

Project

IMPROVING CLIMATE DATA AND INFORMATION MANAGEMENT PROJECT

Consultancy

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



Document - Project Deliverable D6

**Validated Community Disaster Risk Management and Climate Change Adaptation Plan of
BATH, ST. THOMAS**

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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 to in this document as DRM Team)
DRM	Disaster Risk Management
EOC	Emergency Operations Centre
GOJ	Government of Jamaica
ICDIMP	Improving Climate Data and Information Management Project
JAS	Jamaica Agricultural Society
MLSS	Ministry of Labour and Social Security
MoHW	Ministry of Health and Wellness
NDC	National Disaster Council
NDRMC	National Disaster Risk Management Council
NEOC	National Emergency Operations Centre
NEPA	National Environment and Planning Agency
NGO	Non-Governmental Organization
NWA	National Works Agency
NWC	National Water Commission

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

PREAMBLE

Name of the Plan

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

Background

The Government of Jamaica (GOJ), through the Planning Institute of Jamaica (PIOJ), is executing 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 of Disaster Preparedness and Emergency Management (ODPEM) seeks to update existing Community Disaster Risks Management (CDRM) Plans to include risk profiles and community level resilience mitigation and climate change adaptation (CCA) initiatives that can be implemented by the communities.

Purpose of the Plan

This plan provides:

1. The residents with a workable, comprehensive system to plan for and respond to emergencies and disasters to minimize loss of life and property.
2. A basic outline of shelters, welfare and relief system as well as some focus on evacuation planning that will make preparation, response and recovery from a disaster more effective.
3. Provide an emergency contact list and identification of vulnerable populations living in Bath.
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 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	Mr. George Harris	876 549-5756
	CERT (Community Emergency and Response Team)	Shantella Ellis	876 467-5134
	St Thomas Municipal Corporation	Mrs. Martina Medley – Parish Disaster Coordinator	876 982-2227/2276/ (876) 367-2828/Stthomasdm@gmail.com
	St. Thomas Parish Disaster Committee	Miss Martina Medley – Parish Disaster Coordinator	876 982-2227/2276/ (876) 367-2828/Stthomasdm@gmail.com
	Ministry of Labour and Social Security	Ms Grace Dean – Parish Manager	876 858-2978/ dean_javie3@hotmail.com
	Social Development Commission	Mrs. Lorian Peart-Roberts – Parish Manager	876 549-8809 Peartlorian@yahoo.com
	Jamaica Fire Brigade	Mr. Horace Thomas – Deputy Superintendent	876 982-1214 dhstthomas@jfb.gov.jm
	Jamaica Constabulary Force	Ms. Allison Byfield - Superintendent	876 982-2233 Stthomasdivhq@jcf.gov.jm
	Ministry of Health	Dr. Doyen Smith – Medical Officer of Health	876 703-6182 doyensmith@gmail.com
National	Office of Disaster Preparedness and Emergency Management (ODPEM)	Miss Sophia Mitchell – Regional Coordinator, East	876 430-5585 smitchell@odpem.org.jm

Scope of Plan

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

Authority

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

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.

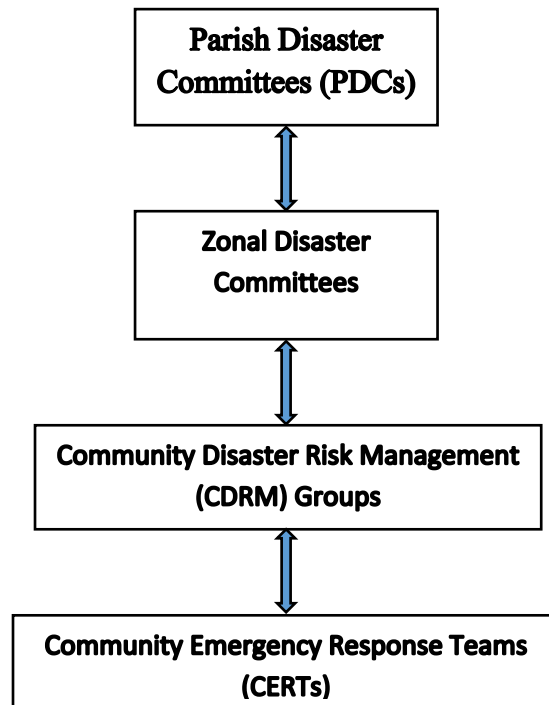


Diagram showing the relationship between the Parish, Zones and CDRMG

Responsibility

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

As stated in the Community Profile of Bath (SDC, 2011), the community is an old English town located on the Plantain Garden River. Its historical significance lies in the Bath fountain, a hot water healing spring that was later developed into a hotel and spa. Other significant features that contribute to the development of the community are the Bath Botanical Gardens and historical sites such as the Anglican Church and ruins of the old court house.

The topography of the community ranges from very gently sloping to steep slopes in some areas. This geological formation gives rise to many surface channels and three rivers are significant in the area – the Island River, Sulphur River and the Plantain Garden River. The latter is significant because it is the only river in Jamaica that flows west to east. This river also flows along the Plantain Garden Fault, which became well known after the January 2010 earthquake. The fault line on which this earthquake occurred is connected to the Enriquillo Plantain Garden Fault.

These rivers and their tributaries together with drains and culverts are the major sources of flooding in the area. The geological formation comprises mainly weather rocks such as Cross Pen Formation and Bath/Dunrobin Formation, which are prone to landslides.

Based on the 2011 STATIN census, the population of the community is 2155 persons, 51% of who are males and 49% females. Of the total population, vulnerable groups comprising children and the elderly make up 35% of the population. Houses are mainly built of timber and almost half of the houses are rated as fair more than a quarter rated as good. The 2011 housing and population census show that the predominant material used in the construction of the outer walls of houses in the community is wood, accounting for 43% of the houses and is followed closely by concrete and block (39%). Other materials, though less popular is wood and concrete (15%).

All major amenities are present in the area. There is piped water, electricity and telephone. Electricity is the main source of lighting and accounts for 92% of the community's households while 6% use kerosene as their source of lighting. 82% of the community receives water supply from public sources, the main source being piped into the yard (34%) and piped into the dwelling (29%). Only 3.5% receive from the private source while 15% receive from springs and rivers. A total of 3% of the communities gets their water supply from the catchment.

The main means of garbage disposal is the public collection, accounting for 58% of the community. Garbage is regularly collected with 51% of the households reporting that their garbage is regularly collected. 7.5% of the community dispose of their garbage by dumping, while a small percentage dump in the sea/river/gully. Approximately 40% of the community disposes of their garbage by burning it.

Social amenities are also present in the community with several schools, a large number of churches, a type II health clinic, a post office and postal agency and community centres.

1.1.1 Summary of main hazards

The main hazards that affect the community of Bath are flooding due to the many rivers and streams that flow through the community and landslides due to the geology that makes it highly vulnerable to landslips.

1.2 Location and districts of community in this Plan

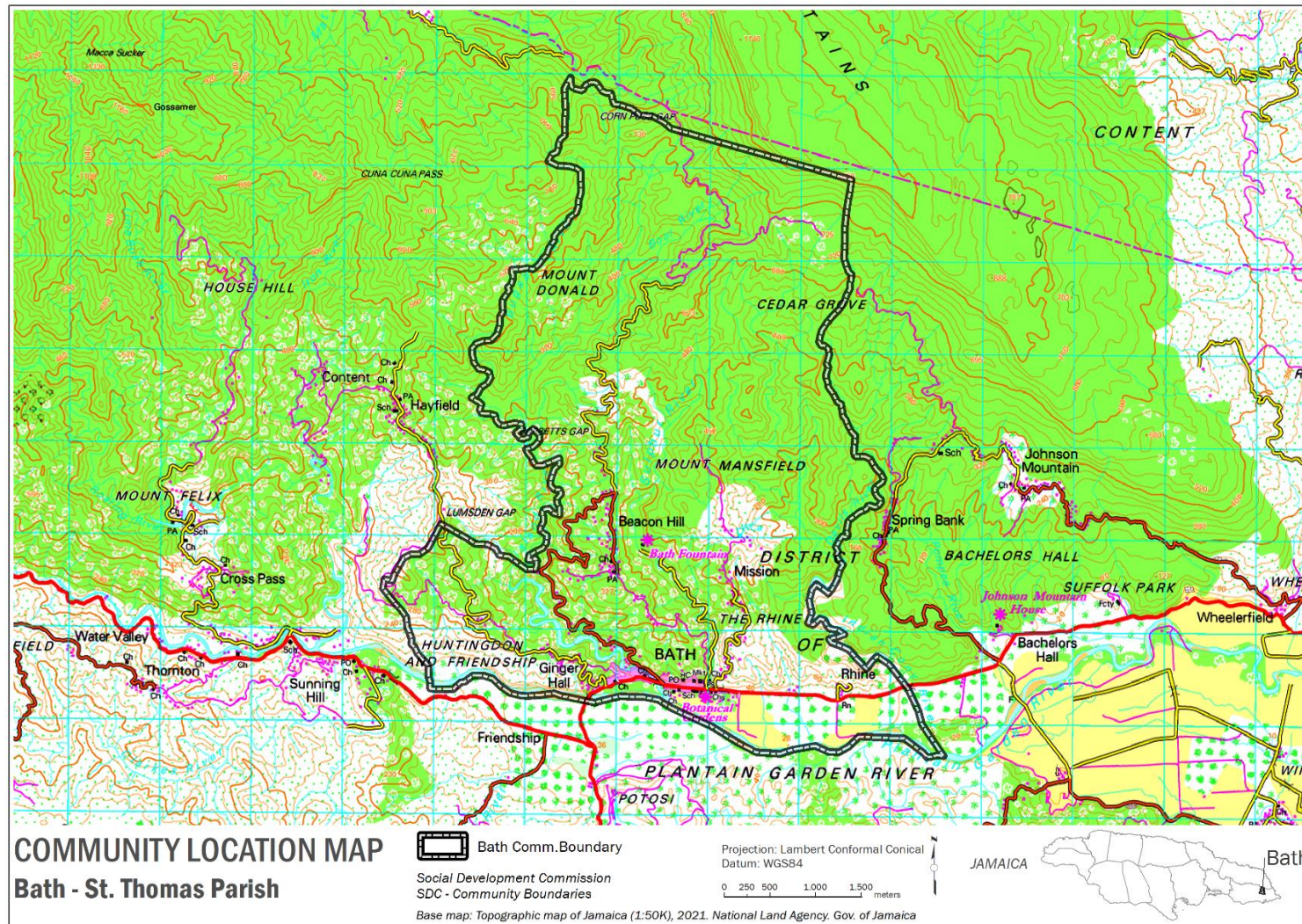
Based on the SDC's community list Bath comprises five districts – Beacon Hill, Ginger Hall, Bottom Yard, Mt. Mansfield and Bath Proper (Fountain Road, New Road, Mount Mansfield, Copra Lane, Castle Hill, Weable Lane, Gully and Castle Hill).

These five small districts are covered under this plan. These are included in table 2:

Table 2. Districts and Coordinators Contact List

#	DISTRICT	TEAM LEADER	CONTACT #	E-MAIL
1.	Beacon Hill.	Stephanie Burke.	876 (378-4420).	-
2.	Ginger Hall.	Georgegina Strachan. Daniel Fulcott.	876 (352-2296). 876 (353-1418).	oliviastawnjones@gmail.com danielfulcott@gmail.com
3.	Mount Mansfield.	George Harris.	876 (549-5756).	-
4.	Bottom Yard.	Shereen Bennett.	876 (405-3189).	-
5.	Bath Proper.	Shareen Prussia.	876 (856-9553).	shereenprussio@gmail.com

1.2.1 Location map



2 DISASTER RISK MANAGEMENT (DRM) ORGANIZATIONAL STRUCTURE

2.1 National institutions

The institution at the national level that coordinates disaster risk management is the Office of Disaster Preparedness and Emergency Management (ODPEM). The ODPEM is also the secretariat to the National Disaster Risk Management Council (NDRMC), which is chaired by the Prime Minister of Jamaica. The deputy chairperson for the NDRMC is the Minister of Local Government and Rural Development, the Ministry under which disaster management falls. The NDRMC leads the planning and coordination of disaster management. Seven committees work to support the National Disaster Council (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 St Thomas 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 and all decisions taken by the PDC are aligned with the national-level policies and plans.

Communities are also part of the disaster management organization of the parish and are represented at the parish 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 Nº/EMAIL
Chairman.	Stephanie Burke.	(876) 549-5756.
Vice Chairman.	Nilfea Miles.	(876) 352-2296.
Secretary.	Chantelle Ellis.	(876) 353-1418/ 876 549-5756.
Treasurer.	Shereen Bennett.	(876) 405-3189.
Assistant Secretary.	Sashae Williams.	(876) 856-9553.
Coordinator – Public Education & Fundraising.	Median Francis.	(876) 451-0392.
Coordinator – Vulnerability & Risk Identification.	Daniel Fulcott and Angella Bailey.	(876) 467-5134.
Coordinator – Prevention, Mitigation & Adaptation.	Shinell Allen.	(876) 378-4420.
Coordinator - Response & Recovery.	Jermiel Dixon.	(876) 473-2745.
Coordinator – Preparedness.	Georgianna Strachan.	(876) 427-8392.

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

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

The community should have persons trained in these topics.

2.3 Gaps and challenges

- » The disaster agencies need more resources to adequately assist the community.

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?
Oct-Dec 2020 Rains.	<p>Flooding of the majority of the community was most severe at Bachelors Hall, Ginger Hall and Potosi. Ginger Hall has flooded in Lion Path near the river side and in an area called Gully.</p> <p>Roads mainly impacted, however in Potosi and Bachelors Hall, the river came over the groyne, into the community and homes. Flooding is especially bad in Potosi, Copper Yard and Bottom Yard.</p>	Residents stayed inside for the most part. Residents also tried to help those who were most severely affected.
Drought, 2020.	Beacon Hill has droughts yearly and the entire Bath had a drought in 2020.	No data.
Tropical Storm Isaac, 2018.	Flooding occurred from Bath to Hordley Crossing.	No data.
Anomalous Rains, 2017.	Flooding occurred in this area as recorded by MLSS.	No data.
Chikungunya outbreak, 2014-2015.	Persons became ill from the virus.	» Residents mainly used home remedies, but a few had to go to the doctor. The outbreak was dealt with without much outside assistance.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
		If there were an outbreak of a disease in the area now, the community would not be able to properly manage it. The health aides are known in the area but there are no doctors and the health centre is understaffed.
Flooding, 2011.	Severe flooding and some of the roads were blocked.	Roads were cleared by the NWA and Parish Council along with the assistance of the residents.
Tropical Storm Nicole, 2010.	There was severe flooding.	-
November Rains, 2009.	Severe flooding and some areas were impassable. Pubsi, Bachelors Hall and Lion Park. The bridge in Bath Proper was also impacted.	The community was organized and worked together to return to normalcy.
Tropical Storm Gustav, 2008.	Severe flooding and some areas were impassable.	The community was organized and worked together to return to normalcy.
Hurricane Dean, 2007.	There was severe flooding. There were several landslides and erosions.	Self-help with clean-up activities- clearing of debris from roadways and drains.
Hurricane Ivan, 2004.	There was severe flooding. (roofs lost) Some areas were impassable. The agricultural sector sustained extensive losses and damage – Beacon Hill and Mansfield.	Self-help with clean-up activities - clearing of debris from roadways and drains.
Tropical Storm Isidore and Lili, 2002.	Flooding occurred during the passage of these two tropical storms.	No data.
Tropical wave, 2002.	A landslide occurred in the area of Bath Foundation.	No data.
Landslide, September 2002.	The community was blocked by fallen trees.	No data.
Flooding May 1993.	Flooding.	No data.
Earthquake, January 13, 1993.	Minor damages.	No data.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Cold Front/Low-pressure system, 1991.	From Bath to Bath Foundation, extensive damage occurred to roads causing them to be partially blocked due to flooding and landslides.	No data.
Hurricane Gilbert, 1988 (this is the hurricane that impacted the community the most, blew down trees, homes etc).	Farms were destroyed, roofs of houses were damaged as well as the Community Centre. Landslide and road damage. Disruption of utilities such as electricity and domestic water supplies. Schools were used as shelters that interrupted normal activities. Looting.	<ul style="list-style-type: none"> » Warnings were communicated via the press and preparedness advisories were issued at least three days ahead of the event. » Red Cross issued blankets, tents and tarpaulin about three days post-impact. » Aid agencies (the US and Canada) provided food and building stamps. » Electricity was restored 3 months post-impact. » NWC service was restored 2 months post-impact. » Community grocery stores increased the prices of the commodities excessively and paired ('married') items. » Some residents evacuated and stayed in emergency shelters. » Community solidarity as residents shared food, clothing and their homes. » Self-help with repair and clean-up activities- road repairs and debris clearing from the roadways and drains.
Hurricane Allen, 1980.	Severe flooding and houses were destroyed. Power lines and pipelines were destroyed. There were several landslides.	Residents made use of the fallen fruits by either cooking or eating. Residents drank bottled water or boiled it. Persons went to the river to bathe and wash.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Tropical Storm Gilda, 1973.	Severe flooding and some persons were dislocated.	Some persons were evacuated and stayed in shelters and homes.
Flooding, 1962.	<ul style="list-style-type: none"> » Several homes were flooded and some were destroyed. » The bridge was washed away. » Two lives were lost. 	Community solidarity as residents shared food, clothing and their homes.
Hurricane Charlie, 1951.	<ul style="list-style-type: none"> » Farms were destroyed and some houses were destroyed - those made of wood thatched roofs and wattle (bamboo) and daub. » The schools were also destroyed. » Livestock was killed. » There was an outbreak of diseases – cholera, dengue and malaria fever. 	<ul style="list-style-type: none"> » Messages from the government were communicated through the post office. » Red flags and church bells were used as communication methods. » Community members united and assisted each other (shared food, clothing and their homes) as required as government aid was not received until about two weeks later. » Community members improvised food items » The farm provisions that could be used were the main source of food as the rice and flour that could be purchased from the local shops were no longer available.
Hurricane, 1928.	<ul style="list-style-type: none"> » This parish experienced heavy rainfall although the hurricane's nearest distance to the Island was 115 miles. 	<ul style="list-style-type: none"> » No data.

3.2 Lessons learnt

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

- » Continuous maintenance is important as flooding in the community is mainly caused by blocked drains.
- » Flooding can also result from the Plantain Garden River which runs alongside the community so plans need to incorporate this additional risk
- » Mitigation works can help ease the flooding. The Plantain Garden River needs training. It was trained decades ago and led to some relief for the community hence residents are of the view that a similar endeavour using the same methodology is needed. The river also needs to be dredged; this will reduce the likelihood of it overflowing its groin.
- » The school is at risk from flooding and should be a priority. The drains in Lion Park that are right beside the school need to be cleaned regularly and be properly maintained to protect the school. When these drains are blocked, the schools and nearby homes are flooded and residents are marooned in their homes. Similarly, when Potosi is blocked, the community is marooned, and water is known to get high enough to wash away cars. Hence this area needs attention immediately.

Some lessons learnt were specific to some events:

Intense Rainfall, 1975 (Lasted for 2 weeks)

- » There was a reduction in farming along the river banks as the channels were widened.
- » The majority of farming activities were relocated to the hillside.
- » The residents of Works Yard were relocated.

Hurricane Gilbert, 1988

- » Increased community awareness about preparedness and greater adherence to hurricane warnings.
- » Use of Hurricane Straps to minimize damage to roofs.
- » The seasonality of fruits/food changed and as such the farmers have had to adapt to these changes.
- » Increased awareness about environmental management in terms of proper disposal of garbage.
- » Construction of drains to reduce the vulnerability of the community to flooding.
- » Improved water conservation measures such as water storage in black tanks and trucks.

Hurricane Ivan, 2004

- » More public education, training and awareness are required.
- » Improved community preparedness efforts, for example, pruning of trees.
- » Response time and preparedness at the national level have improved.

Tropical Storm Gustav, 2008

- » Always be prepared.
- » The community is more alert to the effects of hazards.

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

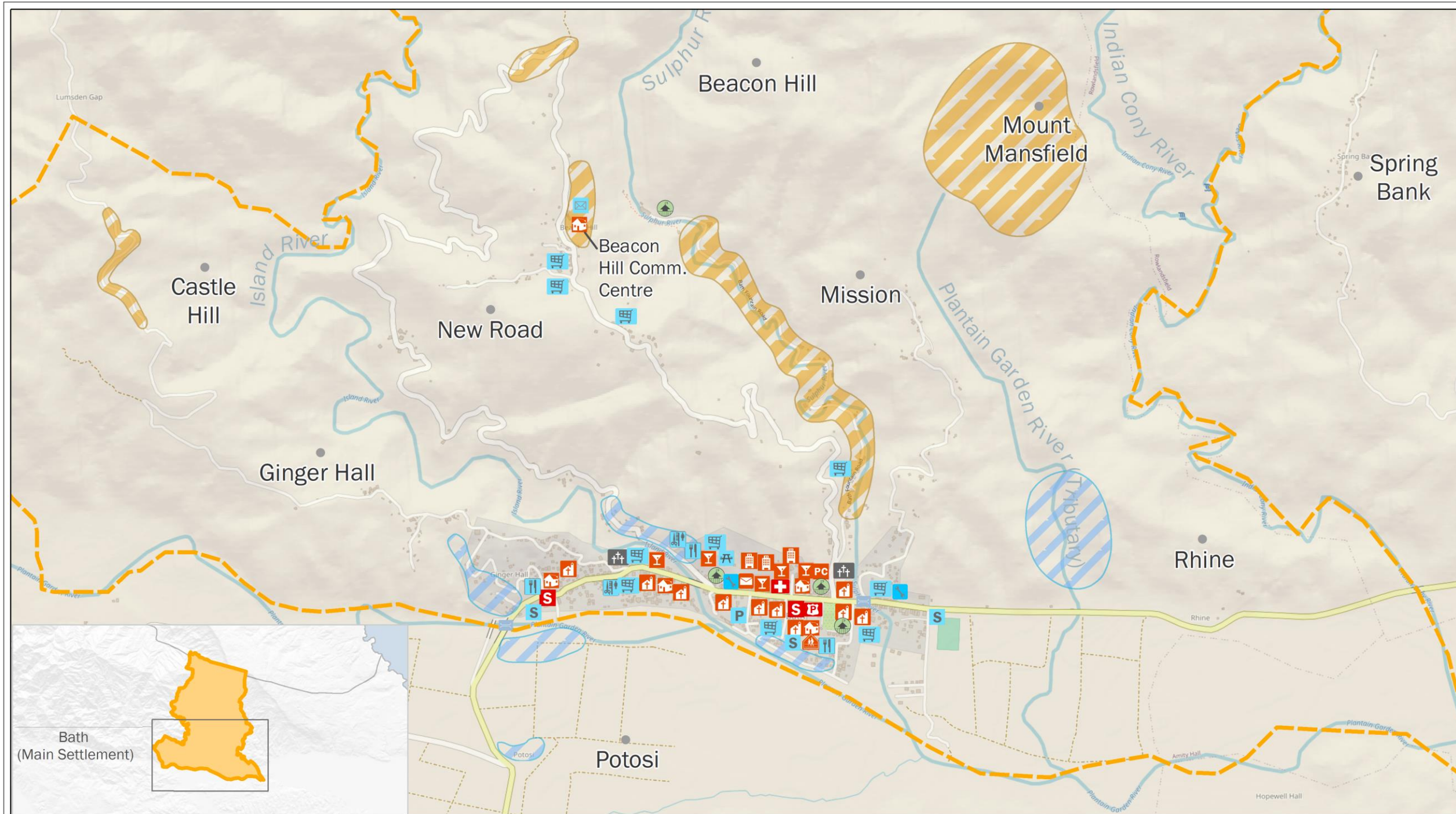
ASSET CATEGORY	ASSETS
Natural.	Island River, Sulphur River and Plantain Garden River.
	Gullies and culverts.
	Arable farm lands.
Physical.	Several churches.
	Two basic schools (Bath Basic, Ginger Hall Basic), one primary (Bath Primary) and one Junior High School.
	One post office.
	Two community Centres – Grange Hall and Beacon Hill.
	One Health facility at Bath Proper.
	One Police Station.
	Two playfields and one recreational site – 1 Lion Park and 1 Bottom Yard.
Financial, human and social.	One spa.
	CBOs: three Parents and Teachers' Association, one citizen association (not active), one JAS, three Youth Clubs church groups: Bottom Yard Community Club, Bath Sports Club, Beacon Hill Comm. Club and Bath Police Youth Club.
	Historical sites and buildings – tourist sites.

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).



Bath Community Hazard Map (SDC boundary) Digitized from Community Input.



COMMUNITY HAZARD MAP

Bath - St. Thomas Parish (Main Settlement)

Projection: Lambert Conformal Conical
Datum: WGS84

Scale 1:13,000

0 250 m.

Legend

- Small Districts
- 🏠 School
- ⛪ Church
- 📮 Post Office
- 🏢 Comm. Centre
- 🏛️ Parish Council
- 🍷 Bar

- 🏥 Health Facil.
- 👮 Police Station
- 🏠 Emergency Shelter
- 🌿 Herit./Hist. Site
- ⚰ Cemetery/FH

- 🍽️ Restaurant
- 🛍️ Shop/Sales
- 💇 Beauty/Barber
- 🔧 Mechanic
- 🌳 Park
- ⚽ Sports Ground
- 🚗 Parking/Garage

- 🌉 Bridge
- 🛣️ Road
- 🌊 River/Tributary
- 🗑️ Landslide
- 🌊 Flooding
- 📏 SDC STATION
- 📏 Comm. Boundary

Prepared by



Implementing Agencies



Funded by



Bath Community Hazard Map of Bath (Main Settlement) Digitized from Community Input

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- Especially Ginger Hall where the river is.	N/A	At least once per year.	2-3FT	Houses, farmlands, livestock, schools, bridges, roads and drains.
	Drought.	N/A	Every 2 years.	-	Farms, livestock, rivers (people use them for domestic purposes). Beacon Hill has droughts yearly and the entire Bath had a drought in 2020.
	Hurricanes – wind.	N/A	Once Jamaica experiences a hurricane.	Mainly tropical storm winds however, this may extend into hurricane winds.	Houses, farmlands, livestock, roads, schools, JPS poles and trees, schools, police station, Bath Health Centre, pump houses, post office and postal agency.

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)
				whenever there is a hurricane.	
	Landslide – especially at Newroad and Beacon Hill (all the hill areas in Bath).	N/A	Once there is heavy rain.		Roads, JPS poles, NWC pipes wash away, houses and trees.
CLIMATE HAZARD – FUTURE CC SCENARIO.	Flooding.	N/A	N/A	N/A	N/A
	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.			-
	Drought.	Year 2050, the worst emissions scenario (named RCP8.5).	Drying trend: 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. However, the change in annual rainfall in Bath area is expected to decrease by 13.69%.		-

HAZARD CATEGORY	HAZARD	PROJECTED SCENARIO WITH CLIMATE CHANGE	FREQUENCY	INTENSITY	ASSETS IMPACTED (FROM LIST)
NON-CLIMATE HAZARD.	Earthquake.	N/A	-	Minor.	Houses and other buildings, infrastructure.

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.	Homes, few farms, schools, Bath Health Centre, Roads. All of Bath can be marooned if Potosi and Bachelor Hall are flooded.	<ul style="list-style-type: none"> » The rivers that are nearby. » Poor drainage » Drains are not continuously maintained. 	Homeowners, all school stakeholders, farms, health workers, drains and roads.	Farmers cannot get to the market. Delivery trucks cannot get to the community, and transportation is more expensive, especially in Beacon Hill.
	Hurricanes – winds and rains.	Roofs – homes, animals, crops – most die due to the cold weather.	<ul style="list-style-type: none"> » Location in hazard zones. » Type of homes (materials used to make the homes). 	Homeowners, farmers.	Market vendors.

HAZARD CATEGORY	HAZARD	VULNERABLE ASSET	DRIVERS OF VULNERABILITY	DIRECT IMPACTS	INDIRECT IMPACTS
	Landslides.	Roads get blocked, few farms.	<ul style="list-style-type: none"> » Type of soil – flooding triggers landslides, and heavy rainfall loosens the soil. » Cutting down trees 	Farmers, anybody using the road.	Same as flooding above.
	Drought.	The community does not experience severe drought			
NON-CLIMATE HAZARD.	Bushfire in Beacon Hill and parts of Potosi.	Farms and houses are in danger but do not get burnt.	Geology - Flintstones ignite when time gets dry and causes fire.	Farmers.	-

8 COMMUNITY CAPACITY ANALYSIS

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

Table 8. Community Capacity

CAPACITY	TYPE OF RESOURCE	TASK
Skills.	<ol style="list-style-type: none"> 1. Chainsaw operators. 2. Counsellors, pastors. 3. Tradesmen, plumbers, farmers, teachers, masons, carpenters. 4. Nurses. 5. Teachers. 6. Chefs. 7. Environmentalists. 8. Tour guides. 9. Dressmakers/tailors. 	<p>Assist in the clearing of roads, provide counselling, psychological support, providing food, tradesmen assist in prevention and mitigation.</p> <p>Assist in shelter management.</p>
Knowledge.	<ol style="list-style-type: none"> 1. Hazard history of the community. 2. Coping mechanisms. 3. Knowledge and awareness of the community's vulnerabilities and risk reduction measures. 4. Early warning systems. 5. Evacuation procedures. 6. Elements of disaster preparedness and response. 7. Trained persons- initial damage assessment, shelter management. 	<p>Contributed to the development of the community, education and awareness of others and identification of hazard-prone areas.</p>

CAPACITY	TYPE OF RESOURCE	TASK												
Networks.	CBOs – Sunning Hill CDC, Sunning Hill Benevolent Society, Sunning Hill JAS, Airy Castle CDC, Bath Police Youth Club, Hayfield CDC, Hayfield JAS, Hill Stars Police Youth Club, Spring Bank Local Forestry Management Committee, Spring Bank Greenhouse Association. Bath Combined Development Association (DAC).	Provide human resources who will assist in moving the elderly to emergency shelters, shelter management.												
Transportation.	Taxi operators, truck operators, owners of private motor vehicles, donkeys(transportation of produce), bikes, bicycles.	Assist with general transportation of persons from one point to another.												
Building/Infrastructures.	<p>Schools, churches, community centres:</p> <p>Schools</p> <table><tr><td>Thornton Primary</td><td>Johnson Mountain Primary</td></tr><tr><td>Hayfield Primary</td><td>Rowlandsfield Primary</td></tr><tr><td>Airy Castle Primary School</td><td>Ginger Hall Basic School</td></tr><tr><td>Sunning Hill Basic School</td><td>Bath Basic School</td></tr><tr><td>Spring Bank Basic School</td><td>Airy Castle Basic School</td></tr><tr><td>Thornton SDA Basic School</td><td></td></tr></table> <p>Community Centres</p> <p>Bath Community Centre</p> <p>Churches</p> <p>Water Valley Church of God of Prophecy</p> <p>City Mission Church (Sunning Hill)</p> <p>Sunning Hill Seventh Day Baptist Church</p> <p>Airy Caste ground of Truth (HQ)</p>	Thornton Primary	Johnson Mountain Primary	Hayfield Primary	Rowlandsfield Primary	Airy Castle Primary School	Ginger Hall Basic School	Sunning Hill Basic School	Bath Basic School	Spring Bank Basic School	Airy Castle Basic School	Thornton SDA Basic School		These can serve as emergency shelters.
Thornton Primary	Johnson Mountain Primary													
Hayfield Primary	Rowlandsfield Primary													
Airy Castle Primary School	Ginger Hall Basic School													
Sunning Hill Basic School	Bath Basic School													
Spring Bank Basic School	Airy Castle Basic School													
Thornton SDA Basic School														

CAPACITY	TYPE OF RESOURCE	TASK
	Bath Kingdom Hill of Jehovah's Witnesses Sunning Hill Anglican Church Spring Bank Ground of Truth Sunning Hill Baptist Sunning Hill Ground of Truth Bath Mount Calvary Airy Castle Rose of Sharon Hayfield Ground of Truth Bath SDA Jamaica Bible Church Bath Gateway Assembly Bath Anglican Church Bath Methodist Church Bath Pentecostal	
Means of Care/Medical Care.	Registered nurse, community health aid, nurse, Bath Health Centre.	Provide first aid service and general health care.
Commercial Enterprises.	Grocery Shops.	Provide quick access to food during an emergency.

9 DISASTER RISK REDUCTION

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

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

9.1 Prevention and Mitigation

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

9.1.1 Areas which should not be developed

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

Table 9. Areas for No Development

AREA	REASON FOR NO DEVELOPMENT
Potosi.	Flood prone area.
Works Yard.	The area is waterlogged.
Bath – Barrett's Gap.	Flood prone area.

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
Bath Botanical Garden.	Can host a villa, entertainment events and tourist attractions.
Bath Fountain Hotel and Spa.	With more publicity, it can become a huge tourist attraction.
Ginger Hall and Beacon Hill Community Center.	Can be used as a training centre and or a homework centre.
Water Valley.	Basic school, community water catchment (currently in place but needs renovation and maintenance).
Sunning Hill.	Community Centre and post office (construction for both have started but is incomplete).
Bath.	Health centre and basic school.

9.1.3 Areas which can be developed with Appropriate Mitigation Activities

Table 11. Special Areas for Development

AREA	MITIGATION MEASURES NEEDED
Bath Fountain.	<ul style="list-style-type: none"> » Better roads to the Bath Fountain just a track exists). » Road is covered with overhanging trees and bushes. » Parking lot is needed to accommodate the level of traffic. » Proper bathrooms and changing rooms (just a shed exist presently). » Sports Bar needed; sports bar was damaged from hurricane Gilbert.
Ginger Hall and Croper lane.	Groynes' are missing from the rivers and lead to flooding. Groyne and river training is needed.
Ginger Hall and Beacon Hill community centre.	Can be used as a training or homework centre.
Bath Proper- Botanical Garden.	The botanical garden is still there but the place needs development as an attraction.

AREA	MITIGATION MEASURES NEEDED
Bottom Yard.	A tree has fallen and destroyed the groyne which has led to the river changing course. So river training is now needed or the replacing of the groyne.

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.	Stay in until the flooding subsides. Go to neighbours.	Not really.	<ul style="list-style-type: none"> » Clean the drains – St Thomas Municipal Corporation, NWA. » River training - NWA. » River dredging – NWA. » Building retaining walls – Municipal Corporation, NWA. » Relocation of residents in high-risk areas – Municipal Corporation, NEPA. » Public education for residents – Municipal Corporation. » Implementation of gabion baskets – NWA. 	<ul style="list-style-type: none"> » Proper garbage disposal. » Drain cleaning. 	Ginger Hall and Cooper Lane, Bottom Yard, Potosi, New 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-wind.	Batten down houses and. Go to shelters.	No.	<ul style="list-style-type: none"> » Retrofitting of roofs with hurricane straps and safer roofing training – Municipal Corporation. » Adhere to building code and build safer houses – Municipal Corporation. 	<ul style="list-style-type: none"> » Proper home maintenance. » Use trained qualified builders. » Use slab roofs. » Trim trees. » Better farming practices. » Maintain drains. » Build-in safe/approved locations. 	Entire community.
Drought.	The community experiences not much drought.	-	<ul style="list-style-type: none"> » Implement drought mitigation for farmers – RADA. 	Homes and farms.	Beacon Hill yearly, entire Bath in 2020.

HAZARDS IDENTIFIED	COMMUNITY RESPONSES	ARE THESE RESPONSES SUITABLE?	ADAPTATION/MITIGATION ACTIONS REQUIRED – EXTERNAL ASSISTANCE	ADAPTATION/MITIGATION ACTIVITIES - DONE WITHOUT EXTERNAL ASSISTANCE	SPECIFIC LOCATION
Landslide.	Nothing the community can do. Call agencies responsible.	No.	<ul style="list-style-type: none"> » More efficient, speedy clearance of landslide debris – NWA, Municipal corporation. » Prevent the cutting of trees – NEPA, Forestry Department, Municipal Corporation. » Do not build new houses in the area – Municipal Corporation. » Construct retaining walls – NWA. » Proper land husbandry e.g. contour barriers – RADA, the forestry department. 	No.	-
Earthquakes.	The community does not experience many earthquakes.				

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, provide the community with current information on protective measures for all threats facing the community.

Table 13. Public Education and Awareness

HAZARD	PUBLIC EDUCATION ACTION	COMMUNICATION CHANNEL	TIMELINE	RESPONSIBILITY
Fire.	Fire Safety Tips.	<ul style="list-style-type: none"> » Print – posters, pamphlets » Sensitization sessions 	August.	Coordinator – Public education and fundraising - Winfred Scott.
Earthquake.	<ul style="list-style-type: none"> » Earthquake Preparedness. » How to conduct drills. » Earthquake response. 	<ul style="list-style-type: none"> » Sensitization session on basic disaster management. » Print – posters pamphlets. 	January & October.	Coordinator – Public education and fundraising - Winfred Scott.

9.2.2 Monitoring and Warning

The following persons (belonging to the CDRM Group) are responsible for monitoring and warning situations of impending disasters (e.g., hurricane, flooding, storm surge, landslide) that may affect the community and disseminate 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, media, social media.	Shantelle Ellis, Venice Hunter.	<ol style="list-style-type: none"> 1. The Coordinator – Public Education and Fundraising issues an alert to the zonal group via SMS or internet-based .messaging system. Red Cross had a system. 2. A town crier is dispatched to warn the community. 3. Shelter managers are placed on alert.
	Traditional Warning: <ul style="list-style-type: none"> » Trumpet leaves. » School of wangler fish migrate to safety. » Chickens go under the cellar. 	-	-
Flooding.	Community gauges should be placed at: <ul style="list-style-type: none"> » Plantain Garden Bridge. » Sulphur River bridge. » Island River Bridge. 	Community gauge readers: <ul style="list-style-type: none"> » Devon Mattison. » Collin Lewis. » Clive Campbell. 	The procedures will be finalised when the gauges are installed.
	Traditional Warning Ants gather	-	-

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 and flood-prone 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 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
Beacon Hill.	Travel south from Beacon Hill along with the main road for about half a mile. The community centre is on the eastern side of the roadway near its intersection with the shop.	Beacon Hill Community Centre is the unofficial shelter.	Walking distance.	Stephanie Burke. Shenise Clayton.

EVACUATION ZONE	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT COORDINATOR
Ginger Hall and Wheable Lane.	<p>Travel South along with the Ginger Hall to Bath main road, cross over the Island River Bridge for a few meters. The shelter is on the eastern boundary of the main road across from the Bath Health Centre.</p> <p>OR</p> <p>For residents from Island River area of the community – travel south along the main road, keep left to pass the Seventh Day Adventist Church, the shelter is on the left side of the road.</p> <p>For residents opposite the Plantain River Bridge- keep right along the roadway and head in a westerly direction towards the basic school, the shelter is near the basic school</p>	<p>Official shelter at Bath Primary and Junior High (the schoolyard is usually flooded).</p> <p>The unofficial shelter is Bath Community Centre.</p>	Walking distance.	<p>George Strachan.</p> <p>Daniel Fulcott.</p>

EVACUATION ZONE	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT COORDINATOR
Bottom Yard.	From the community head, then west passing the Sulphur River Bridge, the Bath Botanical Garden and Police Station. In a few metres, the shelter is on the southern section of the main road.	Official shelter at Bath Primary and Junior High.	Walking distance.	Shereen Bennett.
Bath Proper (Church Lane, Clinic Lane).	From the community head west to the shelter which is direct across from the health centre.	Bath Primary and Junior High official shelter.	Walking distance.	Shareen Prussia. Winfred Scott.
Lion Park and New Road. Cropper Lane, Fountain Road.	From New Road head to the main road continuing to Post Office then pass Health Centre. The shelter is immediate across from the health centre	Bath Primary and Junior High official shelter.	Walking distance.	Shareen Prussia. Winfred Scott.
Mount Mansfield.	Less likely to use a shelter. Impacted severely by a landslide. Head to Bottom Yard, turn right over the Sulphur River Bridge, pass the Botanical Garden, then Police Station and see shelter on the left.	Bath Primary and Junior High official shelter.	Vehicle.	George Harris.

Table 16. Evacuation Procedures

ACTIVITY	PERSON RESPONSIBLE
Evaluate threat or liaise with PDC/ODPEM on the need for evacuation.	Chairman- Mr. Harris. Vice-Chairman Roxanne Wynter and Aneka Falcott.
Alert residents on possible evacuation.	Coordinator – Preparedness - Clive Campbell.
Decide on timing.	Coordinator - Response & Recovery - Response & Recovery Shenise Clayton.
Ensure special needs population assisted.	Coordinator – Preparedness - Collin Lewis.
Organize transportation.	Coordinator - Response & Recovery - Sherine Bennett.
Identify the route to be used.	Coordinator - Response & Recovery - Geneve Gordon.
Ensure shelter is available.	Coordinator - Response & Recovery - Sherika Gilzene.
Register all persons who are evacuating and their destination.	Coordinator - Response & Recovery - Jahmael Smith
Start evacuation.	Coordinator - Response & Recovery - Jerome Small.
Check that all areas are safely evacuated.	Chairman - Alwayne Brissett.
Inform Parish Disaster Committee.	Chairman - Mr. Harris.

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
Beacon Hill.	Stephanie Burke Shenise Clayton.	Elderly, Persons with disability.	Stephanie Burke. Shenise Clayton. Councillors, Bible Teachers International.
Ginger Hall.	George Strachan Daniel Fulcott.	Elderly, Persons with disability.	George Strachan. Daniel Fulcott. Councillors, Bible Teachers International.
Bath Proper.	Shareen Prussia Winfred Scott.	Elderly, Persons with disability.	Shareen Prussia. Winfred Scott. Councillors, Bible Teachers International.
Bottom Yard.	Shereen Bennett.	Elderly, Persons with disability.	Shereen Bennett. Councillors, Bible Teachers International.
Mount Mansfield.	George Harris.	Elderly, Persons with disability.	George Harris. Councillors, Bible Teachers International.

9.2.4 Preparedness Action Plan

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

Among the activities, it must be included to conduct drills and simulation exercises for fire and earthquake preparedness and response. These exercises will allow for the testing of the disaster plan to show strengths and 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 training.	Jamaica Red Cross, Coordinator – Public Education and Fundraising.	Feb-April.
Disaster Preparedness and Management Training.	ODPEM, Public Education and Fundraising.	Feb-April.
Fire Drill.	Jamaica Fire Brigade, Public Education and Fundraising.	Feb-April.
Search and Rescue.	Police/ Fire, Public Education and Fundraising.	Feb-April.
Clean all drains.	Municipal Corporation, Coordinator – Prevention, Mitigation and Adaptation.	Before hurricane season and before wet seasons.
Train team members.	Municipal Corporation, Public Education and Fundraising.	Annual work plan to be developed.
Replenish first aid and search and rescue kits.	Municipal Corporation/CDRMG, Coordinator – Response and Recovery.	January.
Make arrangements for access to relief supplies.	Municipal Corporation/CDRMG, Coordinator – Response and Recovery.	April.

ACTIVITY	RESPONSIBLE PERSON(S)/AGENCY(S)	TIMEFRAME
Start hurricane awareness.	Municipal Corporation, Public Education and Fundraising.	May.
Trimming of trees and individual preparedness activities.	CDRMG and community.	May.

9.2.5 Response and Relief

The Bath Command Centre will be located at the Bath Primary and Junior High. 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 Bath. The Bath Disaster Risk Management Group will also develop an inventory and assess the damage, and where feasible, secure the perimeter of dangerous areas. The Bath 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.	Coordinator – Response and Recovery – Shenise Clayton.	Committee Chair and Parish Disaster Coordinator.
Persons with Disabilities.	Coordinator – Response and Recovery – Shenise Clayton.	Committee Chair and Parish Disaster Coordinator.
Single Mothers.	Coordinator – Response and Recovery – Shenise Clayton.	Committee Chair and Parish Disaster Coordinator.
Damaged Buildings and Houses for Occupants.	Coordinator – Response and Recovery – Shenise Clayton.	Committee Chair and Parish Disaster Coordinator.
Persons Stranded by Floodwater.	Coordinator – Response and Recovery – Shenise Clayton.	Committee Chair and Parish Disaster Coordinator.
Check for:		
Deaths.	Coordinator – Response and Recovery – Shenise Clayton.	Committee Chair and Parish Disaster Coordinator.
Injuries.	Coordinator – Response and Recovery – Shenise Clayton.	Committee Chair and Parish Disaster Coordinator.

ACTIVITY	RESPONSIBLE PERSON(S)/AGENCY(S)	SHORT REPORT
Persons in Need of Emergency Assistance.	Coordinator – Response and Recovery – Shenise Clayton.	Committee Chair and Parish Disaster Coordinator.
Call for any External Assistance.	Coordinator – Response and Recovery – Shenise Clayton.	Committee Chair and Parish Disaster Coordinator.
Update PDC, ODPEM.	Chairman – George Harris.	Committee Chair and Parish Disaster Coordinator.
Update Community.	Chairman – George Harris.	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.

ACTIVITY		PERSON(S) RESPONSIBLE
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 Parish council.

Table 21. Community Damage Assessors

TYPE OF ASSESSMENT (BUILDING, AGRICULTURE, WELFARE, ETC.)	TEAM LEADER (NAME, CONTACT)	AGENCY REPORT IS TO BE SUBMITTED TO	TIMEFRAME
Situation overview			
Buildings, utilities and infrastructure.	Coordinator - Response & Recovery.	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 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.	Municipal Corporation – Parish Disaster Coordinator.
Evacuation.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Trucking of water.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Alternative Sources of Lighting.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Search and Rescue.	Search and Rescue Coordinator.	Municipal Corporation – Parish Disaster Coordinator.
Children Welfare and the Disabled.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Initial Damage Assessment.	Coordinator - Response & Recovery.	Municipal Corporation – Parish Disaster Coordinator.
Welfare Assessment.	Damage Assessment Coordinator.	Ministry of Labour and Social Security.

9.2.5.4 Relief

Table 23. Relief Assistance

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

9.2.6 Recovery

ACTIVITY	PERSON 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.
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.

ACTIVITY	PERSON RESPONSIBLE	TIMEFRAME
Coordinate with the Municipal Corporation and share the recovery plan and ask for assistance with costing.	Chairman.	Within 7 weeks of the event.
Secure outside help to implement the priority activities (NGOs, Food for the Poor, ADRA, Jamaica Red Cross, government departments, commercial enterprises in the community and the private sector).	Coordinator - Public education and fundraising.	Within 8 weeks of the event.
Get wider community buy-in and support for the implementation of the recovery activities.	Coordinator - Public education and fundraising.	4 – 8 weeks after the event.
Identify skills and capacities that will be needed to implement the recovery projects/activities and conduct training as needed (Safer building/roof training, agriculture training in sustainable farming/livestock techniques, environmental protection etc).	Coordinator - Public education and fundraising.	4 – 8 weeks after the event.
Implement Recovery projects/activities: <ul style="list-style-type: none"> » Mobilize community members to assist each other in rehabilitation and reconstruction activities taking into account building codes and inclusion of mitigation measures. » Mobilize the community to assist in the rehabilitation of critical facilities. 	Coordinator – Response and Recovery Coordinator – Prevention, mitigation and adaptation.	Minimum of one month after the event
Document lessons learnt for the recovery experiences to enhance future recovery planning including updating the plan if necessary.	Coordinator – Response and Recovery.	Ongoing.

APPENDIX A – COMMUNITY EMERGENCY CONTACT LIST

COMMUNITY EMERGENCY CONTACT LIST	CONTACT PERSON	TELEPHONE Nº/EMAIL
CDRM Group President	Mr. George Harris	876 (549-5756)
CERT President	Shantella Ellis (CERT contact person) -	876 467-5134
Police	Ms. Allison Byfield	876 982-2233 Stthomasdivhq@jcf.gov.jm
Fireman	Mr Horace Thomas	876 982-1214 dhstthomas@jfb.gov.jm
Ambulance	Ms. Allison Byfield	876 982-2233 Stthomasdivhq@jcf.gov.jm
Ministry of Health	Mr. Verol Denton	876 703-6182 doyensmith@gmail.com

APPENDIX B – VULNERABLE POPULATION

This table contains information about the number of vulnerable persons in the community and the districts in which they are located.

TYPE OF VULNERABILITY (FOR EXAMPLE, ELDERLY, DISABLED, SINGLE MOTHERS....)	NUMBER OF VULNERABLE PEOPLE	LOCATION OF VULNERABLE	NEXT OF KIN/CARE GIVER & CONTACT INFO	CDRT/CERT MEMBER RESPONSIBLE
PATH Beneficiaries.	235 persons.	Weeble Lane, Mansfield, Ginger Hall, Copra Lane, Fountain Lane, Castle hill, Bottom Yard, Bath.	N/A	Coordinator - Response & Recovery.
Elderly.	1 person.	Bath.	N/A	Coordinator - Response & Recovery.
Persons with Disability.	29 persons.	Bath.	N/A	Coordinator - Response & Recovery.

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.	None .	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Machetes.	None.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Shovels.	None.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Forks.	None.	Miss Martina Medley..	876 487-2656 Stthomasdm@gmail.com
Hazardous infection diseases protection materials: masks and alcohol-based gel.	Limited amount at Municipal Corporation.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com

APPENDIX D – ITEMS REQUIRED EXTERNALLY

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	RESPONSIBILITY
First Aid Kits.	Yes, required.	Ministry of Health, Jamaica Red Cross, Food for the Poor.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Hazardous infection diseases protection materials: masks.	Yes, required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Hazardous infection diseases protection materials: alcohol-based gel.	Yes, required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Shovels.	Yes, required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Water boots.	Yes, required.	Hardware, Food for the Poor, Department of Fisheries, Fisherman's Corp.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Heavy-duty gloves.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Rain cloaks.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Hard hats.	Yes, required.	Hardware, Food for the Poor, Livestock Association.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Machetes.	Yes, required.	Parish Council, ODPEM, MLSS, Red Cross.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	RESPONSIBILITY
Canvas Stretchers.	Yes, required.	Hardware, Food for the Poor, Department of Fisheries, Fisherman's Corp.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Crowbars.	Yes, required.	Parish Council, ODPEM, MLSS, Red Cross.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Rip/Crosscut Saws.	Yes, required.	Tankweld, Rhino.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Axe Saws with extra Blades.	Yes, required.	Wisynco, Hardware.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Heavy-duty Screw Drivers.	Yes, required.	Ministry of Health, National Water Commission.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Large/medium Cold Chisels.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Claw Hammers.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Heavy-duty Sledge Hammers.	Yes, required.	Gas Station.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com
Flashlights.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 Stthomasdm@gmail.com

APPENDIX E – LIST OF OFFICIAL AND UNOFFICIAL EMERGENCY SHELTERS

List of Official and Unofficial Emergency Shelters

SHELTER NAME AND LOCATION	ACCESS ROUTE TO SHELTER	AREA SERVED	SHELTER MANAGER AND CONTACT DETAILS	OTHER SHELTER TEAM MEMBERS AND KEY CONTACTS FOR FACILITY, AND CONTACT DETAILS
Bath Primary & Junior High.	See evacuation routes above.	Beacon Hill, Mansfield, Shanty Town, Behind Garden, Bottom Yard, Bachelors Hall, Wheelerfield.	Raeon Blake – (876) 391-3814.	Daniel Fulcott – (876) 353-1418.
Hayfield All Age.	See evacuation routes above.	Hayfield.	Veronica Drysdale – (876) 366-4313.	Calbert Cargil – (876) 366-1342.
Johnson Mountain All Age.	See evacuation routes above.	Johnson Mountain, Spring Bank, Tarris.	Jerry Campbell – (876) 808-7241.	-
Rowlandsfield Primary.	See evacuation routes above.	Rowlandsfield Haining .	Paulette Freckleton – (876) 402-5482.	-
Thornton Primary.	See evacuation routes above.	Over River, Sunning Hill, Water Valley.	Selbourne Ferguson – (876) 326-4709	-

APPENDIX

F – EMERGENCY SUPPLIES TO BE TAKEN TO SHELTER BY SHELTEREES

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

APPENDIX G – HURRICANE STANDARD OPERATING PROCEDURES (SOPS)

Purpose

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

Objectives

The concepts and procedures in this SOP are set to:

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

Threat Assessment

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

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

Basic Planning Assumptions

- » At least one major Hurricane will probably affect the country/community.
- » CDRM Group will remain active and functional.
- » Community members will be responsive to CDRM Group programmes, initiatives, warnings and other information.
- » There is commitment and support from agencies and departments of government to assist the community.
- » The community is willing to utilize its resources in preparedness and response.
- » CDRM Group will train and establish Community Emergency Response Team(s) (CERTs).

Concept of Operations

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

Procedures will be categorized into the following phases:

- Phase 1:** Prevention, Preparedness and Mitigation (January through to 144 hours before impact).
- Phase 2:** Alert (144 hours up to 72 hours before impact)
- Phase 3:** Event and Event Response (72 hours before impact through to 120 hours after landfall/All Clear)
- Phase 4:** Recovery

Hurricane Categories

Category One Hurricane

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

Category Two Hurricane

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

Category Three Hurricane

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

Category Four Hurricane

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

Category Five Hurricane

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

Warnings and Watches

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

Tropical Storm Watch

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

Tropical Storm Warning

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

Hurricane Watch

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

Hurricane Warning

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

Flash Flood Watch

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

Flash Flood Warning

Flash Flood Warning is issued when a flash flood is imminent. Everyone in the area should take immediate action to protect lives and property.

Operating Procedures

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

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Continue to support and promote public information and awareness programmes.	Coordinator – Public Education and Fund Raising	Winfred Scott
2. Sensitize special needs population	Coordinator – Public Education and Fund Raising	Winfred Scott
3. Organize how special needs population will be evacuated and transportation required.	Coordinator - Preparedness	Keneisha Coke

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

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 	Chairman - Mr. George Harris
<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. 	Coordinator – Preparedness - Keneisha Coke
<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 	Coordinator - Preparedness- Keneisha Coke
<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 	<p>Coordinator – Preparedness - Keneisha Coke</p> <p>Coordinator - Response & Recovery - Shenise Clayton</p>

ACTIVITIES	PERSON(S) RESPONSIBLE
<p>and doors.</p> <ul style="list-style-type: none"> » Have flashlight and extra batteries » Have portable battery-operated radio and extra batteries » Ensure provisions are put in place for emergency food and water. 	
<p>Protecting the community:</p> <ul style="list-style-type: none"> » Trim dead or weak branches from trees » Clear all drains that will cause flooding 	<p>Coordinator – Preparedness - Keneisha Coke</p> <p>Coordinator - Response & Recovery - Shenise Clayton</p>
<p>Listen to all weather advisories and information from ODPEM, MET office, and communicate with PDC.</p>	<p>Coordinator – Preparedness - Keneisha Coke</p> <p>Coordinator - Response & Recovery - Shenise Clayton</p>

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

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

A. HURRICANE WATCH - 48 Hours before Impact

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 1. Personal preparation food supplies 2. Securing official documents 3. Securing home and get rid of all thing around the yard that can be missile in a hurricane 4. Check on neighbors that may need help 	Coordinator - Response & Recovery - Shenise Clayton
Ensure the Elderly and Physical challenged are notified and assisted to prepare for event.	Coordinator - Response & Recovery - Shenise Clayton

B. HURRICANE WARNING - 36 Hours before impact

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 1. Activate and brief all community teams and volunteers 2. Test the systems of communication within the community. 3. If cell phones are the be used ensure credit is bought 	Coordinator - Response & Recovery - Shenise Clayton

ACTIVITIES	PERSON(S) RESPONSIBLE
4. Ensure phones can be charged	
Activate volunteers to be on standby to assist with damage assessment. Conduct briefing of these volunteers.	Coordinator - Response & Recovery - Shenise Clayton
1. Activate and prepare emergency shelters 2. Deploy relief and welfare volunteers to emergency shelters	Coordinator - Response & Recovery - Shenise Clayton
Ensure contacts are made with the PDC and other stakeholders for assessment of shelter facilities if necessary.	Coordinator - Response & Recovery - Shenise Clayton
Contact PDC and prepare to Initiate evacuation procedures for the community.	Coordinator - Response & Recovery - Shenise Clayton
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: » Food stocks/welfare items » Communications equipment » Manpower » Power saws 3. Refuel vehicles	Coordinator - Response & Recovery - Shenise Clayton Coordinator – Preparedness - Keneisha Coke
1. Encourage residents to activate family plans 2. Pre-position resources: List these resources » Equipment, ropes, etc » Food stocks/welfare items » Communications equipment	Coordinator - Response & Recovery - Shenise Clayton Coordinator – Preparedness - Keneisha Coke

ACTIVITIES	PERSON(S) RESPONSIBLE
» Manpower	

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 - Shenise Clayton
Activate and test local communications links and report to PDC.	Coordinator - Response & Recovery - Shenise Clayton
Brief community of activation of evacuation and persons to be evacuated: » Review evacuation routes and gather your disaster supply kit in case you are instructed to evacuate. » Communicate assembly points and deploy marshals. » Make contact with shelter managers to receive evacuees. » Inform PDC of actions to be taken. » All electricity and gas supplies should be shut-down when closing businesses or evacuating homes. » Ensure the Elderly and Physically challenged to be evacuated. » Ensure registration of all evacuated. » Check that all needing evacuees are safely evacuated.	Coordinator - Response & Recovery - Shenise Clayton
» 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	Coordinator - Response & Recovery - Shenise Clayton

ACTIVITIES	PERSON(S) RESPONSIBLE
responding agencies.	
Alert community Initial Damage Assessment Team(s).	Coordinator - Response & Recovery - Shenise Clayton
Confirm lines of credit with merchants to enable easy access to relief supplies after the disaster.	Coordinator - Response & Recovery - Shenise Clayton

D. 16 HOURS BEFORE IMPACT TO LANDFALL

ACTIVITIES	PERSON(S) RESPONSIBLE
1. Maintain contact with PEOC.	Chairman - Mr. George Harris
2. Advise PEOC of weather conditions and state of preparedness.	Vice Chairman - George Strachan
3. Confirm arrival and status of evacuees in shelters.	Coordinator - Response & Recovery - Shenise Clayton
4. Check in with standby teams and community response personnel.	

E. THE BLOW

ACTIVITIES	PERSON(S) RESPONSIBLE
Monitor and report events as far as possible.	Chairman - Mr. George Harris Vice Chairman - George Strachan
Maintain contact with PEOC, Shelters and response personnel.	Coordinator - Response & Recovery - Shenise Clayton

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 - Shenise Clayton
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 - Shenise Clayton

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 - Shenise Clayton
1. Provide ground reconnaissance intelligence to the PDC. 2. Assist the Fire Brigade and NWA with road clearing, and search and rescue activities through the PEOC. 3. Assist with the establishment and staffing of registration centers.	Coordinator - Response & Recovery - Shenise Clayton

ACTIVITIES	PERSON(S) RESPONSIBLE
<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 - Shenise Clayton
<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 - Shenise Clayton

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

ACTIVITIES	PERSON(S) RESPONSIBLE
<p>Constantly advise the community:</p> <ul style="list-style-type: none"> » To conserve water and food. » To stay living at their homes if it is safe to do so. » To take particular care with hygiene and sanitary practices. » Of measures being taken with respect to provision of food and water and restoration of public utilities. 	Coordinator - Response & Recovery - Shenise Clayton

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 1. Coordinate requests for and offers of assistance through the PEOC. 2. Coordinate reconnaissance and damage assessment teams through the PEOC. 3. Ascertain the early requirements for Government assistance in re-establishing the community. 	Coordinator - Response & Recovery - Shenise Clayton
<p>Coordinate the establishment, staffing and management of emergency shelters for sustained use in community.</p> <p>Encourage persons affected to stay with friends or family as first options.</p>	Coordinator - Response & Recovery - Shenise Clayton
<p>Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.</p>	Coordinator - Response & Recovery - Shenise Clayton
<ol style="list-style-type: none"> 1. Assist with the distribution of supplies. 2. Assist with the tracing of missing persons. 3. Assist with needs assessments. 4. Assist in the provision of welfare information to persons affected. 5. Begin to effect minor repairs to critical facilities and clear road ways and drains. 6. Continue to provide feedback and assistance to the community through the PDC and PEOC. 	<p>Coordinator - Response & Recovery - Shenise Clayton</p> <p>Chairman - Mr. George Harris</p> <p>Vice Chairman - George Strachan</p>

PHASE 4: Recovery

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 1. Mobilize Community members to assist each other with rehabilitation and reconstruction activities. 2. Encourage community members to rebuild bearing in mind mitigation measures (build back better). 3. Mobilize and conduct repairs to critical facilities and infrastructure (Schools, clinic, water supplies and others) 	<p>Coordinator - Response & Recovery - Shenise Clayton</p> <p>Coordinator - Prevention & Mitigation</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 - Mr. George Harris</p> <p>Vice Chairman - George Strachan</p> <p>Coordinator – Public Education and Fund Raising - Winfred Scott</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.	Chairman - Mr. George Harris
<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 - Mr. George Harris</p> <p>Vice Chairman - George Strachan</p>
Revise SOPs as necessary	<p>Chairman - Mr. George Harris</p> <p>Vice Chairman - George Strachan</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 Center
NEOC	National Emergency Operations Center
NGO	Non-Government Organization
ODPEM	Office of Preparedness and Emergency Management
PDC	Parish Disaster Coordinator/Committee
PEOC	Parish Emergency Operations Center

Definitions

All Clear

An All Clear is a statement issued by the pertinent authority (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 Center (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

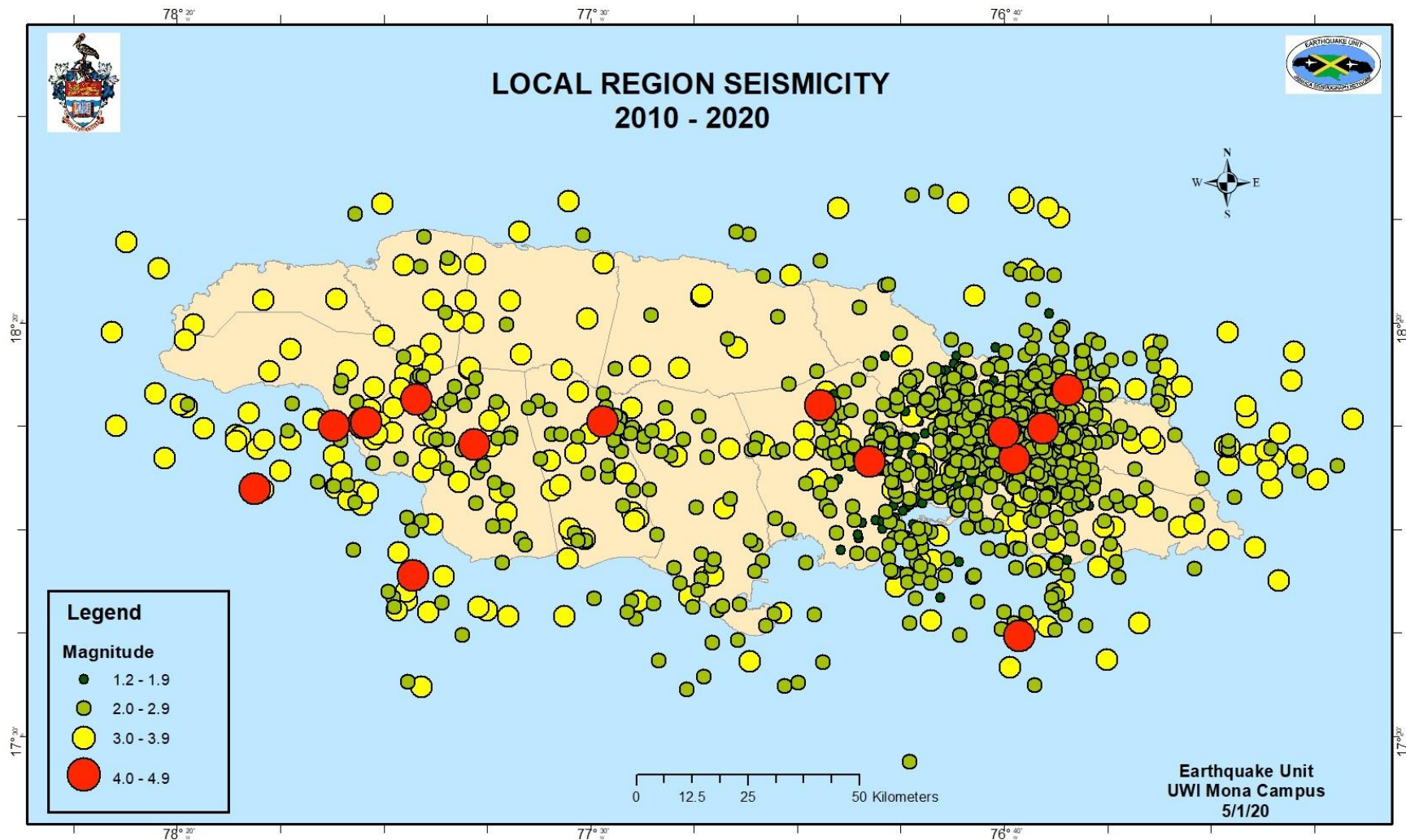
Tremors or smaller earthquakes that occur after the mainshock is felt. After-shocks can occur over a few hours to months after the mainshock.

Tremor

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

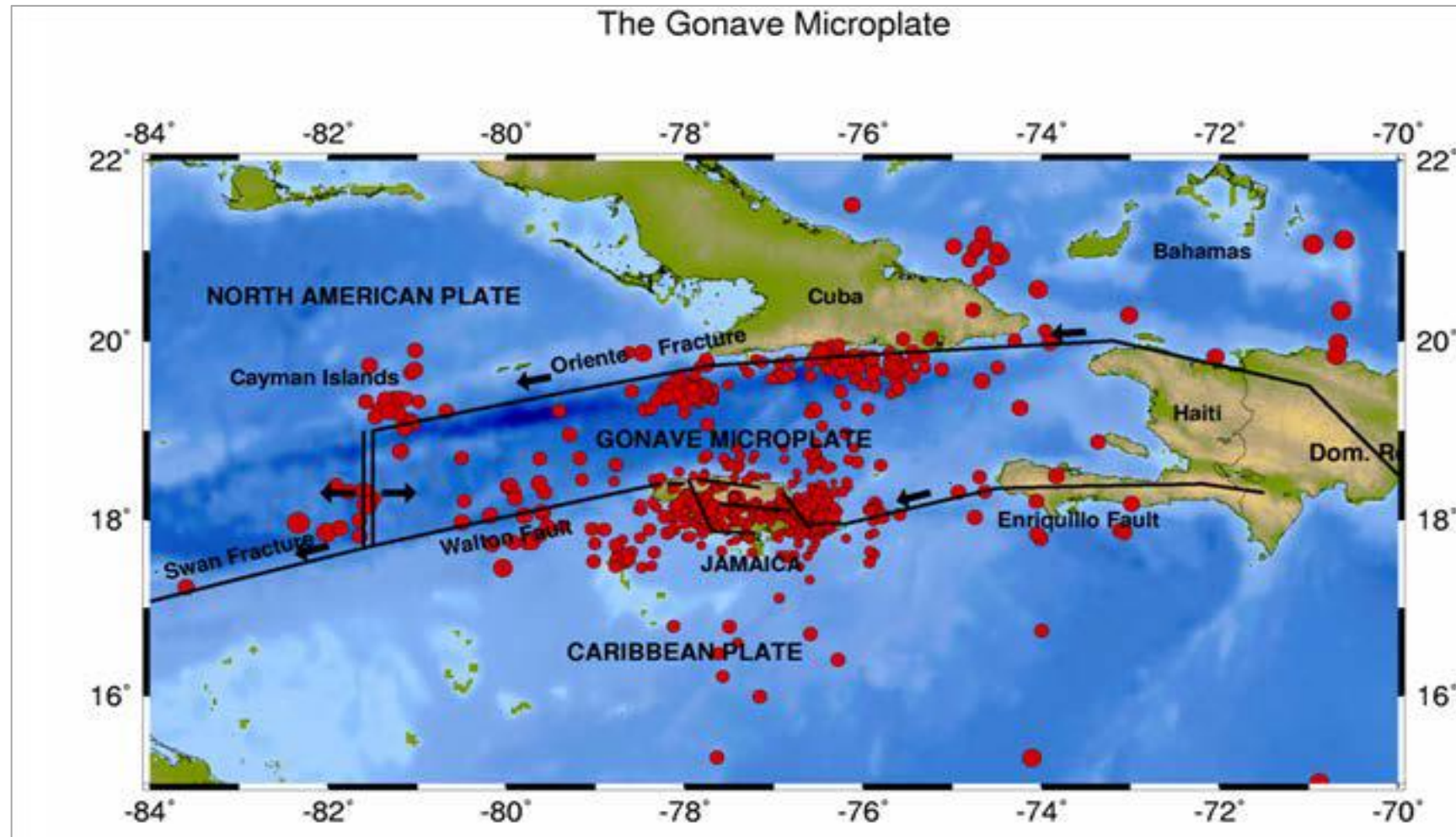
Magnitude

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



Source:
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	Winfred Scott
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	Keneisha Coke
4. Put arrangements in place to have vehicles to be used in evacuation fueled with petrol.	Coordinator – Preparedness	
5. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible.	Coordinator – Preparedness	
6. Sensitization of persons in the community without vehicles of assembly area for transportation to more safe location.	Coordinator – Public Education and Fund Raising	Winfred Scott
7. Identify areas in the community where high potential for infrastructure/property damages.	Coordinator - Vulnerability & Risk Identification	Shantelle Ellis
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	Keneisha Coke
10. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.	Coordinator – Preparedness	

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

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	Keneisha Coke Shenise Clayton Winfred Scott
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	Keneisha Coke Stephanie Burke Winfred Scott

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	Mr. George Harris George Strachan
2. Maintain contact with PEOC, Shelters and response personnel.	Coordinator - Response & Recovery	Shenise Clayton
3. Depending on the severity, ensure all buildings are vacated. Account for missing persons.	Coordinator - Response & Recovery	Shenise Clayton
4. DRM Team Advise the Community to listen to all advisories and remain alert for after shocks	Coordinator – Preparedness	Keneisha Coke

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Check with PDC for persons to return home but only after authorities say it is safe to do so. Keep tuned to your local radio or TV station for recovery information. Confirm All Clear.	Coordinator - Response & Recovery	Shenise Clayton
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	Shenise Clayton Winfred Scott

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/Parish Council/PEOC. » Check for water leaks in homes/yards. Report to NWC and Parish Disaster Coordinator/Parish Council/PEOC. » Check for gas leaks. If they smell gas or hear a blowing or hissing noise, quickly leave the building and leave the doors open. Call the gas company. » Look for electrical system damage. If they see sparks or frayed wires, turn off electricity at the main fuse box. » If have to step in water to reach the electric » box, call an electrician for advice. 	Coordinator - Response & Recovery	Shenise Clayton
14. Check for general sewage and water-line damage in the community.		
15. If you suspect there is such damage, call the NWC company and or PDC.		
16. Advise community not to drink or prepare food with tap water until notified it is safe to do so.		
<p>17. Constantly advise the community:</p> <ul style="list-style-type: none"> » To conserve water and food; » To stay living at their homes if it is safe to do so; » To take particular care with hygiene and sanitary practices; » Of measures being taken with respect to provision of food and water and restoration of public utilities. 		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
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	Shenise Clayton
22. Encourage persons affected to stay with friends or family as first options.		Shantelle Ellis
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	Shenise Clayton
25. Assist with the tracing of missing persons		
26. Assist with needs assessments		
27. Assist in the provision of welfare information to persons affected		
28. Begin to effect minor repairs to critical facilities and clear road ways and drains		
29. Continue to provide feedback and assistance to the community through the PDC and PEOC.		

PHASE 3: RECOVERY

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Mobilize Community members to assist each other with rehabilitation and reconstruction activities.	Coordinator - Response & Recovery Coordinator – Public Education and Fund Raising	Shenise Clayton
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	
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? » Which systems were overburdened? » What resources were lacking (human and physical)? » How did the community cope? » What areas of the SOPs need to be reconsidered?		
8. Revise SOPs as necessary		Chairman
		Mr. George Harris

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 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	Winfred Scott
2. Sensitize special needs population.		
3. Organize how special needs population will be evacuated and transportation required.	Coordinator – Preparedness	Keneisha Coke
4. Put arrangements in place to have vehicles to be used in evacuation fueled with petrol.		
5. Ensure that appropriate fire extinguishing materials are in place in community center and shelters.		
6. Ensure that First Aid Kits and Rescue equipment are stocked and in good condition for use in the event of an emergency.	Coordinator - Response & Recovery	Shenise Clayton
7. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible.	Coordinator – Preparedness	Keneisha Coke
8. Sensitization of residents on fire safety to be conducted on a yearly basis.	Coordinator – Public Education and Fund Raising	Winfred Scott
9. Identify areas in the community where high potential for infrastructure/property damages.	Coordinator - Vulnerability & Risk Identification	Shantelle Ellis

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
10. Ensure DRM teams are aware of all high-risk locations in the community.		
11. Prepare areas for sheltering persons in need.	Coordinator – Preparedness	Keneisha Coke
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	Stephanie Burke
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	Chairman - Mr. George Harris
16. Conduct Fire Drills at least once yearly.		
17. Personal for families and businesses: <ul style="list-style-type: none"> » Make sure your family goes over the family disaster plan. » All family members should know their evacuation plan. » Store important documents in fireproof box (where possible) or safe. » Houses should be safely wired. An electrical inspection should be conducted: <ul style="list-style-type: none"> ✓ For new buildings or building extensions; and ✓ For older buildings every 2-3 years; annually where rodents and termites are prevalent or where houses are located by the sea or where corrosion can take place. » Actively practice fire safety when cooking and in use of matches or flammable material, in monitoring children, when smoking, use of 	Coordinator – Preparedness Coordinator - Response & Recovery Coordinator – Public Education and Fund Raising	Keneisha Coke Shenise Clayton

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>electrics and the wiring of buildings, etc.</p> <ul style="list-style-type: none"> » 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>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>Stephanie Burke Keneisha Coke</p>
<p>19. Protecting the community (businesses):</p> <ul style="list-style-type: none"> » Install smoke detectors within Business and institutions. » Exit signs must be fitted to all exit doors. Signs must be written in bold red and white background. » All buildings must have proper exits, evacuation routes and emergency assembly areas. » Encourage the usage of fire-resistant materials when building, renovating, or retrofitting structures. » Encourage the storage of combustible/ flammable materials in approved 	<p>Coordinator - Prevention & Mitigation Coordinator – Preparedness</p>	<p>Stephanie Burke Keneisha Coke</p>

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
safety containers and keep away from home.		
<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</p> <p>Coordinator – Preparedness</p>	<p>Stephanie Burke</p> <p>Keneisha Coke</p>
21. Obtain local building codes and weed abatement ordinances for buildings near wooded areas.	<p>Chairman</p> <p>Coordinator – Preparedness</p>	<p>Mr. George Harris</p> <p>Keneisha Coke</p>
<p>22. Brief community of activation of evacuation and persons to be evacuated:</p> <ul style="list-style-type: none"> » Review evacuation routes and gather your disaster supply kit in case you are instructed to evacuate. » Communicate assembly points and deploy marshals. » Make contact with shelter managers to receive evacuees. » Inform PDC of actions to be taken. » All electricity and gas supplies should be shut-down when closing businesses or evacuating homes. » Ensure the Elderly and physically challenged to be evacuated and make special arrangement for them. 	<p>Coordinator - Response & Recovery</p>	<p>Shenise Clayton</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	Shenise Clayton

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. 	Coordinator - Response & Recovery	Shenise Clayton
<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, persons with disabilities, 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>3. Remind community persons to have contact numbers for the Fire Department and Community Emergency Preparedness and Response Team.</p>	Coordinator – Preparedness	Keneisha Coke

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	Shenise Clayton
2. Conduct Damage & Needs Assessment <ul style="list-style-type: none"> a. Deploy community damage survey teams or assessors (with Parish Council if more than 3 homes/properties are affected). b. Deploy community response teams to check on vulnerable (elderly and physically challenged) and critical facilities. c. Check for associated deaths, injuries and persons needing emergency or psychosocial assistance. d. Conduct first aid and search and rescue operations as necessary. e. Notify emergency personnel of additional critical/emergency cases. 		
3. Provide initial damage survey results and needs assessment for the community to Fire Department, Parish Council and other relevant authority (e.g. Social Worker from Ministry of Labour and Social Security)		
4. Encourage persons affected to stay with friends or family as first options after a fire.		
5. Coordinate the establishment, staffing and management of emergency shelters for sustained use in community.		
6. Coordinate requests for and offers of assistance through the Parish Council. <ul style="list-style-type: none"> » Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC. » Assist with the distribution of supplies. » Assist with needs assessments. » Assist in the provision of welfare information to persons affected. 		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
7. Assist with the tracing of missing persons.		
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? » What areas of the SOPs need to be reconsidered? 		
17. Revise SOPs as necessary.	Chairman	Mr. George Harris

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



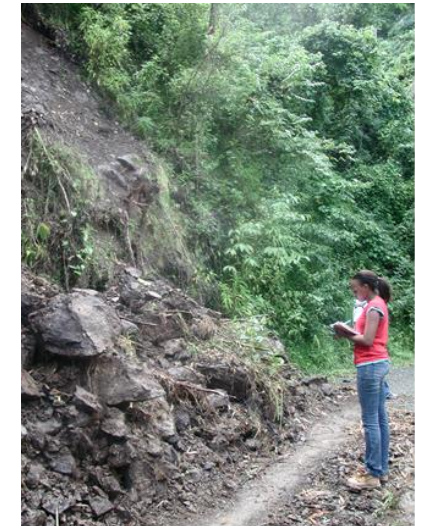
A washout that affected the Bath main road during Tropical Storm Gustav in 2010.

Source: Tropical Storm Gustav Damage Assessment Report, Mines and Geology Division 2010.



Landslide in Beacon Hill due to Tropical Storm Gustav, 2010.

Source: Tropical Storm Gustav Damage Assessment Report, Mines and Geology Division 2010.



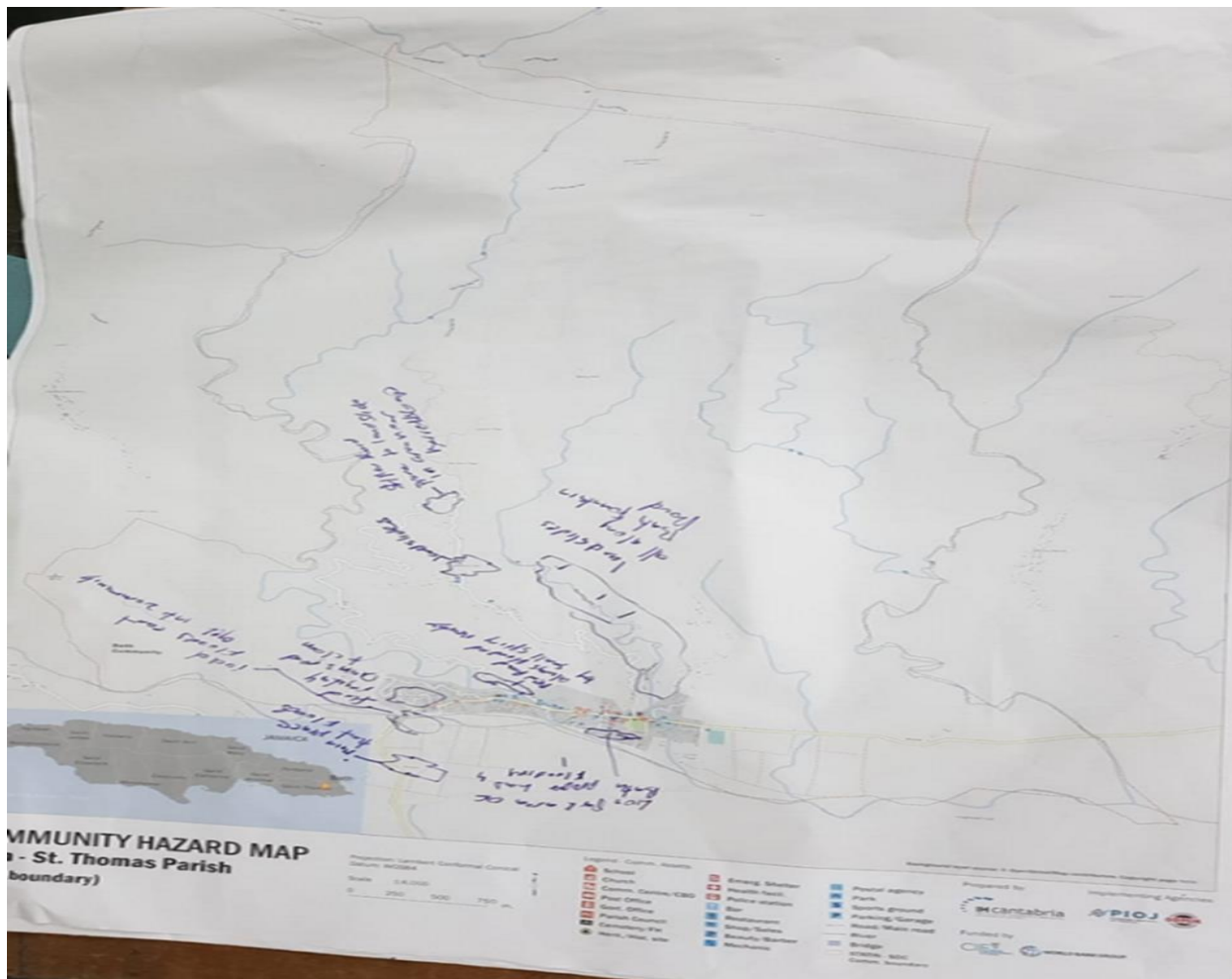
Collapsed roadway in Bath in 2017 due to heavy rains.

Source: Tropical Storm Gustav Damage Assessment Report, Mines and Geology Division 2010.



Collapsed roadway in Bath in 2017 due to heavy rains

Source: St Thomas Municipal Corporation.



Photograph of the hand drawn community hazard map prepared during the community plan workshops held in Bath.