

Project

IMPROVING CLIMATE DATA AND INFORMATION MANAGEMENT PROJECT

Consultancy

UPSCALING OF 15 COMMUNITY DISASTER RISK MANAGEMENT/CLIMATE CHANGE ADAPTATION PLANS



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**Validated Community Disaster Risk Management and Climate Change Adaptation Plan of
BULL BAY, ST. ANDREW**

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Outline

ACKNOWLEDGEMENT	6
GLOSSARY OF TERMS	7
ABBREVIATIONS.....	11
PREAMBLE	13
Name of the Plan.....	13
Background.....	13
Purpose of the Plan	13
Actors (and contact list)	14
Scope of Plan	15
Authority	15
Responsibility	17
Assumptions	17
Relationship to Parish and National Plans/Structure	17
Leadership of the CDRM Group	18
Frequency of CDRM Meetings.....	18
1 COMMUNITY PROFILE	19
1.1 Description of the community.....	19
1.1.1 Summary of main hazards.....	19
1.2 Location and districts of community in this Plan	20

1.2.1	Location map	21
2	DISASTER RISK MANAGEMENT (DRM) ORGANIZATIONAL STRUCTURE.....	22
2.1	National institutions	22
2.2	Parish and Community organizations.....	22
2.3	Gaps and challenges	24
3	DISASTER HISTORY	25
3.1	History of disasters and coping mechanisms	25
3.2	Lessons learnt	30
4	COMMUNITY ASSETS.....	31
5	COMMUNITY HAZARD MAP	32
6	IDENTIFICATION OF CLIMATE AND NON-CLIMATE HAZARDS AND IMPACTED ASSETS	36
7	IDENTIFICATION OF COMMUNITY VULNERABILITY.....	38
8	COMMUNITY CAPACITY ANALYSIS	40
9	DISASTER RISK REDUCTION	42
9.1	Prevention and Mitigation	42
9.1.1	Areas which should not be developed	42
9.1.2	Zoning.....	43
9.1.3	Areas which can be developed with Appropriate Mitigation Activities.....	44
9.1.4	Reducing Community Vulnerability through Disaster Risk Mitigation and Adaptation	44
9.2	Preparedness and Initial response	47
9.2.1	Public education and awareness	47

9.2.2	Monitoring and Warning	48
9.2.3	Evacuation	49
9.2.4	Preparedness Action Plan.....	53
9.2.5	Response and Relief	54
9.2.6	Recovery	60
APPENDIX A – COMMUNITY EMERGENCY CONTACT LIST		63
APPENDIX B – VULNERABLE POPULATION		64
APPENDIX C – EQUIPMENT ALREADY AVAILABLE IN THE COMMUNITY		65
APPENDIX D – ITEMS REQUIRED EXTERNALLY		66
APPENDIX E – LIST OF OFFICIAL AND UNOFFICIAL EMERGENCY SHELTERS.....		69
APPENDIX F – EMERGENCY SUPPLIES TO BE TAKEN TO SHELTER BY SHELTEREES		70
APPENDIX G – HURRICANE STANDARD OPERATING PROCEDURES (SOPS).....		71
	Purpose.....	71
	Objectives	71
	Threat Assessment.....	71
	Basic Planning Assumptions.....	72
	Concept of Operations.....	72
	Hurricane Categories	73
	Operating Procedures	74
APPENDIX H – EARTHQUAKES – STANDARD OPERATING PROCEDURES (SOP)		86
	Purpose.....	86

Objectives	86
Threat Assessment	86
Basic Planning Assumptions	86
Concept of Operations	87
Acronyms	87
Definitions	88
Operating Procedures	91
APPENDIX I – Fire Standard Operating Procedures.....	99
Glossary of terms.....	101
Operating procedures	102
During the fire	106
After a fire	108
APPENDIX J – TERMS OF REFERENCE CDRM GROUP	110
CDRM Group.....	110
Executive Membership.....	110
Community Organization with responsibility for CDRM	111
Naming the CDRM Group.....	111
Leadership of the CDRM Group	111
Frequency of CDRM Meetings.....	111
Funding of CDRM Group and Activities	112
Interaction with Local Authorities and the Parish Disaster Committee (PDC).....	112

Interact with ODPEM and other technical agencies/departments (local or national)112

Interaction with Councillors, Members of Parliament and other Political Representatives113

Interaction with Private Sector and other NGOs/CBOs113

Recording keeping by CDRM Group113

Wider Community Involvement114

Roles and Functions of the Executive Membership for DRM114

APPENDIX K – PHOTO GALLERY118

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GLOSSARY OF TERMS

This glossary of terms has been extracted and adapted from (i) The International Strategy for Disaster Reduction; Terminology: Basic Terms of Disaster Risk Reduction (2009), (ii) UNDRR Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction (2016) and (iii) ODPEM.

All Clear: An All Clear is a statement issued by the pertinent authority when a threat has passed. In the case of a hurricane/earthquake, is when the storm/earthquake has passed and the associated strong impacts from winds and rains/earthquake will no longer affect the country/community.

Adaptation: The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploit beneficial opportunities. This definition addresses the concerns of climate change and is sourced from the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC). The broader concept of adaptation also applies to non-climatic factors such as soil erosion or surface subsidence. Adaptation can occur autonomously, for example through market changes, or as a result of intentional adaptation policies and plans. Many disaster risk reduction measures can directly contribute to better adaptation.

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

Capacity: The combination of all the strengths, attributes and resources available within a community, society or organization to manage and reduce the risks and strengthen resilience. Capacity may include infrastructure and physical means, institutions, societal coping abilities, as well as human knowledge, skills and collective attributes such as social relationships, leadership and management.

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 Inter-Governmental Panel on Climate Change (IPCC) defines climate change as “a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes, external forcing, or persistent anthropogenic changes in the composition of the atmosphere or land use”.

Coping Capacity: The ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.

Disaster: A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its resources.

Disaster Risk Management: Disaster risk management is the application of disaster risk reduction policies, processes and actions to prevent new risk, reduce existing disaster risk and manage residual risk contributing to the strengthening of resilience.

Early Warning System: An interrelated set of hazard warning, risk assessment, communication and preparedness activities that enable individuals, communities, businesses and others to take timely action to reduce their risks.

Earthquake: A shaking or rolling motion of the earth's surface caused by 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.

Emergency Services: The set of specialized agencies that have specific responsibilities and objectives in serving and protecting people and property in emergencies.

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

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.

Hazard: A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Hazard Analysis: Identification, studies and monitoring of any hazard to determine its potential, origin, characteristics and behaviour.

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 ratings 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.

Earthquake Magnitude: It is a measure of the amount of energy released during an earthquake. This is typically measured on the Richter scale for the Caribbean.

Mitigation: The lessening or limitation of the adverse impacts of hazards and related disasters.

Peak Ground Acceleration: is the maximum acceleration recorded, i.e. the peak value in the acceleration record (accelerogram). It is one of the most used parameters to represent the seismic hazard.

Preparedness: The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.

Prevention: Activities and measures to avoid existing and new disaster risks.

Recovery: The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.

Relief/Response: The provision of emergency services and public assistance during or immediately after a disaster to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Resilience: The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

Retrofitting: Reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.

Risk: The combination of the probability of a hazardous event and its negative consequences, which result from interaction(s) between natural or anthropogenic hazard(s), vulnerability and exposure.

Structural/Non-Structural Measures: Structural measures: Any physical construction to reduce or avoid possible impacts of hazards, or application of engineering techniques to achieve hazard resistance and resilience in structures or systems. Non-structural measures: Any measure not involving physical construction that uses knowledge, practice or agreement to reduce risks and impacts, in particular through policies and laws, public awareness-raising, training and education.

Tremor: The shaking or seismic waves felt or caused by an earthquake or explosion.

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.

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

Tropical Storm Watch: 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.

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: Disaster Risk Management Area/Zone specifically defined area at a local scale in which Disaster Risk Management issues are discussed, planned for and executed. This zone may be one or more communities, depending on the demographics of the community, nature of hazards, established governance structures, and the socio-political environment, as defined by the respective parish.

Zonal Committee: Organized 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 executive of the committee under the guidance of the Parish Disaster Committee through the Parish Coordinator-Disaster Preparedness.

ABBREVIATIONS

ADRA	Adventist Development and Relief Agency
AAR	After Action Report
CBO	Community Based Organizations
CCA	Climate change adaptation
CDRM	Community Disaster Risk Management
CERT	Community Emergency Response Team (also referred to in this document as DRM Team)
DRM	Disaster Risk Management
EOC	Emergency Operations Centre
GOJ	Government of Jamaica
ICDIMP	Improving Climate Data and Information Management Project
JAS	Jamaica Agricultural Society
MLSS	Ministry of Labour and Social Security
MoHW	Ministry of Health and Wellness
NDC	National Disaster Council
NDRMC	National Disaster Risk Management Council
NEOC	National Emergency Operations Centre
NEPA	National Environment and Planning Agency
NGO	Non-Governmental Organization
NWA	National Works Agency
NWC	National Water Commission

ODPEM	Office of Disaster Preparedness and Emergency Management
PDC	Parish Disaster Coordinator/Committee
PEOC	Parish Emergency Operations Centre
PIOJ	Planning Institute of Jamaica
PPCR	Pilot Programme for Climate Resilience
RADA	Rural Agriculture Development Authority
SDC	Social Development Commission
SOP	Standard Operating Procedure

PREAMBLE

Name of the Plan

The name of the plan is the **“Bull Bay Disaster Risk Management and Climate Change Adaptation Plan”**.

Background

The Government of Jamaica (GOJ), through the Planning Institute of Jamaica (PIOJ), has executed the Improving Climate Data and Information Management Project (ICDIMP) under the Pilot Programme for Climate Resilience (PPCR). In this framework, PIOJ in collaboration with key partners such as the Office for Disaster Preparedness and Emergency Management (ODPEM) seeks to update existing Community Disaster Risks Management (CDRM) Plans to include risk profiles and community level resilience mitigation and climate change adaptation (CCA) initiatives that can be implemented by the communities.

Purpose of the Plan

This plan provides:

1. The residents with a workable, comprehensive system to plan for and respond to emergencies and disasters to minimize loss of life and property.
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. Provide an emergency contact list and identification of vulnerable populations living in Bull Bay
4. A basic guideline for the community regarding the individual/entities responsible for various critical functions related to disaster risk and emergency management.
5. An overall framework for reducing risks in the community including mitigation, preparedness, response and adaptation.

Actors (and contact list)

Table 1. DRM actors and contact details

LEVEL	ACTOR	CONTACT PERSON	TELEPHONE Nº/EMAIL
Community and Parish	Bull Bay Community Disaster Risk Management Group	Claudette Wilmot	(876) 545-4591/ (876) 3819013 maggiemyshc@yahoo.com
	Community Emergency and Response Team (CERT)	Novelette Elliot	(876)482-8223
	Kingston and St Andrew Municipal Corporation	Miss Terry Forrester – Parish Disaster Coordinator	876 848- 5009 Terry.forrester@ksamc.gov.jm
	Kingston and St Andrew Parish Disaster Committee	Miss Terry Forrester – Parish Disaster Coordinator	876 848- 5009 Terry.forrester@ksamc.gov.jm
	Ministry of Labour and Social Security	Mr. Vinroy Reid	876 399-1713 vinroy.reid@mlss.gov.jm
	Social Development Commission	Mrs. Marcia Saddler – Community Development Officer	876 322-8065 hyltond@sd.com.jm
	Jamaica Fire Brigade	Assistant Superintendent Valerie Dixon Superintendent Julian Davis Buckle	876 469-1184 dhksa.jfb@cwjamaica.com
	Jamaica Constabulary Force	Senior Superintendent Mr. Gary Griffiths	876 833-7469 gary.griffiths@jcf.gov.jm
	Ministry of Health	Dr. Winifred Meeks – Chief Public Health Inspector Dr. Audre McIntosh – Medical Officer responsible for Disaster Management with the KSA Health Department	876 425-3026 Ksaphi@live.com
National	Office of Disaster Preparedness and Emergency Management (ODPEM)	Ms. Sophia Mitchell – Regional Coordinator, East	876 430-5585 smitchell@odpem.org.jm

Scope of Plan

The Plan will cover pre and post-impact aspects of disaster risk management, that is, prevention, mitigation, preparedness and response. The Plan will also cover long-term climate change adaptation strategies that will be important for the community to prepare for future variations in climatic conditions. The plan focuses on climate and non-climate natural hazards identified by the community including earthquakes, landslides, hurricanes, flooding and droughts.

Authority

This plan is the Community Disaster Risk Management (DRM) and Climate Change Adaptation (CCA) Plan for the community of Bull Bay. It is one of several CDRM and CCA Plans that support the formation of the Zonal Disaster Risk Management and Climate Change Adaptation Committees/Plans for St. Andrew.

Under the DRM Act (Section 20), 'each local authority for a parish shall be responsible for the functions of managing and giving effect to the prevention of, mitigation of, preparation for, response to and recovery from disasters.' According to section 23(1) of the DRM Act, each Parish Disaster Committee (PDC) in consultation with the Director General shall establish for each parish such number of Zonal Disaster Committees as it considers fit to address zones of particular vulnerability within the parish' (The DRM Act Section 23c). In effect, the PDC gives guidance and support to the Zonal Disaster Committees and ensures that disaster management and disaster operations are aligned to and consistent with those of the PDC.

The Zonal Disaster Management Framework allows for the division of parishes into more manageable disaster management areas known as Disaster Management Zones or Emergency Management Zone. These management zones permit a more effective distribution of support through advice/guidance, sourcing and provision of resources for risk reduction matters and execution of mitigation activities before, during and after emergency activities.

Each Zonal Disaster Committee is obligated to carry out certain duties within its zone. The functions of a Zonal Disaster Committee shall include the duty to:

- a) Provide public education within the applicable zones regarding disaster preparedness and emergency response;
- b) Liaise with the relevant PDC on matters relating to disaster preparedness and emergency response
- c) Nominate persons to be trained as shelter managers;
- d) Prepare a zonal disaster plan to be incorporated into the Parish Disaster Risk Management Plan' (Section 23c Disaster Risk Management (DRM) Act).

Local emergency/disaster response planning will trickle down from the Zonal Disaster Committees to the Community Disaster Risk Management (CDRM) Groups and Community Emergency Response Teams (CERTs). See diagram 1 for a visual of the structure from PDC to CERT.

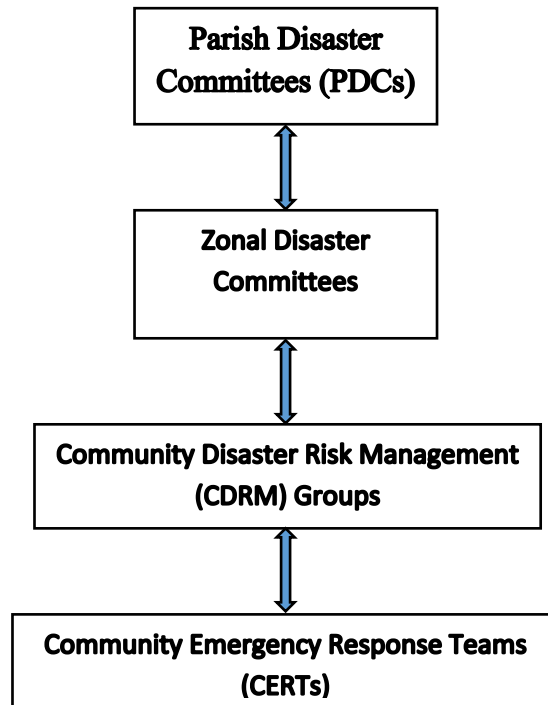


Diagram showing the relationship between the Parish, Zones and CDRMG.

Responsibility

The responsibility for updating and testing the plan lies with the Bull Bay CDRM Group which will review and test elements of the plan at least once per year and after every major event. The Plan should be updated every 5 years to reflect changes in the dynamics of the community and the implications for disaster management.

Assumptions

1. There will always be a CBO in place that will continue to assume the leadership role for disaster risk management in the community.
2. In a disaster, utility services may be unavailable for extended periods (i.e., electricity, water, and telephone).
3. Police and fire response services will be overrun within the first 3-5 days after a major disaster; do not expect help from them initially.
4. The community will largely be on its own in the initial days following a disaster.
5. There will be serious problems with transportation. Road closures will occur and access to outside help will not be possible.
6. The community and the parish disaster committee will work together to identify and source resources to continue the development and maintenance of the plan.

Relationship to Parish and National Plans/Structure

The Bull Bay Disaster Risk Management and Climate Change Adaptation Plan represents the operational procedures and strategies to be employed at the community level in response to and preparing for a number of hazards. The community will be supported by and will work through the St. Andrew Parish Disaster Committee, and will be closely integrated with the Parish Emergency Operations Centre (PEOC). Therefore, the CDRM Plan will be incorporated into the parish DRM plan as required under section 23(2) (d) of the DRM Act. It will draw on this plan and national plans where necessary for the mounting of an efficient response and preparedness programme. The ODPEM collaborates with the St. Andrew Municipal Corporation on Disaster Risk Management matters through the Parish Disaster Committee and the Parish Disaster Coordinator.

Leadership of the CDRM Group

The leadership of the group will be the same as that of the existing CBO (this includes the already assigned individuals). Where no existing group (CBO), the persons engaged by the facilitation team who 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).
- » Special meetings, briefings and workshops may be convened by the implementer as necessary, inviting stakeholders as appropriate.

1 COMMUNITY PROFILE

1.1 Description of the community

Bull Bay is a rural community located in the eastern section of St Andrew. It is a coastal community with sections comprising flat, low-lying areas that rises to an elevation of 370m – 400m in the northern sections of the community. The main settlements in the community are 7 miles, 8 miles, 9 miles and 10 miles, which are the delineated mile markers. Based on the community profile produced by SDC in 2010, there are five rivers located in this community – Salt Spring River, Chalky River, Bull Park River, Spring Gut River and Cane River that drain southward towards the sea from an elevation of up to 1000m (Mines and Geology, 2003). Mining is a major economic activity for this community and includes resources such as shale, gypsum and sand. The nature of the topography, geology of the hilly areas and the mining activities make the community prone to landslides and flooding, in many instances debris floods.

The rocks that make up this community are also varied, some very resistant while others are deeply weathered and prone to land slippage.

Based on the 2011 population census, the population of the community is 15,008 persons with an almost equal distribution of males and females (50.1% and 49.90% females). Children and the elderly comprise approximately 32% of the population. The socio-economic profile of the community is mixed with 8 Miles being the most affluent of the four main settlements.

1.1.1 Summary of main hazards

Flooding and landslide are the main hazards that affect the community. These are due mainly to the presence of several rivers and tributaries that drain the community and the geology of the hilly areas that make some areas vulnerable to erosion and landslide. Flooding and landslide are also impacted by the mining activities that take place in the watershed areas of the rivers.

Flooding takes place regularly but gets very severe during periods of extreme rainfall.

1.2 Location and districts of community in this Plan

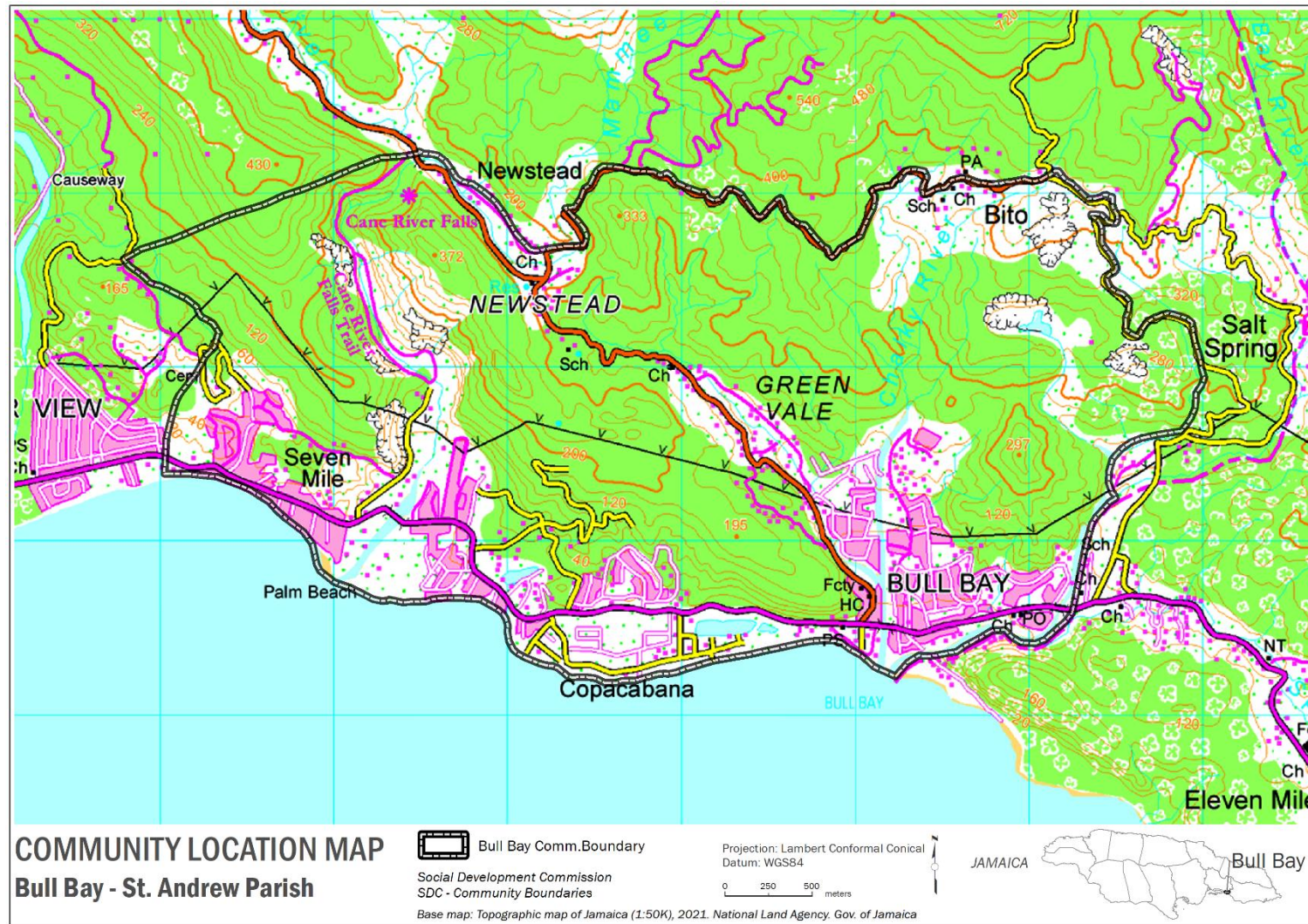
Based on the Social Development Commissions' community list, the community of Bull Bay comprises four small districts which are covered under this plan. These include 7 Miles, 8 Miles, 9 Miles and 10 Miles

Table 2. Districts and Coordinators Contact List

The community identified the following areas as comprising the community and their coordinators.

#	DISTRICT	TEAM LEADER	CONTACT #	E-MAIL
1.	10 Miles District	Valerie Henry - Donaldson (Sandra)	(876)381-9013	-
2.	9 Miles Beach Road	Bobbette Walters	(876)812-0273	-
3.	Copa Cobana	Kay Henry	(876)343-7180	Keithreynolds063@gmail.com
4.	Wickie Wackie	Valerie Henry Donaldson	(876)432-1833	Jeromelevy70@gmail.com
5.	Shooter's Hill	Keith Reynolds	(876)883-6857	-
6.	St. Benedict	Talbert N. White White	(876)322-0918	-
7.	Harbour View (Bayshore Park)	Paul Wint	(876)329-6472	-
8.	8 miles	Claudette Wilmot (Miss Maggie)	(876)545-4591	maggiemyshc@yahoo.com

1.2.1 Location map



2 DISASTER RISK MANAGEMENT (DRM) ORGANIZATIONAL STRUCTURE

2.1 National institutions

The institution at the national level that coordinates disaster risk management is the Office of Disaster Preparedness and Emergency Management (ODPEM). The ODPEM is also the secretariat to the National Disaster Risk Management Council (NDRMC), which is chaired by the Prime Minister of Jamaica. The deputy chairperson for the NDRMC is the Minister of Local Government and Rural Development, the ministry under which disaster management falls. The NDRMC leads the planning and coordination of disaster management. Seven committees work to support the NDC – Finance, Planning and Administration, Recovery Planning, Preparedness and Emergency Operations, Emergency Health and Planning, Public Information and Education, Humanitarian and Prevention and Mitigation.

2.2 Parish and Community organizations

At the parish level, the Kingston and St Andrew Municipal Corporation are responsible for coordinating disaster management including working with communities to develop their capacities and their plans. This coordination is done through a Parish Disaster Committee, which is chaired by the Mayor (or his designate). This committee comprises several agencies and communities at the parish level. The Parish Disaster Coordinator, the person appointed by each local authority to carry out day-to-day execution of the disaster risk management functions, acts as the advisor to the Parish Disaster Committee.

The Parish Disaster Committee is linked to the national level through the ODPEM and all decisions taken by the PDC are aligned with the national level policies and plans.

Communities are also part of the disaster management organization of the parish and are represented at the Parish Disaster Committee through the Community Disaster Risk Management Groups who can be invited to attend the PDC meetings. This Community Disaster Risk Management Group comprises elected community members. The community can invite external organizations to participate in their risk reduction activities.

Table 3. DRM Group composition

DRM GROUP POSITION	CONTACT PERSON	TELEPHONE Nº/EMAIL
Chairman.	Claudette Wilmot.	(876) 545-4591/ maggiemyshc@yahoo.com . (876) 381-9013.
Vice-Chairman.	Bobbette Walters.	(876) 812-0273.
Secretary.	Kay Henry.	(876)394-2192.
Treasurer.	Kevin Cunningham	(876)573-4107 876-394-2192.
Assistant Secretary.	Valerie Henry Donaldson.	(876)381-9013.
Coordinator – Public Education & Fundraising.	Keith Reynolds.	(876)343-7180.
Coordinator – Vulnerability & Risk Identification.	Talbert N. White.	(876)461-1846.
Coordinator – Prevention, Mitigation & Adaptation.	Paul Wint.	(876)445-2792.
Coordinator - Response & Recovery.	Charmaine Wilson.	(876)445-2792.
Coordinator – Preparedness.	Charles Graham.	(876)394-2192ñ.

CDRM Group will train and establish Community Emergency Response Team(s) (CERTs) that is the operative team under the Response & Recovery Coordinator. At a minimum, CERT includes the following positions:

- First Aid coordinator and assistants.
- Initial damage assessment coordinator and assistants.
- Shelter management coordinator and assistants.
- Search and rescue coordinator and assistants.
- Communication (during the crisis) coordinator and assistants.
- Evacuation coordinator and assistants.

The community should have persons trained in these areas.

2.3 Gaps and challenges

Community Level

- » The strategy and process to contact disaster entities change too regularly.
- » DRM activities are only carried out when there is a disaster.

National Level

- » Although ODPEM has been very active in the community in recent times, and community members know the different representatives, communication with these representatives can be challenging especially when their assistance is required.

3 DISASTER HISTORY

3.1 History of disasters and coping mechanisms

The disaster analysis provides a detailed chronological timeline account of the disaster history and significant events that happened in the community, the impact as well as the response strategy and/or mechanism of the community.

Table 4. Historical Overview of Disasters

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Rains in 2021.	<ul style="list-style-type: none"> » The community had rains in 2021 worse than in 2020 and flooding homes across the community. 	<ul style="list-style-type: none"> » Same as 2020.
Sept – Dec. 2020 Heavy rainfall.	<ul style="list-style-type: none"> » The entire community was impacted. Shooters Hill and 9 miles had landslides. » Continuous rains for 2-3 hours for 3-4 months. » 9 Miles, Weise Road got the brunt of it, with approximately 10 homes completely submerged in the 9 miles area. » Shooters Hill had major landslides with approximately 18 houses sliding off the hill and being destroyed. » Two lives were lost in Toby Gully, shooters Hill. » The rains were more devastating for the area than any hurricane or previous rains have ever been. 	<ul style="list-style-type: none"> » Residents had to relocate. Many persons from Shooters Hill in particular went to the shelter where they stayed for over a month. » The government intervened by assisting with living expenses and building suppliers for persons to start over. » Many went to live with relatives with the hope of finding a new place to live permanently.
Hurricane Sandy, 2012.	The erosion that occurred in Bull Bay, St Thomas, caused changes to the drainage channel that resulted in flooding.	<ul style="list-style-type: none"> » Persons stayed inside.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Tropical storm Gustav, 2008.	<p>Infrastructure:</p> <ul style="list-style-type: none"> » The Chalky River overflowed its banks flooding 9 miles District. » Bull Park Bridge was washed away by the Bull Park River. » Residents of Wickie Wackie were affected by the storm surge. The force of the surge deposited a large amount of sand on the foreshore. » Flood water coupled with sediments blocked the 8 Miles main road. » The Cane River deposited large amounts of debris that severely affected the districts of 7 Miles to Shooters Hill. » A section of the Harbour View Bridge collapsed into the Hope River. Community members were marooned as this bridge links the community of Bull Bay to the Kingston Metropolitan Area. 	<ul style="list-style-type: none"> » Paid to be ferried (piggybacked) across the Hope River because of the collapsed Harbour View Bridge. » Improved access to and from the community through the installation of the Bailey bridge. » Vendors from neighbouring parish St. Thomas travelled to Bull Bay and sold their produce to the residents.
	<p>Health:</p> <p>10 Miles was also flooded which resulted in the death of 2 persons as their motor car was washed away by the river.</p>	-
Hurricane Dean, 2007	<p>Infrastructure:</p> <ul style="list-style-type: none"> » Version Gully overflowed its bank which blocked the bridge in Taylor Lands. » The main road to Bito was extensively damaged (still damaged) by floodwater and a land slippage that marooned the residents. (JUTC buses – public transport 	<ul style="list-style-type: none"> » Community members worked together to overcome the crisis. » The community received assistance from the Jamaica Red Cross and the government.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
	<p>has still not been reinstated in the area (none runs to Bito) due to the destruction of the road).</p> <ul style="list-style-type: none"> » Debris mobilized by flood waters in Shooters Hill not only severely impacted several houses but also obstructed the roadway in the community. This problem persists every time it rains. <p>Housing: Several houses were destroyed by the Cane River.</p>	-
Hurricane Ivan, 2004.	<p>Infrastructure:</p> <ul style="list-style-type: none"> » 7 Miles to Shooters Hill main road was impassable due to land slippage. » Storm surge impacted 7-8 Miles and 9-10 Miles Districts. It destroyed Caribbean Terrace Housing Scheme completely, (the reason for the storm surge was the removal of sea grape trees) » The cemetery in St. Benedict's was flooded and in the process severely eroded some graves/tombs. » An abandoned playfield in Wickie Wackie was flooded. <p>Housing: The Chalky River breached its banks which severely impacted residential and other buildings in Taylor Lands. Several houses were buried by debris brought down by the river whilst others</p>	<ul style="list-style-type: none"> » The SLEDGE (Sugar Loaf Educational Group Extraordinary) organization was formed to reduce the impacts of natural hazards on the community. » Community members whose homes were flooded in Taylor Lands were assisted by other residents. » Residents purchased food from local businesses (shops) as the community was marooned. » The community received food stamps from the government. » Remittances from family members overseas. » Self-help with clean-up activities

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
	were partially covered. The damage was significant as residents lost the contents of their houses. The Bull Park River overflowed its banks and, in the process, washed away several houses. Erosion of the river bank was the cause of the destruction.	
Anomalous Rains, 2003.	Flooding occurred during the passage of this surface trough.	No data.
Tropical Storm Isidore and Lili, 2002.	Flooding occurred during the passage of these two tropical storms in the 7 and 9 Miles districts. Severe flooding in the area, muddy flows were seen, and several houses were washed away. Cars were engulfed by debris flow.	No data.
Flooding, May 2002.	Roads were blocked off due to flooding	No data.
Landslide and flooding, September 2002.	Landslide caused roads to be blocked off. There were flooded houses in 10 Miles, 9 Miles and the Ball Ground area. Several persons near the bridge had to be evacuated. The gully overflowed.	No data.
Hurricane Michelle, 2001.	Flooding occurred during the path of hurricane.	No data.
Hurricane Mitch, 1998.	A storm surge of 1-4 m high occurred and affected several persons. As a result of the storm surge the tombolo and a section of the coastline was eroded	No data.
Hurricane Gilbert, 1988. NB// - THE 2020 RAINS WERE WORSE THAN GILBERT'S!	Infrastructure: <ul style="list-style-type: none"> » Residential and commercial properties in the district of Taylor Lands suffered from significant damage. » The Cane River breached its banks, which caused flooding. » St. Benedict's Primary School was significantly damaged 	<ul style="list-style-type: none"> » Self-managed clean-up activities, especially on Beach Road and Passion Gardens. » Community members repaired the roof of St. Benedict's Primary School.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
	<ul style="list-style-type: none"> » Critical facilities and infrastructure such as roads, churches, and Bull Bay Police Station suffered significant damage. » Flooding coupled with land slippage in Passion Garden: 7 Miles blocked the main arterial road » The main road to the crematorium in St. Benedict's was blocked by debris. » The Sunset Burial Park and the St. Benedict's Heights Housing Scheme in Shooters Hill were flooded. The debris blocked and cut off access to these areas. » St. Thomas main road in the vicinity to 7 Miles (Shooters Hill) to 8 Miles was impassable due to storm surge. 	<ul style="list-style-type: none"> » Community solidarity – residents shared food and worked together to get Bull Bay back to normalcy. » The church assisted residents in the 8 Miles District. » Taylor Lands in the 9 Miles District received assistance from the Jamaica Red Cross.
	<p>Health:</p> <ul style="list-style-type: none"> » Flooding of the Bull Park and Chalky Rivers resulted in the death of 4 persons. » Land slippage killed 4 persons in 10 miles district. 	<ul style="list-style-type: none"> » The community members worked together.
Flood, 1986.	<p>Infrastructure:</p> <ul style="list-style-type: none"> » The Bull Park and Chalky Rivers overflowed their banks and in the process caused widespread flooding. The damage sustained by the community was insurmountable. » Community members were marooned. <p>Health:</p> <ul style="list-style-type: none"> » 3 persons died. <p>Cultural and Social:</p> <p>Community members were marooned.</p>	-

3.2 Lessons learnt

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

- » Shooters hill should be declared uninhabitable.
- » The land along Lunar Avenue and Southern Cross Drive is sinking and should be investigated.
- » Bull Bay area should be researched and residents told which areas are suitable for living.
- » An alternate route out of Bull Bay is needed urgently.
- » Drains in Bull Bay need constant cleaning and maintenance if areas such as Wickie Wackie (the few habitable areas in the community) are to be spared flooding.
- » All the bridges in the community need to be raised and strengthened.
- » Before land can be purchased pamphlet containing information re the land should be provided.

4 COMMUNITY ASSETS

A community asset (or community resource) is anything that can be used to improve the quality of community life. The five asset categories include:

- » NATURAL: Farming land, community springs, rivers, forests, ocean, etc.
- » PHYSICAL: Infrastructure such as bridge into town, schools, clinics and equipment (tools, machines) for transport, local water management/distribution system, telephone lines, mobile phone towers.
- » FINANCIAL, HUMAN AND SOCIAL: liquid assets such as livestock, professional capacities and knowledge (nurses, police, etc.).
- » The most important community assets/resources from each category were identified and highlighted in Table 5 below. The priority assets were selected based on their importance to the lives and livelihoods of the community.

Table 5. Community Assets

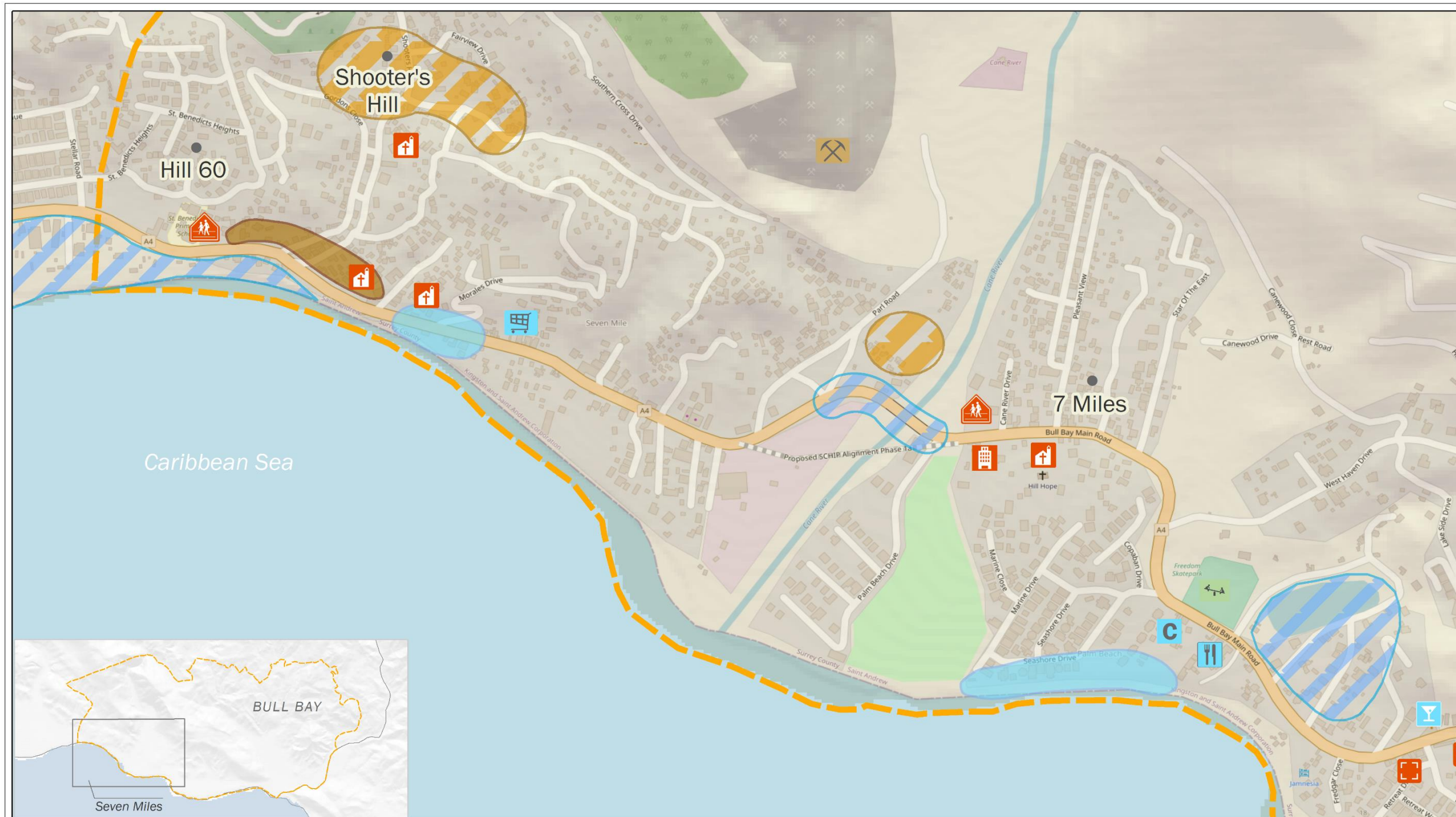
ASSET CATEGORY	ASSETS
Natural.	The flood plain of 5 rivers: The Salt Spring River, Chalky River, Bull Park River, Spring Gut River and Cane River. There is another river in the area but the residents do not know its name, they say it is usually a dry river.
	Two ponds: 8 Miles and Wickie Wackie.
Physical.	Sixteen churches or more.
	Post Office located at 10 Miles.
	Eight schools: 2 primary schools (St. Benedict’s Primary and Bull Bay Primary and Infant) and 9 basic schools vying to become registered early childhood development centres by the Early Childhood Commission (ECC).
	Two Health Facilities: African Martyrs of Uganda Health Clinic (Bull Bay Health Centre) and The Ark Medical Complex (Private)
	Road network: parochial (Class B) roads and internal paved roads, tracks and pathways.
Several playfields.	
Financial, human and social.	Farmable land, forests and mining resources for shale, gypsum and sand.
	Surf camp.
	Bull Bay Community Development Committee (CDC), 7 CBOs. 3 Youth Clubs (Wickie Wackie, Shooters Hill and Bull Bay Police Youth Club) and 7 PTA’s.

5 COMMUNITY HAZARD MAP

The Community Hazard Maps were prepared with the involvement of the community during the Community Disaster Risk Management Plan workshop. The hazard maps identify the zones where hazards occur and the assets (houses, roads, shops, schools, shelters etc.) that are located in these zones. The community identified locations where they have historically experienced hazards and drew them on the map. The hand-drawn map can be found in the photo gallery (Appendix K).



Community Hazard Map for Bull Bay (SDC Boundary)



COMMUNITY HAZARD MAP

Bull Bay - St. Andrew Parish

(Seven Miles)

Projection: Lambert Conformal Conical
Datum: WGS84

Scale 1:6,000
0 240 m.

Legend

- Small Districts
- 🏠 School
- ⛪ Church
- 🏢 Office
- 🍽️ Restaurant
- 🏪 Shop
- 🏟️ Club
- 🏟️ Play Field
- River
- Road
- 🌊 Flooding
- 🏔️ Landslide
- 🌊 Storm Surge
- 🗑️ Washed down debris
- 📏 SDC Boundary

Prepared by



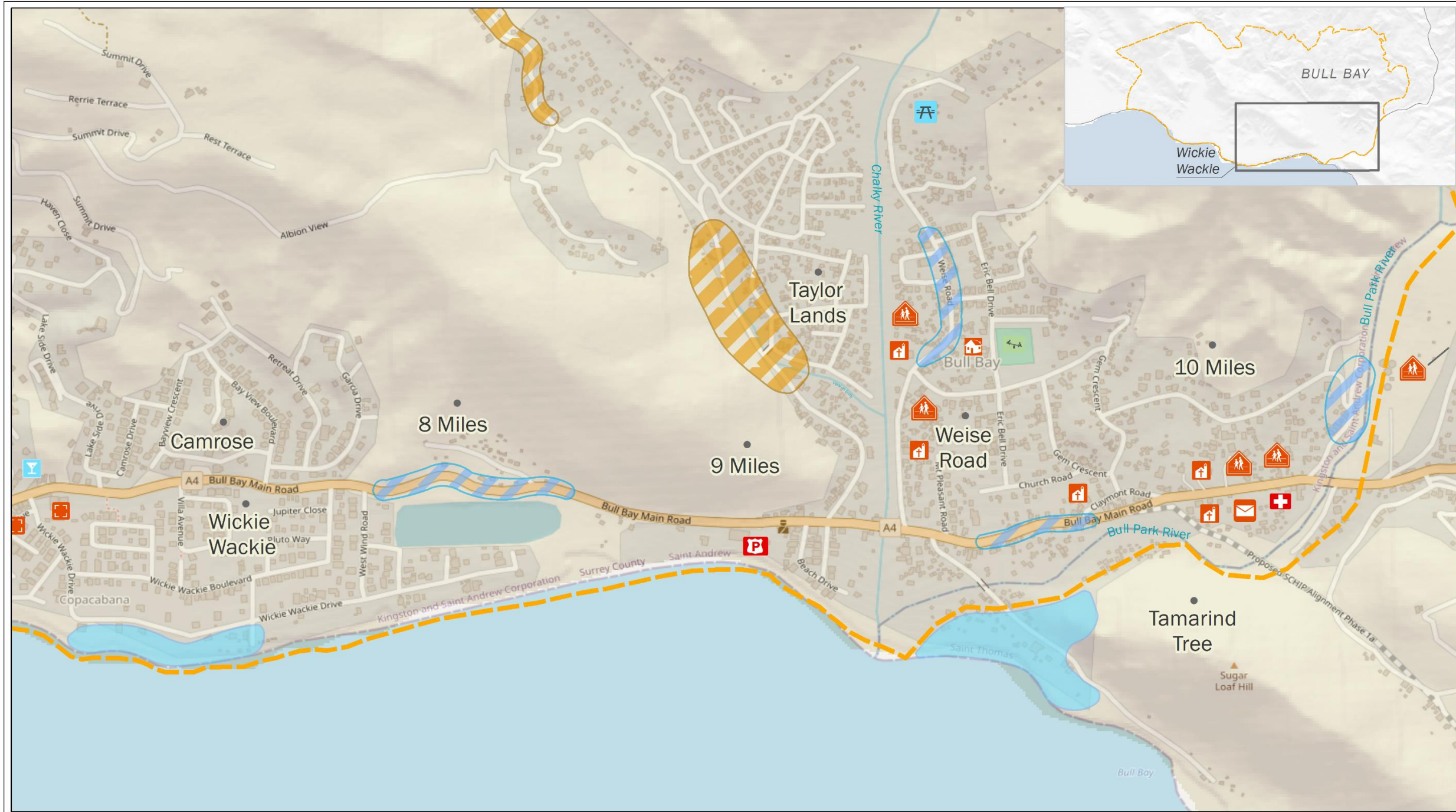
Implementing Agencies



Funded by



Community Hazard Map of 7 District, Bull Bay, digitized from Community Input (see also insets for 8, 9 and 10 Miles Districts for more details).



COMMUNITY HAZARD MAP

Bull Bay - St. Andrew Parish

(Wickie Wackie)

Projection: Lambert Conformal Conical
Datum: WGS84
Scale: 1:8,000
0 250 m.

- Legend
- Small Districts
 - Plaza
 - Play Field
 - Restaurant
 - Club
 - Bar
 - Road
 - Landslide
 - Flooding
 - Storm Surge
 - SDC Boundary

Prepared by
IH cantabria
INSTITUTO DE HIDRAULICA AMBIENTAL
UNIVERSIDAD DE CANTABRIA

Implementing Agencies
PIOJ
PLANNING INSTITUTE OF JAMAICA
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Community Hazard Map for 8,9 and 10 Miles Districts and surrounding areas.

6 IDENTIFICATION OF CLIMATE AND NON-CLIMATE HAZARDS AND IMPACTED ASSETS

Table 6 identifies (i) climate and non-climate related hazards that the community experiences, and (ii) climate hazards expected to continue to experience into the future considering climate change scenarios. Climate change projected scenarios have been extracted from (CSGM), 2017: State of the Jamaican Climate 2015¹, scenario RCP 8.5, year 2050.

Table 6. Climate and non-climate hazards and their Impacts

HAZARD CATEGORY	HAZARD	PROJECTED SCENARIO WITH CLIMATE CHANGE	FREQUENCY	INTENSITY	ASSETS IMPACTED (FROM LIST)
CLIMATE HAZARD – PRESENT.	Heavy rains - Flooding (due to hillside deforestation and soil erosion).	N/A	4 - 5 times per year.	2-5 feet.	Displaced wildlife, JPS post, houses, tanks, Buildings, churches, bridges, roads, agricultural farms, livestock, fishing equipment, boats, electrical equipment.
	Storm surge.	N/A	3 times per year.	2-10 feet.	Roads flooded; homes flooded.
	Hurricanes.	N/A	Every 2 to 3 years.	Mainly tropical storm winds that can increase to hurricane winds depending on the category of storm.	Infrastructure, homes, rivers, Health facilities, schools, churches, shelters.

¹ Climate Studies Group, Mona (CSGM), 2017: State of the Jamaican Climate 2015: Information for Resilience Building (Summary for Policy Makers). Produced for the Planning Institute of Jamaica (PIOJ), 16 Oxford Road, Kingston 5 Jamaica.

HAZARD CATEGORY	HAZARD	PROJECTED SCENARIO WITH CLIMATE CHANGE	FREQUENCY	INTENSITY	ASSETS IMPACTED (FROM LIST)
	Landslides.	N/A	4-5 times per year.		Homes, roadway, schools, shelter.
CLIMATE HAZARD – FUTURE CC SCENARIO.	Heavy rains - Flooding.	The occurrence of heavy rainfall events has increased across most stations with the largest magnitude trends in the northwest, central and southeast. In general, the largest changes in most rainfall indices have occurred in Westmoreland and Portland to the extreme west and east of the island.			Same as flooding above.
	Storm surge.	Year 2050, worst emissions scenario (named RCP8.5).	Sea Level Rise: +40 cm.		Fishing vessels, homes, fishing industry, community.
	Hurricanes.	Tropical storm/ hurricane genesis, frequency and tracks are similar to what has been experienced in the very recent past (last two decades), but intensities (rainfall rates and wind speeds) are significantly increased. This is consistent with an increase in the occurrence of higher category storms in the future under climate change i.e. there may not be more storms but when they do occur they will be more intense.			Devastation, loss of homes, loss of livelihood, loss of life.
	Landslides.	N/A			-
NON-CLIMATE HAZARD.	Earthquakes.	N/A	Tremors are not often.	Not intense.	-

7 IDENTIFICATION OF COMMUNITY VULNERABILITY

Vulnerability is the condition or circumstance of the community that makes it susceptible to being damaged by a hazard or disaster. The vulnerability analysis identifies the hazards that the community is exposed to, the sensitivity of the different assets within the community to the hazards and the direct and indirect impacts that are anticipated.

Table 7. Community's Vulnerability

HAZARD CATEGORY	HAZARD	VULNERABLE ASSET	DRIVERS OF VULNERABILITY	DIRECT IMPACTS	INDIRECT IMPACTS
CLIMATE HAZARD – PRESENT.	Heavy rains. Flooding and debris flow.	8, 9, 10 Mile District bridges (Bull Park, Chalky River, Cane River and Taylor Lands) Beach Road Bridge. Schools (Weise Road, Bridgeview Basic School, African Martyrs Basic School. Bull Bay Health Centre (this has been moved relocated), Bull Bay Post Office. Houses.	The widening river erodes the riverbank. Located too near to river (water rises to the school gate). Widening river eats away riverbank.	All persons were marooned when bridges were blocked. School closed.	Livelihood impacted aggregates, sandstone etc, cannot move. No food delivery into communities, e.g., bread van. Increases in public transport prices as roads are destroyed.
	Storm surges.	Beach road and bridge, all houses by	Location close to the shoreline.	All persons are marooned when bridges are blocked. School closed.	Farmers cannot get produce to the market.

HAZARD CATEGORY	HAZARD	VULNERABLE ASSET	DRIVERS OF VULNERABILITY	DIRECT IMPACTS	INDIRECT IMPACTS
		<p>Copacobana impacted.</p> <p>A storm surge had destroyed Caribbean Terrace.</p>			<p>Miners could not access or deliver products.</p> <p>The community had to pay extremely high fares for those who dared provide transport after the water receded.</p>
	Landslides.	All of Shooters Hill, Houses, 10 Mile Health Centre.	<ul style="list-style-type: none"> » Earth movement, soil type, and rain soften the earth. » The community keeps cutting down trees. » At Shooters Hill. <p><i>* A study was done by Chester University to see what is causing the landslide and what if anything can be done. That study is available to government agencies.</i></p>	Houses destroyed, health centre closed.	<p>No transport (no bus or taxi).</p> <p>Food gets more expensive as there is no delivery from Kingston.</p> <p>Inability to access healthcare due to health centre being closed.</p>
NON-CLIMATE HAZARD.	Earthquake.	-	-	-	-

8 COMMUNITY CAPACITY ANALYSIS

In order for the community to implement its Disaster Risk Management and Climate Change Adaptation Plan, an analysis of the community's capacities to cope with and manage disasters was assessed and a listing of these is provided below.

Table 8. Community Capacity

CAPACITY	TYPE OF RESOURCE	TASK
Skills.	Chainsaw operators.	Assist in clearing roads, provide counselling, psychological support, providing food, tradesmen assist in prevention and mitigation.
	Counsellors, pastors.	
	Tradesmen, plumbers, farmers, teachers, masons, carpenters.	
Knowledge.	Hazard history of the community.	Contribute to the development of the community, education and awareness of others and identification of hazard-prone areas.
	Coping mechanisms.	
	Knowledge and awareness of communities' vulnerabilities and risk reduction measures.	
	Early warning systems.	
	Evacuation procedures.	
	Elements of disaster preparedness and response.	
Persons trained in emergency response – first aid, initial damage assessment, shelter management.		
Networks.	Community-Based Organizations.	Provide human resources who will assist in moving the elderly to emergency shelters and assist in shelter management.
Transportation.	Taxi operators.	Assist from one point to another with the general transportation of people, goods and materials.
	Truck operators.	
	Owners of private motor vehicles.	
Building/Infrastructures.	Schools.	These serve as an emergency shelters.

CAPACITY	TYPE OF RESOURCE	TASK
	Churches.	
Means of Care/Medical Care.	Registered nurse, nurse, community health aids.	Provide first aid service and general health care.
	Clinic.	
Commercial Enterprises.	Grocery shops.	Source of food supply to the community.

9 DISASTER RISK REDUCTION

Risk reduction measures have been identified according to the information presented in previous sections. This section presents (i) prevention/mitigation and preparedness measures.

Risk reduction measures will take into account official recommendations from Jamaican authorities on prevention of Covid-19 and other diseases, especially during evacuation.

9.1 Prevention and Mitigation

In order to ensure that future developments in the community are 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.

9.1.1 Areas which should not be developed

The following area(s) in Table 9 below were identified by the community as being unsuitable for future development in relation to the hazards and vulnerable elements identified.

Table 9. Areas for No Development

AREA	REASON FOR NO DEVELOPMENT
Shooters Hill near Sunset Burial Ground.	The land is unstable as it is part of a "waterbed" (waterlogged). Persons in charge of Sunset Burial Ground have extended their property, which leads to soil erosion. The graves are also washed away when it rains heavily.
Passion Gardens are also known as Toby Gully.	The land is unstable, it is a "waterbed". 2 persons died due to a landslide.
All sea shore from 7-9 Miles (any area less than 15ft from high water).	The area is regularly impacted by storm surges.

9.1.2 Zoning

The following areas in Table 10 below were identified by the community as being suitable for specific types of development considering hazard and vulnerability elements identified.

Table 10. Suitable Areas for Development

AREA	TYPE OF DEVELOPMENT WHICH WOULD BE SAFE
Rest Haven.	This area is elevated on a hill and is suitable for persons who may have to relocate from Shooters Hill or other destroyed areas. Caribbean Terrace persons will also prefer to be located in this area. (this community is a middle-class community and may not support the relocation of persons to this area).
Gilbert Avenue.	Suitable for housing for persons who may have to relocate from Shooters Hill but not for Caribbean Terrace (social class issues).
Gypsum Road.	Relocation of persons permanently displaced. The owner of the property would need to give permission and the area is susceptible to landslides and flooding. Can also be used to construct a shelter and Heath Centre.

9.1.3 Areas which can be developed with Appropriate Mitigation Activities

Table 11. Special Areas for Development

AREA	MITIGATION MEASURES NEEDED
All lands have to be tested at Bull Bay before development.	-

9.1.4 Reducing Community Vulnerability through Disaster Risk Mitigation and Adaptation

The vulnerabilities identified above can be addressed and the impacts of the hazards reduced if the appropriate actions are employed. Disaster Risk Mitigation strategies can be employed to reduce the community’s vulnerability to current hazards and adaptation measures employed to plan long term strategies for adjusting to the expected climate change impacts. Several resources will however be required to make these strategies possible and sustainable.

Table 12. Community Action Plan for Disaster Risk Mitigation and Climate Change Adaptation

HAZARDS IDENTIFIED	COMMUNITY RESPONSES	ARE THESE RESPONSES SUITABLE?	ADAPTATION/MITIGATION ACTIONS REQUIRED – EXTERNAL ASSISTANCE	ADAPTATION/MITIGATION ACTIVITIES - DONE WITHOUT EXTERNAL ASSISTANCE	SPECIFIC LOCATION
Heavy rains- Flooding.	Go to each other’s homes, as better shelters are needed and there is no transport to the shelter, which is very far away.	No.	<ul style="list-style-type: none"> » Improved response – Central storage of food closer to the community to allow quicker access to food, increased number of shelters and improvement to existing shelters – Municipal Corporation, Red Cross. » Building material and building assistance needed 	<ul style="list-style-type: none"> » Ensure gully and drains are clean. 	All locations – worst affected areas are 8, 9 and 10 Miles and sections of the Bull Bay Main Road in the vicinity of

HAZARDS IDENTIFIED	COMMUNITY RESPONSES	ARE THESE RESPONSES SUITABLE?	ADAPTATION/MITIGATION ACTIONS REQUIRED – EXTERNAL ASSISTANCE	ADAPTATION/MITIGATION ACTIVITIES - DONE WITHOUT EXTERNAL ASSISTANCE	SPECIFIC LOCATION
			<p>urgently – Municipal Corporation, Food for the poor.</p> <ul style="list-style-type: none"> » Need more shelters and better shelters immediately.- Municipal Corporation » Relocation to new houses in a less flood-prone area – Ministry of Housing. » Improvement in drainage infrastructure and improved drainage cleaning and maintenance (The current highway infrastructure project is currently implementing a drainage system) – Municipal Corporation, NWA. » Training of the cane, Chalky and Bull Park Rivers – NWA. » Implementation of Gabion baskets – NWA. » Implement a flood warning system – WRA. » Mapping of flood plain – WRA. 		<p>Seashore Drive, Wickie Wackie Drive and Boulevard, Weise Road and Biscayne Avenue</p>

HAZARDS IDENTIFIED	COMMUNITY RESPONSES	ARE THESE RESPONSES SUITABLE?	ADAPTATION/MITIGATION ACTIONS REQUIRED – EXTERNAL ASSISTANCE	ADAPTATION/MITIGATION ACTIVITIES - DONE WITHOUT EXTERNAL ASSISTANCE	SPECIFIC LOCATION
Hurricanes.	Go to each other’s homes and some people go to shelters.	-	<ul style="list-style-type: none"> » Replant sea grapes to buffer the water from the sea – Municipal Corporation, NEPA. » Build retaining walls for some areas – NWA. » Clean drains – Municipal Corporation, NWA. 	<ul style="list-style-type: none"> » Ensure gullies and drains are cleaned. 	All locations.
Storm Surge.	Go to each other’s homes and some people go to shelter.	-	<ul style="list-style-type: none"> » Replant sea grapes to buffer water from the sea – Municipal Corporation, NEPA » Build retaining walls and clean drains – Municipal Corporation, NWA. 	<ul style="list-style-type: none"> » Ensure gullies and drains are clean. 	All locations particularly Copacobana.
Landslides.	Relocate permanently.	Yes, but help is needed.	<ul style="list-style-type: none"> » Relocation for persons in areas of landslides as the land cannot be fixed – Ministry of Housing. 	-	Shooters Hill, Pleasant Pen, 11 Miles, Cane River Road, St Benedicts Heights.

9.2 Preparedness and Initial response

This section focuses on identifying actions to build the capacities of people to help themselves (not individually but on a community basis) in case of a disaster. In many places, this approach to risk management has proven more efficient than the passive infrastructure-driven strategy based on large state-backed investments.

The preparation covers the knowledge and ability to anticipate, respond and effectively recover the effects of current or probable events or hazard conditions. This includes the development of plans, the storage of resources, training, monitoring, forecasting and warning, among others.

9.2.1 Public education and awareness

The public education and awareness strategy seeks to increase awareness, and provide the community with current information on protective measures for all threats facing the community.

Table 13. Public Education and Awareness

HAZARD	PUBLIC EDUCATION ACTION	COMMUNICATION CHANNEL	TIMELINE	RESPONSIBILITY
Fire.	Fire Safety Tips.	<ul style="list-style-type: none"> » Print – posters, pamphlets » Sensitization sessions. 	October annually during fire prevention month.	Public Education and fundraising – Keith Reynolds.
Hurricanes and their secondary hazards.	<ul style="list-style-type: none"> » Define hurricanes, their secondary hazards and their impacts. » Hurricane safety and response. » Mitigation and adaptation strategies. 	<ul style="list-style-type: none"> » Sensitization session on basic disaster management. » Print – posters pamphlets. 	<ul style="list-style-type: none"> » April and May during hurricane preparedness months. » Annually during the hurricane season June to November. 	Public Education and fundraising – Keith Reynolds.
Earthquake.	<ul style="list-style-type: none"> » Earthquake Preparedness. » How to conduct drills. » Earthquake response. 	<ul style="list-style-type: none"> » Sensitization session on basic disaster management. » Print – posters pamphlets. 	» January during earthquake preparedness month.	Public Education and fundraising – Keith Reynolds.
Flooding.	Flood Safety.	<ul style="list-style-type: none"> » Sensitization sessions. » Posters. 	» Ongoing	Public Education and fundraising – Keith Reynolds.

9.2.2 Monitoring and Warning

The following persons (belonging to the CDRM Group) are responsible for monitoring situations and providing warnings of impending disasters (e.g., hurricanes, flooding, storm surge, landslides) that may affect the community and disseminating information to the DRM Group.

Table 14. Community Monitoring and Warning Programme

HAZARDS	MONITORING/WARNING METHOD	RESPONSIBILITY	PROCEDURES
Hurricane.	Listening to the radio for official information. A social media app called Windy is used by surfers to look at ocean conditions.	Coordinator – Public Education and Fundraising radios are functional (connection from ODPEM not functional).	<ol style="list-style-type: none"> 1. The coordinator –Public Education and Fundraising issues an alert to the zonal group via SMS or internet-based messaging system. 2. A town crier is dispatched to warn the community. 3. Shelter managers were placed on alert.
	Marine weather forecasts.	Coordinator – Public Education and Fundraising.	Warning sent to the President of the Fisherman’s Cooperative.
Flooding.	8 Miles District – saturation and sweating of the tiles to predict rainfall.	-	-
	As long as Donkey Corner is black then it means it is going to rain.	-	-
Proposed Monitoring/Warning Methods			
Flooding.	A gauge is suggested at Candai River for 10 Miles and Beach Road.	External help is needed.	-
	Gauges are needed at other locations but decisions need to be taken on whether some areas will be relocated before gauges are installed.	External help is needed.	-

9.2.3 Evacuation

The evacuation plan will be a guide for the community in coordinating their efforts by disseminating early warnings to ensure timely and orderly evacuation of the vulnerable areas and persons. The evacuation plan will follow recommendations from Jamaican authorities regarding Covid-19 and other diseases, especially during stays in shelters; however, an evacuation order will prevail over any other lockdown/stay at home order or recommendation related to sanitary warnings.

Given the size, coastal location and low-lying or flood and landslide-prone nature of the community, it is recommended that the entire community evacuate when there is an impending emergency. However, it must be understood that some residents are inclined to take risks based on past experiences and so will not evacuate.

The following evacuation route and transportation route are to be used. Community members should proceed to the designated shelters as outlined in the table below. It is not necessary to assemble at an assembly point.

Table 15. Areas to be evacuated during an emergency, Evacuation Route and Mode of Transportation to Emergency Shelter

EVACUATION ZONE	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT COORDINATOR
8 -9 Miles.	No safe route exists now because of flooding and landslides.	Windsor Lodge Community Centre.	Walk	N/A
Shooters Hill.	Same as above.	St. Benedict's (This is the official shelter but it has no bathroom and is threatened by water and landslide).	-.	N/A
Wickie Wackie.	None - Bayshore Park to Shooters Hill was declared unsafe by the government.	-	-	N/A
7 Miles.	-	St. Benedict's Unofficial Shelters Weise Road Basic School. Weise Road New Testament Church of God Friendship Brook All ages.	-	N/A
10 Miles.	Access to the shelter was blocked by landslides.		-	N/A

Table 16. Evacuation Procedures

ACTIVITY	PERSON RESPONSIBLE
Evaluate threat or liaise with PDC/ODPEM on the need for evacuation.	Chair – Claudette Wilmot.
Alert residents on possible evacuation.	Coordinator – Preparedness – To be determined.
Decide on the timing of the evacuation.	Coordinator - Response & Recovery - Claudette Wilmot (Miss Maggie).
Ensure persons with disabilities are assisted.	Coordinator – Preparedness - Claudette Wilmot (Miss Maggie).
Organize transportation.	Coordinator - Response & Recovery - Claudette Wilmot (Miss Maggie).
Identify the route to be used.	Coordinator - Response & Recovery - Claudette Wilmot (Miss Maggie).
Ensure shelter is available.	Coordinator - Response & Recovery - Claudette Wilmot (Miss Maggie).
Register all persons who are evacuating and their destination.	Coordinator - Response & Recovery - Claudette Wilmot (Miss Maggie). CERT.
Start evacuation.	Coordinator - Response & Recovery - Claudette Wilmot (Miss Maggie).
Check that all areas are safely evacuated.	Chair – Bobbette Walters.
Inform Parish Disaster Committee.	Chair – Bobbette Walters/Claudette Wilmot.

Table 17 shows the entity or person responsible for each evacuation zone who will monitor to ensure that all evacuation activities are being conducted. The person/entity responsible for each evacuation zone will contact the persons responsible for a vulnerable group if needed (and vice versa). Appendix E highlights the designated shelters for the community. All persons are encouraged to carry food to last them for three days. See Appendix D for a list of items needed.

Table 17. Evacuation Team

EVACUATION ZONE	PERSON RESPONSIBLE FOR EVACUATION	VULNERABLE GROUP TO EVACUATE	PERSON RESPONSIBLE FOR EVACUATION OF VULNERABLE GROUPS
Shooters Hill.	Keith Reynolds.	Elderly. Persons with disabilities. Children. Pregnant women.	Red Cross. ODPEM.
7 Miles District.	Keith Reynolds.	Elderly. Persons with disabilities. Children. Pregnant women.	Red Cross. ODPEM. Fire Brigade.
8 Miles District.	Claudette Wilmot (Miss Maggie).	Elderly. Persons with disabilities. Children. Pregnant women.	-
9 Miles District.	Bobbette Walters.	Elderly. Persons with disabilities. Children. Pregnant women.	JDF, KSMAC, Food for the poor, ODPEM.
10 Miles District.	Bobbette Walters.	Elderly. Persons with disabilities.	-

EVACUATION ZONE	PERSON RESPONSIBLE FOR EVACUATION	VULNERABLE GROUP TO EVACUATE	PERSON RESPONSIBLE FOR EVACUATION OF VULNERABLE GROUPS
		Children. Pregnant women.	
Wickie Wackie.	Valerie Henry Donaldson.	Elderly. Persons with disabilities. Children. Pregnant women.	-

9.2.4 Preparedness Action Plan

The Community Action Plan sets out the preparedness activities to be conducted for a planning cycle. Among the activities, it must be included to be conducted are 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 weaknesses in the capability of the community to respond during an emergency.

Table 18. Community Preparedness Action

Given the extensive impact of the October and November rains in 2020, the community is still trying to recover from the impact. As such, there is a lot of uncertainty about the next steps for some districts. As such, this section of the plan will be completed as soon as normalcy returns or as soon as relocation decisions have been made.

ACTIVITY	RESPONSIBLE PERSON(S)/AGENCY(S)	TIMEFRAME
-	-	-
-	-	-
-	-	-

-	-	-
-	-	-
-	-	-

9.2.5 Response and Relief

The Bull Bay Command Centre will be located at the St Benedict’s Primary School it will serve as an assembly point for community members to garner information regarding the effect of the disaster. It is also where volunteers can sign in for instructions and assignments. It will also serve as a meeting place where residents can seek to reunite or locate family members or friends.

The Command Centre will forward information to the Parish Emergency Operations Centre (PEOC). The Community Disaster Chairman will assume the lead at the Command Centre. The Coordinator - Public Education and Fundraising will serve as the sole public spokesperson in Bull Bay The Bull Bay Community Disaster Risk Management Group will also develop an inventory and assess the damage, and where feasible, secure the perimeter of dangerous areas. Bull Bay Community Disaster Risk Management Group will have available several volunteers who will help the Police, Fire and Building Inspectors communicate with residents.

The Chairman shall declare an emergency when a predetermined condition has been met or when advised by the Office of Disaster Preparedness and Emergency Management (ODPEM). Operating procedures will be activated as set out in the relevant Standard Operating Procedures / Plans as outlined in Appendices G, H and I.

9.2.5.1 Response

Search and Rescue/First Aid/Emergency Medical Care

Table 19. Community Response

ACTIVITY	RESPONSIBLE PERSON(S)/AGENCY(S)	SHORT REPORT
Send out Search and Rescue and First Aid Team to check on:		
Elderly.	Response and Recovery Coordinator - Claudette Wilmot (Miss Maggie).	Committee Chair and Parish Disaster Coordinator.
Persons with Disabilities.	Response and Recovery Coordinator - Claudette Wilmot (Miss Maggie).	Committee Chair and Parish Disaster Coordinator.
Single Mothers.	Response and Recovery Coordinator - Claudette Wilmot (Miss Maggie).	Committee Chair and Parish Disaster Coordinator.
Damaged Buildings and Houses for Occupants.	Response and Recovery Coordinator - Claudette Wilmot (Miss Maggie).	Committee Chair and Parish Disaster Coordinator.
Persons Stranded by Floodwater.	Response and Recovery Coordinator - Claudette Wilmot (Miss Maggie).	Committee Chair and Parish Disaster Coordinator.
Check for:		
Deaths	Response and Recovery Coordinator - Claudette Wilmot (Miss Maggie).	Committee Chair and Parish Disaster Coordinator.
Injuries	Response and Recovery Coordinator - Claudette Wilmot (Miss Maggie).	Committee Chair and Parish Disaster Coordinator.
Persons in Need of Emergency Assistance	Response and Recovery Coordinator - Claudette Wilmot (Miss Maggie).	Committee Chair and Parish Disaster Coordinator.
Call for any External Assistance	Chairman – Claudette Wilmot.	Committee Chair and Parish Disaster Coordinator.
Update PDC, ODPEM	Chairman - Claudette Wilmot.	Committee Chair and Parish Disaster Coordinator.
Update Community	Chairman - Claudette Wilmot.	Committee Chair and Parish Disaster Coordinator.

Table 20. Initial Damage Assessors

ACTIVITY	PERSON(S) RESPONSIBLE
Send out rapid assessment team to	
Check on:	
» Roads opened/closed.	Initial damage assessment coordinator.
» Roads In need of urgent repair to provide access.	Initial damage assessment coordinator.
Power:	
» Fallen lines, poles transformers.	Initial damage assessment coordinator.
» Live wires.	Initial damage assessment coordinator.
Water and Sewage:	
» Broken/missing water mains.	Initial damage assessment coordinator.
» Water availability.	Initial damage assessment coordinator.
» Sewage pipes broken/leaking.	Initial damage assessment coordinator.
Describe State of:	
» Community.	Initial damage assessment coordinator.
» Schools.	Initial damage assessment coordinator.
» Clinic.	Initial damage assessment coordinator.
» Church.	Initial damage assessment coordinator.

ACTIVITY	PERSON(S) RESPONSIBLE
» Shops and businesses.	Initial damage assessment coordinator.
» Boats and fishing gear.	Initial damage assessment coordinator.
» Sea wall and other sea defence structures.	Initial damage assessment coordinator.
» Mangroves, environment, wild life such as crocodiles.	Initial damage assessment coordinator.
» Shelter (damage to amenities and shelter building).	Initial damage assessment coordinator.
<i>Debris and Garbage Removal</i>	
» Status of garbage receptacles.	Initial damage assessment coordinator.

9.2.5.2 Damage Assessment Procedure

The community will undertake a minimum of two types of assessment within a one-week period. These assessments will be submitted to the Parish council.

Table 21. Community Damage Assessors

TYPE OF ASSESSMENT (BUILDING, AGRICULTURE, WELFARE, ETC.)	TEAM LEADER (NAME, CONTACT)	AGENCY REPORT IS TO BE SUBMITTED TO	TIMEFRAME
Situation overview			
Buildings, utilities and infrastructure.	Coordinator - Response & Recovery Claudette Wilmot 876 545-5491.	Municipal Corporation.	Within 8 hours.
Welfare.	Coordinator - Response & Recovery Claudette Wilmot 876 545-5491.	Ministry of Labour and Social Security.	Within 8 hours.
Agriculture.	Lead farmer assigned by the Rural Agriculture Development Authority.	Rural Agriculture Development Authority (RADA).	Within 8 hours.
Initial damage Assessment			
Buildings, utilities and infrastructure.	Coordinator - Response & Recovery Claudette Wilmot 876 545-5491.	Municipal Corporation.	Within 72 hours.
Welfare.	Coordinator - Response & Recovery Claudette Wilmot 876 545-5491.	Municipal Corporation.	Within 72 hours.
Agriculture.	Coordinator - Response & Recovery Claudette Wilmot 876 545-5491.	Municipal Corporation.	Within 72 hours.

9.2.5.3 Response Action Plan

Table 22. Community Response Action Plan

RESPONSE ACTIONS IN ORDER OF PRIORITY	RESPONSIBLE PERSON(S)/AGENCY(S)	AGENCY TO REPORT TO
Evacuation Route Management.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Evacuation.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Trucking of Water.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Alternative Sources of Lighting.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Search and Rescue.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Children Welfare and the Disabled.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Initial Damage Assessment.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Welfare Assessment.	Damage Assessment Coordinator.	Ministry of Labour and Social Security.

9.2.5.4 Relief

Table 23. Relief Assistance

ACTIVITY	PERSON(S) RESPONSIBLE
Identify members of community who have:	
Received damage.	Damage Assessment Coordinator.
Need shelter.	Shelter Management Coordinator.
Lost means of income.	Coordinator - Response & Recovery.
Need assistance.	Coordinator - Response & Recovery.
Identify members of the community in need of psycho-social support or counselling.	Coordinator - Response & Recovery.
Compile a list and update PDC and ODPEM.	Coordinator - Response & Recovery.

9.2.6 Recovery

Table 24. Recovery Action Plan

ACTIVITY	PERSON(S) RESPONSIBLE	TIMEFRAME
Identify hazards that could affect the community, identify their potential impact and anticipate possible recovery actions.	Coordinator – Vulnerability and Risk identification.	Before a hazard strikes.
Prepare a summary of the impacts of the event in an easy to read format.	Damage Assessment coordinator.	Within 7 days of the event.

ACTIVITY	PERSON(S) RESPONSIBLE	TIMEFRAME
Develop a list of priority activities/ projects based on the damage sustained, hazard history and other criteria agreed upon by the CDRMG. Mobilize the community and get their input.	Coordinator - Response and Recovery. Coordinator – Prevention, mitigation and adaptation.	Within one month of the event.
Develop the recovery plan, establishing timeframes for each activity and responsible person.	Coordinator - Response and Recovery.	Within 6 weeks of the event.
Coordinate with the Municipal Corporation and share the recovery plan and ask for assistance with costing.	Chair.	Within 7 weeks of the event.
Secure outside help to implement the priority activities (NGOs, Food for the Poor, ADRA, Jamaica Red Cross, government departments, commercial enterprises in the community and the private sector).	Coordinator - Public education and fundraising.	Within 8 weeks of the event.
Get wider community buy-in and support for the implementation of the recovery activities.	Coordinator - Public education and fundraising.	4 – 8 weeks after the event.
Identify skills and capacities that will be needed to implement the recovery projects/activities and conduct training as needed (Safer building/roof training, agriculture training in sustainable farming/livestock techniques, environmental protection etc.).	Coordinator - Public education and fundraising.	4 – 8 weeks after the event.
Implement Recovery projects/activities.	Coordinator – Response and Recovery.	Minimum of one month after the event.

ACTIVITY	PERSON(S) RESPONSIBLE	TIMEFRAME
<ul style="list-style-type: none"> » Mobilize community members to assist each other in rehabilitation and reconstruction activities taking into account building codes and inclusion of mitigation measures. » Mobilize the community to assist in the rehabilitation of critical facilities. 	Coordinator – Prevention, mitigation and adaptation.	
Document lessons learnt for the recovery experiences to enhance future recovery planning including updating the plan if necessary.	Coordinator – Response and Recovery.	Ongoing.

APPENDIX A – COMMUNITY EMERGENCY CONTACT LIST

COMMUNITY EMERGENCY CONTACT LIST	CONTACT PERSON	TELEPHONE Nº/EMAIL
CDRM Group President .	Claudette Wilmot.	(876) 545-4591/ maggiemyshc@yahoo.com . (876) 381-9013.
CERT President.	David Scott.	876 (531-9966).
Police.	ACP Gary Griffiths.	876 833-7469 gary.griffiths@jcf.gov.jm .
Firefighter.	Supt. Valerie Dixon.	876 469-1184/ dhksa.jfb@cwjamaica.com .
Ministry of Health.	Dr. Winifred Meeks Chief Public Health Inspector.	876 425-3026/ Ksaphi@live.com .

APPENDIX B – VULNERABLE POPULATION

This table contains information on the number of vulnerable groups and their location by district

TYPE OF VULNERABILITY (FOR EXAMPLE, ELDERLY, DISABLED, SINGLE MOTHERS....)	NUMBER OF VULNERABLE PERSONS	LOCATION OF VULNERABLE	NEXT OF KIN/CARE GIVER & CONTACT INFO	CDRT/CERT MEMBER RESPONSIBLE
Programme of Advancement Through Health and Education (PATH) Beneficiaries.	458 Persons.	Miles, 9 Miles, Beach Road, Bobo Hill, Cane River, Bridgeview, Carib Beach, Claremont road, Cement Road, 8 Miles, Gem Crescent, Greenvale Road, Gypsum Road, Jackvale District, Weise Road, Pleasant View, Tamarind Tree, Taylor Land, Windsor Lodge.	N/A	N/A
Persons With Disabilities (PWDs).	167 persons.	9 Miles, 7 Miles, Weise Road, 8 Miles, Housing Road, Woodstock housing Scheme, Jackville, Bayview, Wickie Wackie, Copacobana, Taylor Lands, Tamarind Tree, Palm Beach Estate.	N/A	N/A
Elderly.	13 persons.	8 Miles, 9 Miles, 10 Miles, Weise Road, Shooters Hill, Jackvale, Norman Avenue.	N/A	N/A

APPENDIX C – EQUIPMENT ALREADY AVAILABLE IN THE COMMUNITY

The table identifies the equipment and the quantity the DRM team requires.

ITEMS (QUANTITY PER ITEM)	STORAGE LOCATION	CONTACT PERSON(S) FOR STORAGE	CONTACT NUMBER
Water Boots.	There is a limited amount in storage more is needed.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm .
Machetes.	None available.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm .
Shovels.	None available.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm .
Forks.	None available.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm .
Hazardous infection diseases protection materials: masks and alcohol-based gel.	Limited amount at Municipal Corporation.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm .

APPENDIX D – ITEMS REQUIRED EXTERNALLY

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	CONTACT
First Aid Kits.	Yes, required.	Ministry of Health and Wellness, Jamaica Red Cross, Food for the Poor.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Hazardous infection diseases protection materials: masks.	Yes, required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Hazardous infection diseases protection materials: alcohol-based gel.	Yes, required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Shovels.	Yes, required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Water boots.	Yes, required.	Hardware, Food for the Poor, Department of Fisheries, Fisherman’s Corp.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	CONTACT
Heavy-duty gloves.	Yes, required.	ODPEM, Hardware.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Rain cloaks.	Yes, required.	ODPEM, Hardware.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Hard hats.	Yes, required.	Hardware, Food for the Poor, Livestock Association.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Machetes.	Yes, required.	Parish Council, ODPEM, MLSS, Red Cross.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Canvas Stretchers.	Yes, required.	Hardware, Food for the Poor, Department of Fisheries, Fisherman's Corp.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Crow bars.	Yes, required.	Parish Council, ODPEM, MLSS, Red Cross.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Rip/Crosscut Saws.	Yes, required.	Tankweld, Rhino.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Axe Saws with extra Blades.	Yes, required.	Wisynco, Hardware.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	CONTACT
Heavy duty Screw Drivers.	Yes, required.	Ministry of Health, National Water Commission.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Large/medium Cold Chisels.	Yes, required.	ODPEM, Hardware.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Claw Hammers.	Yes, required.	ODPEM, Hardware.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Heavy duty Sledge Hammers.	Yes, required.	Gas Station.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm
Flashlights.	Yes, required.	ODPEM, Hardware.	Miss Terry Forrester.	876 848- 5009 Terry.forrester@ksamc.gov.jm

APPENDIX E – LIST OF OFFICIAL AND UNOFFICIAL EMERGENCY SHELTERS

List of Official and Unofficial Emergency Shelters

SHELTER NAME AND LOCATION	ACCESS ROUTE TO SHELTER	AREA SERVED	SHELTER MANAGER AND CONTACT DETAILS	OTHER SHELTER TEAM MEMBERS AND KEY CONTACTS FOR FACILITY, AND CONTACT DETAILS
Official Shelters				
St. Benedict's Primary School.	See evacuation routes in table 15.	St Benedict's Heights, Harbour View Heights, Harbour View Proper, Caribbean Terrace, Melbrook Heights.	Oneil Robinson 876 793-2985.	-
Friendship Brook Primary School.	See evacuation routes in table 15.	New Stead. Cane River.	Alberta Jackson 876 359-4893.	-

APPENDIX F – EMERGENCY SUPPLIES TO BE TAKEN TO SHELTER BY SHELTEREES

- » Canned Food (mackerel, corned beef, mixed vegetable, sardines etc.).
- » Salt Fish.
- » Crackers.
- » Drinking Water.
- » Medication.
- » Lantern or Flashlight.
- » Bedding or Blankets.
- » Sponge Foam Pad for sleeping.
- » Toiletries such as soap, toothbrush, toothpaste, rags, deodorant and shampoo.
- » For Babies: Pampers, formulae, cough syrup, soap, baby shampoo, mosquito repellent.
- » Utensils.
- » Can Opener.
- » Books.
- » Toys for Children.
- » First Aid Kits.
- » Hazardous infection diseases protection materials: masks and alcohol-based gel.
- » Hazardous infection diseases information posters.

APPENDIX G – HURRICANE STANDARD OPERATING PROCEDURES (SOPS)

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 Bath. 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, the private sector and other stakeholders to facilitate the safety of community members. This SOP intends 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 tasks to ensure collaboration and execution activities.

Threat Assessment

The National Oceanic and Atmospheric Administration provide an annual forecast for the Hurricane Season. Forecast information is communicated through the Meteorological Service of Jamaica (Met Office) and the ODPEM. The annual anticipated threat for 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 the 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, warnings and other information.
- » There is commitment and support from agencies and departments of government to assist the community.
- » The community is willing to utilize its 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 initial monitoring through post-disaster response, recovery, and mitigation. All activities are community-driven, with technical assistance provided by agencies, departments, NGOs and the 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

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 are expected in a specified coastal area in 36 hours or less.

Flash Flood Watch

Flash Flood Watch is issued when a flash flood is possible in an area. Everyone should stay alert

Flash Flood Warning

Flash Flood Warning is issued when a flash flood is imminent. 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	POSITION	PERSON(S) RESPONSIBLE
1. Continue to support and promote public information and awareness programmes.	Coordinator – Public Education and Fund Raising	Keith Reynolds
2. Sensitize special needs population	Coordinator – Public Education and Fund Raising	Keith Reynolds
3. Organize how special needs population will be evacuated and transportation required.	Coordinator - Preparedness	Charles Graham
4. Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol	Coordinator - Preparedness	Charles Graham

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
5. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible	Coordinator – Preparedness Coordinator - Response & Recovery	Charles Graham Charmaine Wilson
6. Sensitization of persons in the community without vehicles of assembly area for transportation to more safe location.	Coordinator – Public Education and Fund Raising	Keith Reynolds
7. Identify areas in the community where high potential for infrastructure/ property damages.	Coordinator - Vulnerability & Risk Identification	Talbert N. White
8. Ensure DRM teams are aware of all high-risk locations in the community.	Coordinator - Vulnerability & Risk Identification	Talbert N. White
9. Prepare areas for sheltering persons in need	Coordinator – Preparedness	Charles Graham
10. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.	Coordinator – Preparedness	Charles Graham
11. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Coordinator - Prevention & Mitigation	Paul Wint
12. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC.	Coordinator - Prevention & Mitigation	Paul Wint

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

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 1. Meet and assess the community's state of preparedness for a hurricane 2. Advise community to listen to all weather advisories 	<p>Chairman - Claudette Wilmot/ Valrie Donaldson</p>
<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. 	<p>Coordinator – Preparedness - Charles Graham</p>
<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 	<p>Coordinator – Preparedness - Charles Graham</p>
<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. 	<p>Coordinator – Preparedness - Charles Graham Coordinator - Response & Recovery – Charmaine Wilson</p>

ACTIVITIES	PERSON(S) RESPONSIBLE
<ul style="list-style-type: none"> » Have flashlight and extra batteries » Have portable battery-operated radio and extra batteries » 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>Coordinator – Preparedness - Charles Graham Coordinator - Response & Recovery – Charmaine Wilson</p>
<p>Listen to all weather advisories and information from ODPEM, MET office, and communicate with PDC.</p>	<p>Coordinator – Preparedness - Charles Graham Coordinator - Response & Recovery – Charmaine Wilson</p>

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

ACTIVITIES	PERSON(S) RESPONSIBLE
DRM Team Advise the Community to listen to all weather advisories and remain alert	Coordinator – Preparedness - Charles Graham
Continue to listen to all weather advisories and reports.	Coordinator – Preparedness - Charles Graham

A. HURRICANE WATCH - 48 Hours before Impact

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 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 neighbors that may need help 	Coordinator - Response & Recovery – Charmaine Wilson
Ensure the Elderly and Physical challenged are notified and assisted to prepare for event.	Coordinator - Response & Recovery – Charmaine Wilson

B. HURRICANE WARNING - 36 Hours before impact

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 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 	Coordinator - Response & Recovery – Charmaine Wilson

ACTIVITIES	PERSON(S) RESPONSIBLE
Activate volunteers to be on standby to assist with damage assessment. Conduct briefing of these volunteers.	Coordinator - Response & Recovery – Charmaine Wilson
<ol style="list-style-type: none"> 1. Activate and prepare emergency shelters 2. Deploy relief and welfare volunteers to emergency shelters 	Coordinator - Response & Recovery – Charmaine Wilson
Ensure contacts are made with the PDC and other stakeholders for assessment of shelter facilities if necessary.	Coordinator - Response & Recovery – Charmaine Wilson
Contact PDC and prepare to Initiate evacuation procedures for the community.	Coordinator - Response & Recovery – Charmaine Wilson
<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 	Coordinator - Response & Recovery – Charmaine Wilson Coordinator – Preparedness – Charles Graham
<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 » Food stocks/welfare items » Communications equipment » Manpower 	Coordinator - Response & Recovery – Charmaine Wilson Coordinator – Preparedness – Charles Graham

C. 24 HOURS BEFORE IMPACT

ACTIVITIES	PERSON(S) RESPONSIBLE
1. Notify PDC of activation of evacuation plan 2. Consult PDC on all matters relating to the activation of any or all evacuation systems.	Coordinator - Response & Recovery – Charmaine Wilson
Activate and test local communications links and report to PDC.	Coordinator - Response & Recovery – Charmaine Wilson
Brief community of activation of evacuation and persons to be evacuated: » 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 evacuees are safely evacuated.	Coordinator - Response & Recovery – Charmaine Wilson
» 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.	Coordinator - Response & Recovery – Charmaine Wilson
Alert community Initial Damage Assessment Team(s).	Coordinator - Response & Recovery – Charmaine Wilson
Confirm lines of credit with merchants to enable easy access to relief supplies after the disaster.	Coordinator - Response & Recovery – Charmaine Wilson

D. 16 HOURS BEFORE IMPACT TO LANDFALL

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 1. Maintain contact with PEOC. 2. Advise PEOC of weather conditions and state of preparedness. 3. Confirm arrival and status of evacuees in shelters. 4. Check in with standby teams and community response personnel. 	<p>Chairman - Claudette Wilmot/ Vice Chairman - Bobbette Walters Coordinator - Response & Recovery – Charmaine Wilson</p>

E. THE BLOW

ACTIVITIES	PERSON(S) RESPONSIBLE
Monitor and report events as far as possible.	<p>Chairman - Claudette Wilmot/ Vice Chairman - Bobbette Walters</p>
Maintain contact with PEOC, Shelters and response personnel.	<p>Coordinator - Response & Recovery – Charmaine Wilson</p>

F. AFTERMATH (IMMEDIATELY FOLLOWING THE BLOW TO 5 DAY AFTER ALL CLEAR)

ACTIVITIES	PERSON(S) RESPONSIBLE
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	Coordinator - Response & Recovery – Charmaine Wilson
1. Deploy community damage survey teams or assessors. 2. Deploy community response teams to check on vulnerable (elderly and physically challenged) and critical facilities. 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.	Coordinator - Response & Recovery – Charmaine Wilson

G. (a) Up to 48 Hours After All Clear

ACTIVITIES	PERSON(S) RESPONSIBLE
Provide initial damage survey and needs of the community	Coordinator - Response & Recovery – Charmaine Wilson
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 centers.	Coordinator - Response & Recovery – Charmaine Wilson
Beware of downed or lose power lines. Report them immediately to the JPS, Police or Fire Department. Advise community members to enter their homes with caution:	Coordinator - Response & Recovery – Charmaine Wilson

ACTIVITIES	PERSON(S) RESPONSIBLE
<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 open. Call the gas company. » 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. 	Coordinator - Response & Recovery – Charmaine Wilson

H. (b) Up to 48 Hours to 5 Days After All Clear

ACTIVITIES	PERSON(S) RESPONSIBLE
<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. 	Coordinator - Response & Recovery – Charmaine Wilson
<ol style="list-style-type: none"> 1. Coordinate requests for and offers of assistance through the PEOC. 2. Coordinate reconnaissance and damage assessment teams through the PEOC. 3. Ascertain the early requirements for Government assistance in re-establishing the community. 	Coordinator - Response & Recovery – Charmaine Wilson
Coordinate the establishment, staffing and management of emergency shelters for sustained use in	Coordinator - Response & Recovery –

ACTIVITIES	PERSON(S) RESPONSIBLE
community. Encourage persons affected to stay with friends or family as first options.	Charmaine Wilson
Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.	Coordinator - Response & Recovery – Charmaine Wilson
<ol style="list-style-type: none"> 1. Assist with the distribution of supplies. 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. 6. Continue to provide feedback and assistance to the community through the PDC and PEOC. 	<p>Coordinator - Response & Recovery – Charmaine Wilson</p> <p>Chairman – Claudette Wilmot</p> <p>Vice Chairman – Bobbette Walters</p>

PHASE 4: Recovery

ACTIVITIES	PERSON(S) RESPONSIBLE
<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) 	<p>Coordinator - Response & Recovery – Charmaine Wilson</p> <p>Coordinator - Prevention & Mitigation – Paul Wint</p>
<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. 	<p>Chairman - Claudette Wilmot</p> <p>Vice Chairman - Bobbette Walters</p> <p>Coordinator – Public Education and Fund Raising - Keith Reynolds</p>
<p>Mobilize CDRM Group to seek assist from NGOs (e.g. Red Cross, Food for the Poor, ADRA and Others) to assist in community recovery initiatives.</p>	<p>Chairman - Claudette Wilmot</p>
<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>Chairman - Claudette Wilmot</p> <p>Vice Chairman - Bobbette Walters</p>
<p>Revise SOPs as necessary</p>	<p>Chairman - Claudette Wilmot</p> <p>Vice Chairman - Bobbette Walters</p>

APPENDIX H – 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 Bath. 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 earthquake. The CDRM Group shall work with government organizations, NGOs/CBOs, the private sector and other stakeholders to facilitate the safety of community members. This SOP intends to maintain clearly defined procedures for before, during and after earthquake events.

Earthquakes can happen at any time with varying degrees of strength 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 tasks to ensure collaboration and execution activities.

Threat Assessment

The community of Bath has little history of earthquakes. The anticipated threat for 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, warnings and other information.
- » There is commitment and support from agencies and departments of government to assist the community.
- » The community is willing to utilize its 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 initial monitoring through post-disaster response, recovery, and mitigation. All activities are community-driven, with technical assistance provided by agencies, departments, NGOs and the private sector as necessary.

Procedures will be categorized into the following phases:

Phase 1: Prevention, 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
CDRM	Community Disaster Risk Management
DRM	Disaster Risk Management
EOC	Emergency Operations Centre
NEOC	National Emergency Operations Centre
NGO	Non-Government Organization
ODPEM	Office of Preparedness and Emergency Management
PDC	Parish Disaster Coordinator/Committee
PEOC	Parish Emergency Operations Centre

Definitions

All Clear

An All Clear is a statement issued by the pertinent authority (Earthquake Unit, ODPEM) when a threat has passed. The **All Clear**, for an Earthquake – is when the earthquake has passed and the associated after-shocks or tremors are no longer expected to affect the country/community.

Emergency Operations Centre (EOC)

A multi-agency coordination centre 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 is caused by 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

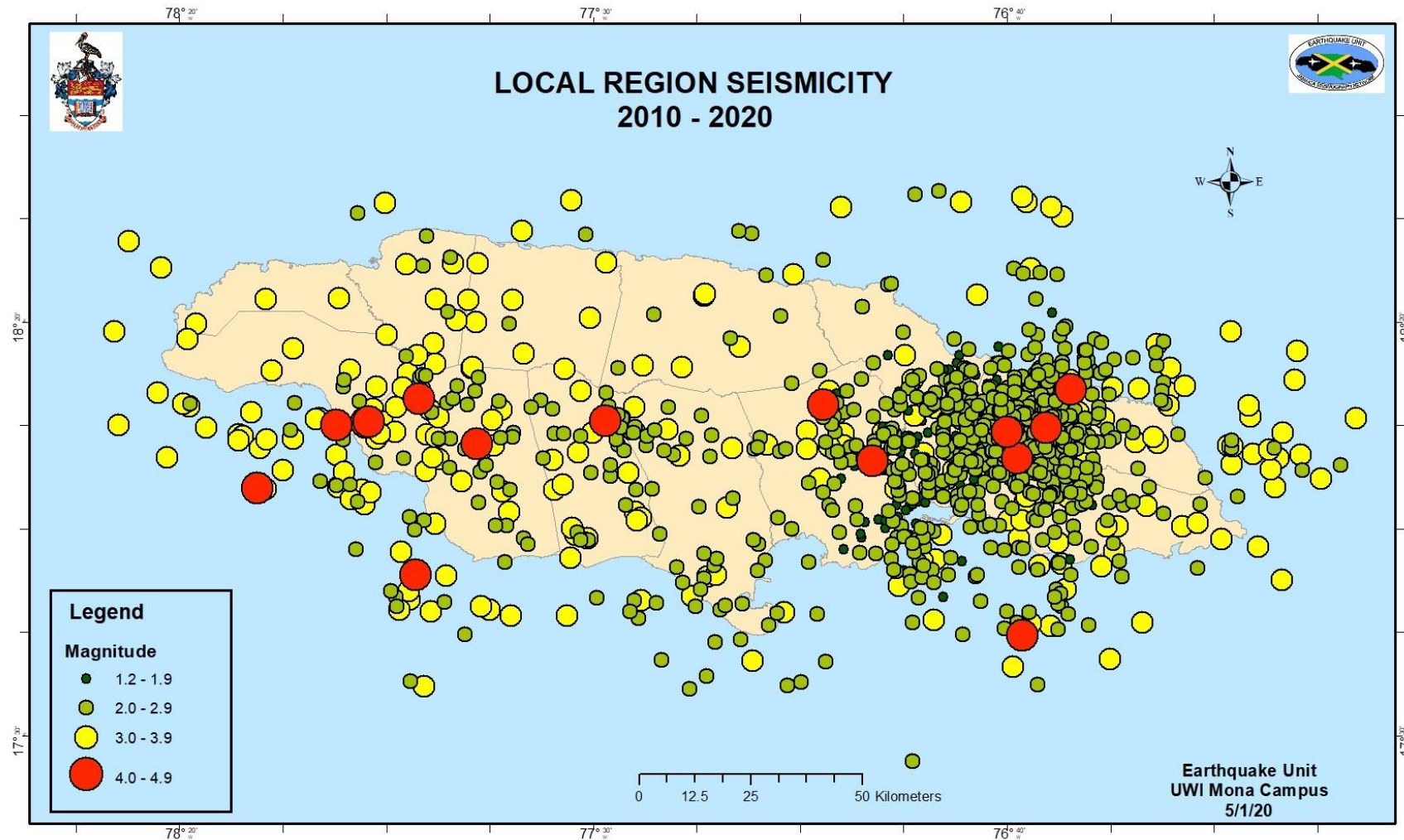
Tremors or smaller earthquakes that occur after the main shock is felt. After-shocks can occur over a few hours to months after the main shock.

Tremor

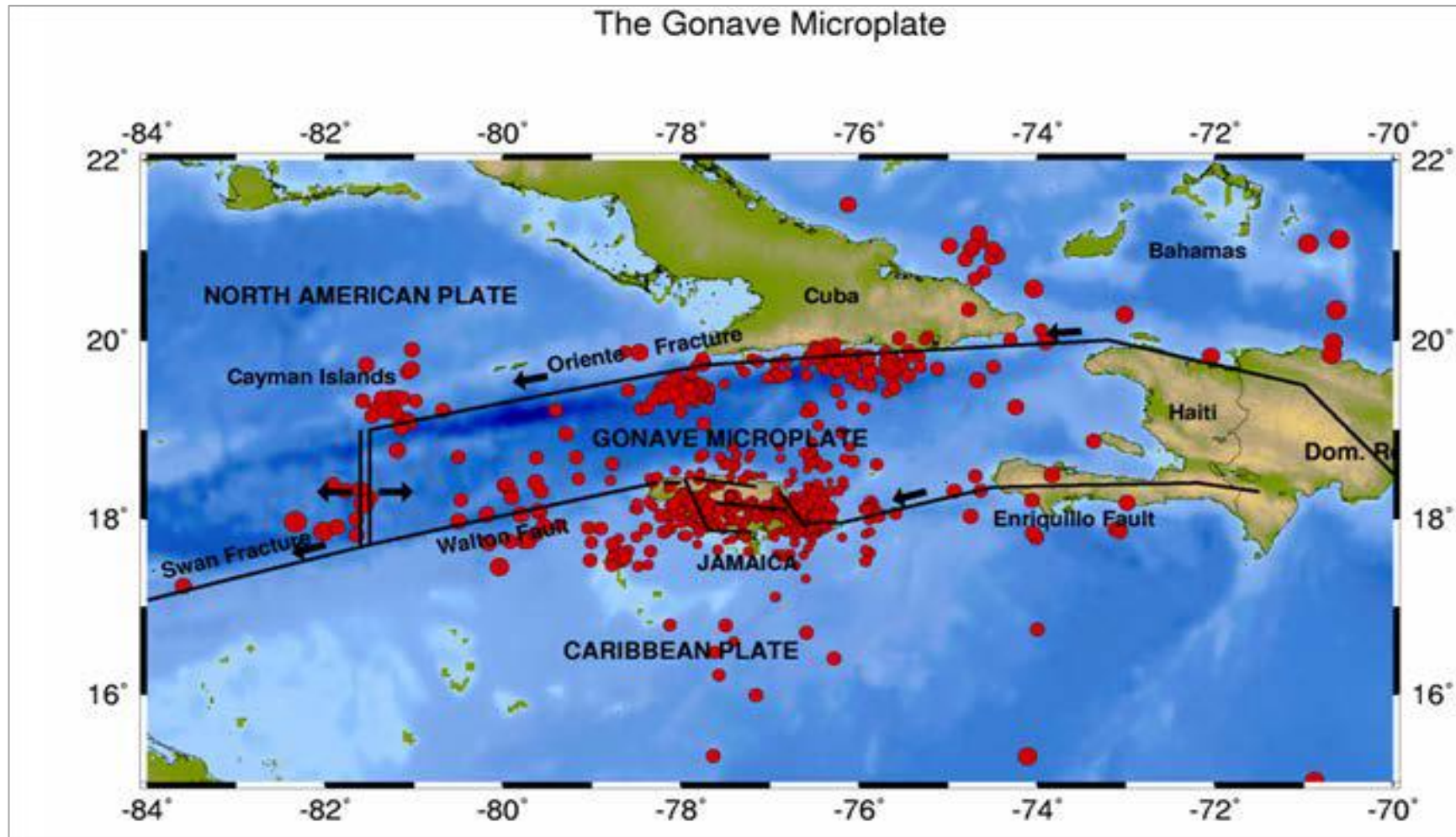
The shaking or seismic waves felt or caused by an earthquake or explosion.

Magnitude

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



Source: http://uwiseismic.com/Downloads/LYNDON_BROWN.pdf.



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 an earthquake emergency. Coordinators should utilize other information and measures highlighted in the CDRM Plan to as a guide for other actions.

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Continue to support and promote public information and awareness programmes.	Coordinator – Public Education and Fund Raising	Keith Reynolds
2. Sensitize special needs population.	Coordinator – Public Education and Fund Raising	
3. Organize how special needs population will be evacuated and transportation required.	Coordinator – Preparedness	Paul Wint
4. Put arrangements in place to have vehicles to be used in evacuation fueled with petrol.	Coordinator – Preparedness	
5. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible.	Coordinator – Preparedness	
6. Sensitization of persons in the community without vehicles of assembly area for transportation to more safe location.	Coordinator – Public Education and Fund Raising	Keith Reynolds
7. Identify areas in the community where high potential for infrastructure/property damages.	Coordinator - Vulnerability & Risk Identification	Talbert N. White
8. Ensure DRM teams are aware of all high-risk locations in the community.	Coordinator - Vulnerability & Risk Identification	
9. Prepare areas for sheltering persons in need.	Coordinator – Preparedness	Paul Wint
10. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.	Coordinator – Preparedness	

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
11. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Coordinator - Prevention & Mitigation	Paul Wint
12. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC.	Coordinator - Prevention & Mitigation	
13. 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.	Vice Chairman	Bobbette Walters
14. 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.	Vice Chairman Coordinator – Preparedness	Bobbette Walters
15. 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.	Secretary	Bobbette Walters
16. Liaison for maintenance and to keep open all access routes – main transportation routes and alternative access routes.	Coordinator - Prevention & Mitigation	Paul Wint
17. Community inventory of building quality.	Coordinator - Prevention & Mitigation	Paul Wint
18. Community inventory of road networks and updating of community map.	Coordinator - Prevention & Mitigation	Paul Wint
19. Identify alternative sources of water, sources of alternative/temporary housing solutions.	Coordinator - Prevention & Mitigation	
20. Put mutual aid agreements in place for emergencies such as earthquakes.	Coordinator – Preparedness	Paul Wint
21. Meet and assess the community’s state of preparedness for an earthquake	Coordinator – Preparedness	Paul Wint

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>22. Organize or initiate and support drills</p> <ul style="list-style-type: none"> » Trained community first aiders » Search and rescue personnel » Have first-aid kits prepared » Support for school and business community drills <p>23. Make available all relevant information on the hazard to the general community</p> <p>24. Personal for families: - Make sure your family goes over the family disaster plan</p>	<p>Coordinator – Preparedness Coordinator - Response & Recovery Coordinator – Public Education and Fund Raising</p>	<p>Paul Wint Claudette Wilmot (Miss Maggie) Keith Reynolds</p>
<p>25. 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. 	<p>Coordinator – Preparedness Coordinator - Prevention & Mitigation Coordinator – Public Education and Fund Raising</p>	<p>Paul Wint Paul Wint Keith Reynolds</p>

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Monitor and report events as far as possible.	Chairman Vice Chairman	Claudette Wilmot Bobbette Walters
2. Maintain contact with PEOC, Shelters and response personnel.	Coordinator - Response & Recovery	Charmaine Wilson
3. Depending on the severity, ensure all buildings are vacated. Account for missing persons.	Coordinator - Response & Recovery	Charmaine Wilson
4. DRM Team Advise the Community to listen to all advisories and remain alert for after shocks	Coordinator – Preparedness	Paul Wint

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
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.	Coordinator - Response & Recovery	Charmaine Wilson
2. Deploy community damage survey teams or assessors		
3. Deploy community response teams to check on vulnerable (elderly and physically challenged) and critical facilities.		
4. Check for deaths, injuries and persons needing emergency assistance.		
5. Conduct first aid and search and rescue operations as necessary.		
6. Notify PEOC of critical/emergency cases.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
7. Provide PEOC with status report.		
8. Provide initial damage survey and needs of the community		
9. Provide ground reconnaissance intelligence to the PDC.		
10. Assist the Fire Brigade and NWA with road clearing, and search and rescue activities through the PEOC.		
11. Assist with the establishment and staffing of registration centres.		
12. Beware of downed or lose power lines. Report them immediately to the JPS, Police or Fire Department.	Coordinator - Response & Recovery Coordinator – Public Education and Fund Raising	Charmaine Wilson Keith Reynolds
<p>13. Advise community members to enter their homes with caution:</p> <ul style="list-style-type: none"> » Check for sewage leaks in homes/yards. Cordon off area and report to NWC and Parish Disaster Coordinator/Parish Council/PEOC. » Check for water leaks in homes/yards. Report to NWC and Parish Disaster Coordinator/Parish Council/PEOC. » Check for 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. » Look for 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. 	Coordinator - Response & Recovery	Charmaine Wilson
14. Check for general sewage and water-line damage in the community.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
15. If you suspect there is such damage, call the NWC company and or PDC.		
16. Advise community not to drink or prepare food with tap water until notified it is safe to do so.		
17. Constantly advise the community: » 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.		
18. Coordinate requests for and offers of assistance through the PEOC.		
19. Coordinate reconnaissance and damage assessment teams through the PEOC		
20. Ascertain the early requirements for Government assistance in re-establishing the community.		
21. Coordinate the establishment, staffing and management of emergency shelters for sustained use in community.	Coordinator - Response & Recovery	Charmaine Wilson
22. Encourage persons affected to stay with friends or family as first options.	Vice Chairman	Bobbette Walters
23. Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.	Coordinator - Vulnerability & Risk Identification	Talbert N. White
24. Assist with the distribution of supplies		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
25. Assist with the tracing of missing persons	Coordinator - Response & Recovery	Charmaine Wilson
26. Assist with needs assessments		
27. Assist in the provision of welfare information to persons affected		
28. Begin to effect minor repairs to critical facilities and clear road ways and drains		
29. Continue to provide feedback and assistance to the community through the PDC and PEOC.		

PHASE 3: RECOVERY

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Mobilize Community members to assist each other with rehabilitation and reconstruction activities.	Coordinator - Response & Recovery	Charmaine Wilson
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)	Coordinator – Public Education and Fund Raising	Keith Reynolds
4. Update PDC on recovery activities by external agencies/departments/organizations.	Coordinator - Response & Recovery	Charmaine Wilson
5. Monitor progress and ensure deficiencies are reported.		
6. Mobilize CDRM Group to seek assist from NGOs (e.g. Red Cross, Food for the Poor, ADRA and Others) to assist in community recovery initiatives.		
7. Identify and share Lessons Learnt to enhance future preparedness and response		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
activities: » 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?		
8. Revise SOPs as necessary	Chairman	Claudette Wilmot

APPENDIX I – FIRE STANDARD OPERATING PROCEDURES

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, the private sector and other stakeholders to facilitate the safety of community members. This SOP intends 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 fires.
- » Ensure a logical and sequenced set of actions for community response.
- » Assign specific tasks 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, warnings and other information.
- » There is commitment and support from agencies and departments of government to assist the community.
- » The community is willing to utilize its 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 initial monitoring through post-disaster response, recovery, and mitigation. All activities are community-driven, with technical assistance provided by agencies, departments, NGOs and the 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

Glossary of terms

TERM	MEANING
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 CENTRE (EOC)	A multi-agency coordination centre that provides support and coordination to the on-scene responders.
INCIDENT	A natural or human-induced event that requires the action of emergency services to protect lives, goods and the environment.
FIRE	Combustion or Fire is a chemical reaction or series of reactions in which heat and light are evolved.
FACTORS NECESSARY FOR COMBUSTION	HEAT, FUEL and OXYGEN
WAYS IN WHICH HEAT CAN BE CREATED	OPEN FLAME, SPARKS, ARCS, FRICTION, CHEMICAL REACTION, ELECTRICAL
FUEL	Fuels are found in all three (3) stages of matter: SOLIDS: Cloth, Paper, Wood, Coal LIQUIDS: Gasoline, Kerosene, Alcohol, Paint GASES: Methane, Butane, Propane, Acetylene
OXYGEN	21.2% of the earth's atmosphere is oxygen, but only 15% is needed for combustion.
BUSH FIRE	A fire in the bush or a forest area 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 CO ₂ , Dry Powder or Water fire extinguisher.

Operating procedures

PHASE 1: Prevention 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 a **fire** emergency. Coordinators should utilize other information and measures highlighted in the CDRM Plan to as a guide for other actions.

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Continue to support and promote public information and awareness programmes.	Coordinator – Public Education and Fund Raising	Keith Reynolds
2. Sensitize special needs population.		
3. Organize how special needs population will be evacuated and transportation required.	Coordinator – Preparedness	Charmaine Wilson
4. Put arrangements in place to have vehicles to be used in evacuation fueled with petrol.		
5. Ensure that appropriate fire extinguishing materials are in place in community center and shelters.		
6. Ensure that First Aid Kits and Rescue equipment are stocked and in good condition for use in the event of an emergency.	Coordinator - Response & Recovery	Charmaine Wilson
7. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible.	Coordinator – Preparedness	
8. Sensitization of residents on fire safety to be conducted on a yearly basis.	Coordinator – Public Education and Fund Raising	Keith Reynolds
9. Identify areas in the community where high potential for infrastructure/property damages.	Coordinator - Vulnerability & Risk Identification	Talbert N. White
10. Ensure DRM teams are aware of all high-risk locations in the community.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
11. Prepare areas for sheltering persons in need.	Coordinator – Preparedness	-
12. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC and Fire Department for facilitating training or refresher courses.		
13. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Coordinator - Prevention & Mitigation	Paul Wint
14. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC and Fire Departments.		
15. Meet and assess the community’s state of preparedness for a fire.	Chairman	Claudette Wilmot
16. Conduct Fire Drills at least once yearly.		
17. Personal for families and businesses: <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; and ✓ 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. » 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. 	Coordinator – Preparedness Coordinator - Response & Recovery Coordinator – Public Education and Fund Raising	Paul Wint Charmaine Wilson Keith Reynolds

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<ul style="list-style-type: none"> » 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>18. 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 feet. » Ensure trees adjacent to buildings are free of dead or dying wood and moss. 	<p>Coordinator - Prevention & Mitigation Coordinator – Preparedness</p>	<p>Delroy L. Bailey Paul Wint</p>
<p>19. 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>Coordinator - Prevention & Mitigation Coordinator – Preparedness</p>	<p>Delroy L. Bailey Paul Wint</p>
<p>20. Ensure each response team are equipped with the following:</p> <ul style="list-style-type: none"> » Knowledge and drills for recognizing types of fire and assessment for 	<p>Coordinator - Prevention & Mitigation</p>	<p>Paul Wint</p>

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>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. 	Coordinator – Preparedness	Paul Wint
<p>21. Obtain local building codes and weed abatement ordinances for buildings near wooded areas.</p>	<p>Chairman Coordinator – Preparedness</p>	<p>Claudette Wilmot Paul Wint</p>
<p>22. 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. 	Coordinator - Response & Recovery	Charmaine Wilson

During the 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)**

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. 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.	Coordinator - Response & Recovery	Charmaine Wilson
2. Once an ALARM is activated: At location of fire (buildings): <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 main fuse box. » 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. 	Coordinator - Response & Recovery	Charmaine Wilson

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>At location of fire (bush):</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. 		
<p>Around the perimeter of the fire:</p> <ul style="list-style-type: none"> » 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. 		
<p>On exit of the building, at the assembly point or safety zone:</p> <ul style="list-style-type: none"> » 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) 		
<p>3. Remind community persons to have contact numbers for the Fire Department and Community Emergency Preparedness and Response Team.</p>	<p>Coordinator – Preparedness</p>	<p>Paul Wint</p>

After a fire

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
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.	Coordinator - Response & Recovery	Charmaine Wilson
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. 		
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 Security)		
4. Encourage persons affected to stay with friends or family as first options after a fire.		
5. Coordinate the establishment, staffing and management of emergency shelters for sustained use in community.		
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. 	Coordinator - Response & Recovery	Charmaine Wilson
7. Assist with the tracing of missing persons.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE		
8. Begin to effect minor repairs to critical facilities and clear road ways and public spaces, if affected.	Coordinator - Response & Recovery	Charmaine Wilson		
9. Continue to provide feedback and assistance to the community through the PDC and PEOC.				
10. Mobilize Community members to assist each other with rehabilitation and reconstruction activities.				
11. Encourage community members to rebuild bearing in mind mitigation measures (build back better).				
12. Mobilize and conduct repairs to critical facilities and infrastructure (Schools, clinic, water supplies and others), if affected.				
13. Update PDC on recovery activities by external agencies/departments/organizations.				
14. Monitor progress and ensure deficiencies are reported.				
15. Mobilize CDRM Group to seek assist from NGOs (e.g. Red Cross, Food for the Poor, ADRA and Others) to assist in community recovery initiatives, as required.				
16. After Action Assessment (Community & community/agency) – to identify and share lessons learnt 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? 				
17. Revise SOPs as necessary.			Chairman	Claudette Wilmot (Miss Maggie)

APPENDIX J – TERMS OF REFERENCE CDRM GROUP

CDRM Group

The Community Disaster Risk Management (CDRM) Group is the 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 adaptation, 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 with the Parish Disaster Committee and other local level agencies/NGOs regarding disaster management.

Executive Membership

- » Chairman
- » Vice-Chairman
- » Secretary
- » Treasurer
- » Assistant Secretary
- » Coordinator – Public Education and Fundraising
- » Coordinator – Vulnerability and Risk Identification
- » Coordinator – Prevention, Mitigation and Adaptation
- » Coordinator - Response and Recovery
- » Coordinator - Preparedness

The executive membership of the CDRM Group may assume that of an existing Community Based Organization (CBO) Structure. The coordinators outlined above must be made part of any existing structure to be used.

Community Organization with responsibility for CDRM

- » Any existing CBO that is active should be made part of the CDRM Group.
- » Where there is no existing CBO, the community should form the executive membership of the CDRM 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 CDRM 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 CDRM tag should remain to indicate.

Leadership of the CDRM Group

The leadership of the group will be the same as that of the existing CBO (this includes the already assigned individuals). Where there is no existing CBO, the persons engaged by the facilitation team and who 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 the support of community stakeholders to provide funding for programmes and activities. Other sources of funding will include:

- » Fundraising activities.
- » Proposal writing to the 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 is to provide the CDRM Group with technical advice for the development and review of the CDRM Plan through the Parish Disaster Coordinator.
- » ODPEM is 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 channelled 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 channelled through the Parish Coordinator.
- » CDRM Groups may, however, formally write to agencies/departments regarding the respective agency's functions or execution of the same concerning 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 channelled 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 discusses 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 in a safe and 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 meetings 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 the 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 and Functions of the Executive Membership for DRM

Chairman: Assume similar duties as outlined in the existing CBO or Zonal Committee.

Vice-Chairman: Assume similar duties as outlined in the existing CBO or Zonal Committee.

Secretary: Assume similar duties as outlined in the existing CBO or Zonal Committee.

Treasurer: Assume similar duties as outlined in the existing CBO or Zonal Committee.

Assistant Secretary: Assume similar duties as outlined in the existing CBO or Zonal Committee.

Coordinator – Public Education and 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 educational 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 education 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.
- » Facilitate the delivery of risk transfer awareness sessions with national agencies such as the National Health Fund, NIS, etc.

Coordinator – Vulnerability and 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 a 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, Mitigation and Adaptation 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.
- » Ensure 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 the support of key community members for the execution of responsibilities, especially the elderly and trained professionals.

Coordinator – Prevention, Mitigation and Adaptation

Duties Related to Mitigation and Adaptation

- » 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, Mitigation and Adaptation Action Plans for implementation with the help of the Parish Disaster Coordinator and larger CDRM.
- » Along with Coordinator – Public Education and Fundraising, facilitate strategies that will raise awareness of hazard risks and measures to be taken to avoid/reduce the impacts.

- » Recommend appropriate hazard mitigation and adaptation measures for avoiding or reducing the impact of a disaster at the household and community level.
- » 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 and 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 following good DRM practice.
- » Advice and support where necessary and 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.
- » Take 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.
- » Identify acceptable recovery time periods.
- » Establish disaster recovery testing methodologies.
- » Recommend disaster recovery planning and training activities.
- » Provide instructional and informational materials on how to respond during an emergency.
- » Develop and maintain SOPs for emergency/disaster response and recovery with the aid of the PDC.
- » Plan regular exercises to test community plans.
- » Monitor the effectiveness of procedures during evacuation drills and revise the procedures as necessary.
- » Maintain contact with outside sources participating in reciprocal agreements.

- » Ensure that as new equipment, facilities, services, and systems are installed that the disaster response and recovery issues are highlighted and addressed.
- » Maintain contact with outside contingency planning professional organizations and local or regional emergency response groups.
- » Ensure and recommends the establishment of CERTs as appropriate. At least, it should include the following positions:
 - First Aid coordinator and assistants.
 - Initial damage assessment coordinator and assistants.
 - Shelter management coordinator and assistants.
 - Search and rescue coordinator and assistants.
 - Communication (during the crisis) coordinator and assistants.
 - Evacuation coordinator and assistants.

Coordinator – Preparedness

- » Coordinate the preparation of and update of the preparedness aspects of the community's disaster risk management plan such as the evacuation plans and sheltering.
- » Organize, initiate and support drills.
- » Coordinate with community and external stakeholders to ensure the community is prepared for all priority hazards.
- » Make available all information on hazards to the community.
- » Coordinate with the community to ensure families have a family disaster plan.
- » Organize and coordinate the deployment of CERTs and other community volunteers.
- » Coordinate the establishment, staffing and management of emergency shelters.
- » Develop an inventory of the community's resources and ensure they are maintained and replenished as necessary. These include food, welfare items, equipment and personnel.
- » Ensure the community contact list is updated.
- » Ensure that mutual aid agreements are in place and are current to meet the needs of the community.
- » Advocate for the establishment of community early warning or alert systems and mobilize the community to participate in the maintenance of the system.

APPENDIX K – PHOTO GALLERY



Impact from Hurricane Dennis, 2002 on Taylor Lands Bull Bay.

Source: ODPEM.



Impact from October/November 2020 rains associated with Hurricane Zeta, on Taylor Lands Bull Bay.

Source: ODPEM.



Photograph of the hand-drawn community hazard map prepared during the community plan workshops held in Bull Bay.