

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
BREASTWORKS, PORTLAND**

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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 exploits 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 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 **“Breastworks 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 population living in Breastworks.
4. A basic guideline for the community as to who is responsible for what, and who is in charge of critical functions in managing an emergency.
5. An overall framework for reducing risks in the community including mitigation, preparedness, response, recovery and adaptation.

Actors (and contact list)

Table 1. DRM actors and contact details

LEVEL	ACTOR	CONTACT PERSON	TELEPHONE Nº/EMAIL
Community and Parish	Disaster Risk Management Group (DRMG)	Denise Francis	(876) 366-5199
	Community Emergency and Response Team(CERT)	Annette McEwan-Smith	(876) 389-9984
	Portland Municipal Corporation	Denise Lewis – Parish Disaster Coordinator	(876) 837-1986
	Portland Parish Disaster Committee	Denise Lewis – Parish Disaster Coordinator	(876) 837-1986
	Ministry of Labour and Social Security	Mr. Maxwell Hamilton – Parish Manager	(876) 993-2259/2748 (876) 458-8164
	Social Development Commission	Mr. Carl Coke – Parish Manager	(876) 993-2644
	Jamaica Fire Brigade	District Officer Wendell Patterson Assistant Superintendent Everton Dunkley	(876) 993-4489/564-3390
	Jamaica Constabulary Force	Senior Superintendent- Calvin Small	calvin.small@jcf.gov.jm
	Ministry of Health and Wellness	Dr. Sharon Lewis - Medical Officer of Health	(876) 993-2257/2873 (876) 318-0086
National	Office of Disaster Preparedness and Emergency Management (ODPEM)	Allison Gordon- Regional Coordinator, North	(876) 550-4398

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 Breastworks. 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 Portland.

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.

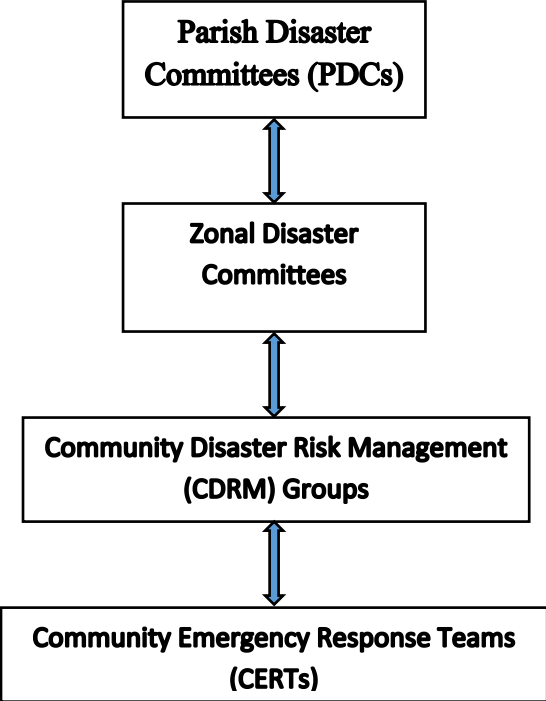


Diagram showing the relationship between the Parish, Zones and CDRMG.

Responsibility

The responsibility for updating and testing the plan lies with the Breastworks 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 Breastworks 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 Portland 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 Portland 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

Breastworks is a rural community located on the outskirts of the capital of Port Antonio. Sections of the community are elevated and are dissected by several rivers including the West Town River and several of its tributaries that drain northward through the town of Port Antonio and into the sea. The Annotto River and one of its tributaries originate within this community and flow northward toward the sea.

Based on STATIN's 2011 housing and population census data, the total population of the community is 4,247 persons 51% of whom are females and the remaining 49% males. Children and elderly make up 33% of the population while 67% are working class. Compared to the population data for the 2001 census, the population grew by 32%.

Utilities are available in the community. Electricity is the main source of lighting and accounts for 86% of the communities the household while 11% use kerosene as their source of lighting. Around 84% of the community receives water supply from public sources, the main source being piped into dwellings. Only 2.5% receive from the private source while 6% receive from springs and rivers.

Garbage is regularly collected with 68% of the community reporting that their garbage is regularly collected. Approximately 13% of the community dispose of their garbage by dumping, mainly at the municipal dump while a small percentage dump in the sea/rive/gully.

The predominant material used in the construction of the outer walls of houses in the community is concrete and block, accounting for 52% of the houses. Other popular materials are wood (31%) and wood and concrete (15%).

1.1.1 Summary of main hazards

Two main hazards affect the community of Breastworks – landslide and flooding. The geology of Breastworks makes it prone to landslides. Portland receives one of the highest rainfall on the island. This frequent rainfall results in the inundation of the rivers and streams in the community and places great stress on the drainage system. This situation leads to the flooding of the community.

1.2 Location and districts of community in this Plan

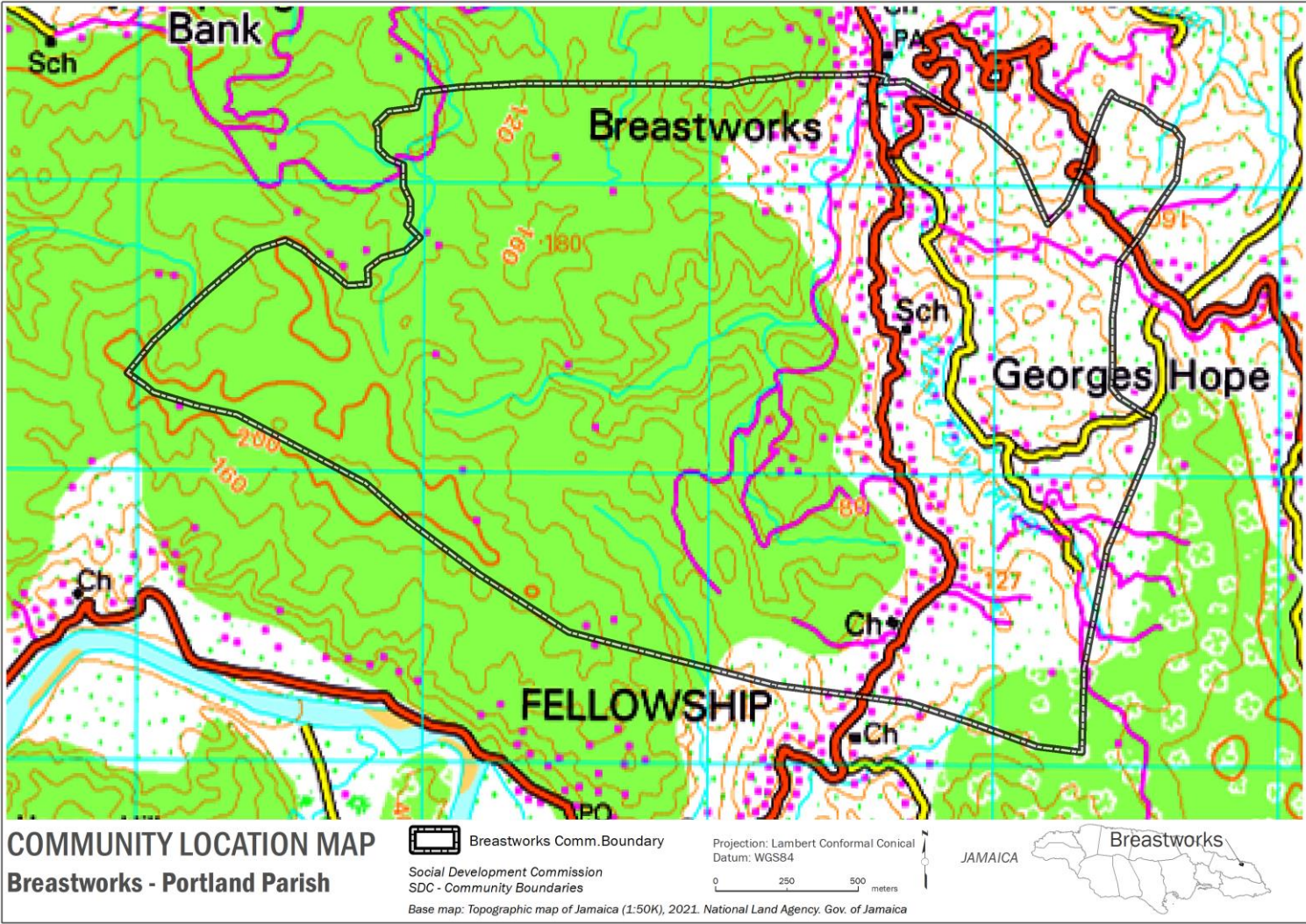
Based on the SDC's community list, Breastwork comprises five districts – Mount Oakley, Wain Road, Breastworks Proper, New Road and Pleasant Hill.

Table 2. Districts and Coordinators Contact List

The community has identified the following districts, which are the same as those identified by the SDC.

#	DISTRICT	TEAM LEADER	CONTACT #	E-MAIL
1.	Breastwork Proper.	Novlette Sinclair.	(876) 566-9823.	-
2.	New Road.	Tonya Bryan.	(876) 366-5199.	josephrobinson12@yahoo.com
3.	Pleasant Hill.	Jacquelin Smith.	(876) 837-4134.	bryantonya5670@gmail.com
4.	Mount Oakley.	Denise Francis.	(876) 423-5334.	-
5.	Wain Road.	Ann-Marie Panton.	(876) 382-8212.	-

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 Portland Municipal Corporation is 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, which ensures that 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 level through zonal committees (also known as Community Disaster Risk Management Groups). This committee is made up of community members and the community can invite external organizations to participate in their risk reduction activities.

Table 3. DRM Group composition

DRM GROUP POSITION	CONTACT PERSON	TELEPHONE N ^o /EMAIL
Chairman.	Denise Francis.	(876) 423-5334.
Vice-Chairman.	Oliver Hendricks.	(876) 389-0679.
Secretary.	Samieka Mitchell.	876) 871-2147.
Treasurer.	Jacqueline Brown-Gordon.	(876)-860-9116.
Assistant Secretary.	Denise Francis.	(876) 423-5334.
Coordinator – Public Education & Fundraising.	Tamesha Skyers.	(876) 897-2909.
Coordinator – Vulnerability & Risk Identification.	Kascia Morgan.	(876) 595-5490.
Coordinator – Prevention, Mitigation & Adaptation.	Elicia Robinson.	(876) 874-1379.
Coordinator - Response & Recovery.	Annette Smith.	(876)-389-9984.
Coordinator – Preparedness.	Ryan Bailey.	(876) 360-8814.

CDRM Group will train and establish Community Emergency Response Team(s) (CERTs which are the operative team under the Response & Recovery Coordinator. At a minimum, a 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 topics related to these positions

2.3 Gaps and challenges

- » Strengthening is required for DRM structures in Breastwork at both the community and national levels. The community feels that very little is being done by disaster representatives in Breastworks.

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?
Flooding May June 2021.	Red Hassell, Balford Road and the entire Breastwork were flooded in May or June 2021.	Stayed inside.
2020 Landslide.	The 2020 landslide led to the destruction of a house in Red Hassel.	Persons tried to stay away from the area with slippage.
Drought 2019.	The entire community had reduced water, especially farmers.	Had to find water from alternate sources.
April – May 2019.	There was heavy rainfall in Breastwork Proper - Red Hassel Road in particular, which is the main road in Breastwork Proper.	Residents stayed inside. When the waters subsided, they used alternate routes out of the community.
Fire, 2012.	A house was destroyed by fire on Red Hassel Road.	Community members gave their support to the family.
Chikungunya Outbreak, 2014.	The community had an outbreak of Chick V in 2014.	Residents sought help at Health Centre or used home remedies. If there are other outbreaks, the community will be relatively prepared to respond as the health centre is well equipped and health care professionals are living in the area.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Hurricane Sandy, 2012.	<ul style="list-style-type: none"> » A car washed away in Pleasant Hill. The driver was hospitalized for a couple of days. NB: There are sections of Red Hassel Road that are prone to flooding, especially from medium-heavy rainfall. 	Community persons rescued the driver and pulled the car from the gully.
Tropical Storm Gustav – August 2008.	<ul style="list-style-type: none"> » It severely impacted the communities – in particular, their roofs and agricultural land. 	<ul style="list-style-type: none"> » Residents came together to rebuild. » RADA assisted a few farmers with re-starting their farms.
Hurricane Dean – 2007.	<ul style="list-style-type: none"> » Although the impact was not extensive, several houses lost their roofs Agriculture was affected - banana, plantain, and coconut were destroyed. » A landslide on Lower Red Hassel Road destroyed a house and one person died. 	<ul style="list-style-type: none"> » Community members shared.
Fire 2004.	The fire was not extensive. Only one house was affected on Bermuda Lane. A woman was burnt to death.	Community members supported the family.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Hurricane Ivan, 2004.	<ul style="list-style-type: none"> » There was a major impact on the community. Houses were destroyed; several persons died; Landslide on Bermuda Road, Pleasant Hill, In Mount Oakley – a breadfruit tree fell on a house killing the owner. » The bridge at Lower Red Hassel Road has been washed away but replaced. » Shops and houses on Bermuda Lane (Bread Lane) and Breastworks were destroyed. A house was buried under a landslide (no one was in the house). » Power outage and suspension of Digicel services. » The school year was also disrupted, delaying the start of school for one month. 	<p>Community members assisted each other. Some went to the emergency shelter at Ken Wright Primary School.</p> <ul style="list-style-type: none"> » Emergency response agencies assisted community members. However, participants alleged that those in need did not receive assistance. » Candles, kerosene, and flashlights were used to provide light. Residents paid for business places such as gas stations to charge cell phones. » Shop and business owners sold their meat items at a reduced cost. » Livestock was moved indoors during the hurricane to protect them.
May/ June Rains, 2003.	Flooding occurred during the passage of this surface trough.	-
Flooding, 2001.	Crops were destroyed and a house was severely damaged.	-
Flooding, 2001.	Crops were destroyed and a house was severely damaged.	-
Fire, 2001.	Houses were destroyed.	-

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Flooding 1998 (4 January).	<ul style="list-style-type: none"> » There were heavy rains, flooding and landslides. » Extensive flooding occurred and floodwaters rose several feet/shoulder level of residents in some areas. Restaurants, stores and supermarkets were destroyed. » The river overflowed its banks; people and livestock drowned and their carcasses could be seen in the rising floodwaters. » Crops were destroyed. Houses, household items, businesses, roads, and power lines were damaged. » Landslides occurred that covered houses in Wain Road, Boundbrook, Breastworks, Prospect, and Norwich and caused loss of lives. 	A rope was set up for residents to hold onto as they moved about the community. Persons went on their roofs to escape rising waters.
Fire 1998.	A house on Red Hassel Road was destroyed. A man and his son died.	Community members gave support. The family was buried. A new house was rebuilt.
Fire 1995.	The house of a woman living at Pleasant Hill was destroyed.	A section of the house was re-built.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Hurricane Gilbert, 1988.	<p>Their lives, shops containing goods were destroyed, roads were damaged, and school terms had to be delayed for over a month. Loss of electricity and piped water.</p> <p>Hurricanes Gilbert, Ivan, and Sandy were the worst, and they had a huge impact on the community members.</p>	<p>Persons evacuated to emergency shelter, neighbours assisted each other; soldiers delivered food and clothing to those affected; ODPEM delivered clothes, blankets and mattresses to affected persons. Other agencies offered assistance.</p> <p>Community members roasted fried breadfruit. The meat was “browned” and preserved; Ground provisions that were not mature were buried in the ground to preserve them.</p> <p>Kerosene lamps, candles, bamboo torches, “home sweet home” lamps, tilly lamps and flashlights were used as sources of light.</p> <p>Coal stove and wood fire were used. Persons used “coal irons” to iron their clothes.</p>
Hurricane Charlie 1951.	<p>An outbreak of cholera and chigger; loss of lives, crops and livestock; houses and businesses were destroyed by flooding, landslides, and storm surges so bad that fish were on the roads.</p>	<p>Preserved fish that was washed up unto the road and other meats using ‘creng-creng’. Relocation to various shelters. Several persons were buried in mass graves in Paisley Gardens and Richmond Hill.</p>

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Hurricane 1944 – Aug 20.	Loss of lives, crops, livelihoods, houses and business places were destroyed. Landslides.	<ul style="list-style-type: none"> » Families and friends assisted each other. » Meats were preserved by corning, placing on 'creng-creng' and browning. Dead animals were either burnt or buried. » Crops such as cassava, breadfruit, banana, and plantain, were used in a variety of ways; e.g., Grated, dried, pounded in a mortar to make flour. Ground provisions were preserved by placing ashes on cut sections and then set to dry. Some were also buried as a means of preservation. » Improvised in many areas; had early burials; residents relocated to various places: camps, tents; gathered ground provisions and livestock and preserved them using the 'creng-creng' preservation method.
Hurricane, 1933.	There were 10 inches of rain that fell in this area for the duration of the storm.	-
Squall, 1918.	In a great depression, 10 inches of rainfall fell.	-
Hurricane, 1917.	A total of 80% of the coconut trees were wiped out in this area. Numerous homes and other buildings were either destroyed or damaged. Many persons were killed and many were left homeless. A vigorous storm surge also occurred.	-
Lightening, 1915.	Houses were struck by lightning.	-

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Hurricane, 1905.	The hurricane affected several persons in communities found in the eastern region of the island. The nearest distance to the Island was 23 miles.	-

3.2 Lessons learnt

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

- » Landslides are common in the community due to the soil type as well as the heavy rainfall –Breastwork Proper and New Road are the most vulnerable
- » There is often heavy rainfall in Breastwork Proper and Red Hassel Road in particular, which is the main road in Breastwork Proper, is often flooded. The rainfall, whether it is moderate or heavy leads to flooding
- » The flooding in this area is caused by the runoff from the hills, their main river, and underground springs that rise and block the road.

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.).

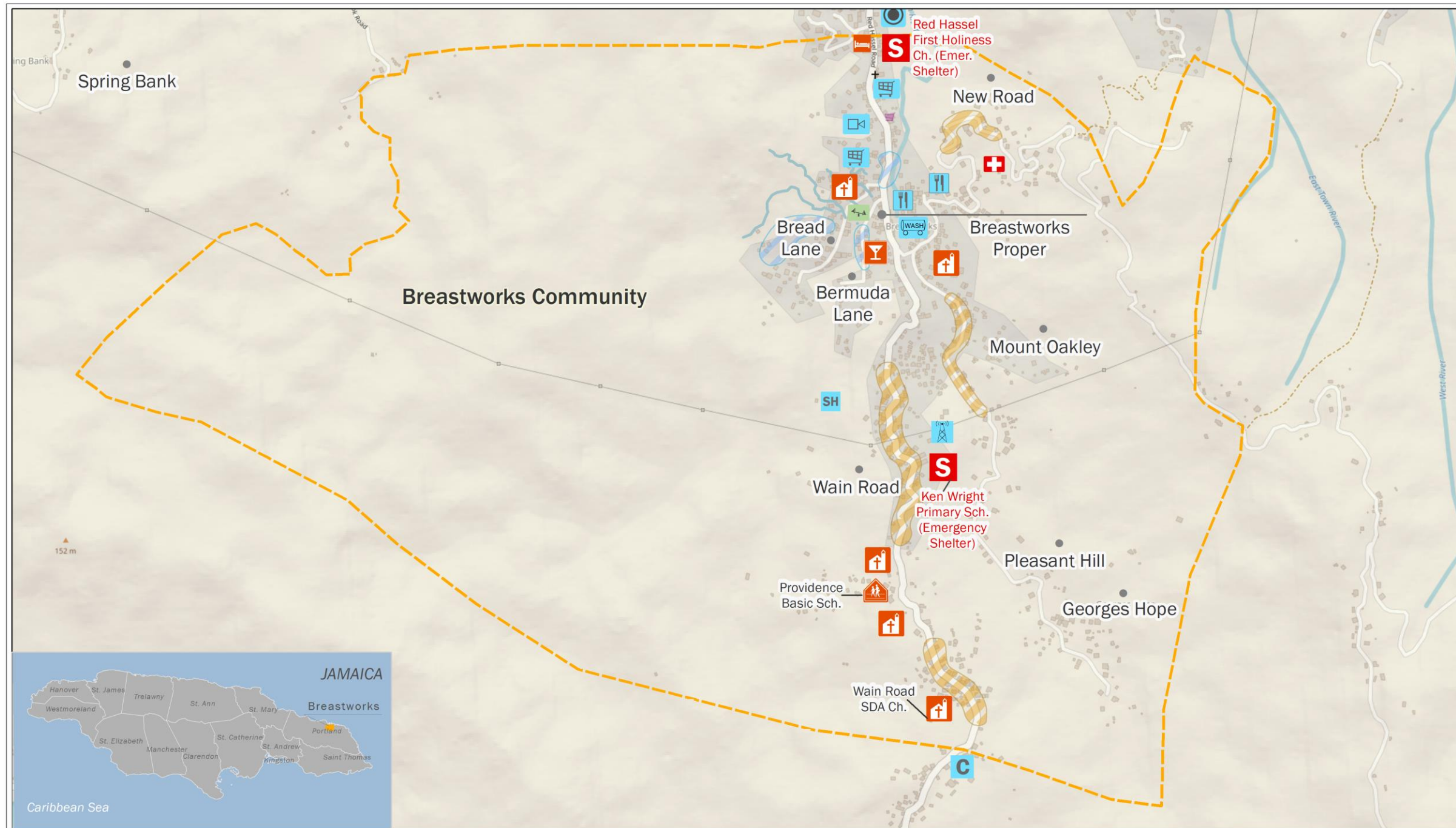
The most important community assets/resources from each category were identified and highlighted in Table 5 below. The priority assets were selected based on their importance to lives and livelihoods in the community.

Table 5. Community Assets

ASSET CATEGORY	ASSETS
Natural.	Caves – Non-such Caves – These have been closed for some years now.
	Gullies and sinkholes – these have to drain excess water and prevent flooding.
Physical.	Churches – About 10 churches are in the community.
	Schools – There are four schools - Ken Wright Primary, Shebion Preparatory and Wain Road Basic.
	1 postal agency.
Financial, human and social.	Roadways that are paved (some need repairs).
	CBOs: Breast Works CDC, Breast Works JAS, Lion Heart Dominoes Club, Ken Wright Primary, Providence Basic PTA, Providence Basic Sponsoring Body, Wain Road Citizens Association, Breast Works Youth & Sports Club, Pleasant Hill Citizens Association, Red Hassel Hill Citizens Association, Challenger Football Sports Club.
	Development Area Committee.

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

Breastworks - Portland Parish

(SDC Boundary)

Projection: Lambert Conformal Conical
Datum: WGS84
Scale 1:10,500
0 240 m.

- Legend**
- Small Districts
 - 🏠 School
 - 🏛️ Church
 - 🏨 Accom./Hotel
 - 🍷 Bar
 - 🏥 Health Facil.
 - 🏠 Emergency Shelter
 - 🍽️ Restaurant
 - 🏢 Club
 - 🏪 Shop
 - 📻 Recording Studio
 - 🚗 Carwash
 - 🛞 Tyre Shop
 - 🏠 Slaughterhouse
 - 🌋 High-Tension Tower
 - 🛣️ Road
 - 🌊 River/Tributary
 - 🌊 Flood Zone
 - 🏔️ Landslide
 - 📏 SDC STATIN
 - 📏 Comm. Boundary

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ODPEM

Funded by
CIF (CLIMATE INVESTMENT FUNDS)
WORLD BANK GROUP

Breastworks Hazard Map Digitized from Community Input (2021).

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.	Flooding – Riverton is especially affected in Non-Such. These areas flood as soon as it rains. Red Hassel in Breastworks is always flooded because there are several rivers in this area.	N/A	It rains for more than 2 hours.	2ft-4ft.	Farms, livestock, homes, private properties, and buildings. Homes and livestock are impacted at Red Hassell.
	Hurricanes – There are strong winds.	N/A	Whenever there are hurricanes in Jamaica.	Very strong as the parish is usually in the path of hurricanes.	Farms, livestock, home, buildings, schools, and roads.
	Landslide – There are always landslides in Breastworks whenever it rains.	N/A	As long as there is heavy rainfall,	It blocks the roads, and people are stuck	Electrical poles/JPS lines, main roads, homes, farms, and livestock.

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)
			especially if it was very dry before.	within their communities.	
CLIMATE HAZARD – FUTURE CC SCENARIO.	Flooding.	N/A	-	-	-
	Storm surge.	Year 2050, worst emissions scenario (named RCP8.5).	Sea Level Rise: +39 cm.		-
	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.			-
	Landslides.	N/A			-
	Drought.	Year 2050, worst emissions scenario (named RCP8.5).	<p>The drying trend in Jamaica: 10% less rainfall in the annual mean. The drying trend is primarily driven by a decrease in late wet season rainfall. A greater decrease in the south and east of Jamaica.</p> <p>However, the change in annual rainfall in Port Antonio area is expected to decrease by 14.73%.</p>		-

HAZARD CATEGORY	HAZARD	PROJECTED SCENARIO WITH CLIMATE CHANGE	FREQUENCY	INTENSITY	ASSETS IMPACTED (FROM LIST)
NON-CLIMATE HAZARD.	Earthquakes (very light tremors).	N/A	-	-	-
	Fire.	N/A	It is yearly in the summer.	-	Farmlands, livestock and buildings.

7 IDENTIFICATION OF COMMUNITY VULNERABILITY

Vulnerability is the condition or circumstance of the community which makes it susceptible to being damaged by a hazard or disaster. The vulnerability analysis identifies the 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.	Flooding.	Infrastructure, people, houses, farms (crop and livestock), electrical poles, schools.	Blocked Drains Rivers not trained.	<ul style="list-style-type: none"> » Residents are nearer to food prone areas. » All Road users are affected. » Schools closed. » Some crops were destroyed but not many as the grounds (farms) are usually further away. 	Transport price increases.
	Storm surge.	Hotels, beaches, infrastructure. Fishing boats, Port Antonio marina.	The location is along the coast, which is flat.	<ul style="list-style-type: none"> » Destruction of hotels, loss of life and property. 	<ul style="list-style-type: none"> » Looting. » Loss of jobs. » Livelihood affected.
	Hurricanes.	Same as flooding.	Location – those on the hill get impacted more by winds.	<ul style="list-style-type: none"> » Farmers, same as Flooding. 	Vendors, workers, Transport price increases
	Landslides.	Roads, houses, crops, livelihoods.	Type of soil/geology.	-	-

HAZARD CATEGORY	HAZARD	VULNERABLE ASSET	DRIVERS OF VULNERABILITY	DIRECT IMPACTS	INDIRECT IMPACTS
CLIMATE HAZARD – FUTURE CC SCENARIO.	Drought.	The farms, houses, infrastructure, schools, and business places.	The climatic conditions.	The farms – crops and animals, schools, houses, and businesses will be damaged. Loss of life.	The vendors and the persons who go to the market to purchase goods. Schools do not receive food because it is usually provided by farms.
NON-CLIMATE HAZARD.	Fire- Bush fires.	Does not impact assets as it is normally used for clearing land and does not get out of hand.	From farmers clearing land. Fires from Sherwood to Nonsuch are often natural fires and rarely from the carelessness of idle community members.	Destruction of farms.	-
	Earthquakes.	Property (Titchfeld High School), livestock, lives, buildings and contents, infrastructure.	-	-	-

HAZARD CATEGORY	HAZARD	VULNERABLE ASSET	DRIVERS OF VULNERABILITY	DIRECT IMPACTS	INDIRECT IMPACTS
	Fire- Bush fires.	Does not impact assets as it is normally used for clearing land and does not get out of hand.	From farmers clearing land. Fires from Sherwood to Nonsuch are often natural fires and rarely from the carelessness of idle community members.	Destruction of farms.	-
	Landslides.	Roads, bridges, houses, people, farms.	-	Blocked roads and bridges, loss of houses, loss of lives, residents' ability to travel, affect the transportation of goods and services, loss of crops and soil.	-
	Improper use of pesticides and herbicides.	Animals, people, crops.	-	Endanger the lives of humans and animals, pollution of the environment Sickness.	-

8 COMMUNITY CAPACITY ANALYSIS

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

Table 8. Community Capacity

CAPACITY	TYPE OF RESOURCE	TASK
Skills.	Farmers.	Provision of food. Assist other farmers in providing labour and technical assistance and provision of plants/seedlings to farmers who may have lost their farms during a disaster.
	Electricians.	Assist community members in checking the wiring of their homes, and assist with repairs at the emergency shelters.
	Construction Workers/Carpenters.	Assist in reinforcing buildings before a disaster, assist in the reconstruction of buildings/houses after a disaster, provide voluntary service, and assist in providing building materials (donations).
	Teachers.	Assist children with homework, assist in the shelter management programme (managing the shelter and teaching children in the shelter), assist in public education programme, temporarily take home children affected by disasters and teach them (based on parental consent).
	Nurses.	Assist in the following areas: Basic first aid and medical treatment, health service at the emergency shelter.
	Business Persons.	Assist in fundraising activities, provide building material, and provide food and other emergency supplies.
	Plumber.	Assist in the following areas: emergency shelter, general members of the community.
	Welder.	Assist in repairing emergency vehicles, and general service to the community.

CAPACITY	TYPE OF RESOURCE	TASK
	Cabinet maker.	Assist in the repairing of furniture damaged during a disaster, assist at the Emergency shelter.
	Power saw operators.	Assist in the following areas: clearing of roads, trimming of trees.
Knowledge.	Hazard history of the community.	Information on how to prepare and respond.
	Coping mechanisms.	
	Knowledge and awareness of the community's vulnerabilities and risk reduction measures.	
	Early warning systems.	
	Evacuation procedures.	
	Trained persons- light search and rescue, first aid, initial damage assessment, shelter management, psycho-social support.	
Networks.	Rural Agriculture Development Authority.	Provide technical assistance, trees for planting, etc.
	Portland Parish Council.	Provide technical assistance on community projects, and assist with training.
	Social Development Commission (SDC).	Assist with training, community mobilization and planning.
	Office of Disaster Preparedness and Emergency Management (ODPEM).	Provide technical assistance, and facilitate training. Assist with community disaster risk management activities.
Transportation.	Motorbikes.	Assist in emergency transportation – taking messages, small supplies, small quantities of food, etc.).
	Bicycles.	Assist in emergency transportation – taking messages, small supplies, small quantities of food, etc. to the needy).

CAPACITY	TYPE OF RESOURCE	TASK
	Cars.	Assist in emergency transportation – taking messages, small supplies, small quantities of food, etc. to the needy).
	Vans.	Assist in emergency transportation – taking persons to hospital, transporting food and other emergency supplies, evacuation process.
	Trucks.	Assist in emergency transportation – taking persons to hospital, transporting food and other emergency supplies, evacuation process.
Building/Infrastructures.	Means of communication: <ul style="list-style-type: none"> » Telephone (cell and landline). » Word of mouth. » Radio and television. » Runner. » Internet. » CB operators. SATCOM (local cable). 	<ul style="list-style-type: none"> » Day-to-day and emergency communication, reporting to authorities (police, fire, hospitals, ODPEM, Parish Council and providing updates to other community members. » Daily and emergency communication among citizens. » Emergency communication as required, assist in conveying preparedness messages and provide updates on storms, hurricanes, earthquakes and other events. » Assist in the relocation of residents, transportation of emergency supplies, transportation. » Emergency communication as required, assist in conveying preparedness messages developed by the community and other agencies, etc.
Means of Care/Medical Care.	Nurses.	Provide basic health services to the community during an emergency, assist with public education programmes, assist in first aid training, and provide first aid items.
	Community Health Aid.	Provide basic health care, assist in emergency shelter operations, and assist with public education programmes.
	Public Health Inspectors.	Monitor threats of disease outbreaks, assess potential breeding sites for mosquitoes, rodents, etc., and assist with a public education programme.
Commercial Enterprises.	Wholesale Food Stores.	Provide food for citizens and emergency shelters on either direct purchase or credit arrangements.

CAPACITY	TYPE OF RESOURCE	TASK
	Ice Cream Parlour.	In case of loss of power and available supplies, manage/deliver spoilable products to those in need.
	Hairdressing Parlour & Barber Shop.	Provide complimentary service to the elderly, children and other needy persons.

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

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 in Table 9 below was 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
Bermuda Lane (section of Johnston Property).	This area is impacted by landslides.

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
Bread Lane/Bermuda Lane.	Agro Processing Plant and Community Centre/sports complex.
Breastworks.	Basic School.
Pleasant Hill.	Economic Centre/Agriculture and Recycling Plant.
Wain Road.	Skills Training Centre/homework centre.

9.1.3 Areas which can be developed with Appropriate Mitigation Activities

Table 11. Special Areas for Development

AREA	MITIGATION MEASURES NEEDED
Mount Oakley, Pleasant Hill, Bread Lane.	Drain cleaning is needed.
George's Hope and Peasant Hill.	Breakaway needs urgent fixing before it becomes worse. Also, need a fording.

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
Flooding.	They stay home, stay with neighbours, or go to shelters. If they are really in need of serious help, they try to get assistance. The water does not stay for too long.	No.	<p>The area normally receives assistance from a few agencies.</p> <ul style="list-style-type: none"> » River training and dredging of the river needed at Riverton – NWA, Municipal Corporation. » Construction and cleaning of drains – Municipal Corporation, NWA. » Public education – Municipal Corporation. 	<ul style="list-style-type: none"> » Need to practice proper disposal of garbage. » Residents should stop building anything in vulnerable areas such as the riverbanks. E.g.; In Breastwork Proper, near the bridge. » Community day clean up. 	<ul style="list-style-type: none"> » Riverton. » Breastwork Proper. » Pleasant Hill. » Red Hassel Road. » Bermuda Road.

HAZARDS IDENTIFIED	COMMUNITY RESPONSES	ARE THESE RESPONSES SUITABLE?	ADAPTATION/MITIGATION ACTIONS REQUIRED – EXTERNAL ASSISTANCE	ADAPTATION/MITIGATION ACTIVITIES - DONE WITHOUT EXTERNAL ASSISTANCE	SPECIFIC LOCATION
Hurricane.	Batten down. They only go to shelters if they are severely impacted.	No.	<ul style="list-style-type: none"> » Sensitization Sessions. » Proper maintenance of trees. » Retrofitting of government buildings (school, community centre, health centre and assistance with inspection and recommendations for retrofitting – Municipal Corporation, NWA, MOE, and SDC. » Training of Shelter Managers and Inspection of emergency Shelters – ODPEM, Municipal Corporation. » Public education and training – Municipal Corporation, ODPEM. 	<ul style="list-style-type: none"> » They need proper disposal of garbage » They need to maintain their houses properly » Cut down large tree barks. 	Entire community.

HAZARDS IDENTIFIED	COMMUNITY RESPONSES	ARE THESE RESPONSES SUITABLE?	ADAPTATION/MITIGATION ACTIONS REQUIRED – EXTERNAL ASSISTANCE	ADAPTATION/MITIGATION ACTIVITIES - DONE WITHOUT EXTERNAL ASSISTANCE	SPECIFIC LOCATION
Landslide.	Sometimes the community members try to remove it themselves. If they cannot, they contact NWA and the Parish Council to fix the damage.	No.	<ul style="list-style-type: none"> » Construction of new retaining walls or repair of retaining walls and gabion baskets needed to prevent major breakaway and loss of lives - Municipal Corporation, NWA. » Some of the gullies along the main road need to be retained, to prevent the road from collapsing. - Municipal Corporation, NWA. » Planting of trees – RADA, Forestry Department, Municipal Corporation. 	<ul style="list-style-type: none"> » Planting of trees and grass. 	Beside Elaine Brown – Red Hassel Heights, Miss Cover Land – Bermuda Road, Fitzroy Hall Gate – Bermuda Road, Beside Totsie – Bread Lane, Miss Miriam Gate – Bermuda Road, Mount Oakley Road in front of Stacey’s Bar and Opposite Stacey’s Bar Tree planting is needed at - Junior Gate (Bread Lane), Lurline Panton, Dave Lamount, Eva Matthews (Red Hassel Heights).

HAZARDS IDENTIFIED	COMMUNITY RESPONSES	ARE THESE RESPONSES SUITABLE?	ADAPTATION/MITIGATION ACTIONS REQUIRED – EXTERNAL ASSISTANCE	ADAPTATION/MITIGATION ACTIVITIES - DONE WITHOUT EXTERNAL ASSISTANCE	SPECIFIC LOCATION
Fire.	<p>They assist by trying to put out the fires. They call the Fire Brigade.</p> <p>They cut the trees to prevent the fire from spreading.</p>	No.	<ul style="list-style-type: none"> » Sensitization of persons on fire prevention and training specific persons as fire wardens – JFB, Municipal Corporation. » Training about other methods/ways to clear land – RADA. » Installation of fire hydrants and repair of existing ones – NWC, JFB, Parish Council. 	<ul style="list-style-type: none"> » They should not start fires to clear land. » Distribution of public education material. 	-
Earthquake.	-	-	<ul style="list-style-type: none"> » Retrofitting of government buildings (schools and community centre, Health Centre), assistance in the inspection of dwellings and recommendation for retrofitting – Earthquake Unit, NWA, Municipal Corporation. 	<ul style="list-style-type: none"> » Distribution of public education material. » Plan and organize public education forum. 	Entire community.

HAZARDS IDENTIFIED	COMMUNITY RESPONSES	ARE THESE RESPONSES SUITABLE?	ADAPTATION/MITIGATION ACTIONS REQUIRED – EXTERNAL ASSISTANCE	ADAPTATION/MITIGATION ACTIVITIES - DONE WITHOUT EXTERNAL ASSISTANCE	SPECIFIC LOCATION
Tsunami.	-	-	<ul style="list-style-type: none"> » Scientific Research - ODPEM, Earthquake Unit, NEPA. » Drain maintenance/cleaning – Municipal Corporation, NSWMA. 	<ul style="list-style-type: none"> » Identify evacuation routes, safe locations, means of transportation and identification and sensitization of vulnerable populations. 	Entire community.
Drought.	-	-	<ul style="list-style-type: none"> » Trucking of water – NWC, Municipal Corporation. » Water Conservation Techniques – WRA, Municipal Corporation. » Water conservation techniques for farming such as drip irrigation and mulching – RADA. 	-	Entire community.
Improper use of pesticides and herbicides.	-	-	<ul style="list-style-type: none"> » Training/public education – RADA, Municipal Corporation. 	-	Farming areas.

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
All hazards	Train CDRM Team, and other committee members in basic disaster management.	Face-to-Face.	March & April.	ODPEM. Municipal Corporation.
	Train Committee Executive members and other interested persons in Project Proposal Writing.		January.	ODPEM. Municipal Corporation. SDC.
	Train all shelter managers and other interested persons in shelter management.		May.	ODPEM, Municipal Corporation.
	Damage Assessment Team and other interested persons in Initial Damage Assessment.		February.	ODPEM. Municipal Corporation.
	Provide training in First Aid/CPR.		January. February.	ODPEM. Municipal Corporation. Red Cross.
	Provide training in Search and Rescue (light Level).		July.	ODPEM. Municipal Corporation. Jamaica Fire Brigade.
	Committee members and other interested persons in Management and Leadership Training.		September.	SDC.

HAZARD	PUBLIC EDUCATION ACTION	COMMUNICATION CHANNEL	TIMELINE	RESPONSIBILITY
	Skills training that can be used in mitigation, recovery and preparedness – electrical, carpentry.		June/July/August.	HEART/NTA.
Untreated water. Landslide. Flood. Fire. Tsunami.	Provide sensitization on the hazards.	<ul style="list-style-type: none"> » Town Hall meeting. » Setting up of information tents/booth. » Distribution of Pamphlets and posters. » House-to-house visits. 	Based on the annual work plan.	Coordinator – Public Education and Fundraising.
Hurricane. Earthquake. Drought. Improper use of pesticides and herbicides.	Provide sensitization on hazards.	<ul style="list-style-type: none"> » Town Hall meeting and invite resource persons. » House-to-house / one-to-one contact/information sharing. 		

9.2.2 Monitoring and Warning

The following persons (belonging to the CDRM Group) are responsible for monitoring situations and warning providing warnings of impending disasters (e.g., hurricanes, flooding, storm surge, and landslide) 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.	District Coordinators.	<ol style="list-style-type: none"> 1. The PRO issues an alert to the zonal group via SMS or an internet-based messaging system. 2. A town crier is dispatched to warn the community. 3. Shelter managers were placed on alert. 4. The bull horn is blown with 6 sharp blasts.
Flooding. The community is to seek funding to set up a flood warning system in the long term. A suggested location for the gauge is Breastwork Bridge at Breastworks common	Community gauge.	Community gauge reader – Jacquelin Smith.	<ol style="list-style-type: none"> 1. Monitoring of flood gauge on Bermuda Lane. The flood gauge at Breastworks beside the Ackee tree/Mickie Shop needs to be repaired. 2. Blow abeng or Horn two (2) sharp blasts.
Fire.	Bull horn.	District Coordinators.	Blow Bull Horn (4) sharp blasts and shout “Fire! Fire! Fire! Fire!”
Tsunami.	There is currently no system available. Funding and assistance are to be sought from ODPEM to establish a warning system.		

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

9.2.3 Evacuation

The evacuation plan will be a guide for the community to coordinate their efforts by disseminating early warning 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 nature of the community, it is recommended that the entire community evacuate during an 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
Pleasant Hill.	Exit the community through Mount Oakley and head to the Bailey Bridge. Make a left at the bridge and head onto the Wain Road main road. Travel for a few metres until the school is reached on the left side of the road.	Kenwright Primary School.	It is in walking distance.	Jacquelin Smith.

EVACUATION ZONE	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT COORDINATOR
New Road (Non Such).	Exit the community and make a right to the Bailey Bridge. Proceed left until the intersection of the Wain Road main road is reached. Make a left at this intersection and proceed for a few metres until the school is reached on the left.	Kenwright Primary School.	It is in walking distance.	Tonya Bryan.
Mount Oakley.	The directions are the same as Pleasant Hill.	Kenwright Primary School.	It is in walking distance.	Denise Francis.
Wain Road.	Travel along this main road until the school is reached.	Kenwright Primary School. Wain Road SDA Church can be used as an alternate shelter.	It is in walking distance.	Ann-Marie Panton.
Breastwork Proper.	The community of Breastworks begins at the bridge. From the district, proceed to the sign that says Rio Grande. Continue along the Wain Road main road until the school is reached.	Kenwright Primary School. First Holiness Church as alternate shelter.	It is in walking distance.	Novlette Sinclair.

Table 16. Evacuation Procedures

ACTIVITY	PERSON RESPONSIBLE
Evaluate threat or liaise with PDC/ODPEM on the need for evacuation.	Chairman – Tonya Bryan.
Alert residents on possible evacuation.	Coordinator – Preparedness – Oliver Hendricks.
Decide on timing.	Coordinator - Response & Recovery – Annette Smith.
Ensure special needs populations are assisted.	Coordinator – Preparedness – Elisa Robinson.
Organize transportation.	Coordinator - Response & Recovery – Ryan Bailey.
Identify the route to be used.	Coordinator - Response & Recovery – Nicardo Anderson.
Ensure shelter is available.	Shelter Manager – Hertensea Lawrence.
Register all persons who are evacuating and their destination.	Dwight McKenzie.
Start evacuation.	Coordinator - Response & Recovery – Annette Smith.
Check that all areas are safely evacuated.	Chairman – Denise Francis.
Inform Parish Disaster Committee.	Chairman – Denise Francis.

Table 17 shows the person responsible for each evacuation zone who will monitor that all evacuation activities are being conducted. The person responsible for each evacuation zone will contact the vulnerable group responsible 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 BE EVACUATED	PERSON RESPONSIBLE FOR EVACUATION OF VULNERABLE GROUPS
John's Town.	-	The destitute.	Non-Such Police Youth Club in Breastwork. Farmer's Group in Breastwork.
Pleasant Hill.	Jacquelin Smith.	Elderly, Persons with disability.	Jacquelin Smith. Non-Such Police Youth Club in Breastwork. Farmer's Group in Breastwork.
Wain Road.	Ann-Marie Panton.	Elderly, Persons with disability.	Ann-Marie Panton. Non-Such Police Youth Club in Breastwork. Farmer's Group in Breastwork.
New Road.	Joseph Bryan.	Elderly, Persons with disability.	Joseph Bryan. Non-Such Police Youth Club in Breastwork. Farmer's Group in Breastwork.
Mount Oakley.	Denise Francis.	Elderly, Persons with disability.	Denise Francis. Non-Such Police Youth Club in Breastwork. Farmer's Group in Breastwork.
Breastwork Proper.	Novlette Sinclair.	Elderly, Persons with disability.	Novlette Sinclair. Non-Such Police Youth Club in Breastwork. Farmer's Group in Breastwork.

9.2.4 Preparedness Action Plan

The Community Action Plan sets out the preparedness activities to be done for a planning cycle. Drills and simulation exercises for fire and earthquake preparedness and response must be among the activities to be conducted. 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 Plan

ACTIVITY	RESPONSIBLE PERSON(S)/AGENCY(S)	TIMEFRAME
First Aid.	Red Cross. St. John's.	March-May.
Search and Rescue.	Fire Brigade.	March-May.
Fire Drill.	Fire Brigade.	May, July, November.
Earthquake Drill.	ODPEM. Fire Brigade.	January, April and October.
Overall Disaster Preparedness Training.	ODPEM. Coordinator – Public Education and Fundraising.	March-May.
Proper Garbage Disposal Training.	Solid Waste.	March-May.
Damage Assessment Training.	ODPEM.	March-May.
Secure and replenishes first aid and search and rescue kits.	CDRMG.	Before hurricane season.
Make arrangements for access to relief supplies (Memorandum of Understanding).	Mrs. Denise Lewis (Parish Disaster Coordinator.	As required by Parish Disaster Coordinator and Portland Municipal Corporation.
Mattress, cleaning kits, tools.	ODPEM.	2022.
Cleaning up of community centre so we can store materials.	Municipal Corporation & DRM Team.	2022.

9.2.5 Response and Relief

The Breastworks Community Command Centre will be located at the Ken Wright 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 will 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 Public Education Coordinator will serve as the sole public spokesperson in Breastworks. The Breastworks Disaster Risk Management Group will also develop an inventory and assess the damage, and where feasible, secure the perimeter of dangerous areas. The Breastworks 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 – Annette Smith.	Committee Chair and Parish Disaster Coordinator.
Persons with Disabilities.	Response and Recovery Coordinator – Annette Smith.	Committee Chair and Parish Disaster Coordinator.
Single Mothers.	Response and Recovery Coordinator – Annette Smith.	Committee Chair and Parish Disaster Coordinator.
Damaged Buildings and Houses for Occupants.	Response and Recovery Coordinator – Annette Smith.	Committee Chair and Parish Disaster Coordinator.

ACTIVITY	RESPONSIBLE PERSON(S)/AGENCY(S)	SHORT REPORT
Persons Stranded by Floodwater	Response and Recovery Coordinator – Annette Smith.	Committee Chair and Parish Disaster Coordinator.
Check for:		
Deaths	Response and Recovery Coordinator – Annette Smith.	Committee Chair and Parish Disaster Coordinator.
Injuries	Response and Recovery Coordinator – Annette Smith.	Committee Chair and Parish Disaster Coordinator.
Persons in Need of Emergency Assistance	Response and Recovery Coordinator – Annette Smith.	Committee Chair and Parish Disaster Coordinator.
Call for any External Assistance	Chairman – Denise Francis.	Committee Chair and Parish Disaster Coordinator.
Update PDC, ODPEM	Chairman – Denise Francis.	Committee Chair and Parish Disaster Coordinator.
Update Community	Chairman – Denise Francis	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 available.	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.
» Shops and businesses.	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 Municipal Corporation.

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.	Municipal Corporation.	Within 8 hours.
Welfare.	Coordinator - Response & Recovery.	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 - 12 hours.
Initial damage Assessment			
Buildings, utilities and infrastructure.	Coordinator - Response & Recovery.	Municipal Corporation.	Within 72 hours.
Welfare.	Coordinator - Response & Recovery.	Municipal Corporation.	Within 72 hours.
Agriculture.	Coordinator - Response & Recovery.	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 - Annette Smith.	Municipal Corporation – Parish Disaster Coordinator.
Evacuation.	Coordinator - Response & Recovery - Annette Smith.	Municipal Corporation – Parish Disaster Coordinator.
Trucking of Water.	Coordinator - Response & Recovery - Annette Smith.	Municipal Corporation – Parish Disaster Coordinator.
Alternative Sources of Lighting.	Coordinator - Response & Recovery - Annette Smith.	Municipal Corporation – Parish Disaster Coordinator.
Search and Rescue.	Search and Rescue Coordinator.	Municipal Corporation – Parish Disaster Coordinator.
Children Welfare and the Disabled.	Coordinator - Response & Recovery - Annette Smith.	Municipal Corporation – Parish Disaster Coordinator.
Initial Damage Assessment.	Coordinator - Response & Recovery - Annette Smith.	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 - Annette Smith.
Need assistance.	Coordinator - Response & Recovery - Annette Smith.
Identify members of the community in need of psycho-social support or counselling.	Coordinator - Response & Recovery - Annette Smith.
Compile a list and update PDC and ODPEM.	Coordinator - Response & Recovery - Annette Smith.

9.2.6 Recovery

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.

ACTIVITY	PERSON(S) RESPONSIBLE	TIMEFRAME
<p>Implement Recovery projects/activities:</p> <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. <p>Mobilize the community to assist in the rehabilitation of critical facilities.</p>	<p>Coordinator – Response and Recovery. Coordinator – Prevention, mitigation and adaptation.</p>	<p>Minimum of one month after the event.</p>
<p>Document lessons learnt for the recovery experiences to enhance future recovery planning including updating the plan if necessary.</p>	<p>Coordinator – Response and Recovery.</p>	<p>Ongoing.</p>

APPENDIX A – COMMUNITY EMERGENCY CONTACT LIST

COMMUNITY EMERGENCY CONTACT LIST	CONTACT PERSON	TELEPHONE Nº/EMAIL
CDRM Group President.	Denise Francis.	(876) 366-5199.
CERT President/ Contact Person.	Nicardo Addison.	(876) 477-5646 nicardo54@gmail.com .
Police.	Senior Superintendent- Calvin Small.	calvin.small@jcf.gov.jm .
Firefighter.	District Officer Wendell Patterson Assistant Superintendent Everton Dunkley Horace Davis.	(876) 993-3041.
Ministry of Health.	Medical Officer of Health - Dr. Sharon Lewis.	(876) 993-2557/2873. (876) 318-0086.

APPENDIX B – VULNERABLE POPULATION

This table contains information about vulnerable groups in the community and their location across the various districts.

TYPE OF VULNERABILITY (FOR EXAMPLE, ELDERLY, DISABLED, SINGLE MOTHERS....)	VULNERABLE PERSON & CONTACT INFO	LOCATION OF VULNERABLE	NEXT OF KIN/CARE GIVER & CONTACT INFO	CDRT/CERT MEMBER RESPONSIBLE
Programme of Advancement Through Health and Education (PATH) Beneficiaries.	7 Persons.	Breastworks.	N/A	N/A
Persons With Disabilities.	1 person.	Breastworks.	N/A	N/A
Elderly.	6 persons.	Wain Road.	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.	Municipal Corporation.	Denise Lewis.	(876) 837-1896.
Machetes.	None.	-	-
Shovels.	None.	-	-
Forks.	None.	-	-
Hazardous infection diseases protection materials: masks and alcohol-based gel.	Municipal Corporation.	Denise Lewis.	(876) 837-1896.

APPENDIX D – ITEMS REQUIRED EXTERNALLY

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	CONTACT INFORMATION
First Aid Kits.	Yes – more required. Not sure of the numbers needed.	Ministry of Health, Jamaica Red Cross, Food for the Poor.	Denise Lewis.	(876) 837-1896.
Hazardous infection diseases protection materials: masks.	Not required – Have in stock.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Denise Lewis.	(876) 837-1896.
Hazardous infection diseases protection materials: alcohol-based Gel.	Not required – Have in stock.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Denise Lewis.	(876) 837-1896.
Shovels.	Yes – more required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Denise Lewis.	(876) 837-1896.
Water boots.	Yes – more required.	Hardware, Food for the Poor, Department of Fisheries, Fisherman’s Corp.	Denise Lewis.	(876) 837-1896.
Heavy-duty gloves.	Yes – more required.	ODPEM, Hardware.	Denise Lewis.	(876) 837-1896.
Rain cloaks.	Yes – more required	ODPEM, Hardware.	Denise Lewis.	(876) 837-1896.
Hard hats.	Yes – none in stock	Hardware, Food for the Poor, Livestock Association.	Denise Lewis.	(876) 837-1896.

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	CONTACT INFORMATION
Machetes.	Yes – none in stock. There is however a chainsaw	Municipal Corporation, Parish Council, ODPEM, MLSS, Red Cross.	Denise Lewis.	(876) 837-1896.
Canvas Stretchers.	Yes – more required – The team has cots.	Hardware, Food for the Poor, Department of Fisheries, Fisherman’s Corp.	Denise Lewis.	(876) 837-1896.
Crowbars	Yes – Team has none.	Parish Council, ODPEM, MLSS, Red Cross.	Denise Lewis.	(876) 837-1896.
Rip/Crosscut Saws.	Yes – Team has none.	Tankweld, Rhino.	Denise Lewis.	(876) 837-1896.
Power saws.	Yes- at least 2 more are needed, as there is only one for the entire parish.	Wisynco, Hardware.	Denise Lewis.	(876) 837-1896.
Heavy duty Screw Drivers.	Yes – Team has none.	Ministry of Health, National Water Commission.	Denise Lewis.	(876) 837-1896.
Large/medium Cold Chisels.	Yes – Team has none.	ODPEM, Hardware.	Denise Lewis.	(876) 837-1896.
Claw Hammers.	Yes – Team has none.	ODPEM, Hardware	Denise Lewis.	(876) 837-1896.
Heavy-duty Sledge Hammers.	Yes – Team has none.	Gas Station	Denise Lewis.	(876) 837-1896.
Flashlights.	Yes – Team has none.	ODPEM, Hardware	Denise Lewis.	(876) 837-1896.

APPENDIX E – LIST OF OFFICIAL AND UNOFFICIAL EMERGENCY SHELTERS

List of Official and Unofficial Emergency Shelters

The Parish Disaster Coordinator is updating the shelter list and will provide the information as soon as it is available

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 Shelter				
Kenwright Primary School.	See evacuation routes for each district.	Wain Road, West Retreat.	Clarence Samuels 876 432-3620. Claudia Samuels 876 849-8950. Dennison Fuller 876 891-6157.	Barbara Maxwell- Principal 876 993-4650 / 793-6549. Rena Crawford 876 224-6411.
Red Hassel First Holiness Red Hassel, Breastworks.	See evacuation routes for each district.	Red Hassel, Breastwork.	Irene Moore 876 891-4073. Dennise Francis 876 423-5334.	Ruel Sudu 876 373-3952. Olive Edwards 876 993-2099..

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 related emergencies. 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	Tamesha Skyers
2. Sensitize special needs population	Coordinator – Public Education and Fund Raising	Tamesha Skyers
3. Organize how special needs population will be evacuated and transportation required.	Coordinator - Preparedness	Ryan Bailey

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
4. Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol	Coordinator - Preparedness	Ryan Bailey
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	Annette Smith
6. Sensitization of persons in the community without vehicles of assembly area for transportation to more safe location.	Coordinator – Public Education and Fund Raising	Tamesha Skyers
7. Identify areas in the community where high potential for infrastructure/ property damages.	Coordinator - Vulnerability & Risk Identification	Kascia Morgan
8. Ensure DRM teams are aware of all high-risk locations in the community.	Coordinator - Vulnerability & Risk Identification	Kascia Morgan
9. Prepare areas for sheltering persons in need	Coordinator – Preparedness	Ryan Bailey
10. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.	Coordinator – Preparedness	Ryan Bailey
11. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Coordinator - Prevention & Mitigation	Elicia Robinson
12. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC.	Coordinator - Prevention & Mitigation	Elicia Robinson

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 - Elicia Robinson</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 Ryan Bailey</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 Ryan Bailey</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. » Have flashlight and extra batteries » Have portable battery-operated radio and extra batteries » Ensure provisions are in place for emergency food and water. 	<p>Coordinator – Preparedness - Ryan Bailey Coordinator - Response & Recovery - Annette Smith</p>

ACTIVITIES	PERSON(S) RESPONSIBLE
Protecting the community: » Trim dead or weak branches from trees » Clear all drains that will cause flooding	Coordinator – Preparedness - Ryan Bailey Coordinator - Response & Recovery - Annette Smith
Listen to all weather advisories and information from ODPEM, MET office, and communicate with PDC.	Coordinator – Preparedness - Ryan Bailey Coordinator - Response & Recovery - Annette Smith

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 - Ryan Bailey
Continue to listen to all weather advisories and reports.	Coordinator – Preparedness - Ryan Bailey

A. HURRICANE WATCH - 48 Hours before Impact

ACTIVITIES	PERSON(S) RESPONSIBLE
1. Personal preparation food supplies 2. Securing official documents 3. Securing home and get rid of all thing around the yard that can be missile in a hurricane 4. Check on neighbours that may need help	Coordinator - Response & Recovery - Annette Smith
Ensure the elderly and physically challenged are notified and assisted to prepare for event.	Coordinator - Response & Recovery - Annette Smith

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 cellular phones are to be used ensure call credit is bought 4. Ensure phones can be charged 	Coordinator - Response & Recovery - Annette Smith
Activate volunteers to be on standby to assist with damage assessment. Conduct briefing of these volunteers.	Coordinator - Response & Recovery - Annette Smith
<ol style="list-style-type: none"> 1. Activate and prepare emergency shelters 2. Deploy relief and welfare volunteers to emergency shelters 	Coordinator - Response & Recovery - Annette Smith
Ensure contacts are made with the PDC and other stakeholders for assessment of shelter facilities if necessary.	Coordinator - Response & Recovery - Annette Smith
Contact PDC and prepare to Initiate evacuation procedures for the community.	Coordinator - Response & Recovery - Annette Smith
<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 - Annette Smith Coordinator – Preparedness - Ryan Bailey

ACTIVITIES	PERSON(S) RESPONSIBLE
1. Encourage residents to activate family plans 2. Pre-position resources: List these resources » Equipment, ropes, etc » Food stocks/welfare items » Communications equipment » Manpower	Coordinator - Response & Recovery - Annette Smith Coordinator – Preparedness - Ryan Bailey

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 - Annette Smith
Activate and test local communications links and report to PDC.	Coordinator - Response & Recovery - Annette Smith
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.	Coordinator - Response & Recovery - Annette Smith

ACTIVITIES	PERSON(S) RESPONSIBLE
» Ensure registration of all evacuated. » Check that all needing evacuation are safely evacuated.	
» Monitor radio for hurricane warnings and public information via news releases through ODPEM and Met office. » Monitor Radios for precautionary tips together with packaged information of the activities of responding agencies.	Coordinator - Response & Recovery - Annette Smith
Alert community Initial Damage Assessment Team(s).	Coordinator - Response & Recovery - Annette Smith
Confirm lines of credit with merchants to enable easy access to relief supplies after the disaster.	Coordinator - Response & Recovery - Annette Smith

D. 16 HOURS BEFORE IMPACT TO LANDFALL

ACTIVITIES	PERSON(S) RESPONSIBLE
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.	Chairman - Denise Francis Vice Chairman - Oliver Hendricks Coordinator - Response & Recovery - Annette Smith

E. THE BLOW

ACTIVITIES	PERSON(S) RESPONSIBLE
Monitor and report events as far as possible.	Chairman - Denise Francis Vice Chairman - Oliver Hendricks
Maintain contact with PEOC, Shelters and response personnel.	Coordinator - Response & Recovery - Annette Smith

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 - Annette Smith
<ol style="list-style-type: none"> 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 - Annette Smith

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 - Annette Smith
<ol style="list-style-type: none"> 1. Provide ground reconnaissance intelligence to the PDC. 2. Assist the Fire Brigade and NWA with road clearing, and search and rescue activities through the PEOC. 3. Assist with the establishment and staffing of registration centres. 	Coordinator - Response & Recovery - Annette Smith
<p>Beware of downed or lose power lines. Report them immediately to the JPS, Police or Fire Department.</p> <p>Advise community members to enter their homes with caution:</p> <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. 	Coordinator - Response & Recovery - Annette Smith
<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. Advice community not to drink or prepare food with tap water until notified it is safe to do so. 	Coordinator - Response & Recovery - Annette Smith

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

ACTIVITIES	PERSON(S) RESPONSIBLE
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.	Coordinator - Response & Recovery - Annette Smith
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 - Annette Smith
Coordinate the establishment, staffing and management of emergency shelters for sustained use in community. Encourage persons affected to stay with friends or family as first options.	Coordinator - Response & Recovery - Annette Smith
Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.	Coordinator - Response & Recovery - Annette Smith
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.	Coordinator - Response & Recovery - Annette Smith Chairman – Denise Francis Vice Chairman — Oliver Hendricks

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 - Annette Smith</p> <p>Coordinator - Prevention & Mitigation – Elicia Robinson</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 – Denise Francis</p> <p>Vice Chairman – Oliver Hendricks</p> <p>Coordinator – Public Education and Fund Raising -</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 – Denise Francis</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 – Denise Francis</p> <p>Vice Chairman – Oliver Hendricks</p>
<p>Revise SOPs as necessary</p>	<p>Chairman – Denise Francis</p> <p>Vice Chairman – Oliver Hendricks</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

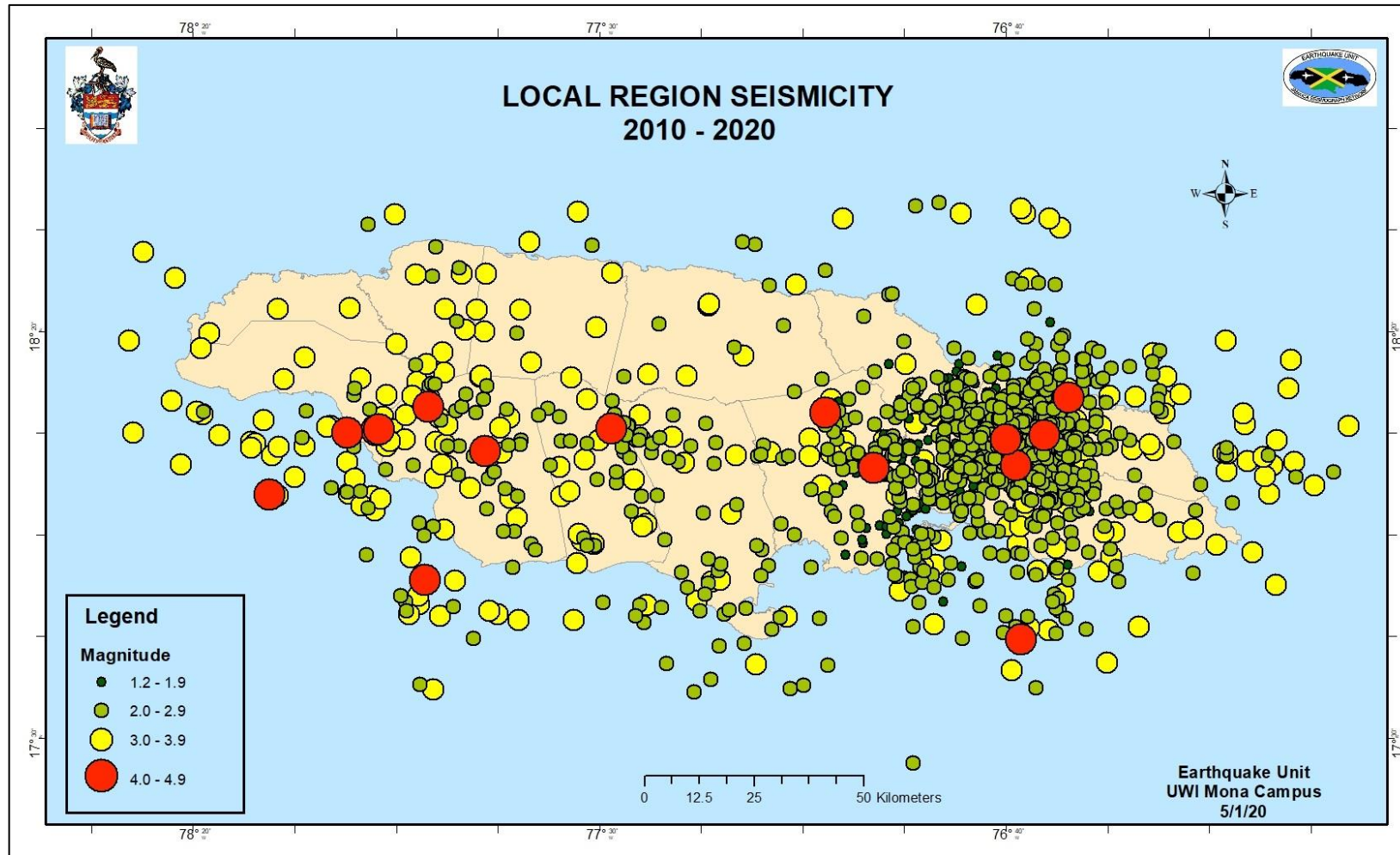
Tremors or smaller earthquakes that occur after the main shock is felt. After-shocks can occur over a few hours to months after the main shock.

Tremor

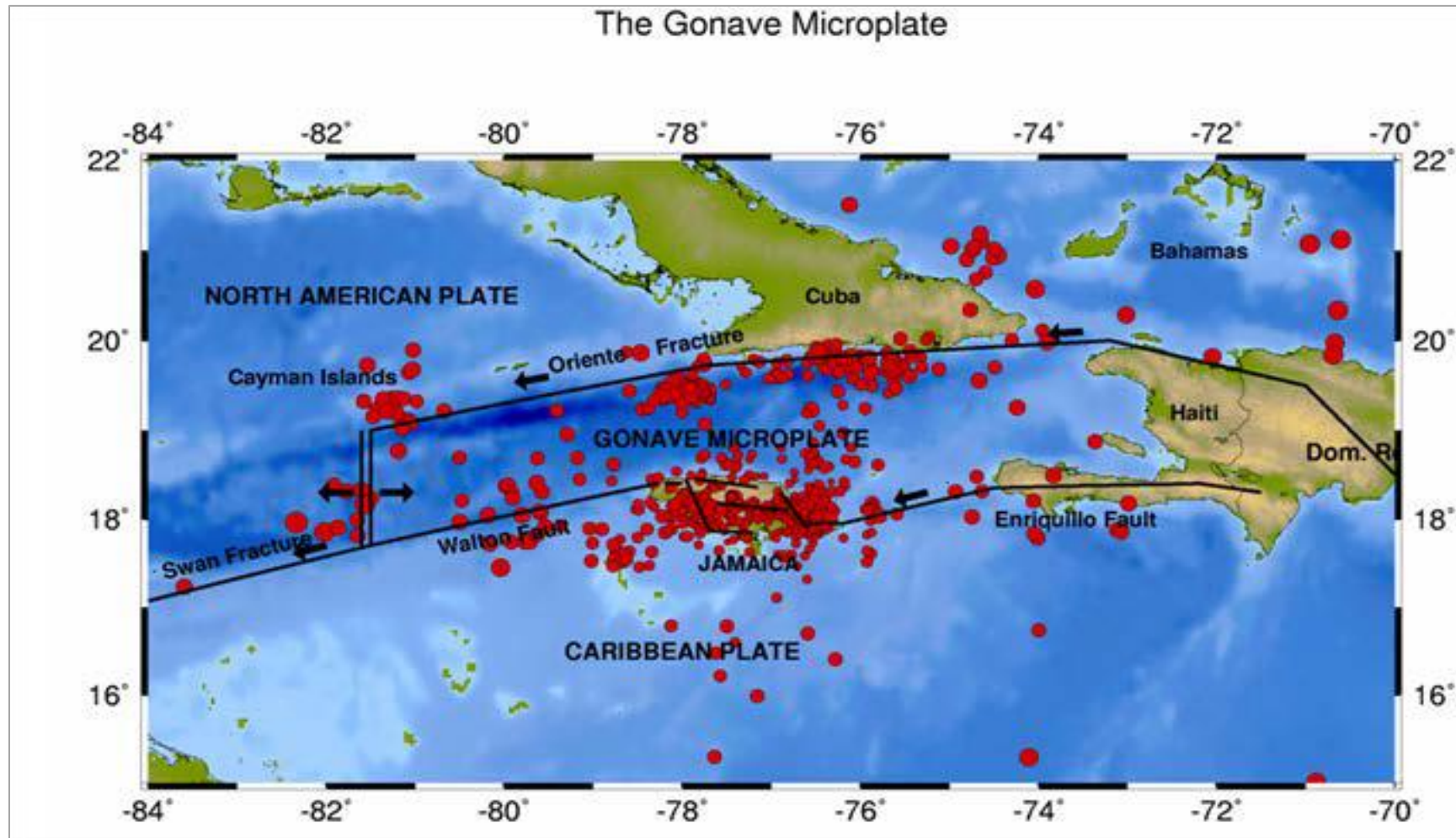
The shaking or seismic waves felt or caused by an earthquake or explosion.

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	Tamesha Skyers
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	Ryan Bailey
4. Put arrangements in place to have vehicles to be used in evacuation fuelled 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 safer location.	Coordinator – Public Education and Fund Raising	Tamesha Skyers
7. Identify areas in the community where high potential for infrastructure/property damages.	Coordinator - Vulnerability & Risk Identification	Kascia Morgan
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	Ryan Bailey
10. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
11. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Coordinator - Prevention & Mitigation	Elicia Robinson
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	Oliver Hendricks
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	Oliver Hendricks
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	Novlette Sinclair
16. Liaison for maintenance and to keep open all access routes – main transportation routes and alternative access routes.	Coordinator - Prevention & Mitigation	Elicia Robinson
17. Community inventory of building quality.		
18. Community inventory of road networks and updating of community map.		
19. Identify alternative sources of water, sources of alternative/temporary housing solutions.		
20. Put mutual aid agreements in place for emergencies such as earthquakes.	Coordinator – Preparedness	Ryan Bailey
21. Meet and assess the community's state of preparedness for an earthquake		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
22. Organize or initiate and support drills » Trained community first aiders » Search and rescue personnel » Have first-aid kits prepared » Support for school and business community drills 23. Make available all relevant information on the hazard to the general community 24. Personal for families: - Make sure your family goes over the family disaster plan	Coordinator – Preparedness Coordinator - Response & Recovery Coordinator – Public Education and Fund Raising	Ryan Bailey Annette Smith Tamesha Skyers
25. Protecting the community: » 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.	Coordinator – Preparedness Coordinator - Prevention & Mitigation Coordinator – Public Education and Fund Raising	Ryan Bailey Elicia Robinson Tamesha Skyers

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	Denise Francis Oliver Hendricks
2. Maintain contact with PEOC, Shelters and response personnel.	Coordinator - Response & Recovery	Annette Smith
3. Depending on the severity, ensure all buildings are evacuated. Account for missing persons.		
4. DRM Team Advise the Community to listen to all advisories and remain alert for after shocks	Coordinator – Preparedness	Ryan Bailey

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Check with PDC whether persons can 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	Annette Smith
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.		
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	Annette Smith Tamesha Skyers

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<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/Municipal Corporation/PEOC. » Check for water leaks in homes/yards. Report to NWC and Parish Disaster Coordinator/Municipal Corporation/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. 	<p>Coordinator - Response & Recovery</p>	<p>Annette Smith</p>
<p>14. Check for general sewage and water-line damage in the community.</p>		
<p>15. If you suspect there is such damage, call the NWC company and or PDC.</p>		
<p>16. Advise community not to drink or prepare food with tap water until notified it is safe to do so.</p>		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
17. Regularly 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.	Coordinator - Response & Recovery	Annette Smith
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 Vice Chairman Coordinator - Vulnerability & Risk Identification	Annette Smith Oliver Hendricks Kascia Morgan
22. Encourage persons affected to stay with friends or family as first options.		
23. Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.		
24. Assist with the distribution of supplies	Coordinator - Response & Recovery	Annette Smith
25. Assist with the tracing of missing persons		
26. Assist with needs assessments		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
27. Assist in the provision of welfare information to persons affected	Coordinator - Response & Recovery	Annette Smith
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	Annette Smith Tamesha Skyers
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)		
4. Update PDC on recovery activities by external agencies/departments/organizations.	Coordinator - Response & Recovery	Annette Smith
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: » Challenges in responding to incidents?		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
» 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?	Coordinator - Response & Recovery	Annette Smith
8. Revise SOPs as necessary	Chairman	Denise Francis

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	Tamesha Skyers
2. Sensitize special needs population.		
3. Organize how special needs population will be evacuated and transportation required.	Coordinator – Preparedness	Ryan Bailey
4. Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol.		
5. Ensure that appropriate fire extinguishing materials are in place in community centre 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	Annette Smith
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	Tamesha Skyers
9. Identify areas in the community where high potential for infrastructure/property damages.	Coordinator - Vulnerability & Risk Identification	Kascia Morgan

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
10. Ensure DRM teams are aware of all high-risk locations in the community.	Coordinator - Vulnerability & Risk Identification	Kascia Morgan
11. Prepare areas for sheltering persons in need.	Coordinator – Preparedness	Ryan Bailey
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	Elicia Robinson
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	Denise Francis
16. Conduct Fire Drills at least once yearly.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>17. Personal for families and businesses:</p> <ul style="list-style-type: none"> » Make sure your family goes over the family disaster plan. » All family members should know their evacuation plan. » Store important documents in fireproof box (where possible) or safe. » Houses should be safely wired. An electrical inspection should be conducted: <ul style="list-style-type: none"> ✓ For new buildings or building extensions; 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. » 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>Coordinator – Preparedness Coordinator - Response & Recovery Coordinator – Public Education and Fund Raising</p>	<p>Annette Smith Tamesha Skyers</p>
<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>Elicia Robinson Ryan Bailey</p>

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<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>Elicia Robinson Ryan Bailey</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 response; » Fire Brigade telephone number and means of emergency telecommunications (mobile phone, radio – if necessary); » Sand box and shovels; » Pails and water source (drum); » Fire Extinguisher (if possible); » First Aid kit. 	<p>Coordinator - Prevention & Mitigation Coordinator – Preparedness</p>	<p>Elicia Robinson Ryan Bailey</p>
<p>21. Obtain local building codes and weed abatement ordinances for buildings near wooded areas.</p>	<p>Chairman Coordinator – Preparedness</p>	<p>Joseph Robinson Ryan Bailey</p>

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<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. 	<p>Coordinator - Response & Recovery</p>	<p>Annette Smith</p>

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	Annette Smith

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>2. Once an ALARM is activated: At location of fire (buildings):</p> <ul style="list-style-type: none"> » Building should be immediately evacuated. Do not enter a burning building. » Ensure that persons who need assistance while evacuating are assisted (Elderly, Physically Challenge, Children). » Assess the situation. » Establish safety zone. » If a fire is small and its safe attempt to extinguish with a fire extinguisher. » Never allow fire to come between you and the exit path. » While evacuating touch closed doors with back of hand before opening. If door is hot or if smoke is visible do not attempt to open. » Close gas valves and turn off electricity at the 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. 	<p>Coordinator - Response & Recovery</p>	<p>Annette Smith</p>
<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. 		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p><i>Around the perimeter of the fire:</i></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><i>On exit of the building, at the assembly point or safety zone:</i></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>Coordinator - Response & Recovery</p>	<p>Annette Smith</p>
<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>Ryan Bailey</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	Annette Smith	
2. Conduct Damage & Needs Assessment <ul style="list-style-type: none"> a. Deploy community damage survey teams or assessors (with Municipal Corporation 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, Municipal Corporation 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.		Coordinator - Response & Recovery	Annette Smith
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 Municipal Corporation. <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. 			

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
7. Assist with the tracing of missing persons.	Coordinator - Response & Recovery	Annette Smith
8. Begin to effect minor repairs to critical facilities and clear road ways and public spaces, if affected.		
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? 		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
» What areas of the SOPs need to be reconsidered?		
17. Revise SOPs as necessary.	Chairman	Denise Francis

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



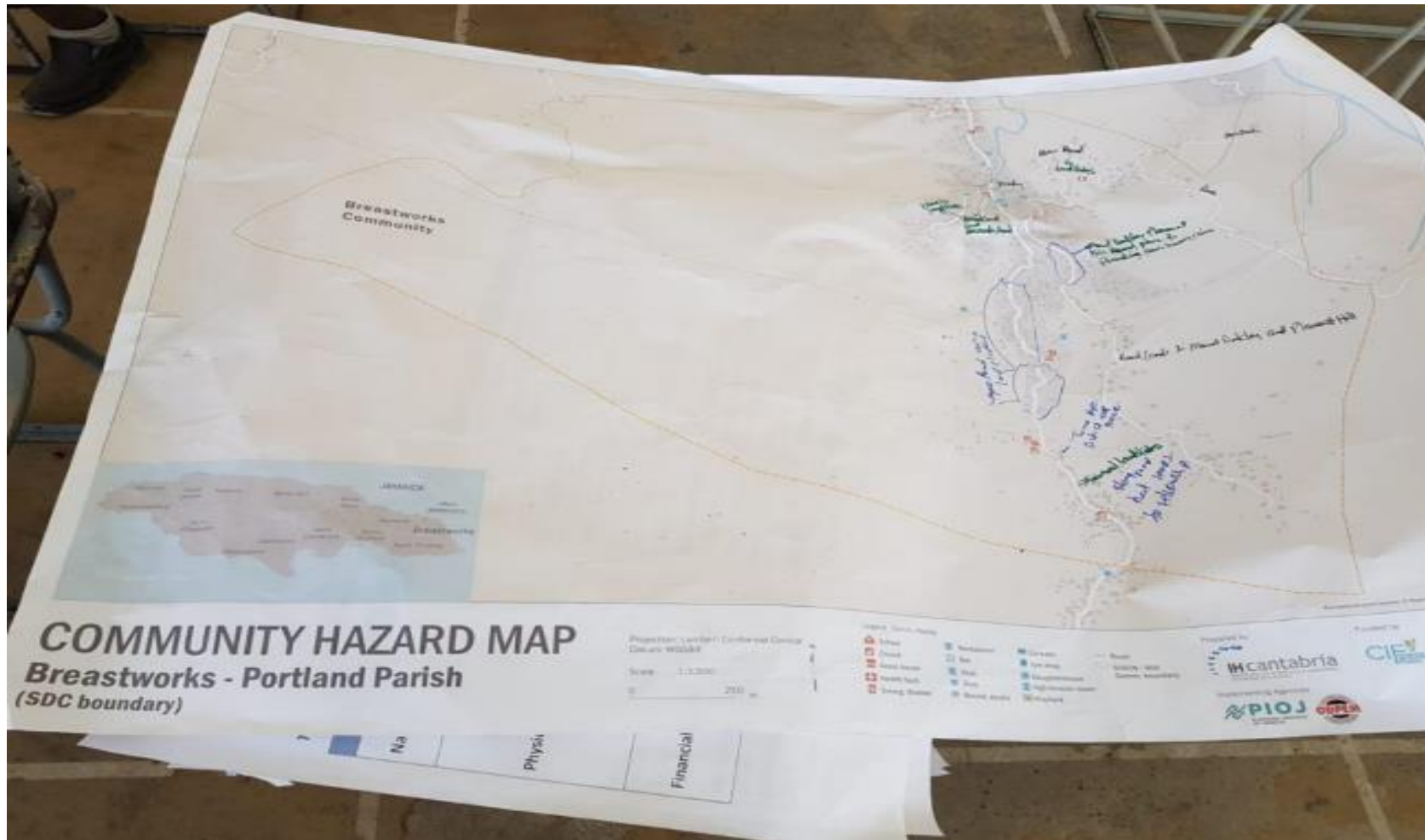
Damage to houses in Breastworks resulting from the 1998 Portland Flood Rains.
Source: Mines and Geology Division.



Landslide in Breastworks.
Source: ODPEM.



Landslide in Breastworks.
Source: ODPEM.



Photograph of the hand-drawn community hazard map prepared during the community plan workshops held in Breastworks (2021).