of the vulnerable areas and persons.

The following areas or districts should be evacuated during an emergency.

Table PR18: Areas to be evacuated during an Emergency

AREA/CLUSTER	REASON FOR EVACUATING
Kelly's Pen, Terminal Road, Burkesfield, Blackwood Gardens, Moore Pen	Hurricane, Tsunami, Earthquake & Flooding
Dagger Bay, Seaside, Buddo, Station Lane, Peter Lane, Panton Town	Hurricane, Tsunami, Earthquake & Flooding
Thompson Pen, Settlement, Narine Lane, Salt Gully, Bay Bottom	Hurricane, Tsunami, Earthquake & Flooding

In the event that sections of the community identified above needs to be evacuated, the following assembly points are to be used. The assembly point coordinators will be in charge to organize and direct the evacuation process as well as manage the movement of residents, especially the vulnerable.

Evacuation Route

The following evacuation route(s) are to be used as outline in the table below. Community members should proceed from the assembly point identified above and bold in Table to the designated shelters.

Table PR19: Evacuation Route and Mode of Transportation to Emergency Shelter

AREA FOR EVACUATION	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT & COORD.
Dagger Bay, Seaside, Buddo, Station Lane, Peter Lane, Panton Town	*There is one main road in and out of the community therefore all communities precede northward along the Old Harbour Bay main road in the event of the disaster.	Old Harbour High School ,Old Harbour St. Catherine	Bicycle, walk, private and public transportation	Old Harbour Bay Square Sandra Nembhard 478-7381
Kelly's Pen, Terminal Road, Burkesfield, Blackwood Gardens, Moore Pen	*There is one main road in and out of the community therefore all communities precede northward along the Old Harbour Bay main road	Old Harbour High School ,Old Harbour St. Catherine	Bicycle, walk, private and public transportation	Old Harbour Bay Square Sandra Nembhard 478-7381

	in the event of the disaster.			
Thompson Pen, Settlement, Narine Lane, Salt Gully, Bay Bottom	*There is one main road in and out of the community therefore all communities precede northward along the Old Harbour Bay main road in the event of the disaster.	Old Harbour High School, Old Harbour St. Catherine	Bicycle, walk, private and public transportation	Old Harbour Bay Square Sandra Nembhard 478-7381

The evacuation procedure for the community is detailed below in **Table PR 20**.

Table PR20: Evacuation Procedures

ACTIVITY	RESPONSIBILITY
Evaluate threat or liaise with PDC/ODPEM on need for evacuation	Mr. Andrew Gordon, Ms. Paulette Coley
Alert residents on possible evacuation	Ms. Paulette Coley
Decide on timing	Mr. Andrew Gordon, Ms. Paulette Coley & Rev Sandra Nembhard
Ensure special needs populations are assisted	Mr. Ricardo Fearon & Ms. Paulette Coley
Organize transportation for evacuees	Mr. Andrew Gordon, Ms. Paulette Coley
Identify evacuation route (s) to be used	Ms. Paulette Coley
Ensure shelter (s) are available	Rev. Sandra Nembhard
Register all persons who are evacuating and their destination	Rev. Sandra Nembhard & Ms. Paulette Coley
Initiate evacuation process	Mr. Ricardo Fearon & Ms. Paulette Coley
Check that all areas safely evacuated	Mr. Preston Smith & Mr. Pernell Bartley
Notify Parish Disaster Committee/ODPEM	Mr. Andrew Gordon

Shelter

The evacuated community members should be transported to the designated shelters listed in **Table 18** below.

Table PR21: List of Official and Unofficial Emergency Shelters

SHELTER NAME AND LOCATION	ACCESS ROUTE TO SHELTER	TYPE OF USE	CONDITION OF SHELTER	AREA SERVED	SHELTER MANAGER Name and Contact Number	AGENCY/LIASION OFFICER (Name, Contact)
Old Harbour High School Old Harbour St. Catherine	Main Street Old Harbour Bay	Disaster	Unsatisfactory	Old Harbour Bay, Bushy Park	Rev. Sandra Nembhard Mrs. Camille Cheese Mrs. P. Coley Mr. H. Coley Mr. Pernell Bartley	Rev. Sandra Nembhard 478-7381 441-9639 389-7373 or 983-2528
Proposal to use the New Testament Church of God						

The community Action Plan sets out the preparedness activities to be done for a planning cycle

Table PR22: Community Preparedness Action Plan

ACTIVITY	RESPONSIBILITY	TIMEFRAME
Secure first aid and search and rescue kits	Mr. Andrew Gordon & Mr. Ricardo Fearon	April – May
Training Drills and workshops	Ms, Narda Nicholson & Mr. Andrew Gordon	January – June
Inform the Councilor to Maintain Frazers Gully	Mr. Andrew Gordon	January – March
Arrange access to relief supplies	Mr. Ricardo Fearon	May – June
Prepare Hurricane Awareness Campaign	Ms. Narda Nicholson	January - March

Simulation and Drills

The Community Emergency Response Team (CERT) will organize with the relevant agencies to conduct drills and simulation exercises for fire and earthquake preparedness and response. These exercises will allow for the testing of the disaster plan to show strengths and weakness in the capability of the community to respond during an emergency.

Table PR23: Simulation and Drills

Type of Exercise/ Drill	Drills per Year	Schedule of Dates	Organizer (Who is responsible)
Fire Drill	2	Bi- annually	Old Harbour Bay CDA/Parish Disaster Coordinator/ODPEM
Hurricane Drill	1	December- May	Old Harbour Bay CDA/Parish Disaster Coordinator/ODPEM
Flood Simulation	2	Bi-annually	Old Harbour Bay CDA/Parish Disaster Coordinator/ODPEM
Tsunami Drill	1	February	Old Harbour Bay CDA/Parish Disaster Coordinator/ODPEM
Earthquake Drill	4	Quarterly Periods	Old Harbour Bay CDA/Parish Disaster Coordinator/ODPEM

Response

Search and Rescue/First Aid/Emergency Medical Care

Table PO1: Response Procedure – Search and Rescue/First Aid/Emergency Medical Care

ACTIVITY	RESPONSIBILITY	SHORT REPORT
Send out Search and Rescue and First Aid Team to check on:		
Elderly, Persons with Disabilities, Single Mothers	Mr. Andrew Gordon & Rev. Sandra Nembhard	Zonal Chairman and Parish Disaster Coordinator
Damaged buildings and houses for occupants	Ms. Karen Dixon, Mr. Ricardo Fearon	
Persons stranded by floodwater	Ms. Karen Dixon	
Check for:		
Deaths, Injuries	Ms. Paulette Colley, Mr. Ricardo Fearon	
Persons in need of emergency assistance	Ms. Paulette Coley	
Check if any members of the community thought to be missing at sea	Mr. Ricardo Fearon *Mr. Moodie (Br. Junior)	
Call for any external assistance	Mr. Andrew Gordon & Ms. Camille Cheese	
Update PDC, ODPEM	Mr. Andrew Gordon	
Update Community	Rev. Sandra Nembhard & Mr. Andrew Gordon	

Initial Damage Assessment

The following persons will conduct damage assessment and report damages and needs to relevant agencies:

Mr. Andrew Gordon & Ms. Karen Dixon

Table PO2: Community Damage Assessors

ACTIVITY	RESPONSIBILITY	REPORT RECEIVED
Send out Rapid Damage Assessment Team to check on:		
Roads : Open Closed In need of urgent repair to provide access:	Ms. Karen Dixon & Mr. Ricardo Fearon	Zonal Chairman to Parish Disaster Coordinator
Power: Fallen lines, poles, transformers:	Ms. Karen Dixon & Mr. Ricardo Fearon	Zonal Chairman to Parish Disaster Coordinator
Any dangerous situation e.g. live wires, raw sewage, leaking gas etc		
Water lines: Broken, missing sections, availability	Ms. Karen Dixon & Mr. Ricardo Fearon	Zonal Chairman to Parish Disaster Coordinator
Describe state of:		
Community Centre		

ACTIVITY	RESPONSIBILITY	REPORT RECEIVED
Schools	Ms. Karen Dixon, Ms. Camille Cheese & Mr. Ricardo Fearon	
Clinic		
Churches	Ms. Karen Dixon & Mr. Ricardo Fearon	
Shops, other businesses	Ms. Karen Dixon & Mr. Ricardo Fearon	
Means of livelihood	Ms. Karen Dixon & Mr. Ricardo Fearon	
Boats, fishing gear, spear fishing	Ms. Karen Dixon & Mr. Ricardo Fearon	

Response Action Plan

Based on the initial damage assessments, the following priorities for response in the Action Plan were identified.

Table PO3: Community Response Action Plan

RESPONSE ACTIONS IN ORDER OF PRIORITY	RESPONSIBILITY	TIMEFRAME
Evacuate vulnerable persons (outside of Laycock and Jack Adam Pond)	Mr. Andrew Gordon will lead team and help to appoint other persons to assist with the evacuation process	As soon as possible
Clearing of blocked roads	Mr. Ricardo Fearon will lead team and help to appoint other persons to assist with the process	After a all clear is given by the ODPEM
Feeding persons in shelters	Rev Sandra Nembhard will lead team and appoint other persons to assist with the process of feeding persons at the shelter (s)	During the activation of the shelter
Attending to medical needs/emergencies	Ms. Paulette Coley & Rev Sandra Nembhard will lead team and appoint other persons to assist with the process	As soon as possible
Provide counseling	Church Community and relevant partner agencies	As soon as possible

RELIEF

Table PO4: Welfare and Relief

ACTIVITY	RESPONSIBILITY
Identify members of community who:	
Received damage	Ms. Karen Dixon, Mr. Ricardo Fearon and other appointed persons
Need shelter	Rev Sandra Nembhard
Lost means of income	Ms. Paulette Coley
Need assistance	Ms. Paulette Coley
Identify members of the community in need of psycho-social support or counseling	Ms. Paulette Coley, Rev Sandra Nembhard & Church community
Compile list and update PDC, ODPEM	Mr. Andrew Gordon

RECOVERY

Recovery Action Plan

Table PO5: Community Recovery Action Plan

ACTIVITY	PRIORITY	RESPONSIBILITY	TIMEFRAME	COST
Clearing of Roads	1	Ms. Karen Dixon, Mr. Ricardo Fearon and other appointed persons	As soon as possible	To be determined
Repairing of damaged roofs	1	Ms. Paulette Coley Ms. Karen Dixon, Mr. Ricardo Fearon and other appointed persons	Immediately after the event has passed and assessments are done	To be determined
Restoration of public utilities	1	Ms. Paulette Coley Ms. Karen Dixon, Mr. Ricardo Fearon and other appointed persons	As soon as possible	To be determined
Evacuation of shelters for resumption of normal use	2	Mr. Andrew Gordon & Rev Sandra Nembhard (in collaboration with Coordinators - Mrs. Patricia Lewis	As soon as all clear is given from ODPEM and it is safe to go back into the community	To be determined

APPENDIX 1

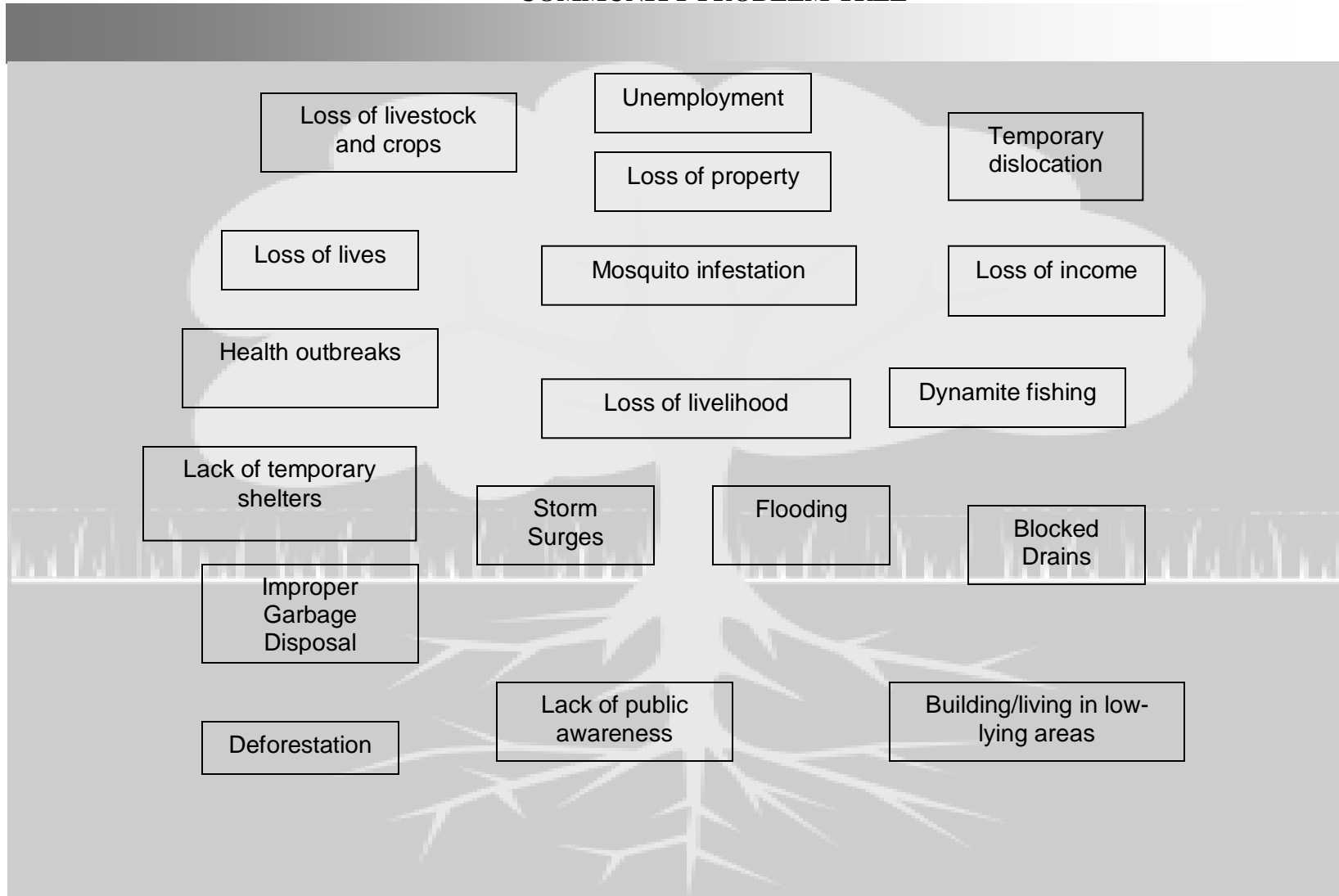
STAKEHOLDER RELATIONSHIP

Agency/ Organization/ Representative	Nature of Relationship	Contact Person	Contact Number
Social Development Commission	Very Good	Mrs. Gardner	745-2758
Old Harbor Bay Primary School	Very Good	Mr. Thompson (Principal)	708-4498
Old Harbour Zonal Disaster Committee	Very Good	Mr. Frater	478-7431
Jamaica Energy Partners	Good	Human Resource Manager	708-3585
Jamaica Public Service Company Limited	Good	Human Resource Manager	
Fisherman Cooperation	Good		
Fisher Folk Council & Fisheries	Good	Mr. Samuel Senior	864-7955
Old Harbour Bay Police Station	Good		943-7799
Hardwares - Max - Bartley's	Good		
Small businesses	Good		
Old Harbour Bay Baptist Union	Very Good	Rev. George Campbell	708-4500
Faith Bible Baptist	Fair	Pastor Reid	

Jamaica Free Baptist	Very Good	Rev. Sandra Nembhard	478-7381 or 943-7141
Church of God of Prophecy	Fair	Bishop Thomas McDonald	
Seventh Day Adventist	Good	Elder Samuels Elder Wallis	423-5708
Fire Baptise	Fair		
New Testament Church of God	Fair		
St. Phillips Anglican	Fair		
Rufe Temple	Fair		
Mount Zion Temple	Fair		
Straight Gate Apostolic	Fair		
Babtist Bay Basic	Good		
St. Wades Basic	Fair		
Blackwood Gordons Basic	Fair		
Seventh Day Adventist Basic	Good		
Church of God of Prophecy Basic	Fair		

APPENDIX 2

COMMUNITY PROBLEM TREE



APPENDIX 3

TERMS OF REFERENCE CDRM GROUP CONCEPT

CDRM Group

The Community Disaster Risk Management (CDRM) Group is that arm of the community which has taken on the role of local level advocacy and planning for Disaster Risk Reduction activities at the community level. All matters relating to prevention, mitigation, preparedness, response and recovery are therefore, the preview of the group. They shall be the team that leads the development of Community DRM Plans and links directly the Parish Disaster Committee and other local level agencies/NGOs regarding disaster management.

N.B

The ODPEM has previously promoted the establishment of Zonal Committees as that local/community level body with responsibilities for Disaster Management. CDRM teams are being postulated as a re-visioning of zonal groups in keeping with current Disaster Risk Reduction (DRR) initiatives. Therefore, for all intent and purposes the groups are interchangeable in name and function. Management and reduction of disaster risk being the major difference/improvement.

Executive Membership

- Chairman
- Vice Chairman
- Secretary
- Treasurer
- Assistant Secretary
- Coordinator – Public Education & Fundraising
- Coordinator – Vulnerability & Risk Identification
- Coordinator – Prevention & Mitigation
- Coordinator – Response & Recovery

The executive membership of the DRM Group may assume that of an existing CBO Structure or Zonal Committee. The Coordinators outlined above must be made part of any existing structure to be used. This committee will operate in a similar way to any standard existing community organization.

Community Organization with responsibility for CDRM

- Any existing Community Based Organization (CBO) that is active should be made part of the DRM Group.
- Where there is no existing CBO, the community should form the executive membership of the DRM Group from reliable individuals with leadership qualities in the community.
- Individuals who are not members of an existing CBO may be made part of the DRM Group. These individuals may be:
 - Assigned/ appointed as coordinators only, where there is an active CBO
 - Assigned/ appointed as any part of the executive membership where there is no active CBO.

Naming the CDRM Group

- The DRM group will assume the name of the existing CBO that will carry out the functions of the group OR the name of the existing Zonal Committee.
- Where no CBO exists the name may be decided by the community leadership
- The DRM tag should remain to indicate

Leadership the CDRM Group

Leadership of the group will be the same as that of the existing CBO or Zonal Structure (this includes the already assigned individuals). Where there is no existing group (CBO or Zonal); the persons engaged by the facilitation team and have shown interest should be encouraged to assume responsibilities. The leadership, specifically President and Vice President – should maintain regular dialogue with the Parish Disaster Coordinator for guidance and support.

Frequency of CDRM Meetings

- The group should meet officially on an average bi-monthly (every 2 months).
- However, for existing groups they should include DRM as an agenda item at the regular CBO (E.g. Citizens Association) or Zonal Meetings.

- Special meetings, briefings, and workshop sessions may be called by the executive as is necessary – inviting stakeholders as appropriate.

Funding of CDRM Group and Activities

The group is expected to mobilize support of community stakeholders to provide funding for programmes and activities. Other sources of funding will include:

- Fundraising activities
- Proposal writing to private sector and donor agencies
- Donations or Grants
- Parish Disaster Committee
- ODPEM
- Government entities with specific mandates

Interaction with Local Authorities and the Parish Disaster Committee (PDC)

- The President or Vice President of the CDRM group must attend the PDC Meetings, as invited by the Parish Disaster Coordinator.
- The group must provide the Parish Disaster Coordinator with DRM related information that will support community and parish interventions
- The Parish Disaster Coordinator should be invited to attend CDRM Group Meetings on occasions and are deemed an ex-officio member of the CDRM Group

Interact with ODPEM and other technical agencies/departments (local or national)

ODPEM:

- ODPEM to provide the CDRM Group with technical advice for the development and review of the CDRM Plan through the Parish Disaster Coordinator.
- ODPEM to provide the community with disaster related information through the Parish Disaster Coordinator
- Any request for assistance or information by the CDRM Group must be channeled through the respective Parish Disaster Coordinator.

Other Technical Agencies

- Any official request or engagement of agencies or departments of government regarding training, disaster related information or programming must be channeled through the Parish Coordinator.
- CDRM Groups may however, formally write to agencies/departments regarding the respective agencies functions or execution of same in relation to the community.

Interaction with Councillors, Members of Parliament and other political representatives

- Political representatives must be seen as a significant resource to the CDRM Groups and Communities.
- Sharing of issues, concerns and needs of the community or CDRM group may be facilitated through representation at the Parish Disaster Committee level.
- Initial engagement of political representatives may also be channeled through the Parish Disaster Coordinator.
- The CDRM group after formal introduction through the Parish Disaster Committee may make direct contact with political representatives regarding issues of the community. It is recommended that formal (written) communication be made as far as possible.

Interaction with Private Sector and other NGOs/CBOs

- CDRM Group should recognize existing private sector organizations and NGOs/CBOs within the community as critical stakeholders.
- Parish Disaster Coordinators should be approached to make initial contacts with these groupings on behalf of the CDRM group.
- CDRM group may maintain contact (formally and informally), however, it is encouraged that the CDRM group executive discuss with representatives from these groups (private sector, NGOs/CBOs) the possibilities of partnerships (mutual help).

Recording keeping by CDRM Group

- Minutes/notes of all meetings of the group should be formally kept in a safe place.
- Correspondence, financials and other documents regarding the CDRM group or community should be safe a secure place.
- A copy of the CDRM Plan must be in the possession of the Parish Council. A copy should also be in any dedicated facility used for meeting and planning.

- General documents kept by the group such as minutes, brochures, financial records and other documents should be held by the President, Secretary or any other executive appointed by the group – where a dedicated facility does not exist.

Wider Community Involvement

- CDRM team should constantly engage wider community through meetings, forums, brochures, flyers and pamphlets.
- Views, concerns, and issues of the community regarding disaster matters must be discussed within the group and possible solutions identified.
- Public education and awareness should be integral for community involvement.
- CDRM should establish creative initiatives for garnering community support and involvement.

Roles & Functions of the Executive Membership for DRM

Chairman:	Assume similar duties as outlined in existing CBO or Zonal Committee
Vice Chairman:	Assume similar duties as outlined in existing CBO or Zonal Committee
Secretary:	Assume similar duties as outlined in existing CBO or Zonal Committee
Treasurer:	Assume similar duties as outlined in existing CBO or Zonal Committee
Assistant Secretary:	Assume similar duties as outlined in existing CBO or Zonal Committee

Coordinator – Public Education & Fundraising

- To develop DRM public education programmes for the schools, churches, and CBOs in the community
- To source and distribute Disaster Preparedness brochures and other education material
- To identify Community DRM Training needs and communicate them to the Parish Disaster Coordinator
- To work with the PDC and other partners in organizing training programmes in the community
- Identify sources of funding for educational and training programmes to be conducted
- Provide the Parish Disaster Coordinator (through the President) with updates and status reports on the effectiveness of training and public education and awareness programmes

- Conduct fundraising initiatives to support community DRM objectives.

Coordinator – Vulnerability & Risk Identification

- Identify and Assess historical hazard impacts
- Conduct research on changing hazard risk trends in the community
- Calculate the probability of occurrence of hazard events
- Develop and maintain list of critical facilities at risk
- Conduct vulnerability capacity Assessments
- Prepare vulnerability and risk identification reports to be submitted to the Parish Disaster Coordinator
- Provide the Prevention and Mitigation Coordinator with information on vulnerability and risks in the community.
- Evaluate risk assessments, risk management plans, and risk monitoring results as directed and recommend appropriate actions.
- Ongoing, systematic and consistent observation of hazard-related parameters.
- Ensuring that the data can be located and retrieved by users.
- Takes lead in vulnerability assessment tasks.
- Notifying residents of vulnerable areas to disasters via the DRM Group meetings.
- Estimate expected damage in the event of a disaster.
- Identify the vulnerable assets of the community and the associated risks
- Solicit support of key community members for execution of responsibilities; especially elderly and trained professionals.

Coordinator – Prevention & Mitigation

Duties related to Mitigation

- Assess hazard impacts.
- Identify areas of damage that would require reconstruction to existing codes and regulations.
- Renew and evaluate existing mitigation plans, emergency plans and strategies.
- Organize the development of Prevention and Mitigation Action Plans for implementation with the help of the Parish Disaster Coordinator and larger CDRM.
- Recommend appropriate hazard mitigation measures for reducing the impact of a disaster.
- Review and evaluate existing hazard mitigation plans and other pertinent information, such as, urban renewal, rehabilitation, or master plans.

Duties related to Prevention

- To know the main areas of risk and to take steps to prevent hazard impact/exposure or detect any problems as early as possible.
- To assess training needs and communicate them to the Public Education Coordinator
- To ensure good lines of communication with all coordinators
- Conduct/facilitate community hazard hunts with the help of the Parish Coordinator and CDRM team.

Coordinator – Response & Recovery

- The Response Coordinator has primary responsibility for the coordination and contractual management of the emergency response projects/initiatives.
- Ensure that adequate needs assessments are carried out in accordance with good DRM practice.

- Advise and support where necessary and to monitor the response.
- Recommend relevant and appropriate training where necessary in minimum standards in emergency response.
- Ensure systems are in place for monitoring and evaluating the impact of the disaster.
- Takes lead in damage assessment and disaster recovery tasks.
- Plan and organize disaster recovery activities along with the aid of the Parish Disaster Coordinator
- Report the status of the disaster recovery activity.
- Identifies acceptable recovery time periods.
- Establishes disaster recovery testing methodologies.
- Recommend disaster recovery planning and training activities.
- Provides instructional and informational materials on how to respond during an emergency.
- Develops and maintains SOPs for emergency/disaster response and recovery with the aid of the PDC.
- Plan regular exercises to test community plans
- Monitors the effectiveness of procedures during evacuation drills and revises the procedures as necessary.
- Maintains contact with outside sources participating in reciprocal agreements.
- Ensures that as new equipment, facilities, services, and systems are installed that the disaster response and recovery issues are highlighted and addressed.
- Maintains contact with outside contingency planning professional organizations and local or regional emergency response groups.
- Ensure and recommends establishment of CERTs as appropriate.

CDRM Group Assignment

POSITION	PERSON ASSIGNED	CONTACT DETAILS (Telephone, cell, address, email)
President	Andrew Gordon	402-7873,9437533. rananev@gmail.com
Vice President	Sandra Nembhard	478-7381 sandranem@yahoo.com
Secretary	Camille Cheese	355-9930, cwilliamscheese@yahoo.com
Treasurer	Vinelle Dailey-Powell	863-2889 dez_mom@yahoo.com
Assistant Secretary	Karen Dixon	423-6599
Public Education & Fundraising Coordinator	Narda Nicholson	840-5325 adrana77@yahoo.com
Vulnerability & Risk Identification Coordinator	Preston Smith Pernell Bartley	848-7533, preston_pooh@hotmail.com 389-7373 pernell.bartley@yahoo.com
Prevention & Mitigation Coordinator	Ricardo Fearon	368-8085, fearonricardo@yahoo.com
Response and Recovery Coordinator	Paulette Coley	441-9639

APPENDIX 4

CDRM GROUP

HURRICANE - STANDARD OPERATING PROCEDURES (SOP)

Purpose

The purpose of this Hurricane SOP is to establish the necessary action steps for an effective and safe response to Hurricanes that could potentially affect the community of *Old Harbour Bay*. Hurricanes could result in damages to community infrastructure and facilities, loss of life and property, and other incidents with varying severity from minimal to catastrophic; depending on the intensity of the hurricane. The CDRM Group shall work with government organizations, NGOs/CBOs, private sector and other stakeholders to facilitate the safety of community members. It is the intent of this SOP to maintain clearly defined procedures for before, during and after hurricane events. Hurricanes occur primarily during a distinct season that runs from June 1 to November 30.

Objectives

The concepts and procedures in this SOP are set to:

- Facilitate coordination among community members and the CDRM Group in preparing for and responding to hurricanes.
- Ensure a logical and sequenced set of actions for community response.
- Assign specific task to ensure collaboration and execution activities.

Threat Assessment

The National Oceanic and Atmospheric Administration, provides an annual forecast for the Hurricane Season. Information regarding forecast is communicated through the Meteorological Service of Jamaica (Met Office) and the ODPEM. The annual anticipated threat for the purpose of this plan includes:

- At least one (1) hurricane event or near miss (with significant wind and rain).
- Significant rain events during the period at least one (1) affecting community.

Basic Planning Assumptions

- At least one major Hurricane will probably affect the country/community

- CDRM Group will remain active and functional
- Community members will be responsive to CDRM Group programmes, initiatives, warning and other information.
- There is commitment and support from agencies and departments of government to assist community.
- Community is will to utilize their own resources in preparedness and response.
- CDRM Group will train and establish Community Emergency Response Team(s) (CERTs).

Concept of Operations

These SOPs are designed to establish a concept of operations spanning the direction and control of the disaster from an initial monitoring through post-disaster response, recovery, and mitigation. All activities are community driven, with technical assistance provided by agencies, departments, NGOs and private sector as necessary.

Procedures will be categorized into the following phases:

Phase 1: Prevention, Preparedness and Mitigation (January through to 144 hours before impact).

Phase 2: Alert (144 hours up to 72 hours before impact)

Phase 3: Event and Event Response (72 hours before impact through to 120 hours after landfall/All Clear)

Phase 4: Recovery

ACRONYMS

AAR	After Action Report
CERT	Community Emergency Response Team
CDRMG	Community-based Disaster Risk Management Group
DRM	Disaster Risk Management
EOC	Emergency Operations Center
NEOC	National Emergency Operations Center
NGO	Non Government Organization
OHDAC	Old Harbour Development Area Committee
ODPEM	Office of Disaster Preparedness and Emergency Management
PDC	Parish Disaster Coordinator/Committee
PEOC	Parish Emergency Operations Center

DEFINITIONS

All Clear

An All Clear is a statement issued by the pertinent authority when a threat has passed. The *All Clear*, for a Hurricane – is when the storm has passed and the associated strong impacts from winds and rains will no longer affect the country/community.

Emergency Operations Center (EOC)

A multi-agency coordination center that provides support and coordination to the on-scene responders.

Incident

An event that occurs that may lead to an emergency condition.

Tropical Disturbance

A tropical disturbance is a cluster of thunderstorms poorly organized.

Tropical Depression

A tropical depression is a cluster of storms organized around a central circulation with surface wind speeds of 38 mph or less.

Tropical Storm

A tropical storm is a cluster of smaller storms with substantial circular rotation and sustained surface winds of 39-73 mph.

Hurricane

A hurricane is a large tropical storm with winds of 74 mph or greater, moving counterclockwise. In addition to intense winds, hurricanes are accompanied by heavy rains, flooding along the coast, flooding inland and tornadoes.

The Saffir-Simpson Hurricane Scale is a one to five rating based on the hurricane's present intensity. This is used to give an estimate of the potential property damage and flooding expected along the coast from a hurricane landfall. Wind speed is the determining factor of this scale.

Hurricane Categories

Category One Hurricane

A Category One Hurricane has winds of 74 to 95 mph and is typically characterized by *minimal damage*. Storm surge is generally 4 to 5 feet above normal.

Category Two Hurricane

A Category Two Hurricane has winds of 96 to 110 mph and is typically characterized by *moderate damage*. Storm surge is generally 6 to 8 feet above normal.

Category Three Hurricane

A Category Three Hurricane has winds of 111 to 130 mph and is typically characterized by *extensive damage*. Storm surge is generally 9 to 12 feet above normal.

Category Four Hurricane

A Category Four Hurricane has winds of 131 to 155 mph and is typically characterized by *extreme damage*. Storm surge is generally 13 to 18 feet above normal.

Category Five Hurricane

A Category Five Hurricane has winds of greater than 155 mph and is typically characterized by *catastrophic damage*. Storm surge is generally greater than 18 feet above normal.

Warnings and Watches

The National and Regional Weather Service issues the following types of warnings and watches associated with tropical storms:

Tropical Storm Watch

A tropical storm watch is issued when tropical storm conditions, including winds from 39 to 73 mph, pose a possible threat to a specified coastal area within 36 to 48 hours.

Tropical Storm Warning

A tropical storm warning is issued when tropical storm conditions, including winds from 39 to 73 mph, are expected in a specified coastal area within 36 hours or less.

Hurricane Watch

A hurricane watch is issued for a specified coastal area for which a hurricane or a hurricane-related hazard is a possible threat within 36 to 48 hours.

Hurricane Warning

A hurricane warning is issued when a hurricane with sustained winds of 74 mph or higher is expected in a specified coastal area in 36 hours or less.

Flash Flood Watch

A flash flood watch means a flash flood is possible in an area and everyone should stay alert.

Flash Flood Warning

A flash flood warning means a flooding has been report and flash flood is imminent and everyone in the area should take immediate action to protect lives and property.

OPERATING PROCEDURES

Phase 1: Prevention, Mitigation and Preparedness (January through to 5 Days before impact).

Prevention, Mitigation and Preparedness activities as mentioned in these SOPs are specific actions to be taken by respective CDRM Coordinators and their teams (drafted support persons) to ensure proper planning and coordination for hurricane emergency. Coordinators should utilize other information and measures highlighted in the CDRM Plan to as a guide for other actions.

ACTIVITIES	RESPONSIBLE PERSON(S)
1. Continue to support and promote public information and awareness programmes.	Narda Nicholson
2. Sensitize special needs population	Narda Nicholson
3. Organize how special needs population will be evacuated and transportation required.	Sandra Nembhard
4. Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol	Sandra Nembhard
5. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible	Sandra Nembhard
6. Sensitization of persons in the community without vehicles of assembly area for transportation to more safe location.	Narda Nicholson
7. Identify areas in the community where high potential for infrastructure/property damages.	Preston Smith/Pernell Bartley

8. Ensure DRM teams are aware of all high risk locations in the community.	Preston Smith/Pernell Bartley
9. Prepare areas for sheltering persons in need	Sandra Nembhard
10. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.	Sandra Nembhard
11. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Ricardo Fearon
12. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC.	Ricardo Fearon

Phase 2: Alert (5 Days up to 72 hours before impact)

ACTIVITIES	RESPONSIBLE PERSON(S)
1. Meet and assess the community's state of preparedness for a hurricane	Andrew Gordon & DRM Team Narda Nicholson
2. Advise community to listen to all weather advisories	

<ol style="list-style-type: none"> 1. Issue warning of threat 2. Alert and notify: <ul style="list-style-type: none"> • PDC that community DRM teams are activated • Other CBOs • Shelter Managers • Response personnel 3. Make available all relevant information on the hazard to the general community. 	Sandra Nembhard
<ol style="list-style-type: none"> 1. Pre-check and activate SOPs 2. Alert all trained community first aiders and search and rescue personnel. 3. Have first-aid kits prepared 	Sandra Nembhard
<p>Personal for families:</p> <ul style="list-style-type: none"> ▪ Make sure your family goes over the family disaster plan. ▪ Make plans for protecting your house, especially the roof, windows and doors. ▪ Have flashlight and extra batteries ▪ Have portable battery-operated radio and 	Paulette Coley

<p>extra batteries</p> <ul style="list-style-type: none"> ▪ Ensure provisions are put in place for emergency food and water. 	
<p>Protecting the community:</p> <ul style="list-style-type: none"> ▪ Trim dead or weak branches from trees ▪ Clear all drains that will cause flooding 	<p>.</p> <p>Ricardo Fearon/Sandra Nembhard</p>
<p>Listen to all weather advisories and information from ODPEM, MET office, and communicate with PDC.</p>	<p>Andrew Gordon/Sandra Nembhard/Karen Dixon</p>

Phase 3: Event and Event Response (72 hours before impact through to 5 Days after landfall/All Clear)

ACTIVITIES	RESPONSIBLE PERSON(S)
<p>DRM Team Advise the Community to listen to all weather advisories and remain alert</p>	<p>Andrew Gordon/Sandra Nembhard/Karen Dixon</p>
<p>Continue to listen to all weather advisories and reports.</p>	<p>Andrew Gordon/Sandra Nembhard/Karen Dixon</p>

A. HURRICANE WATCH - 48 Hours before Impact

ACTIVITIES	RESPONSIBLE PERSON(S)
1. Personal preparation food supplies 2. Securing official documents 3. Securing home and get rid of all thing around the yard that can be missile in a hurricane 4. Check on neighbours that may need help	Paulette Coley
Ensure the Elderly and Physical challenged are notified and assisted to prepare for event.	Paulette Coley

B. HURRICANE WARNING - 36 Hours before impact

ACTIVITIES	RESPONSIBLE PERSON(S)
1. Activate and brief all community teams and volunteers 2. Test the systems of communication within the community. 3. If cell phones are the be used ensure credit is bought 4. Ensure phones can be charged	Paulette Coley
Activate volunteers to be on standby to assist with damage assessment. Conduct briefing of these volunteers	Paulette Coley
1. Activate and prepare emergency shelters	Paulette Coley

2. Deploy relief and welfare volunteers to emergency shelters	
Ensure contacts are made with the PDC and other stakeholders for assessment of shelter facilities if necessary.	Paulette Coley
Contact PDC and prepare to Initiate evacuation procedures for the community	Paulette Coley
<ol style="list-style-type: none"> 1. Re-check arrangements and MOUs with private bus owners and other volunteers in the community. 2. Pre-position the following resources to areas which will potentially be cut off: <ul style="list-style-type: none"> ▪ Food stocks/welfare items ▪ Communications equipment ▪ Manpower ▪ Power saws 3. Refuel vehicles 	<p>Paulette Coley/Sandra Nembhard</p> <p>Paulette Coley/Sandra Nembhard/Andrew Gordon</p>
<ol style="list-style-type: none"> 1. Encourage residents to activate family plans 2. Pre-position resources: List these resources <ul style="list-style-type: none"> • equipment, ropes, etc 	Paulette Coley/Sandra Nembhard/Andrew Gordon

<ul style="list-style-type: none"> • Food stocks/welfare items • Communications equipment • Manpower 	
---	--

C. 24 Hours before impact

ACTIVITIES	RESPONSIBLE PERSON(S)
1. Notify PDC of activation of evacuation plan	Paulette Coley
2. Consult PDC on all matters relating to the activation of any or all evacuation systems.	
Activate and test local communications links and report to PDC.	Paulette Coley
<p>Brief community of activation of evacuation and persons to be evacuated:</p> <ul style="list-style-type: none"> ▪ Review evacuation routes and gather your disaster supply kit in case you are instructed to evacuate. ▪ Communicate assembly points and deploy marshals. ▪ Make contact with shelter managers to receive evacuees. ▪ Inform PDC of actions to be taken. ▪ All electricity and gas supplies should be shut-down when closing businesses or evacuating homes ▪ Ensure the Elderly and Physically challenged to be evacuated ▪ Ensure registration of all evacuated ▪ Check that all needing evac are safely 	Paulette Coley

evacuated.	
Monitor radio for hurricane warnings and public information via news releases through ODPEM and Met office Monitor Radios for precautionary tips together with packaged information of the activities of responding agencies.	Paulette Coley
Alert community Initial Damage Assessment Team(s).	Paulette Coley
Confirm lines of credit with merchants to enable easy access to relief supplies after the disaster	Paulette Coley

D. 16 Hours before Impact to Landfall

ACTIVITIES	RESPONSIBLE PERSON(S)
1. Maintain contact with PEOC 2. Advise PEOC of weather conditions and state of preparedness 3. Confirm arrival and status of evacuees in	Andrew Gordon/Sandra Nembhard/Paulette Coley

shelters	
4. Check in with standby teams and community response personnel	

E. THE BLOW

ACTIVITIES	RESPONSIBLE PERSON(S)
Monitor and report events as far as possible.	Andrew Gordon/Sandra Nembhard/Paulette Coley
Maintain contact with PEOC, Shelters and response personnel.	Paulette Coley

F. AFTERMATH (IMMEDIATELY following the blow to 5 Days after all clear)

ACTIVITIES	RESPONSIBLE PERSON(S)
1. Check with PDC for persons to return home but only after authorities say it is safe to do so. Keep tuned to your local radio or TV station for recovery information. Confirm All Clear	Paulette Coley
1. Deploy community damage survey teams or assessors 2. Deploy community response teams to check on vulnerable (elderly and physically challenged) and critical facilities.	Paulette Coley

3. Check for deaths, injuries and persons needing emergency assistance 4. Conduct first aid and search and rescue operations as necessary 5. Notify PEOC of critical/emergency cases 6. Provide PEOC with status report	
--	--

F (a) Up to 48 Hours after All Clear

ACTIVITIES	RESPONSIBLE PERSON(S)
Provide initial damage survey and needs of the community	Paulette Coley
1. Provide ground reconnaissance intelligence to the PDC. 2. Assist the Fire Brigade and NWA with road clearing, and search and rescue activities through the PEOC . 3. Assist with the establishment and staffing of registration centres.	Paulette Coley
Beware of downed or loose power lines. Report them immediately to the JPS, Police or Fire Department. Advise community members to enter their homes with caution: <ul style="list-style-type: none"> ▪ Open windows and doors to ventilate or dry your home. Do not use candles or open flames in doors. Use a flashlight to inspect for damage. ▪ Check for gas leaks. If they smell gas or hear a blowing or hissing noise, quickly leave the building and leave the doors 	Paulette Coley

<p>open. Call the gas company.</p> <ul style="list-style-type: none"> ▪ Look for electrical system damage. If they see sparks or frayed wires, turn off electricity at the main fuse box. ▪ If they have to step in water to reach the electric box, call an electrician for advice. 	
<ol style="list-style-type: none"> 1. Check for sewage and water-line damage. 2. If you suspect there is such damage, call the NWC company and or PDC. 3. Advise community not to drink or prepare food with tap water until notified it is safe to do so. 	Paulette Coley

F (b) 48 Hours to 5 Days After All Clear

ACTIVITIES	RESPONSIBLE PERSON(S)
<p>Constantly advise the community :</p> <ul style="list-style-type: none"> • To conserve water and food • To stay living at their homes if it is safe to do so • To take particular care with hygiene and sanitary practices • Of measures being taken with respect to provision of food and water and restoration of public utilities 	Paulette Coley
<ol style="list-style-type: none"> 1. Coordinate requests for and offers of assistance through the PEOC. 2. Coordinate reconnaissance and damage 	Paulette Coley

assessment teams through the PEOC 3. Ascertain the early requirements for Government assistance in re-establishing the community.	
Coordinate the establishment, staffing and management of emergency shelters for sustained use in community. Encourage persons affected to stay with friends or family as first options.	Paulette Coley
Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC	Paulette Coley
1. Assist with the distribution of supplies d 2. Assist with the tracing of missing persons 3. Assist with needs assessments 4. Assist in the provision of welfare information to persons affected. 5. Begin to effect minor repairs to critical facilities and clear road ways and drains	Paulette Coley Paulette Coley Paulette Coley Paulette Coley Paulette Coley
Continue to provide feedback and assistance to the community through the PDC and PEOC.	Paulette Coley

Phase 4: Recovery

ACTIVITIES	RESPONSIBLE PERSON(S)
<ol style="list-style-type: none">1. Mobilize Community members to assist each other with rehabilitation and reconstruction activities.2. Encourage community members to rebuild bearing in mind mitigation measures (build back better).3. Mobilize and conduct repairs to critical facilities and infrastructure (Schools, clinic, water supplies and others)	Narda Nicholson/Andrew Gordon Sandra Nembhard
<ol style="list-style-type: none">1. Update PDC on recovery activities by external agencies/departments/organizations.2. Monitor progress and ensure deficiencies are reported.	Andrew Gordon
Mobilize CDRMG to seek assist from NGOs (e.g. Red Cross, Food for the Poor, ADRA and Others) to assist in community recovery initiatives.	

<p>Identify and share Lessons Learnt to enhance future preparedness and response activities:</p> <ul style="list-style-type: none"> ▪ Challenges in responding to incidents ▪ Which systems were overburdened? ▪ What resources were lacking (human and physical)? ▪ How did the community cope? ▪ What areas of the SOPs need to be reconsidered? 	<p>Andrew Gordon and Team</p>
<p>Revise SOPs as necessary</p>	<p>Andrew Gordon and Team</p>

APPENDIX 5

CDRM GROUP

EARTHQUAKES - STANDARD OPERATING PROCEDURES (SOP)

Purpose

The purpose of this Earthquake SOP is to establish the necessary action steps for an effective and safe response to earthquakes that could potentially affect the community of Old Harbour Bay. Earthquakes can result in damages to community infrastructure and facilities, loss of life and property, and other incidents with varying severity from minimal to catastrophic; depending on the intensity of the hurricane. The CDRM Group will work with government organizations, NGOs/CBOs, private sector and other stakeholders to facilitate the safety of community members. It is the intent of this SOP to maintain clearly defined procedures for before, during and after earthquake events.

Earthquake can happen at any time with varying degrees of strengths or magnitudes. The community recognizes that it must be prepared to respond, recover and mitigate against the effects of an earthquake.

Objectives

The concepts and procedures in this SOP are set to:

- Facilitate coordination among community members and the CDRM Group in preparing for and responding to earthquakes.
- Ensure a logical and sequenced set of actions for community response.
- Assign specific task to ensure collaboration and execution activities.

Threat Assessment

The community of Old Harbour Bay has (no, little, some, much) history of earthquakes. The anticipated threat for the purpose of this plan includes at least one event in the next ten years (at any time) that will have a moderate to major effect on most buildings and critical infrastructure.

Basic Planning Assumptions

- At least one moderate earthquake will probably affect the country/community in the next 5-100 years.

- CDRM Group will remain active and functional
- Community members will be responsive to CDRM Group programmes, initiatives, warning and other information.
- There is commitment and support from agencies and departments of government to assist community.
- Community is will to utilize their own resources in preparedness and response as far as possible.
- CDRM Group will train and establish Community Emergency Response Team(s) (CERTs).

Concept of Operations

These SOPs are designed to establish a concept of operations spanning the direction and control of the disaster from an initial monitoring through post-disaster response, recovery, and mitigation. All activities are community driven, with technical assistance provided by agencies, departments, NGOs and private sector as necessary.

Procedures will be categorized into the following phases:

Phase 1: Preparedness and Mitigation (year round).

Phase 2: Event, Event Response, Damage Assessment

Phase 3: Recovery

ACRONYMS

AAR – After Action Report

CERT – Community Emergency Response Team

CDRMG – Community-based Disaster Risk Management Group

DRM – Disaster Risk Management

EOC – Emergency Operations Center

NEOC – National Emergency Operations Center

NGO – Non Government Organization

ODPEM – Office of Disaster Preparedness and Emergency Management

PDC – Parish Disaster Coordinator/Committee

PEOC – Parish Emergency Operations Center

DEFINITIONS

All Clear

There is no *All Clear* for an Earthquake. It is not possible to predict the timing, length or strength at the time or just prior to an earthquake. While certain conditions can predispose a geographic location to an earthquake, it is not possible to indicate the likelihood or intensity of an earthquake.

Emergency Operations Center (EOC)

A multi-agency coordination center that provides support and coordination to the on-scene responders.

Incident

An event that occurs that may lead to an emergency condition.

Earthquake

A shaking or rolling motion of the earth's surface caused from a sudden release of energy from below the earth's surface. The release of energy is generally caused by slipping or breakage of rock below the earth's surface.

Epicentre

The position on the ground directly above where the slip under the earth's surface first occurs. The magnitude felt is likely to be greatest at this point. The damage is likely to be worst at this point.

After-Shock

Tremors or smaller earthquakes that occur after the main shock is felt. *After-shocks* can occur over a period of a few hours to months after the main shock.

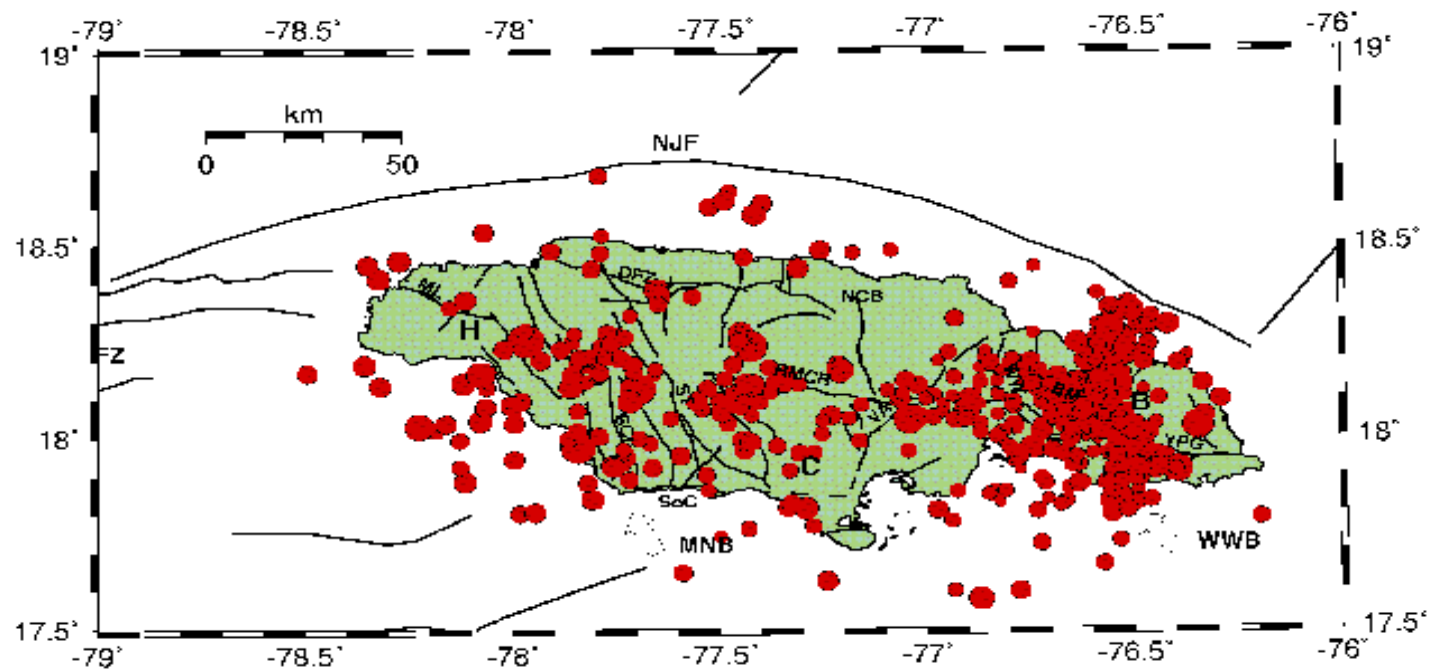
Tremor

The shaking or seismic waves felt or caused by an earthquake or explosion is called a *tremor*.

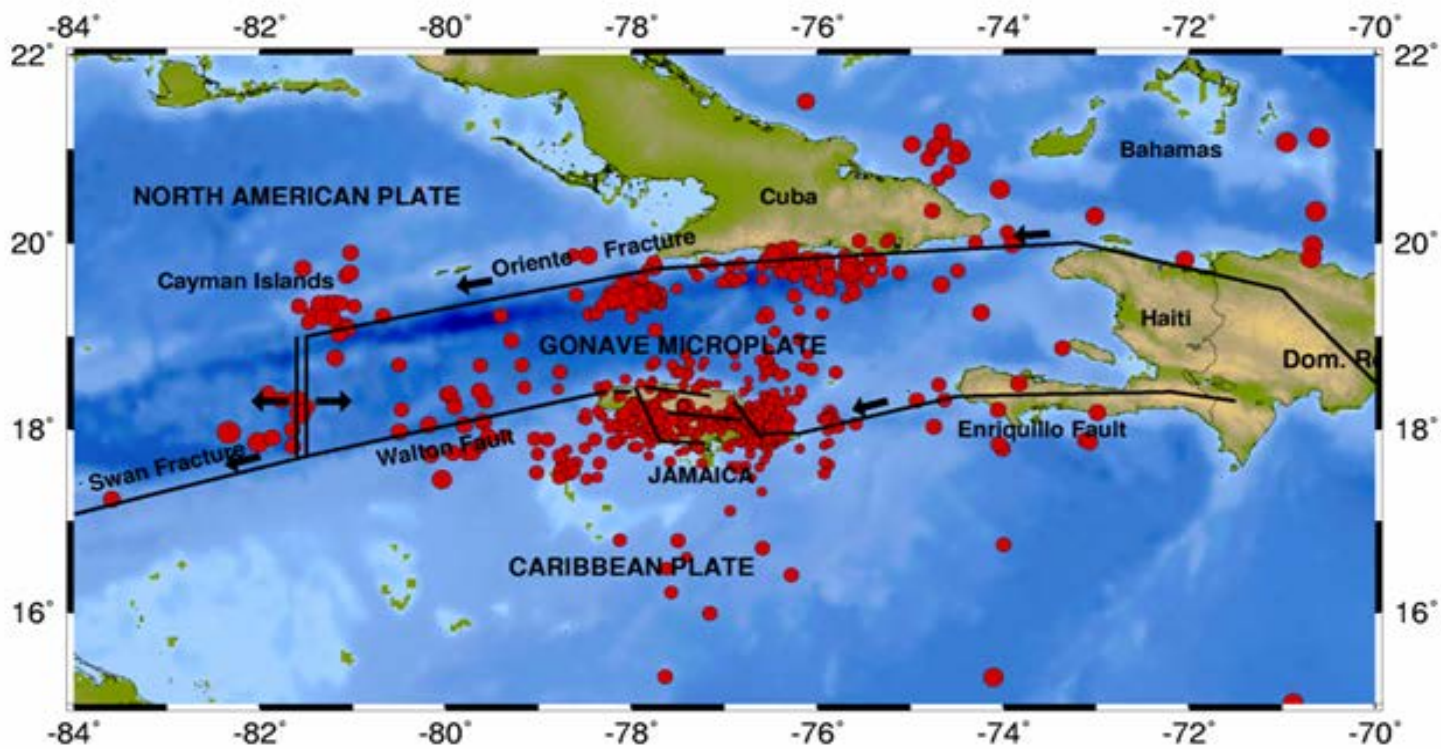
Magnitude

Magnitude is a measure of the amount of energy released during an earthquake. Magnitude is typically measured on the Richter Scale for the Caribbean.

JAMAICA SEISMICITY 1997-2007



The Gonave Microplate



OPERATING PROCEDURES

Phase 1: Mitigation and Preparedness

Mitigation and Preparedness activities as mentioned in these SOPs are specific actions to be taken by respective CDRM Coordinators and their teams (drafted support persons) to ensure proper planning and coordination for an **earthquake** emergency. Coordinators should utilize other information and measures highlighted in the CDRM Plan to as a guide for other actions.

ACTIVITIES	RESPONSIBLE PERSON(S)
1. Continue to support and promote public information and awareness programmes.	Narda Nicholson
2. Sensitize special needs population	Narda Nicholson
3. Organize how special needs population will be evacuated and transportation required.	Sandra Nembhard
4. Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol	Ricardo Fearon
5. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible	Sandra Nembhard
6. Sensitization of persons in the community without vehicles of assembly area for transportation to more safe location.	Narda Nicholson
7. Identify areas in the community where high potential for infrastructure/property damages.	Ricardo Fearon

8. Ensure DRM teams are aware of all high risk locations in the community.	Preston Smith/Pernell Bartley
9. Prepare areas for sheltering persons in need	Sandra Nembhard
10. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.	Andrew Gordon/ Sandra Nembhard
11. Procurement and placement of necessary response equipment and supplies for shelters – mattresses/blankets/sheets, water, first aid kits, hygiene kits, mutual aid agreements (for food), information sheets/pen, notice board, radio communications (base radio, handhelds positioned), contact list, SOP manual.	Sandra Nembhard/ Andrew Gordon
12. Procurement and placement of necessary response equipment and supplies for evacuation or sector team leaders – including first aid kits, ropes, masking tape, stretchers, splints, sheets.	Andrew Gordon/ Sandra Nembhard
13. Organize and ensure supplies and systems for damage assessment are in place – damage assessment forms, working pens, means of communication to relevant persons, contact list, field reference guide and SOP manual.	Paulette Coley/Andrew Gordon
14. Liaison for maintenance and to keep open all	Ricardo Fearon

access routes – main transportation routes and alternative access routes.	
15. Meet and assess the community's state of preparedness for an earthquake	Andrew Gordon/Sandra Nembhard/Camille Cheese
15.1. Community inventory of building quality.	Ricardo Fearon/Andrew Gordon
15.2. Community inventory of road networks and updating of community map.	Ricardo Fearon/Sandra Nembhard/Camille Cheese/Karen Dixon
15.3. Identify alternative sources of water, sources of alternative/temporary housing solutions	Ricardo Fearon/Sandra Nembhard/Camille Cheese/Karen Dixon
15.4. Put mutual aid agreements in place for emergencies such as earthquakes	Sandra Nembhard and Team
15.5. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Ricardo Fearon/Sandra Nembhard/Camille Cheese/Karen Dixon
15.6. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC).	Ricardo Fearon/Sandra Nembhard/Camille Cheese/Karen Dixon
16. Organize or initiate & support Drills <ul style="list-style-type: none"> ▪ Trained community first aiders ▪ Search and rescue personnel. ▪ Have first-aid kits prepared, pre- 	Narda Nicholson/Sandra Nembhard/ Andrew Gordon

<p>positioned and accessible under emergency conditions by trained leaders/response team members</p> <ul style="list-style-type: none"> ▪ Support for school and business community drills <p>17. Make available all relevant information on the hazard to the general community.</p>	
<p>18. Personal for families</p> <ul style="list-style-type: none"> ▪ Make sure your family goes over the family disaster plan. 	Paulette Coley
<p>19. Protecting the community:</p> <ul style="list-style-type: none"> ▪ Encourage residents to check and address building and roofing strength. Keep yards clear of debris ▪ Keep roads and open lots clear of solid waste and debris. 	Ricardo Fearon/ CDA Executive

Phase 2: THE EARTHQUAKE – The first 3-6 hours immediately following the event

ACTIVITIES	RESPONSIBLE PERSON(S)
Monitor and report events as far as possible.	CDRM Team – President/V.P

	Andrew Gordon / Sandra Nembhard
Activate Search and Rescue Operations	Paulette Coley/ Search and Rescue Team Leaders
Maintain contact with PEOC, Shelters and response personnel.	Paulette Coley CDA Executive
Depending on the severity, ensure all buildings are vacated. Account for missing persons.	Paulette Coley/ Search and Rescue Team Leaders CDA Executive
DRM Team Advise the Community to listen to all advisories and remain alert for after shocks	Narda Nicholson CDA Executive
Activate Sheltering and Evacuation arrangements, as necessary	Ricardo Fearon/ Sandra Nembhard
Establish community response command post, if necessary.	Andrew Gordon

AFTERMATH (IMMEDIATELY following the tremor up to 5 Days after main event)

ACTIVITIES	RESPONSIBLE PERSON(S)
2. Check with PDC for persons to return home but only after authorities say it is safe to do so. Keep tuned to your local radio or TV station for recovery information.	Andrew Gordon/Snadra Nembhard/Paulette Coley
3. Deploy Community Response and Search	Paulette Coley/ CDA Executive

<p>and Rescue Teams, as necessary:</p> <ul style="list-style-type: none"> • Deploy community response teams to check on vulnerable (elderly and physically challenged) • Deploy Search and Rescue Team, initially to check for the missing – following up any information from the first 3-6 hours. • Check for deaths, injuries and persons needing emergency assistance • Conduct first aid and search and rescue operations as necessary • Check on adequacy of sheltering and relief arrangements; seek assistance through PEOC and other sources as needed. 	
<p>4. Deploy Community Response and Damage Assessment Teams and commence coordination of relief and response actions, as necessary:</p> <ul style="list-style-type: none"> • Collate community damage survey information and send/upload to PEOC and national agencies through the PEOC • Formulate initial needs assessment and response action plan • Activate and carry out response • Document needs and actions 	<p>Paulette Coley/ CDA Executive</p>

5. Communicate with Parish Emergency Operations Centre (P-EOC)	Paulette Coley/ CDA Executive
<ul style="list-style-type: none"> • Provide initial damage survey and needs of the community to PEOC • Notify PEOC of critical/emergency cases • Provide PEOC with status report – general reconnaissance information on power lines, water/sewage mains, condition of critical infrastructure and facilities (roads, bridges, communication, hospitals, etc) 	
6. Assist the Fire Brigade and NWA with road clearing, and search and rescue activities through the PEOC .	Paulette Coley/ CDA
7. Assist with the establishment and staffing of registration centres.	Paulette Coley/ CDA
8. Beware of downed or loose power lines. Report them immediately to the JPS, Police or Fire Department.	Paulette Coley/ CDA
9. Advise community members to enter their homes with caution and to check for:	Paulette Coley/ CDA
<ul style="list-style-type: none"> ▪ Sewage leaks in homes/yards. Cordon off 	

<p>area and report to NWC and Parish Disaster Coordinator/Parish Council/PEOC.</p> <ul style="list-style-type: none"> ▪ Water leaks in homes/yards. Report to NWC and Parish Disaster Coordinator/Parish Council/PEOC. ▪ Gas leaks. If they smell gas or hear a blowing or hissing noise, quickly leave the building and leave the doors open. Call the gas company. ▪ Electrical system damage. If they see sparks or frayed wires, turn off electricity at the main fuse box. ▪ If have to step in water to reach the electric box, call an electrician for advice. 	
<p>10. Check for general water/sewage leaks ion the community</p> <ul style="list-style-type: none"> • Check for general sewage and water-line damage in the community. • If you suspect there is such damage, call the NWC company and or PDC. • Advise community not to drink or prepare food with tap water until notified it is safe to do so. 	Paulette Coley/
<p>11. Constantly advise the community :</p> <ul style="list-style-type: none"> • To conserve water and food 	Paulette Coley/

<ul style="list-style-type: none"> • To stay living at their homes if it is safe to do so • To take particular care with hygiene and sanitary practices • Of measures being taken with respect to provision of food and water and restoration of public utilities 	
12. Coordinate requests for and offers of assistance through the PEOC.	Paulette Coley/
13. Coordinate reconnaissance and damage assessment teams through the PEOC	Paulette Coley/
14. Ascertain the early requirements for Government assistance in re-establishing the community	Paulette Coley/
15. Coordinate the establishment, staffing and management of emergency shelters for sustained use in community.	Paulette Coley/
16. Encourage persons affected to stay with friends or family as first options	Sandra Nembhard/Paulette Coley
17. Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC	Paulette Coley/
18. Where required: <ul style="list-style-type: none"> ▪ Assist with the distribution of supplies ▪ Assist with the tracing of missing persons 	Paulette Coley/

<ul style="list-style-type: none"> ▪ Assist with needs assessments ▪ Assist in the provision of welfare information to persons affected. ▪ Begin to effect minor repairs to critical facilities and clear road ways and drains 	
19. Continue to provide feedback and assistance to the community through the PDC and PEOC.	Paulette Coley/

hase 3: Recovery

ACTIVITIES	RESPONSIBLE PERSON(S)
<ol style="list-style-type: none"> 1. Mobilize Community members to assist each other with rehabilitation and reconstruction activities. 2. Encourage community members to rebuild bearing in mind mitigation measures (build back better). 3. Mobilize and conduct repairs to critical facilities and infrastructure (Schools, clinic, water supplies and others) 	Andrew Gordon/Karen Dixon/CDRM Team, Paulette Coley/ CDRM Team,
<ol style="list-style-type: none"> 4. Update PDC on recovery activities by external agencies/departments/organizations. 5. Monitor progress and ensure deficiencies are reported. 	Paulette Coley/

6. Mobilize CDRMG to seek assistance from NGOs (e.g. Red Cross, Food for the Poor, ADRA and Others) to assist in community recovery initiatives.	Paulette Coley/
7. Identify and share Lessons Learnt to enhance future preparedness and response activities: <ul style="list-style-type: none"> a. Challenges in responding to incidents b. Which systems were overburdened? c. What resources were lacking (human and physical)? d. How did the community cope? e. What areas of the SOPs need to be reconsidered? 	Paulette Coley/ & CDRM Team Leader
8. Revise SOPs as necessary	Andrew Gordon

APPENDIX 6
CDRM GROUP
FIRE - STANDARD OPERATING PROCEDURES (SOP)
OLD HARBOUR BAY

Purpose

The purpose of this Fire SOP is to establish the necessary action steps for an effective and safe response to fires that could potentially affect the community. Fires could result in damage to community infrastructure, and facilities, loss of life and property, and other incidents with varying severity from minimal to catastrophic; depending on the intensity of the fire. The CDRM Group shall work with government organizations, NGOs/CBOs, private sector and other stakeholders to facilitate the safety of community members. It is the intent of this SOP to maintain clearly defined procedures for before, during and after fire events.

Objectives

The concepts and procedures in this SOP are set to:

- Facilitate coordination among community members and the CDRM Group in preparing for and responding to hurricanes.
- Ensure a logical and sequenced set of actions for community response.
- Assign specific task to ensure collaboration and execution of activities.

Basic Planning Assumptions

- At least one major Fire will probably affect the country/community
- CDRM Group will remain active and functional
- Community members will be responsive to CDRM Group programmes, initiatives, warning and other information.
- There is commitment and support from agencies and departments of government to assist community.
- Community is willing to utilize their own resources in preparedness and response.

- CDRM Group will train and establish Community Emergency Response Team(s) (CERTs) to reduce the danger to which the community is exposed in the event of a bush or building fire.
- CDRM actively ensure members of their community are aware of possible hazards and how to prevent, mitigate and prepare in the event of likely hazards, including fires.
- The Jamaica Fire Brigade is recognized as the formal First Responder to fires as part of the National Emergency Response Matrix.

Concept of Operations

These SOPs are designed to establish a concept of operations spanning the direction and control of the disaster from an initial monitoring through post-disaster response, recovery, and mitigation. All activities are community driven, with technical assistance provided by agencies, departments, NGOs and private sector as necessary.

Procedures will be categorized into the following phases:

Phase 1: Prevention, Mitigation and Preparedness

Phase 2 (a): Event and Event Response – Building Fires (Homes, Small Businesses)

Phase 2 (b): Event and Event Response – Bush Fires

Phase 3: Recovery

DEFINITIONS

All Clear

An All Clear is a statement issued by the pertinent authority (Fire Department, Police – if the fire department is not present) when a threat has passed. The *All Clear*, for Fire – is when the fire has been fully extinguished and buildings and property are no longer threatened.

Emergency Operations Center (EOC)

A multi-agency coordination centre that provides support and coordination to the on-scene responders.

Incident

Natural or man-made event that requires the action of emergency services to protect lives, goods and environment.

Fire

Combustion or Fire is a chemical reaction or series of reactions in which heat and light are evolved.

The Factors Necessary for Combustion

HEAT, FUEL and OXYGEN

Heat

- Heat can be created in many ways, some are listed below;
- Open Flame
- Sparks
- Arcs
- Friction
- Chemical Reaction
- Electrical

Fuel

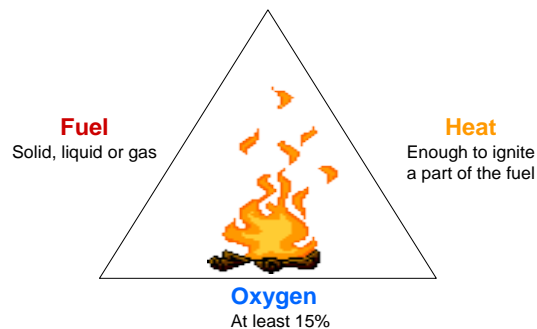
- Fuels are found all three stages of matter some examples of fuels are:

Solids	Liquids	Gases
Cloth	Gasoline	Methane
Paper	Kerosene	Butane
Wood	Alcohol	Propane
Coal	Paint	Acetylene

Oxygen

- 21.2% of the earth's atmosphere is oxygen but only 15% is needed for combustion.

Triangle of Combustion



Bush Fire

A fire in the bush or in a forest area that spreads quickly and goes out of control easily.

Emergency Evacuation

The immediate and rapid movement of people away from the threat or actual occurrence of a hazard.

Extinguish

To put out a flame or fire; to cause a flame or fire to cease to burn or shine.

R.A.C.E

Acronym for **R**escue, **A**lert, **C**ontain (confine fire and smoke) and **E**vacuate or **E**xtinguish.

P.A.S.S.

Acronym for **P**ull, **A**im, **S**queeze, **S**weep (at base of fire). Use to remind users of fire extinguishers how to properly use a CO₂, Dry Powder or Water fire extinguisher.

OPERATING PROCEDURES

Phase 1: Prevention, Mitigation and Preparedness

Prevention, Mitigation and Preparedness activities as mentioned in these SOPs are specific actions to be taken by respective CDRM Coordinators and their teams (drafted support persons) to ensure proper planning and coordination for fire emergency. Coordinators should utilize other information and measures highlighted in the CDRM Plan to as a guide for other actions.

ACTIVITIES	RESPONSIBLE PERSON(S)
13. Continue to support and promote public information and awareness programmes.	Narda Nicholson Coordinator – Public Education & Fundraising
14. Sensitize special needs population	Narda Nicholson
15. Organize how special needs population will be evacuated and transportation required.	Sandra Nembhard
16. Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol	Sandra Nembhard
17. Ensure that appropriate fire extinguishing materials are in place in community centre and shelters.	Sandra Nembhard
18. Ensure that First Aid Kits and Rescue equipment are stocked and in good condition for use in the event of an emergency.	Narda Nicholson

19. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible	Sandra Nembhard
20. Sensitization of residents on fire safety to be conducted on a yearly basis.	Narda Nicholson
21. Identify areas in the community where high potential for infrastructure/property damages.	Preston Smith/Pernell Bartley
22. Ensure DRM teams are aware of all high risk locations in the community.	Preston Smith/Pernell Bartley
23. Prepare areas for sheltering persons in need	Sandra Nembhard
24. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC and Fire Department for facilitating training or refresher courses.	Sandra Nembhard
25. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Ricardo Fearon

26. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC and Fire Departments.	Ricardo Fearon
27. Meet and assess the community's state of preparedness for a fire 28. Conduct Fire Drills at least once yearly.	Andrew Gordon & DRM Team

<p>Personal for families and businesses:</p> <ul style="list-style-type: none"> ▪ Make sure your family goes over the family disaster plan. ▪ All family members should know their evacuation plan. ▪ Store important documents in fireproof box (where possible) or safe. ▪ Houses should be safely wired. An electrical inspection should be conducted: <ul style="list-style-type: none"> ○ For new buildings or building extensions, ○ For older buildings every 2-3 years; annually where rodents and termites are prevalent or where houses are located by the sea or where corrosion can take place 	Sandra Nembhard/Narda Nicholson
---	---------------------------------

<ul style="list-style-type: none"> ▪ Actively practice fire safety when cooking and in use of matches or flammable material, in monitoring children, when smoking, use of electrics and the wiring of buildings, etc. ▪ Insure house/building, contents and other assets, where possible. ▪ Have a business continuity plan (businesses). ▪ Employees / Family members should know exit routes and what to do in case there is a fire. (Have regular drills). 	
<p>Protecting the community (from bush fires):</p> <ul style="list-style-type: none"> ▪ Trim dead or weak branches from trees ▪ Keep yards free of debris ▪ Avoid open burning, especially dry season ▪ Remove all dead limbs , needles and debris from gutters ▪ Build fires away from nearby trees or bushes; always have a way to extinguish this fire. ▪ Monitor all fires while they are burning. ▪ Prune all branches around to a height of 8-10 	<p>. Ricardo Fearon/Sandra Nembhard</p>

<p>feet.</p> <ul style="list-style-type: none"> ▪ Ensure trees adjacent to buildings are free of dead or dying wood and moss. 	
<p>Protecting the community (businesses):</p> <ul style="list-style-type: none"> ▪ Install smoke detectors within Business and institutions ▪ Exit signs must be fitted to all exit doors. Signs must be written in bold red and white background. ▪ All buildings must have proper exits, evacuation routes and emergency assembly areas. ▪ Encourage the usage of fire-resistant materials when building, renovating, or retrofitting structures. ▪ Encourage the storage of combustible/flammable materials in approved safety containers and keep away from home. 	<p>· Ricardo Fearon/Sandra Nembhard</p>
<p>Ensure each response team are equipped with the following:</p> <ul style="list-style-type: none"> ▪ Knowledge and drills for recognizing types of 	<p>Ricardo Fearon/Sandra Nembhard</p>

<p>fire and assessment for response</p> <ul style="list-style-type: none"> ▪ Fire Brigade telephone number and means of emergency telecommunications (mobile phone, radio – if necessary) ▪ Sand box and shovels ▪ Pails and water source (drum) ▪ Fire Extinguisher (if possible) ▪ First Aid kit 	
<p>Obtain local building codes and weed abatement ordinances for buildings near wooded areas.</p>	<p>DRM Team –Sandra Nembhard/Andrew Gordon</p>

<p>Brief community of activation of evacuation and persons to be evacuated:</p> <ul style="list-style-type: none"> ▪ Review evacuation routes and gather your disaster supply kit in case you are instructed to evacuate. ▪ Communicate assembly points and deploy marshals. ▪ Make contact with shelter managers to receive evacuees. ▪ Inform PDC of actions to be taken. ▪ All electricity and gas supplies should be shut-down when closing businesses or evacuating homes ▪ Ensure the Elderly and physically challenged to be evacuated and make special arrangement for them. 	<p>Paulette Coley</p>
--	-----------------------

DURING A FIRE

REMEMBER: activities for response during a fire can be done at the same time, particularly where a team approach is taken. Studies have shown that persons who practice together are more likely to respond better than those who don't practice at all or irregularly.

DRILLS SAVE LIVES

R – RESCUE (the elderly, children, physically or mentally disabled)

A – ALARM/ASSESS (simultaneous to immediate rescue)

C – CORDON/CONFINE (the area under fire, if possible)

E – EXTINGUISH (the fire) **OR EVACUATE** (persons at risk, if safe to the rescuer)

Call out ALARM - If trapped in a fire you cannot out run it. Once a fire is detected immediately call the JPS, Police and Fire Department.	Persons on or nearby the scene; Paulette Coley
<p>Once an ALARM is activated:</p> <p><i>At location of fire (buildings):</i></p> <ul style="list-style-type: none">▪ Building should be immediately evacuated. Do not enter a burning building.▪ Ensure that persons who need assistance while evacuating are assisted (Elderly, Physically Challenge, Children)▪ Assess the situation.▪ Establish safety zone.▪ If a fire is small and its safe attempt to extinguish with a fire extinguisher.▪ Never allow fire to come between you and the exit path▪ While evacuating touch closed doors with back of hand before opening. If door is hot or if smoke is visible do not attempt to open.▪ Close gas valves and turn off electricity at the	Andrew Gordon/Paulette Coley

<p>main fuse box.</p> <ul style="list-style-type: none"> ▪ Remove combustible items (outdoor furniture, umbrellas, tarp coverings, and firewood) from around the home. ▪ Place valuables that will not be damaged by water, in a pool or pond – if necessary. <p><i>At location of fire (bush):</i></p> <ul style="list-style-type: none"> ▪ Quickly assess the situation – wind direction & speed, likely path & combustion, risks involved ▪ Ensure that persons who need assistance while evacuating is assisted (Elderly, Physically Challenge, Children). ▪ If a fire is small and its safe attempt to extinguish with a fire extinguisher, water or sand. May consider beating the fire, if safe. ▪ Never allow fire to come between you and the exit path ▪ Cut off path of fire to homes and farms, if safe to do so ▪ Remove animals and items that can be moved to safety, if necessary. 	
--	--

Around the perimeter of the fire:

- Cordon the area and keep persons at a safe distance.
- Ensure persons do not enter a burning building.
- Keep the scene calm. Ensure the comfort/safety of the distraught.

On exit of the building, at the assembly point or safety zone:

- Check for deaths, injuries and persons needing emergency assistance.
- Attend to injured persons. Seek assistance for those who require serious medical intervention.
- Conduct first aid and search and rescue operations as necessary
- Conduct a roll call when students/ staff are assembled (institutions & businesses).
- Have information on the missing and injured available for emergency personnel (fire, EMS or police)

Remind community persons to have contact numbers for the Fire Department and Community Emergency Preparedness and Response Team.	Sandra Nembhard
--	-----------------

AFTER FIRE

ACTIVITIES	RESPONSIBLE PERSON(S)
1. Constantly advise the community that after fire persons should not re-enter building until authorities say it is safe to do so. Confirm All Clear.	Paulette Coley
2. Conduct Damage & Needs Assessment <ul style="list-style-type: none"> a. Deploy community damage survey teams or assessors (with Parish Council if more than 3 homes/properties are affected) b. Deploy community response teams to check on vulnerable (elderly and physically challenged) and critical facilities. c. Check for associated deaths, injuries and persons needing emergency or psychosocial assistance d. Conduct first aid and search and rescue operations as necessary e. Notify emergency personnel of additional critical/emergency cases 	Damage Assessment Coordinator: (a) Andrew Gordon Coordinator – Response & Recovery: (b-e) Paulette Coley
3. Provide initial damage survey results and needs assessment for the community to Fire Department, Parish Council and other relevant authority (e.g. Social Worker from Ministry of Labour and Social	Andrew Gordon

Security)	
4. Encourage persons affected to stay with friends or family as first options after a fire.	Paulette Coley
5. Coordinate the establishment, staffing and management of emergency shelters for sustained use in community.	Paulette Coley
6. Coordinate requests for and offers of assistance through the Parish Council. <ul style="list-style-type: none"> ▪ Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC ▪ Assist with the distribution of supplies ▪ Assist with needs assessments ▪ Assist in the provision of welfare information to persons affected. 	Paulette Coley
7. Assist with the tracing of missing persons	Paulette Coley
8. Begin to effect minor repairs to critical facilities and clear road ways and public spaces, if affected.	Paulette Coley
9. Continue to provide feedback and assistance to the community through the PDC and PEOC.	Paulette Coley
10. Mobilize Community members to assist each other with rehabilitation and reconstruction activities.	Paulette Coley
11. Encourage community members to rebuild bearing in	Paulette Coley

mind mitigation measures (build back better).	
12. Mobilize and conduct repairs to critical facilities and infrastructure (Schools, clinic, water supplies and others), if affected.	Paulette Coley
13. Update PDC on recovery activities by external agencies/departments/organizations.	Paulette Coley
14. Monitor progress and ensure deficiencies are reported.	Paulette Coley
15. Mobilize CDRMG to seek assist from NGOs (e.g. Red Cross, Food for the Poor, ADRA and Others) to assist in community recovery initiatives, as required.	Paulette Coley
16. After Action Assessment (Community & community/agency) – to identify and share <i>lessons learnt</i> to improve future preparedness and response activities (de-briefing of incident): <ul style="list-style-type: none"> ▪ Challenges in responding to incidents ▪ Which systems were overburdened? ▪ What resources were lacking (human and physical)? ▪ How did the community cope? ▪ What areas of the SOPs need to be reconsidered? 	Paulette Coley
17. Revise SOPs as necessary	CDRM Team – Andrew Gordon/Sandra Nembhard to lead

ACKNOWLEDGEMENT

The Old Harbour Bay Zonal Committee wishes to thank the Office of Disaster Preparedness and Emergency Management (ODPEM), the Canadian International Development Agency (CIDA), the St. Catherine Parish Disaster Committee and the Social Development Commission for partnering with us in developing this very important document.

Disaster risk management at the community level indeed needs to be properly organized and managed as the community members are the first responders to any emergency. This plan clearly outlined all critical areas of disaster management – prevention, mitigation, preparedness, response and recovery. We are convinced that this document will greatly assist the residents of our community in not only preparing for disasters, but our response capacity will be enhanced.

The Zonal Committee wishes to express our gratitude to the facilitators, Mrs. Sophia Mitchell, Regional Disaster Coordinator, ODPEM, Mrs. Patricia Lewis, Parish Disaster Coordinator – St. Catherine Parish Council, Mrs. Karema Aikens Mitchell, Mitigation Programme Officer – ODPEM and all other stakeholders for their support in developing this document.

We anticipate a continued working relationship and trust that you will continue to support disaster risk management activities in this community.

Regards

Wycliffe Frater (Mr.)
President
Old Harbour Bay Zonal Committee

ACKNOWLEDGEMENT



The Office of Disaster Preparedness and Emergency Management (ODPEM) take this opportunity to express profound appreciation to the Canadian International Development Agency (CIDA) for funding the development of this very important and relevant document. The organization recognizes the sacrifice, time, dedication and commitment of the leadership and members of the Old Harbour Bay Zonal Committee and the Parish Disaster Coordinator, Mrs. Patricia Lewis for contributing so ably to this Community Disaster Risk Management Plan.

Your level of involvement has demonstrated that you have accepted and owned the disaster risk management process in your community and are willing to play your part for a safer community. This document is yours for use. Improve on it where you see necessary it is the beginning of the process, not the end.

We stand ready to continue to support your organization in whatever way possible as together we build a safer community.

Thank you.

Sophia Mitchell
Regional Disaster Coordinator/Plan Development Facilitator
ODPEM
Februaury 2012