

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
LAWRENCE TAVERN, ST, ANDREW**

Validated Plan, March 31, 2022

Funded by



Implementing agencies



Prepared by:



Working team:

Ignacio Aguirre Ayerbe
Disaster Risk Management Specialist

Georgia Crawford
Sociologist

María Merino
Coastal Management Specialist

Karema A. Mitchell
Disaster Risk Management Specialist

Document Version	Date	Status	Comments
V1	15/03/2021	Draft	Deliverable D3
V2	21/06/2021	Final Draft	Deliverable D4
V3	23/12/2021	Validated	Deliverable D6
V3 reviewed	31/03/2022	Final Validated	Deliverable D6

OUTLINE

ACKNOWLEDGEMENT	6
GLOSSARY OF TERMS	7
ABBREVIATIONS.....	11
PREAMBLE	13
Name of the Plan.....	13
Background	13
Purpose of the Plan	13
Actors (and contact list)	14
Scope of Plan	16
Authority	16
Responsibility	18
Assumptions	18
Relationship to Parish and National Plans/Structure.....	18
Leadership of the CDRM Group	19
Frequency of CDRM Meetings	19
1 COMMUNITY PROFILE	20
1.1 Description of the Community	20
1.1.1 Summary of main hazards	21
1.2 Location and districts of community in this Plan	21

1.2.1	Location map	23
2	DISASTER RISK MANAGEMENT (DRM) ORGANIZATIONAL STRUCTURE	24
2.1	National Institutions	24
2.2	Parish and Community organizations.....	24
2.3	Gaps and challenges	26
3	DISASTER HISTORY	27
3.1	History of disasters and coping mechanisms	27
3.2	Lessons learnt.....	29
4	COMMUNITY ASSETS.....	30
5	COMMUNITY HAZARD MAP	32
6	IDENTIFICATION OF CLIMATE AND NON-CLIMATE HAZARDS AND IMPACTED ASSETS	36
7	IDENTIFICATION OF COMMUNITY VULNERABILITY.....	39
8	COMMUNITY CAPACITY ANALYSIS	42
9	DISASTER RISK REDUCTION	43
9.1	Prevention and Mitigation	43
9.1.1	Areas which should not be developed	43
9.1.2	Zoning	45
9.1.3	Areas which can be developed with Appropriate Mitigation Activities	45
9.1.4	Reducing Community Vulnerability through Disaster Risk Mitigation and Adaptation	46
9.2	Preparedness and Initial response	49
9.2.1	Public education and awareness	49

9.2.2	Monitoring and Warning	51
9.2.3	Evacuation	51
9.2.4	Preparedness Action Plan	56
9.2.5	Response and Relief	57
9.2.6	Recovery	63
APPENDIX A – COMMUNITY EMERGENCY CONTACT LIST		65
APPENDIX B – VULNERABLE POPULATION		66
APPENDIX C – EQUIPMENT ALREADY AVAILABLE IN THE COMMUNITY		67
APPENDIX D – ITEMS REQUIRED EXTERNALLY		68
APPENDIX E – LIST OF OFFICIAL AND UNOFFICIAL EMERGENCY SHELTERS		70
APPENDIX F – EMERGENCY SUPPLIES TO BE TAKEN TO SHELTER BY SHELTEREES		72
APPENDIX G – HURRICANE STANDARD OPERATING PROCEDURES (SOPS)		73
	Purpose	73
	Objectives	73
	Threat Assessment	73
	Basic Planning Assumptions	74
	Concept of Operations	74
	Hurricane Categories	75
	Operating Procedures	76
APPENDIX H – EARTHQUAKES – STANDARD OPERATING PROCEDURES (SOP)		87
	Purpose	87

Objectives.....	87
Threat Assessment	87
Basic Planning Assumptions	87
Concept of Operations	88
Acronyms.....	88
Definitions	89
Operating Procedures	92
APPENDIX I – Fire Standard Operating Procedures.....	100
Purpose	100
Objectives.....	100
Basic Planning Assumptions	100
Concept of Operations	101
Glossary of terms	102
Operating procedures	103
During the fire	108
APPENDIX J – TERMS OF REFERENCE CDRM GROUP	114
CDRM Group	114
Executive Membership.....	114
Community Organization with responsibility for CDRM	115
Naming the CDRM Group.....	115
Leadership of the CDRM Group	115

Frequency of CDRM Meetings	115
Funding of CDRM Group and Activities.....	116
Interaction with Local Authorities and the Parish Disaster Committee (PDC).....	116
Interact with ODPEM and other technical agencies/departments (local or national)	116
Interaction with Councillors, Members of Parliament and other Political Representatives	117
Interaction with Private Sector and other NGOs/CBOs	117
Recording keeping by CDRM Group	117
Wider Community Involvement.....	118
Roles and Functions of the Executive Membership for DRM	118
APPENDIX K – PHOTO GALLERY.....	123

ACKNOWLEDGEMENT



Planning Institute of Jamaica

Office of Disaster Preparedness and Emergency Management

Kingston and St. Andrew Municipal Corporation

Climate Investment Funds

The World Bank Group

IHCantabria – Environmental Hydraulics Institute of the University of Cantabria

GLOSSARY OF TERMS

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

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

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

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

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

Capacity Building: Efforts aimed to develop human skills or societal infrastructures within a community or organization needed to reduce the level of risk.

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

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

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

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

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

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

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

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

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

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

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

Hurricane: A hurricane is a large tropical storm with winds of 74 mph or greater, moving counterclockwise. In addition to intense winds, hurricanes are accompanied by heavy rains, flooding along the coast, flooding inland and tornadoes. The Saffir-Simpson Hurricane Scale is a one to five ratings based on

the hurricane's present intensity. This is used to give an estimate of the potential property damage and flooding expected along the coast from a hurricane landfall. Wind speed is the determining factor of this scale.

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

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

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

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

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

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

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

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

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

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

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

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

Tropical Disturbance: A tropical disturbance is a cluster of thunderstorms poorly organized.

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

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

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

Tropical Storm Watch: issued when tropical storm conditions, including winds from 39 to 73 mph, pose a possible threat to a specified coastal area within 36 to 48 hours.

Vulnerability: The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.

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

Zonal Committee: Organized community group within a zone that has accepted the responsibilities for leading the charge of disaster management issues of the zone, has a wide cross representation of the zone and has elected officers to serve as the executive of the committee under the guidance of the Parish Disaster Committee through the Parish Coordinator-Disaster Preparedness.

ABBREVIATIONS

ADRA	Adventist Development and Relief Agency
AAR	After Action Report
CBO	Community Based Organizations
CCA	Climate change adaptation
CDRM	Community Disaster Risk Management
CERT	Community Emergency Response Team (also referred to in this document as DRM Team)
DRM	Disaster Risk Management
EOC	Emergency Operations Centre
GOJ	Government of Jamaica
ICDIMP	Improving Climate Data and Information Management Project
JAS	Jamaica Agricultural Society
JCF	Jamaica Constabulary Force
KSAMC	Kingston and St. Andrew Municipal Corporation
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 **“Lawrence Tavern 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 for Disaster Preparedness and Emergency Management (ODPEM) seeks to update existing Community Disaster Risks Management (CDRM) Plans to include risk profiles and community level resilience mitigation and climate change adaptation (CCA) initiatives that can be implemented by the communities.

Purpose of the Plan

This plan provides:

1. The residents with a workable, comprehensive system to plan for and respond to emergencies and disasters to minimize loss of life and property.
2. A basic outline of shelters, welfare and relief system as well as some focus on evacuation planning that will make preparation, response and recovery from a disaster more effective.
3. Provide an emergency contact list and identification of vulnerable populations living in Lawrence Tavern
4. A basic guideline for the community outlining who is responsible for specific actions or specific areas, and who is in charge of critical functions in managing an emergency.
5. An overall framework for reducing risks in the community including recovery, 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 (DRMG)	Patrick McCalla	(876) 443-7863
	Community Emergency and Response Team (CERT)	Ms. Faith Yates	(876) 293-6615
	Kingston and St Andrew Municipal Corporation (KSAMC)	Ms. Terry Forrester – Parish Disaster Coordinator	(876) 848- 5009 terry.forrester@ksamc.gov.jm
	Kingston and St Andrew Parish Disaster Committee	Ms. Terry Forrester – Parish Disaster Coordinator	(876) 848- 5009 terry.forrester@ksamc.gov.jm
	Ministry of Labour and Social Security (MLSS)	Mr. Vinroy Reid	(876) 399-1713 vinroy.reid@mlss.gov.jm
	Social Development Commission (SDC)	Mrs. Marcia Saddler – Community Development Officer	(876) 322-8065 hyltond@sd.gov.jm (876) 770-9408
	Jamaica Fire Brigade (JFB)	Assistant Superintendent Valerie Dixon Superintendent Julian Davis Buckle	(876) 469-1184 dhksa.jfb@cwjamaica.com
	Jamaica Constabulary Force (JCF)	Senior Superintendent Mr. Gary Griffiths	(876) 833-7469 gary.griffiths@jcf.gov.jm
	Ministry of Health and Wellness (MOHW)	Dr. Winifred Meeks – Chief Public Health Inspector	(876) 425-3026 ksaphi@live.com (876) 317-9563

LEVEL	ACTOR	CONTACT PERSON	TELEPHONE Nº/EMAIL
		Dr. Audre McIntosh – Medical Officer responsible for Disaster Management with the KSA Health Department	
National	Office of Disaster Preparedness and Emergency Management (ODPEM)	Ms. Sophia Mitchell – Regional Coordinator, East	(876) 430-5585 smitchell@odpem.org.jm

Scope of Plan

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

Authority

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

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

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

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

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

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

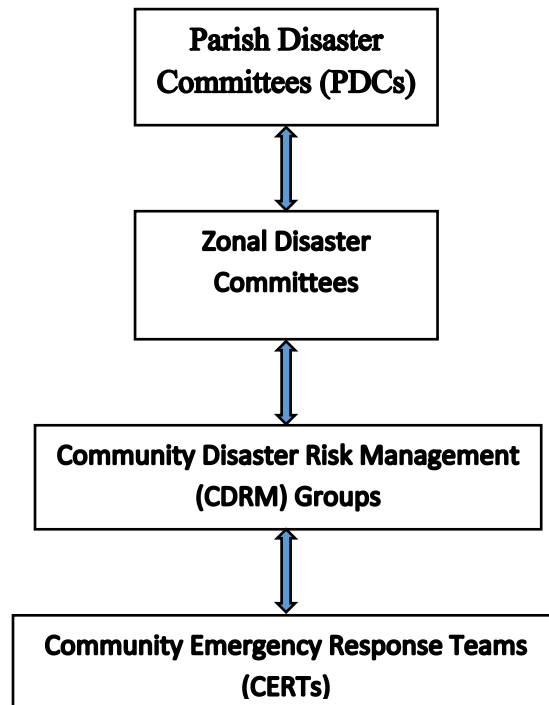


Diagram showing the relationship between the Parish, Zones and CDRMG.

Responsibility

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

Leadership of the CDRM Group

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

Frequency of CDRM Meetings

- » The group should meet officially on an average bi-monthly (every 2 months).
- » However, for existing groups, they should include DRM as an agenda item at the regular CBO (E.g. Citizens Association).
- » Special meetings, briefings and workshops may be convened by the implementer as necessary, inviting stakeholders as appropriate.

1 COMMUNITY PROFILE

1.1 Description of the Community

Lawrence Tavern is a rural community located in the north-western section of St Andrew (West Rural St Andrew Constituency), at its border with St Mary and St Catherine. It is located about 14 miles from Kingston (SDC, 2004). The community comprises hilly terrain interspersed with small streams. The geology of the area is predominantly granodiorite which is highly prone to landslip risk because the slope stability is generally poor. The topography, together with the geology, makes the community prone to landslides.

Based on STATIN's data for the 2011 population census, the population of the community is approximately 14,383 persons with 55% males and 45% females. This is more than double the population in 2001, which stood at 5,835 persons. Children and the elderly make up 32% of the current population. Employment is very diverse in this community. Farming remains an important economic activity, however, many persons are employed through small businesses. Artisans such as carpenters, masons etc., are also present in the community. Notwithstanding, a large percentage of the population is employed outside of the community.

Social amenities available in the community include a type II health centre: 15 schools – 1 high school, 2 primary and 11 pre-primary schools and 1 primary and pre-primary school. There is also 1 police station, a fire station and a post office. Utilities are also supplied to the community.

Piped water is the dominant source of water supply and 55% of the community access water from public sources, mainly piped into a dwelling or ripped into a yard, both accounting for almost 75% of the public sources. 13% receive from private sources mainly spring or river (18%) and trucked (6.5%). Overall, 10% of the community utilizes catchments as a source of water supply. The majority of these (10%) are private sources. Electricity is the main source of lighting with 94% of the community having access while the remaining 4% uses kerosene.

According to the 2011 population and housing census, 50% of the community disposes of garbage by public collection with 18% and 6% reporting regular and irregular collection respectively. Around 5.6% of the community dispose of their garbage by dumping, mainly at the municipal dump while a small percentage dump in the sea/river/gully, in their yards, bury or burn their garbage.

The predominant material used in the construction of the outer walls of houses in the community is concrete and block, accounting for 80% of the houses. Other less popular materials are wood (15%), wood, and concrete (4%). Just under 90% of the community does not share toilet facilities. These include water

closet, which is the most popular and used by 69% of the community followed by pit latrines, which account for 16% of the total households. Approximately 12% of the community shares toilet facilities.

1.1.1 Summary of main hazards

The main hazard facing the community is landslides, which are due to the fragile geology of the community and the steep slopes. Flooding occurs but is not so prevalent. While landslides occur on an annual basis, they are more frequent and severe during extreme rainfall.

1.2 Location and districts of community in this Plan

Based on SDC's community listing, Lawrence Tavern consists of 16 districts, they are:

Belmont	Burnt Shop	Essex Hall	King Weston
Fern Hill	Claypole	George Mason Drive	Mahony
Florence Hill	Coakley	Goulbourne	Mount Charles
Border	Content	Grant Hill	Border

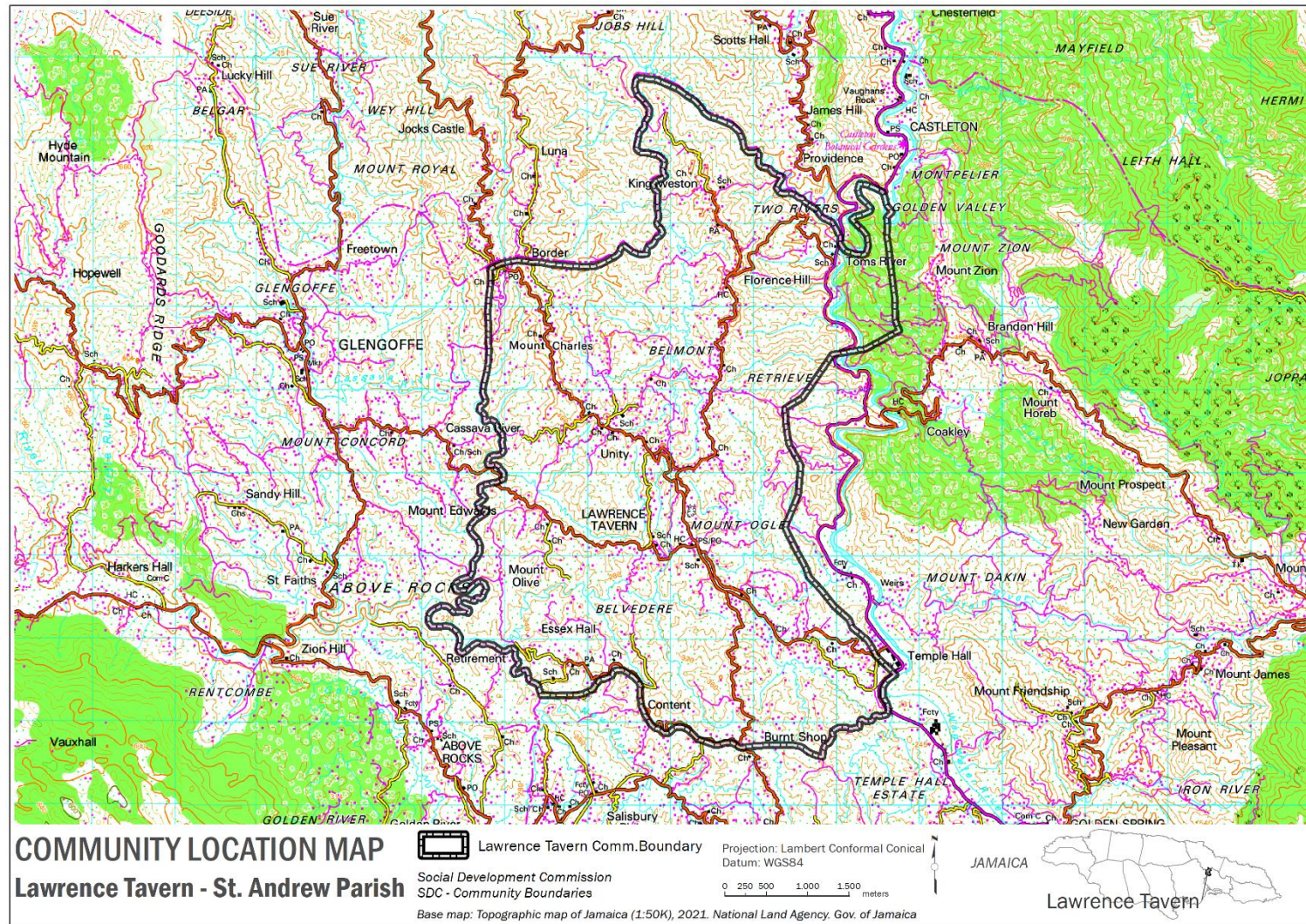
Table 2. Districts and Coordinators Contact List

The residents have identified the following districts as comprising the community.

#	DISTRICT	TEAM LEADER	CONTACT #	E-MAIL
1.	Brandon Hill	Beverley Forrester	(876) 398-0623	-
2.	King Weston	Diana Lindo	(876) 452-4456	-
3.	New Garden	Callena Baxter	(876) 852-7924	-
4.	Border	Shana-Kay McCalla	(876) 854-5500	-

#	DISTRICT	TEAM LEADER	CONTACT #	E-MAIL
5.	Belmont	Faith Yates	(876) 293-6615	fy_060@yahoo.com
6.	Tom's River	Jessica Jobson	(876) 543-6815	-
7.	Mt. Friendship	Shana-Kay McCalla	(876) 429-4138	babarataylor1963@gmail.com
8.	Mount Prospect	Carica Ellis	(876) 436-5537	caricaellis@gmail.com
9.	New Garden	Cecil Chinnon	(876) 883-5348	cecilchinnon89@gmail.com
10.	Goulbourne	Andrea Black	(876) 495-4607	-
11.	Essex Hall	Edward Lafayette	(876) 909-1828	-

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. There are seven committees that work to support the National Disaster Council (NDRMC) – Finance, Planning and Administration, Recovery Planning, Preparedness and Emergency Operations, Emergency Health and Planning, Public Information and Education, Humanitarian and Prevention and Mitigation.

2.2 Parish and Community organizations

At the parish level, the Kingston and St Andrew Municipal Corporation 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 for 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	Mr. Patrick McCalla	(876) 443-7863
Vice Chairman	Mr. Leroy Allen	(876) 534-1065
Secretary	Ms. Diana Lindo	(876) 452-4456
Treasurer	Ms. Natalie Gregory	(876) 482-9960
Assistant Secretary	Mr. Jermaine Mason	(876) 446-9011
Coordinator – Public Education and Fundraising	Ms. Tianah Polo	(876) 434-7541
Coordinator – Vulnerability and Risk Identification	Ms. Andrea Black	(876) 495-4607
Coordinator – Prevention, Mitigation and Adaptation	Ms. Nicole Dacres	(876) 529-0073
Coordinator – Response and Recovery	Ms. Shana-Kay McCalla	(876) 382-2730
Coordinator – Preparedness	Ms. Shanette Binns	(876) 551-2456

CDRM Group will train and establish Community Emergency Response Team(s) (CERTs) which are the operative teams under the Response and Recovery Coordinator. At 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 between coordinator and assistants (during the crisis).
- » Evacuation coordinator and assistants.

The community should have persons trained in these topics.

2.3 Gaps and challenges

Community Level

- » Stronger communication and resources are needed by the disaster coordinators.

National Level

- » ODPEM should coordinate more DRM training.
- » Shelters are inadequate and are not equipped with the relevant resources.

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?
Rain, Oct. –Dec. 2020 (impacts comparable to Hurricane Gilbert in 1988)	<ul style="list-style-type: none"> » The heavy rainfall triggered a landslide in Mount Charles, Border, Belmont, King Weston, Lime Edge, and the New Unity area adjoining Pent Hill. » There was a major landslide in the Border and a tractor was commissioned to clear the road from Mount Charles to Border. » Another major landslide occurred in Mount Friendship, which was also cleared by a tractor over several days. » There was a serious breakaway along Pleasant Spring Road. » There were leakages to many slab roofs due to the constant rains and a few houses received cracks. 	<ul style="list-style-type: none"> » The community cleared the landslides where they could. » Many tried to use alternate routes to exit their communities. » Most stayed in until the roads were cleared. » Some relied on subsistence farming or food shared with neighbours.
Heavy Rains, 2016	Heavy rains led to major breakaways along the Mount Ogle main road and there were also landslides in the community.	<ul style="list-style-type: none"> » Stayed in or tried to find alternate routes.
Heavy Rains 2013 - 2014	There were major breakaways along the road from Mount Ogle to Temple Hall. No vehicular traffic was possible for months.	<ul style="list-style-type: none"> » Residents were marooned for weeks. » Some persons sought alternate routes through the bush.

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Hurricane Sandy, 2012	A landslide occurred as a result of the passage of Hurricane Sandy, blocking access routes in certain areas.	
Flood, 2010	The main road from Mount Airy to Brandon Hill was destroyed by the flood. Repair work began along this road, but the road is not yet fixed.	» Community members stayed in until persons found/made alternate routes out.
Tropical Storm Gustav, 2008	<ul style="list-style-type: none"> » Major flooding. » Roofs were blown off. » Loss of life and damage to infrastructure, disruption in utility supplies. 	» Residents assisted each other. RADA collected data but provided little assistance. Just a few persons got fertilizers.
Hurricane Dean, 2007	<ul style="list-style-type: none"> » Major flooding. » Roofs were blown off. » Loss of life and damage to infrastructure, disruption in utility supplies. 	» Residents assisted each other.
Hurricane Emily, 2005	Loss of income, livestock (chicken) and communication, a lot of rain, damage to infrastructure and road network.	» Residents assisted each other.
Hurricane Ivan, 2004	<ul style="list-style-type: none"> » Major flooding. » Roofs were blown off. » Loss of life and damage to infrastructure, disruption in utility supplies. 	» Residents assisted each other and received assistance from National Works Agency.
Anomalous Rains, 2002	<ul style="list-style-type: none"> » Strong winds and flooding occurred. » Cable and Wireless Jamaica Ltd. reported that they suffered damages mainly to utility poles and lines. 	-
Flooding, September 2002	Houses were flooded and a tree blocked a road.	-
Hurricane Michelle, 2001	Flooding occurred during the passage of the hurricane.	-
Hurricane Gilbert, 1998 (Most impactful)	Damage and destruction of homes, livestock, food supply, road network and trees, deaths of residents, flooding,	Residents shared food items. The community received assistance from government disaster welfare agencies

DISASTER YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
	landslides, loss of infrastructure, disruption of utility supplies, and roadblocks. 2 houses sank in Mount Pleasant.	and NGOs (Food for the Poor, churches, RADA, Red Cross).
Earthquake, 1993	Cracks in schools and other buildings, Residents were traumatized, cracks in homes.	The community helped each other to cope.
Flood on Mount Ogle – May 1991	Flood in Mount Ogle area, houses washed away.	Some residents went to the shelters. Some residents relocated permanently.
Hurricane Flora, 1964	Houses were destroyed, loss of power, landslides and roadblocks.	The community shared food items and helped each other to cope.

3.2 Lessons learnt

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

- » The community, due to its soil type and location is prone to landslides, hence NWA needs to be on call so that they can quickly remove roadblocks caused by landslides in the area.
- » Residents should always have extra food in stock, in case they get marooned by landslides or on rare occasions flooded roads.
- » Residents need to build deep strong retaining walls and practice farming methods that will help to prevent landslides.
- » Houses built nearer to the gully edges are the ones mainly affected by landslides.
- » Iron River is prone to landslides and needs a bridge as the fording in the area is often flooded when it rains.
- » The road at Burnt shop needs a retaining wall and continuous maintenance.
- » A foot bridge is needed in Goulbourne near Oberlin because whenever it rains water from Grant Hill flows down to the stream nearby, it becomes a river, and the residents are unable to traverse the area.
- » The land and road on which City Mission Church in Mount Ogle is located is breaking away. It will possibly break away fully if there is another round of heavy rains.
- » Stones from Pigeon Valley may cause bush fires when the time gets dry.

4 COMMUNITY ASSETS

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

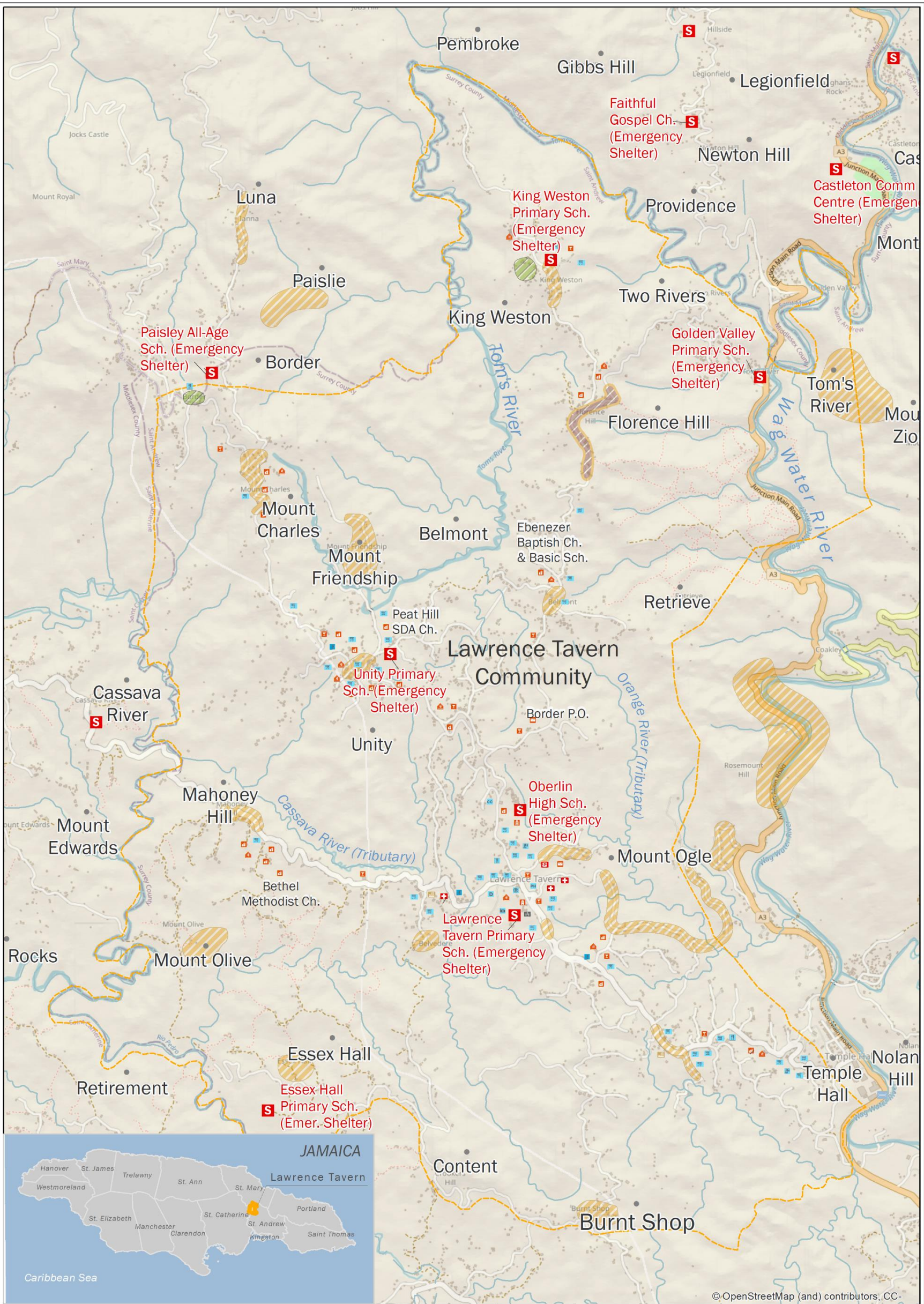
Table 5. Community Assets

ASSET CATEGORY	ASSETS
Natural	Sand – Temple Hall and Rose Hall have commercial sand mining. The other districts have sand mining but not in commercial quantities
	Limestone – not much
	Agricultural lands – lots of farms that are mainly subsistence
	Springs – Mount Friendship, Lime Edge, Belmont. These are sufficient to maintain the community
	River – Wag Water River, Toms River in Belmont, Cassava River, Ball River, Ramble, Temple Hall
	Forested Areas
Physical	Several churches
	One high school, three primary schools, three all age and fourteen basic schools
	One postal agency

ASSET CATEGORY	ASSETS
	Garbage Disposal Services – not often
	One health centre (type 2)
	Police station
	Electric supply and streetlights
	Football field – Golden Spring
	Secondary roads made of limestone and gravel
	Domestic water supply
	Public transportation
	Telephone line, internet and cable
Financial, human and social	Western Union
	Professional and skilled labour – Carpenters, masons farmers, teachers, dressmakers etc

5 COMMUNITY HAZARD MAP

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



COMMUNITY HAZARD MAP

Lawrence Tavern - St. Andrew Parish
(SDC Boundary)

Projection: Lambert Conformal Conical
Datum: WGS84

Scale: 1:2,400,000

0 38,000 m

Legend

- Small Districts
- School
- Church
- Post Office
- Business
- Bar

- Health Facil.
- Police Station
- Emergency Shelter
- Factory
- Funeral Home
- Garbage Disposal

- Restaurant
- Dental Office
- Bank
- Shop
- Beauty/Barber
- Photo Shop
- Conference Centre
- Pharmacy

- Landslide
- Wind Damage
- Road Breakaway

Prepared by



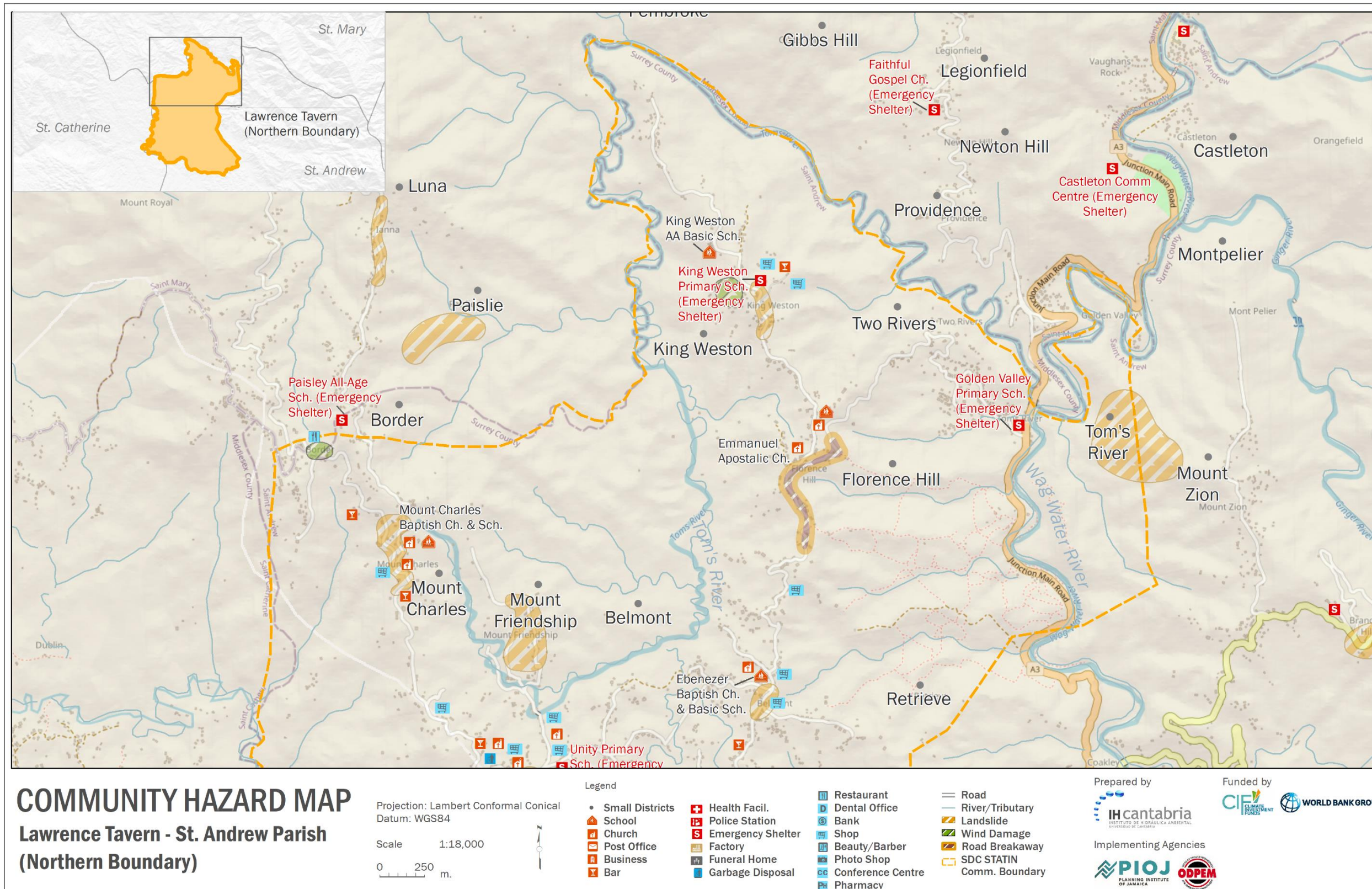
Implementing Agencies



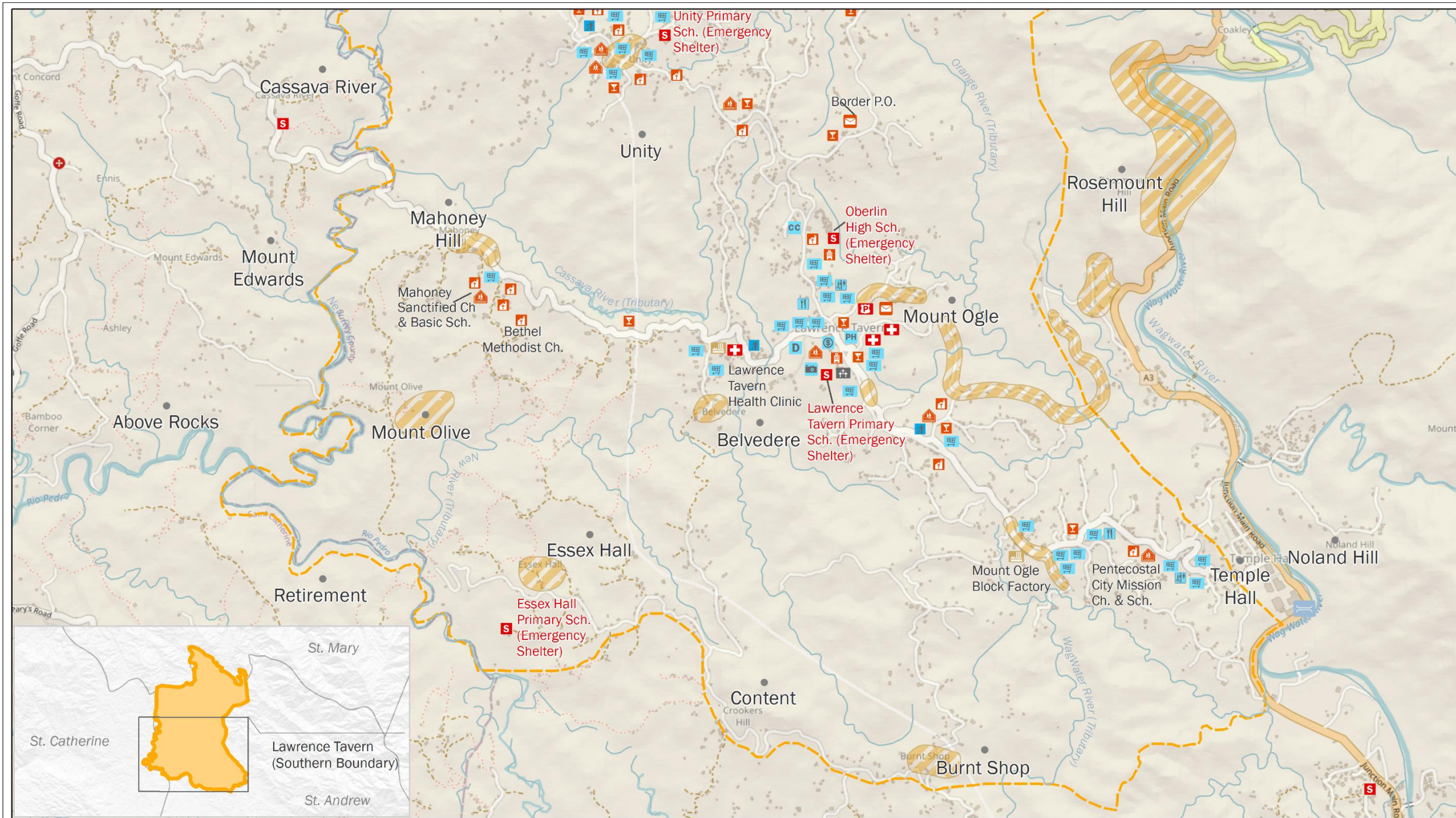
Funded by



Lawrence Tavern Community Hazard Map (SDC Boundary) Digitized from Community Input



Lawrence Tavern Community Hazard Map (Northern Lawrence Tavern) Digitized from Community Input



COMMUNITY HAZARD MAP

Lawrence Tavern - St. Andrew Parish (Southern Boundary)

Projection: Lambert Conformal Conical
Datum: WGS84
Scale 1:18,199
0 250 m.

Legend

- Small Districts
- 🏠 School
- ⛪ Church
- 📮 Post Office
- 🏢 Business
- 🍷 Bar
- 🏥 Health Facil.
- 🚓 Police Station
- 🏠 Emergency Shelter
- 🏭 Factory
- 👦 Funeral Home
- ♻️ Garbage Disposal
- 🍽️ Restaurant
- 🦷 Dental Office
- 🏦 Bank
- 🛍️ Shop
- 💇 Beauty/Barber
- 📷 Photo Shop
- 🏢 Conference Centre
- 🏪 Pharmacy
- 🛣️ Road
- 🌊 River/Tributary
- 🏔️ Landslide
- 🛤️ Road Breakaway
- 📶 SDC STATIN
- 📏 Comm. Boundary

Prepared by



Funded by



Implementing Agencies



Lawrence Tavern Community Hazard Map (Southern Lawrence Tavern) 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 in Brandon Hill affects houses that are located near the river.	N/A	3 times per year.	2-4 ft of water.	Homes, Business places, roads.
	Hurricanes.	N/A	Seasonal.	Mainly tropical storm winds but may extend to stronger winds depending on the category of the hurricane.	Houses, churches, buildings, livestock, agricultural farms, business places, roads, schools, but mainly in King Weston and Border. Trees are blown down.
	Landslides as a result of heavy rain (even without heavy rain).	N/A	Once it rains (frequently).	Major.	Electrical poles, damages to properties, loss of livestock,

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

HAZARD CATEGORY	HAZARD	PROJECTED SCENARIO WITH CLIMATE CHANGE	FREQUENCY	INTENSITY	ASSETS IMPACTED (FROM LIST)
					farms, buildings and roadblocks. City Mason Pentecostal Church is currently being impacted by a moderate landslide/breakaway.
	Fire	N/A	Every summer (mainly during the daytime).	Fires spread fast in dry areas. Fires mainly occur in Pigeon Valley and Bottom Road as residents tend to light bamboo in these areas.	Damage to crops and animals.
CLIMATE HAZARD – FUTURE CC SCENARIO	Flooding	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.			Damage to banana, plantain, coffee and other crops. Destroy farms and roofs.

HAZARD CATEGORY	HAZARD	PROJECTED SCENARIO WITH CLIMATE CHANGE	FREQUENCY	INTENSITY	ASSETS IMPACTED (FROM LIST)
	Landslides	N/A			-
	Drought (sometimes very significant)	N/A	Rarely.		Farmlands, livestock, building, homes.
NON-CLIMATE HAZARD	Earthquakes	N/A	Frequent.	Minor damages.	Houses and shops.
	Health Hazards	<p>The community had no significant outbreaks. A few persons contracted the Chikungunya Virus. Those who were ill recovered mainly using home remedies.</p> <p>The community is of the view that their health centres etc. can manage a minor outbreak of any health hazard, however, once these facilities become overwhelmed, external assistance will be required.</p>			

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	Few houses are affected but not many.	<p>Close proximity to the river. Though flooding is rare in the community, some persons block the drains consequently their homes become vulnerable if it rains heavily and constantly.</p> <p>The issue of people building where they are not supposed to is compounded by the fact that building codes stipulate where construction should take place, which is not observed within the area. Persons also do not seek permission to erect buildings from the KSAC. Regulations for mandatory permission to build</p>	Loss of homes	

HAZARD CATEGORY	HAZARD	VULNERABLE ASSET	DRIVERS OF VULNERABILITY	DIRECT IMPACTS	INDIRECT IMPACTS
			have been gazetted but not yet implemented.		
	Hurricanes	Houses, farms and farm roads, animals JPS power lines, NWC water mains, telephone network	Many houses located on hillsides are easily affected by winds.	<ul style="list-style-type: none"> » Damage to crops and livestock, and infrastructure. » Wind impacts electricity and powerlines. 	<ul style="list-style-type: none"> » Transportation costs increases. » Loss of livelihood and income. » Disease outbreaks.
	Landslides	Houses are impacted to a small extent, but mainly the land, the road and power lines and water mains that are along the road.	Location in a landslide-prone area and type of geology that is prone to landslide.	<ul style="list-style-type: none"> » Loss of buildings. » Loss of lives. » Loss of roads. » Loss of infrastructure. » Loss of farms. » Down power line. » Damage to water pipelines/ damage to catchment by silt and sediments, therefore, water supply is affected. » May affect the provision of emergency assistance to the residents. 	Livelihoods, transportation, children cannot get to school.
	Fire (bush)	Farms, houses, utility poles and wires, animals	Poor burning practices/ negligence.	Farmers, community members affected.	Loss of livelihoods, transportation, and

HAZARD CATEGORY	HAZARD	VULNERABLE ASSET	DRIVERS OF VULNERABILITY	DIRECT IMPACTS	INDIRECT IMPACTS
					children cannot get to school.
NON-CLIMATE HAZARD	Earthquakes	Minor cracks on houses. 2020 earthquake destroyed a house in Unity.	Type and materials to build houses.	<ul style="list-style-type: none"> » Loss of homes and lives. » Loss of economic livelihood. » Increase in the level of flooding. » Fires. 	NA

8 COMMUNITY CAPACITY ANALYSIS

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 were 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, plumber, farmer, teacher, mason, carpenter. 	Assist in the clearing of roads, provide counselling, psychological support, providing food, tradesmen assist in prevention and mitigation.
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 – first aid, initial damage assessment, shelter management. 	Contributed to the development of the community, education and awareness of others and identification of hazard-prone areas.
Networks	CBOs.	Provide human resources who will assist in moving the elderly to emergency shelters, shelter management.
Transportation	Taxi operators, truck operators, owners of private motor vehicle.	Assist with general transportation of persons from one point to another.
Building/Infrastructures	Schools, churches.	These serve as emergency shelters.
Means of Care/Medical Care	Registered nurse, community health aid.	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 the 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, the 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
Mount Airy/ Mount Friendship	Falls within the Blue Mountain John Crow Range. Houses were built there however, community members believe that intervention is needed to educate about the natural resources to be found there.
River catchment areas	Water is used for domestic purposes as the community experiences drought frequently.
Area near Oberlin Church	This area is a swamp/pond.
Areas surrounding the gully at Goulbourne	The area is likely to get flooded when it rains, and residents would need to find alternate routes to enter/exit until the water recedes. The water channel present often overflows and causes flooding. Water channels running from Lawrence Tavern to Temple Hall are problematic and have been slowly leading to land erosion.
Empty Hall near Oberlin Church	This area is a swamp land.

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
Lawrence Tavern Community Centre	Recreational facilities needed: netball court, football field etc

9.1.3 Areas which can be developed with Appropriate Mitigation Activities

Table 11. Special Areas for Development

AREA	MITIGATION MEASURES NEEDED
Rose Mount.	Road and retaining walls are needed.
Cottage near Lawrence Tavern Primary can be used as a training centre.	Water, light.
Community Centre at the Mount Ogle Basic School.	Expanded as a HEART Training Centre.
Lawrence Tavern Community Centre.	Recreational facilities mended: netball, football etc.
Mount James All-Age School (now closed for over 3 years).	Can be used as a community centre or skills training centre.
A lot of private land is available, but owners do not allow any developments.	-

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	N/A	-	» River training	-	Goulbourne, near Oberlin
Hurricane – wind	Batten down windows, some go to shelters, and some go to safer houses.	No	» Technical assistance for farmers – Rural Agricultural Development Authority (RADA) . » Have a good drain maintenance programme to keep all drains clear – Kingston and St. Andrew Municipal Corporation (KSAMC), National Works Agency (NWA) . » Assistance with material to batten down – KSAMC, NGOs . » Maintenance of electricity distribution network – Jamaica Public Service (JPS) .	» Communities already trim trees and open drains, so water flows freely on the roads. » Use hurricane straps when building roofs. » Homeowners to better maintain homes.	Entire Community

Hazards Identified	Community Responses	Are these responses suitable?	Adaptation/mitigation actions required – external assistance	Adaptation/mitigation activities - done without external assistance	Specific Location
Landslide	Evacuation or relocation.	No	<ul style="list-style-type: none"> » Provide quick assistance to minor breakaways and land slippage before it becomes major. Act quickly. Enforce where persons build – NWA, KSAMC. » Erect “No Building” signs – KSAMC. » Contouring of land and terracing of the hillside – RADA » Construction of retaining walls – NWA, KSAMC. » The road from Lawrence Tavern to constant Spring has big trees that need to be trimmed – NWA, KSAMC. 	<ul style="list-style-type: none"> » Refrain from building near the gullies and areas prone to landslides. 	<p>Entire community.</p> <p>The communities of Mahoney Hill, Essex Hall, Kings Weston, Mount Friendship, Belmont, Burnt Shop and Lawrence Tavern proper are the most severely affected.</p>
Fire	Call Fire Brigade, put out minor fires with sand and water.	No	<ul style="list-style-type: none"> » Quick response to fires – Jamaica Fire Brigade. » Enforce laws against people who start fire – Jamaica Constabulary Force. » Construction of fire breaks – KSAMC, RADA and Forestry 	<ul style="list-style-type: none"> » Do not start fires carelessly. » Stop neighbours from doing the same. 	<p>Mount Ogle near the square – the main NWC pipe was destroyed about a year ago.</p> <p>Rose Mount, Coakley,</p>

Hazards Identified	Community Responses	Are these responses suitable?	Adaptation/mitigation actions required – external assistance	Adaptation/mitigation activities - done without external assistance	Specific Location
			Department. » Training of farmers – RADA. » Public education and awareness about fires and training in fire safety – Jamaica Fire Brigade.		Lawrence Tavern main road, New Garden, Pigeon Valley or Johncrow Hill in Unity and Mount Friendship .
Drought	Depending on the very irregular NWC system.	No	» Water catchment tanks with pumps and catchment areas needed to mitigate against drought – KSAMC.	-	Entire Community.

9.2 Preparedness and Initial response

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

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

9.2.1 Public education and awareness

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

Table 13. Public Education and Awareness

HAZARD	PUBLIC EDUCATION ACTION	COMMUNICATION CHANNEL	TIMELINE	RESPONSIBILITY
Fire	» Fire Safety Tips	» Print – posters, pamphlets » Sensitization sessions	» October annually during fire prevention month	Coordinator - Public Education and fundraising – Tianah Polo
Hurricanes and their secondary hazards	» Define hurricanes, their secondary hazards and impacts » Hurricane safety and response	» Sensitization session on basic disaster management » Print – posters pamphlets	» April and May during hurricane preparedness month » Annually during the hurricane season June to November	Coordinator Public Education and Fundraising – Tianah Polo

HAZARD	PUBLIC EDUCATION ACTION	COMMUNICATION CHANNEL	TIMELINE	RESPONSIBILITY
	» Mitigation and Adaptation Strategies			
Earthquake	» Earthquake Preparedness » How to conduct drills » Earthquake response	» Sensitization session on basic disaster management » Print – posters pamphlets	» January during earthquake preparedness month	Coordinator Public Education and Fundraising – Tianah Polo
Flooding	» Explain flooding and their impacts » Flood safety	» Sensitization session on basic disaster management » Print – posters pamphlets » Social media	» Ongoing and during hurricane preparedness activities	Coordinator Public Education and Fundraising – Tianah Polo
Landslide	» Explain landslide and their impacts » Landslide safety	» Sensitization session on basic disaster management » Print – posters pamphlets » Social media	» Ongoing and during hurricane preparedness activities	Coordinator Public Education and Fundraising – Tianah Polo

9.2.2 Monitoring and Warning

The following persons (belonging to the CDRM Group) are responsible for monitoring and providing warnings of 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, social media.	Coordinator - Public Education and Fundraising – Tianah Polo. The media.	<ul style="list-style-type: none"> » Coordinator – Public Education and Fundraising issues an alert to the zone group via SMS or internet-based messaging system. » A town crier is dispatched to warn the community. » Shelter managers are placed on alert.

9.2.3 Evacuation

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

Given the landslide risk and sloping nature of the community, it is recommended that sections of the community evacuate during an emergency. However, it must be understood that some residents are inclined to take risks based on past experiences and so will not evacuate.

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

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

EVACUATION ZONE	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT COORDINATOR
Belmont	<ul style="list-style-type: none"> » Oberlin High School – exit the community and travel south, the school will be located along the main road to Lawrence Tavern Proper. » Emmanuel Apostolic Church – located in Belmont on Hamburg Lane. 	<ul style="list-style-type: none"> » Oberlin High School (official shelter). » Emmanuel Apostolic Church (alternate shelter). 	The shelter is within walking distance, driving there is also an option. If there is a landslide, people may have to walk.	Shauna-Kay McCalla
King Weston	<ul style="list-style-type: none"> » Travel north along the main road, the school will be located on the right. 	<ul style="list-style-type: none"> » King Weston Primary and Infant School. » Mount Camel Apostolic Church (alternate shelter). 	The shelter is within walking distance	Diana Lindo
Mount Ogle	<ul style="list-style-type: none"> » From Temple – travel west along the main road, then at the Mount Ogle block factory, head north towards Lawrence Tavern Proper, the school will be on the left. » For the Oberlin High School, continue north past the town centre onto the parochial road, the school will be on the left. 	<ul style="list-style-type: none"> » Lawrence Tavern Primary School (official shelter). » Oberlin High School (alternative shelter). 	A very long walk for most people. Residents of Northern Mount Ogle may access the shelter by walking and vehicular transportation for those located in Southern Mount Ogle.	Faith Yates

EVACUATION ZONE	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT COORDINATOR
New Garden	<ul style="list-style-type: none"> » From the bottom of New Garden – exit home, take the first left, see school ahead. » From the top of New Garden – exit home, take the first right and see school ahead. 	<ul style="list-style-type: none"> » New Garden Primary and Infant School are not suitable due to water-blown inside the building when it rains. » The New Garden United Church (potential alternate shelter). 	The shelter is within walking distance.	Icilda Fearon Cecil Chinnon
Mount Olive	<ul style="list-style-type: none"> » Exit Mount Olive, and travel east along the main road to Lawrence Tavern Proper. The school will be on the right. 	<ul style="list-style-type: none"> » Lawrence Tavern Primary (official shelter). » Methodist Church (alternate shelter). 	Shelters are within walking distance.	Carica Ellis
Essex Hall	<ul style="list-style-type: none"> » Travel south, then the school will be located along the parochial road. 	<ul style="list-style-type: none"> » Essex Hall Primary School. 	The shelter is within walking distance.	Edward Lafayette
Content – Belvedere	<ul style="list-style-type: none"> » Go to the nearest church. Churches are used at times as unofficial shelters. 	<ul style="list-style-type: none"> » Churches (unofficial shelters). 	Churches are within walking distance.	Edward Lafayette

Table 16. Evacuation Procedures

ACTIVITY	PERSON RESPONSIBLE
Evaluate threat or liaise with PDC/ODPEM on need for evacuation	Patrick M ^c Calla VP: Shadane Baxter
Alert residents on possible evacuation	Coordinator – Preparedness VP – Shanette Binns
Decide on timing	Carmen Edwards, Yvette East
Ensure special needs populations assisted	Mavis Thompson, Calina Baxter
Organize transportation	Shana-Kay McCalla, Albert Silburn
Identify route to be used	Maxine Lewis, Kareka Ellis
Ensure shelter available	Sherika Brown
Register all persons who are evacuating and their destination	Tffany Phillips
Start evacuation	Callena Baxter
Check that all areas safely evacuated	Chairman – Mr. Patrick McCalla
Inform Parish Disaster Committee	Chairman – Mr. Patrick McCalla

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

Table 17. Evacuation Team

EVACUATION ZONE	EVACUATION RESPONSIBLE	VULNERABLE GROUP TO EVACUATE	VULNERABLE GROUP RESPONSIBLE
Brandon Hill	Beverley Forrester	Elderly, disabled	Brandon Hill Youth Committees, Calvary Evangelist Assembly and New Life.
King Weston/Florence Hill	Diana Lindo	Elderly, disabled, destitute	Ebenezer Baptist Church Florence Hill SDA
Mount Ogle	Maxine Lewis	Elderly, disabled, destitute	-
New Garden	Cecil Chinnon	Elderly, mentally challenged	New Testament Church of God and United Brethren
Mount Friendship	Shana-Kay McCalla	Elderly, disabled, destitute and mentally challenged	Roman Catholic
Essex Hall	Edward Lafayette	Disabled, elderly with underlying illnesses	None Community members and Police
Belvedere/Content/Essex Hall/Rose Hill	To be confirmed	Disabled, elderly with underlying illnesses	“ “

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
Town criers and communication training.	Lawrence Tavern CDC Social Development Commission	March – May
Disaster Team Responsibility Workshop.	ODPEM NWA St. John's Ambulance Scouts Red Cross	Completed
Conduct fire, earthquake and hurricane drills.	Public Education ad fundraising coordinator to contact ODPEM, KSAMC for assistance	February – April <i>(or as soon as possible)</i>
Conduct first aid training and train team members in areas such as initial damage assessment, training of farmers, leadership training, etc.	CDRMG team, Jamaica Red Cross and other suitable entities such as RADA, SDC	Completed
Conduct drain cleaning and liaise with agencies to conduct drain cleaning.	Paul Wint – Prevention Mitigation and Adaptation Coordinator to contact Municipal Corporation, Member of Parliament and community	Ongoing

ACTIVITY	RESPONSIBLE PERSON(S)/AGENCY(S)	TIMEFRAME
Replenish community resources (such as first aid items and search and rescue kits).	Patrick McCalla, Chairman and Leroy Allen, Vice-Chairman.	Completed. First aid kits, water boots, raincoats, emergency vests, flashlights etc., received by CDRM team
Make arrangements to access relief supplies.	Patrick McCalla, Chairman and Leroy Allen, Vice-Chairman CDRMG to Parish Disaster Coordinator for assistance.	Ongoing

9.2.5 Response and Relief

The Lawrence Tavern Command Centre will be located at the Oberlin High School. It will serve as an assembly point for community members to garner information regarding the effect of the disaster. It is also where volunteers can sign in for instructions and assignments. It will also serve as a meeting place where residents can locate and reunite with 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 Lawrence Tavern. The Lawrence Tavern Disaster Risk Management Group will also develop an inventory and assess the damage, and where feasible, secure the perimeter of dangerous areas. The Lawrence Tavern Disaster Risk Management Group will have available several bilingual 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 – Shana-Kay McCalla	Committee Chair and Parish Disaster Coordinator
Persons with Disabilities	Coordinator - Response and Recovery – Shana-Kay McCalla	Committee Chair and Parish Disaster Coordinator
Single Mothers	Coordinator - Response and Recovery – Shana-Kay McCalla	Committee Chair and Parish Disaster Coordinator
Damaged Buildings and Houses for Occupants	Coordinator - Response and Recovery – Shana-Kay McCalla	Committee Chair and Parish Disaster Coordinator
Persons Stranded by Floodwater	Coordinator - Response and Recovery – Shana-Kay McCalla	Committee Chair and Parish Disaster Coordinator
Check for:		
Deaths	Coordinator - Response and Recovery – Shana-Kay McCalla	Committee Chair and Parish Disaster Coordinator
Injuries	Coordinator - Response and Recovery – Shana-Kay McCalla	Committee Chair and Parish Disaster Coordinator

ACTIVITY	RESPONSIBLE PERSON(S)/AGENCY(S)	SHORT REPORT
Persons in Need of Emergency Assistance	Coordinator - Response and Recovery – Shana-Kay McCalla	Committee Chair and Parish Disaster Coordinator
Call for any External Assistance	Chairman – Mr. Patrick McCalla	Committee Chair and Parish Disaster Coordinator
Update PDC, ODPEM	Chairman – Mr. Patrick McCalla	Committee Chair and Parish Disaster Coordinator
Update Community	Chairman – Mr. Patrick McCalla	Committee Chair and Parish Disaster Coordinator

Table 20. Initial Damage Assessors

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

»	Water available	Initial damage assessment coordinator
»	Sewage pipes broken/leaking	Initial damage assessment coordinator
Describe State of:		
»	Community	Initial damage assessment coordinator
»	Schools	Initial damage assessment coordinator
»	Clinic	Initial damage assessment coordinator
»	Church	Initial damage assessment coordinator
»	Shops and businesses	Initial damage assessment coordinator

9.2.5.2 Damage Assessment Procedure

The community will undertake a minimum of two types of assessment within a one-week period. These assessments will be submitted to the 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 and Recovery – Shana-Kay McCalla	Kingston and St Andrew Municipal Corporation	Within 8 hours
Welfare	Coordinator – Response and Recovery – Shana-Kay McCalla	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 and Recovery – Shana-Kay McCalla	Kingston and St Andrew Municipal Corporation	Within 72 hours
Welfare	Coordinator – Response and Recovery – Shana-Kay McCalla	Kingston and St Andrew Municipal Corporation	Within 72 hours
Agriculture	Coordinator – Response and Recovery – Shana-Kay McCalla	Kingston and St Andrew 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 and Recovery	Kingston and St Andrew Municipal Corporation – Parish Disaster Coordinator
Evacuation	Coordinator - Response and Recovery	Kingston and St Andrew Municipal Corporation – Parish Disaster Coordinator
Trucking of Water	Coordinator - Response and Recovery	Kingston and St Andrew Municipal Corporation – Parish Disaster Coordinator
Alternative Sources of Lighting	Coordinator - Response and Recovery	Kingston and St Andrew Municipal Corporation – Parish Disaster Coordinator
Search and Rescue	Search and Rescue Coordinator	Kingston and St Andrew Municipal Corporation – Parish Disaster Coordinator
Children Welfare and the Disabled	Coordinator - Response and Recovery	Kingston and St Andrew Municipal Corporation – Parish Disaster Coordinator
Initial Damage Assessment	Coordinator - Response and Recovery	Kingston and St Andrew 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 and Recovery
Need assistance	Coordinator - Response and Recovery
Identify members of the community in need of psycho-social support or counselling	Coordinator - Response and Recovery
Compile list and update PDC, ODPEM	Coordinator - Response and Recovery

9.2.6 Recovery

ACTIVITY	PERSON(S) RESPONSIBLE	TIMEFRAME
Identify hazards that could affect the community, identify their potential impacts and anticipate possible recovery actions.	Coordinator – Vulnerability and Risk Identification	Before a hazard strike
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 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

ACTIVITY	PERSON(S) RESPONSIBLE	TIMEFRAME
Develop the recovery plan, establishing timeframes for each activity and responsible person.	Coordinator - Response and Recovery	Within 6 weeks of the event
Coordinate with the Kingston and St Andrew 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 (NGO's, Food for the Poor, ADRA, Jamaica Red Cross, government departments, commercial enterprises in the community and 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 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 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 CONTACT LIST	CONTACT PERSON	TELEPHONE Nº/EMAIL
CDRM Group President	Patrick McCalla	(876) 443-7863
CERT President	Mr. David Scott	(876) 531-9966
Police	Mr. Gary Griffiths Senior Superintendent, Jamaica Constabulary Force (JCF)	(876) 833-7469 gary.griffiths@jcf.gov.jm
Fireman	Ms. Valerie Dixon Assistant Superintendent	(876) 469-1184 dhksa.jfb@cwjamaica.com
Health	Dr. Winifred Meeks Chief Public Health Inspector	(876) 425-3026 ksaphi@live.com
Member of Parliament	Hon. Juliet Cuthbert-Flynn	(876) 818-8080 julietcuthbert@gmail.com
Councillor	Mr. John Myers	(876) 866-3960 lebertmyers@gmail.com

APPENDIX B – VULNERABLE POPULATION

This table has information on the number of vulnerable persons in the community and their location by district.

TYPE OF VULNERABILITY (For example, elderly, persons with disabilities, single mothers, etc.)	NUMBER OF VULNERABLE PERSONS	LOCATION OF VULNERABLE	NEXT OF KIN/CARE GIVER and CONTACT INFO	CDRT/CERT MEMBER RESPONSIBLE
Persons with Disabilities	123 persons	Mount Charles Unity, Mount Ogle, Belmont, Temple Hall, Goulbourne, King Weston, Mahoney Hill	NA	Coordinator – Response and Recovery – Shana-Kay McCalla
Elderly persons	10 persons	Mount Charles, Unity	NA	Coordinator – Response and Recovery – Shana-Kay McCalla
Path Beneficiaries	379 persons	Essex Hall, Mount Charles, King Weston, Belmont, Content, Goulbourne, Mahoney Hill, Florence Hill,	NA	Coordinator – Response and Recovery – Shana-Kay McCalla

APPENDIX C – EQUIPMENT ALREADY AVAILABLE IN THE COMMUNITY

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

ITEMS (QUANTITY PER ITEM)	STORAGE LOCATION	CONTACT PERSON(S) FOR STORAGE	CONTACT NUMBER
Water Boots	Municipal Corporation – limited amount	Ms. Terry Forrester – Parish Disaster Coordinator	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Machetes	None	Ms. Terry Forrester – Parish Disaster Coordinator	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Shovels	None	Ms. Terry Forrester – Parish Disaster Coordinator	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Forks	None	Ms. Terry Forrester – Parish Disaster Coordinator	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Hazardous infection diseases protection materials: masks and alcohol-based gel	Municipal Corporation	Ms. Terry Forrester – Parish Disaster Coordinator	(876) 848- 5009 terry.forrester@ksamc.gov.jm

APPENDIX D – ITEMS REQUIRED EXTERNALLY

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	RESPONSIBILITY
First Aid Kits	Required	Ministry of Health, Jamaica Red Cross, Food for the Poor	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Hazardous infection diseases protection materials: masks	Required	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Hazardous infection diseases protection materials: alcohol-based gel sanitiser	Required	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Shovels	Required – none in storage	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Water boots	Required	Hardware, Food for the Poor, Department of Fisheries, Fisherman's Corp	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Heavy-duty gloves	Required – none in storage	ODPEM, Hardware	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Rain cloaks	Required	ODPEM, Hardware	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Hard hats	Required – none in storage	Hardware, Food for the Poor, Livestock Association	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm

Machetes	Required – none in storage	Parish Council, ODPEM, MLSS, Red Cross	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Canvas Stretchers	Required – none in storage	Hardware, Food for the Poor, Department of Fisheries, Fisherman’s Corp	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Crowbars	Required – the team has none	Parish Council, ODPEM, MLSS, Red Cross	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Rip/Crosscut Saws	Required – the team has none	Tankweld, Rhino	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Power saws	Required	WISYNCO, Hardware,	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Heavy-duty Screw Drivers	Required – the team has none	Ministry of Health, National Water Commission	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Large/medium Cold Chisels	Required – the team has none	ODPEM, Hardware	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Claw Hammers	Required – the team has none	ODPEM, Hardware	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Heavy-duty Sledge Hammers	Required – the team has none	Gas Station	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm
Flashlights	Required	ODPEM, Hardware	Ms. Terry Forrester	(876) 848- 5009 terry.forrester@ksamc.gov.jm

APPENDIX E – LIST OF OFFICIAL AND UNOFFICIAL EMERGENCY SHELTERS

List of Official and Unofficial Emergency Shelters

SHELTER NAME AND LOCATION	ACCESS ROUTE TO SHELTER	AREA SERVED	SHELTER MANAGER AND CONTACT DETAILS	OTHER SHELTER TEAM MEMBERS AND KEY CONTACTS FOR FACILITY, AND CONTACT DETAILS
Official Shelters				
Oberlin High School	See evacuation routes for each district	Belmont	Phyllis Taylor (876) 429-4138	-
King Weston Primary and Infant School	See evacuation routes for each district	King Weston	Oniel Nembhard (876) 435-9476	-
Lawrence Tavern Primary School	See evacuation routes for each district	Mount Ogle, Mount Olive	Michelle Spencer (876) 421-634	-
New Garden Primary and Infant School	See evacuation routes for each district	New Gardens	Maxine Lewis (876) 566-4848	-
Essex Hall Primary School	See evacuation routes for each district	Essex Hall	Ms. Georgia Henry (876) 944- 6067	-
Unofficial 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
Brandon Hill Primary and Infant and St. Phillip Anglican Church (unofficial centre)	See evacuation routes for each district	Brandon Hill	Michelle Spencer (876) 421-634	-
Mount Camel Apostolic	See evacuation routes for each district	King Weston	To be confirmed	-
Methodist Church	See evacuation routes for each district	Mount Olive	Mrs. Marline Davis-Fairweather (876) 942-8785	-
Emmanuel Apostolic Church	See evacuation routes for each district	Belmont	Bishop Charles	-
Churches are used during emergencies	-	All areas where persons are marooned during landslides	Mrs. Marline Davis-Fairweather (876) 942-8785	-
Churches are used during emergencies	-	Content Belvedere	Maxine Lewis (876) 566-4848	-

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

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

ACTIVITIES		POSITION	PERSON(S) RESPONSIBLE
4.	Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol	Coordinator - Preparedness	Shanette Binns
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 and Recovery	Shanette Binns Shana-Kay McCalla
6.	Sensitization of persons in the community without vehicles of assembly area for transportation to more safe location.	Coordinator – Public Education and Fund Raising	Tianah Polo
7.	Identify areas in the community where high potential for infrastructure/ property damages.	Coordinator - Vulnerability and Risk Identification	Andrea Black
8.	Ensure DRM teams are aware of all high-risk locations in the community.	Coordinator - Vulnerability and Risk Identification	Andrea Black
9.	Prepare areas for sheltering persons in need	Coordinator – Preparedness	Shanette Binns
10.	Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.	Coordinator – Preparedness	Shanette Binns
11.	Ensure new developments are assessed and relevant measures put in place to safeguard community.	Coordinator – Prevention, Mitigation and Adaptation	Nicole Dacres
12.	Organize mitigation and prevent projects and workdays with technical guidance from relevant agencies (with the help of the PDC.	Coordinator – Prevention, Mitigation and Adaptation	Nicole Dacres

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. Patrick McCalla
<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 Shanette Binns
<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 Shanette Binns
<p>Personal for families:</p> <ul style="list-style-type: none"> » Make sure your family goes over the family disaster plan. » Make plans for protecting your house, especially the roof, windows and doors. » Have flashlight and extra batteries. » Have portable battery-operated radio and extra batteries. » Ensure provisions are in place for emergency food and water. 	Coordinator – Preparedness - Shanette Binns Coordinator - Response and Recovery - Shana-Kay McCalla
<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. 	Coordinator – Preparedness - Shanette Binns Coordinator - Response and Recovery - Shana-Kay McCalla
<p>Listen to all weather advisories and information from ODPEM, MET office, and communicate with PDC.</p>	Coordinator – Preparedness - Shanette Binns Coordinator - Response and Recovery - Shana-Kay McCalla

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 Shanette Binns
Continue to listen to all weather advisories and reports.	Coordinator – Preparedness Shanette Binns

A. HURRICANE WATCH - 48 Hours before Impact

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

B. HURRICANE WARNING - 36 Hours before impact

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

ACTIVITIES	PERSON(S) RESPONSIBLE
4. Ensure cellular phones can be charged	
Activate volunteers to be on standby to assist with damage assessment. Conduct briefing of these volunteers.	Coordinator - Response and Recovery Shana-Kay McCalla
1. Activate and prepare emergency shelters 2. Deploy relief and welfare volunteers to emergency shelters	Coordinator - Response and Recovery Shana-Kay McCalla
Ensure contacts are made with the PDC and other stakeholders for assessment of shelter facilities if necessary.	Coordinator - Response and Recovery Shana-Kay McCalla
Contact PDC and prepare to Initiate evacuation procedures for the community.	Coordinator - Response and Recovery Shana-Kay McCalla
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 and Recovery - Shana-Kay McCalla Coordinator – Preparedness – Shanette Binns

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 1. Encourage residents to activate family plans 2. Pre-position resources: List these resources <ul style="list-style-type: none"> » Equipment, ropes, etc » Food stocks/welfare items » Communications equipment » Manpower 	<p>Coordinator - Response and Recovery – Shana-Kay McCalla</p> <p>Coordinator – Preparedness – Shanette Binns</p>

C. 24 HOURS BEFORE IMPACT

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 1. Notify PDC of activation of evacuation plan 2. Consult PDC on all matters relating to the activation of any or all evacuation systems. 	<p>Coordinator - Response and Recovery Shana-Kay McCalla</p>
Activate and test local communications links and report to PDC.	<p>Coordinator - Response and Recovery Shana-Kay McCalla</p>
<p>Brief community of activation of evacuation and persons to be evacuated:</p> <ul style="list-style-type: none"> » Review evacuation routes and gather your disaster supply kit in case you are instructed to evacuate. » Communicate assembly points and deploy marshals. » Contact 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. 	<p>Coordinator - Response and Recovery Shana-Kay McCalla</p>

ACTIVITIES	PERSON(S) RESPONSIBLE
<ul style="list-style-type: none"> » Ensure the Elderly and Physically challenged and all other persons needing evacuation are safely evacuated. » Ensure registration of all evacuated. » Check that all needing evacuees are safely evacuated. 	
<ul style="list-style-type: none"> » Monitor radio for hurricane warnings and public information via news releases through ODPEM and Met office. » Monitor Radios for precautionary tips together with packaged information of the activities of responding agencies. 	Coordinator - Response and Recovery Shana-Kay McCalla
Alert community Initial Damage Assessment Team(s).	Coordinator - Response and Recovery Shana-Kay McCalla
Confirm lines of credit with merchants to enable easy access to relief supplies after the disaster.	Coordinator - Response and Recovery Shana-Kay McCalla

D. 16 HOURS BEFORE IMPACT TO LANDFALL

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 1. Maintain contact with PEOC. 2. Advise PEOC of weather conditions and state of preparedness. 3. Confirm arrival and status of evacuees in shelters. 4. Check in with standby teams and community response personnel. 	Chairman – Patrick McCalla Vice Chairman – Leroy Allen Coordinator - Response and Recovery - Shana-Kay McCalla

E. THE BLOW

ACTIVITIES	PERSON(S) RESPONSIBLE
Monitor and report events as far as possible.	Chairman – Patrick McCalla Vice Chairman – Leroy Allen
Maintain contact with PEOC, Shelters and response personnel.	Coordinator - Response and Recovery - Shana-Kay McCalla

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 and Recovery Shana-Kay McCalla
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 and Recovery Shana-Kay McCalla

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

ACTIVITIES	PERSON(S) RESPONSIBLE
Provide initial damage survey and needs of the community	Coordinator – Response and Recovery – Shana-Kay McCalla
<ol style="list-style-type: none"> 1. Provide ground reconnaissance intelligence to the PDC. 2. Assist the Fire Brigade and NWA with road clearing, and search and rescue activities through the PEOC. 3. Assist with the establishment and staffing of registration centres. 	Coordinator – Response and Recovery – Shana-Kay McCalla
<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 indoors. 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 the sparks or wires are frayed, turn off electricity at the main fuse box. » Do not step in water to reach the electric box, call an electrician for advice. 	Coordinator – Response and Recovery – Shana-Kay McCalla
<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 and Recovery – Shana-Kay McCalla

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 and Recovery – Shana-Kay McCalla
<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 and Recovery – Shana-Kay McCalla
<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 and Recovery– Shana-Kay McCalla
<p>Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.</p>	Coordinator – Response and Recovery – Shana-Kay McCalla
<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 roadways and drains. 6. Continue to provide feedback and assistance to the community through the PDC and PEOC. 	<p>Coordinator – Response and Recovery – Shana-Kay McCalla</p> <p>Chairman – Patrick McCalla</p> <p>Vice Chairman – Leroy Allen</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 and Recovery – Shana-Kay McCalla</p> <p>Coordinator – Prevention, Mitigation and Adaptation – Nicole Dacres</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 – Patrick McCalla</p> <p>Vice Chairman – Leroy Allen Coordinator – Public Education and Fund Raising</p>
<p>Mobilize CDRM Group to seek assist from NGOs (e.g., Red Cross, Food for the Poor, ADRA and Others) to assist in community recovery initiatives.</p>	<p>Chairman – Patrick McCalla</p>
<p>Identify and share Lessons Learnt to enhance future preparedness and response activities:</p> <ul style="list-style-type: none"> » Challenges in responding to incidents » Which systems were overburdened? » What resources were lacking (human and physical)? » How did the community cope? » What areas of the SOPs need to be reconsidered? 	<p>Chairman – Patrick McCalla</p> <p>Vice Chairman – Leroy Allen</p>
<p>Revise SOPs as necessary</p>	<p>Chairman – Patrick McCalla</p> <p>Vice Chairman – Leroy Allen</p>

APPENDIX H – EARTHQUAKES – STANDARD OPERATING PROCEDURES (SOP)

Purpose

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

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

Objectives

The concepts and procedures in this SOP are set to:

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

Threat Assessment

The community of Bath has little history of earthquakes. The anticipated threat for this plan includes at least one event in the next ten years (at any time) that will have a moderate to major effect on most buildings and critical infrastructure.

Basic Planning Assumptions

- » At least one moderate earthquake will probably affect the country/community in the next 5-100 years.
- » CDRM Group will remain active and functional.

- » Community members will be responsive to CDRM Group programmes, initiatives, warnings and other information.
- » There is commitment and support from agencies and departments of government to assist the community.
- » The community is willing to utilize its resources in preparedness and response as far as possible.
- » CDRM Group will train and establish Community Emergency Response Team(s) (CERTs).

Concept of Operations

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

Procedures will be categorized into the following phases:

Phase 1: Prevention, Preparedness and Mitigation (year-round).

Phase 2: Event, Event Response, Damage Assessment

Phase 3: Recovery

Acronyms

AAR	After Action Report
CERT	Community Emergency Response Team
CDRM	Community Disaster Risk Management
DRM	Disaster Risk Management
EOC	Emergency Operations Centre
NEOC	National Emergency Operations Centre
NGO	Non-Government Organization
ODPEM	Office of Preparedness and Emergency Management
PDC	Parish Disaster Coordinator/Committee
PEOC	Parish Emergency Operations Centre

Definitions

All Clear

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

Emergency Operations Centre (EOC)

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

Incident

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

Earthquake

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

Epicentre

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

After-Shock

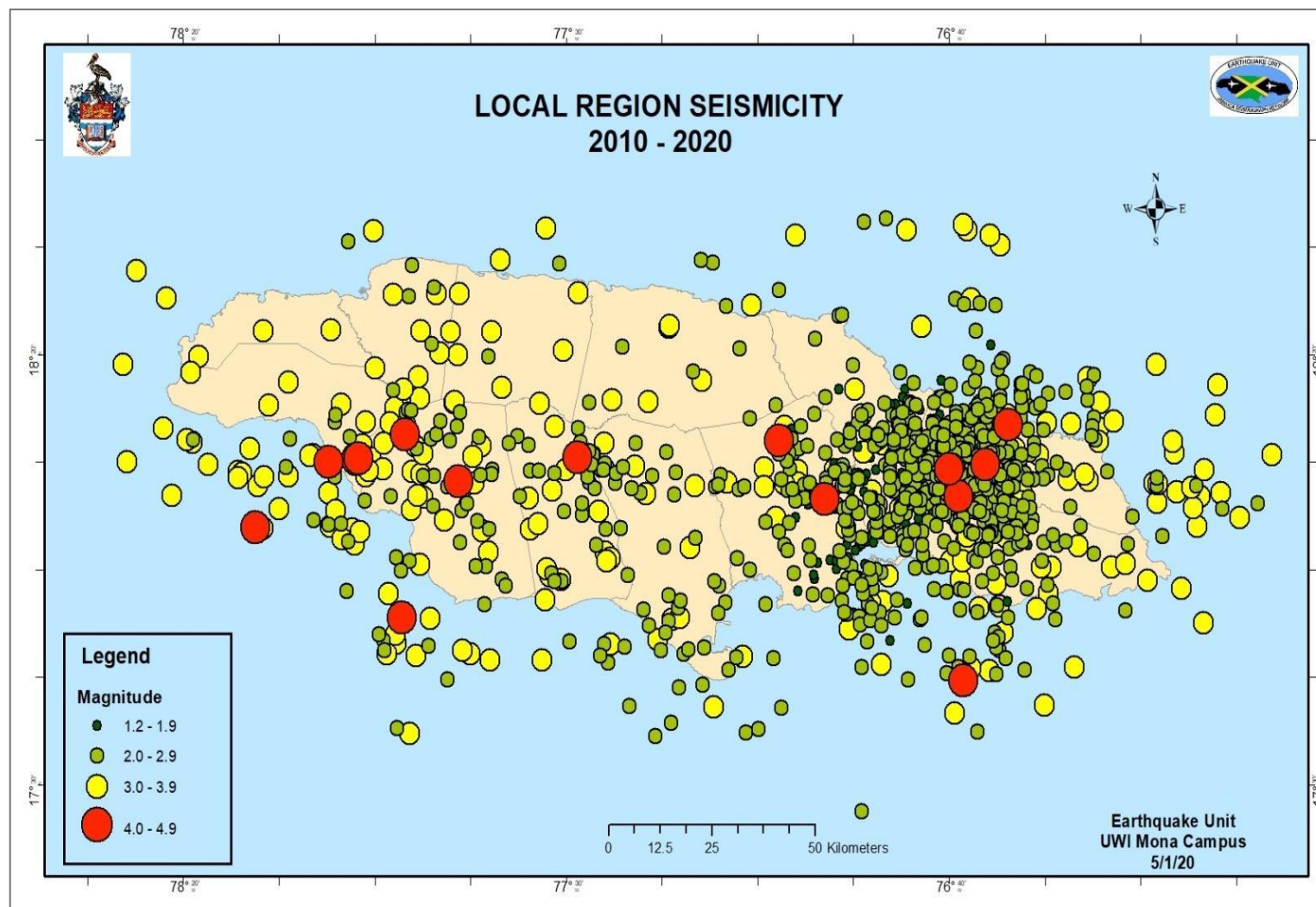
Tremors or smaller earthquakes that occur after the main shock is felt. After-shocks can occur over a few hours to months after the main shock.

Tremor

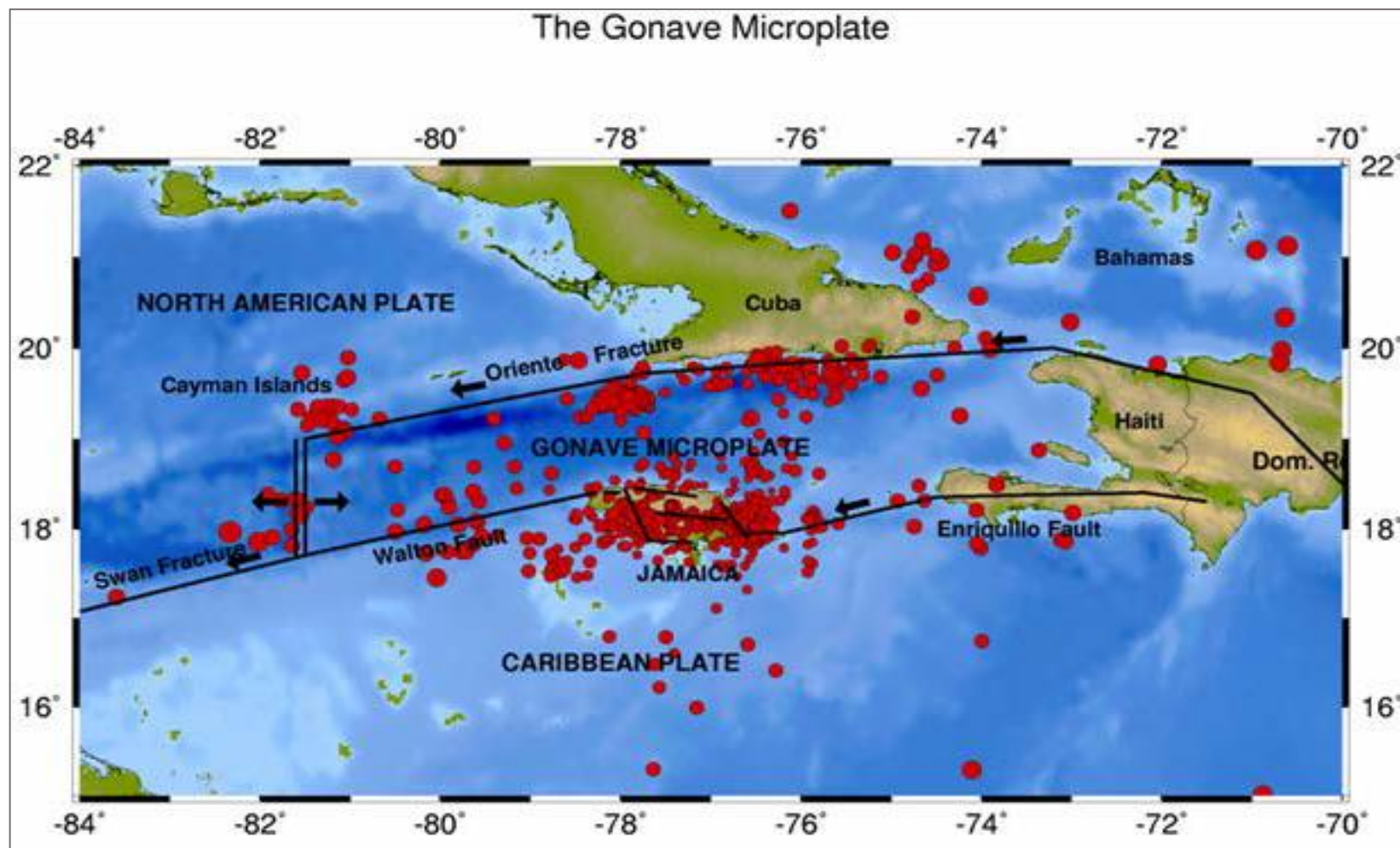
The shaking or seismic waves felt or caused by an earthquake or explosion.

Magnitude

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



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



Operating Procedures

PHASE 1: Prevention, Mitigation and Preparedness

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

ACTIVITIES		POSITION	PERSON(S) RESPONSIBLE
1.	Continue to support and promote public information and awareness programmes.	Coordinator – Public Education and Fund Raising	Tianah Polo
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	Shanette Binns
4.	Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol.	Coordinator – Preparedness	
5.	Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible.	Coordinator – Preparedness	
6.	Sensitization of persons in the community without vehicles about assembly areas for transportation to a safer location.	Coordinator – Public Education and Fund Raising	Tianah Polo
7.	Identify areas in the community where high potential for infrastructure/property damages.	Coordinator – Vulnerability and Risk Identification	Andrea Black
8.	Ensure DRM teams are aware of all high-risk locations in the community.	Coordinator – Vulnerability and Risk Identification	
9.	Prepare areas for sheltering persons in need.	Coordinator – Preparedness	Shanette Binns

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
10. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.	Coordinator – Preparedness	
11. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Coordinator – Prevention, Mitigation and Adaptation	Nicole Dacres
12. Organize mitigation and prevent projects and workdays with technical guidance from relevant agencies (with the help of the PDC).	Coordinator – Prevention, Mitigation and Adaptation	
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	Leroy Allen
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	Leroy Allen Shanette Binns
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	Diana Lindo
16. Liaison for maintenance and to keep open all access routes – main transportation routes and alternative access routes.	Coordinator – Prevention, Mitigation and Adaptation	Nicole Dacres
17. Community inventory of building quality.	Coordinator – Prevention, Mitigation and Adaptation	Nicole Dacres

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
18. Community inventory of road networks and updating of community map.	Coordinator – Prevention, Mitigation and Adaptation	Nicole Dacres
19. Identify alternative sources of water, sources of alternative/temporary housing solutions.	Coordinator – Prevention, Mitigation and Adaptation	
20. Put mutual aid agreements in place for emergencies such as earthquakes.	Coordinator – Preparedness	Shanette Binns
21. Meet and assess the community's state of preparedness for an earthquake	Coordinator – Preparedness	Shanette Binns
22. Organize or initiate and support drills and ensure community members are trained in: <ul style="list-style-type: none"> » Community first aiders » Search and rescue » Ensure the community has 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 and Recovery Coordinator – Public Education and Fund Raising	Shanette Binns Shana-Kay McCalla Tianah Polo
25. Protecting the community: <ul style="list-style-type: none"> » Encourage residents to check and address building and roofing strength. Keep yards clear of debris » Keep roads and open lots clear of solid waste and debris. 	Coordinator – Preparedness Coordinator – Prevention, Mitigation and Adaptation Coordinator – Public Education and Fund Raising	Shanette Binns Nicole Dacres Tianah Polo

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	Patrick McCalla Shadane Baxter
2. Maintain contact with PEOC, Shelters and response personnel.	Coordinator – Response and Recovery	Shana-Kay McCalla
3. Depending on the severity, ensure all buildings are vacated. Account for missing persons.	Coordinator – Response and Recovery	Shana-Kay McCalla
4. DRM Team Advise the Community to listen to all advisories and remain alert for after shocks	Coordinator – Preparedness	Shanette Binns

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 and Recovery	Shana-Kay McCalla
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.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
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.		Shana-Kay McCalla
12. Beware of downed or lose power lines. Report them immediately to the JPS, Police or Fire Department.	Coordinator – Response and Recovery Coordinator – Public Education and Fund Raising	Shana-Kay McCalla Tianah Polo
13. Advise community members to enter their homes with caution: <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. 	Coordinator – Response and Recovery	Shana-Kay McCalla

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<ul style="list-style-type: none"> » Look for electrical system damage. If they see sparks or frayed wires, turn off electricity at the main fuse box. » If have to step in water to reach the electric » box, call an electrician for advice. 		
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.		
17. Constantly advise the community: <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. 		
18. Coordinate requests for and offers of assistance through the PEOC.		
19. Coordinate reconnaissance and damage assessment teams		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
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.		
22. Encourage persons affected to stay with friends or family as first options.	Coordinator – Response and Recovery Vice Chairman Coordinator – Vulnerability and Risk Identification	Shana-Kay McCalla Leroy Allen Andrea Black
23. Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.		
24. Assist with the distribution of supplies		
25. Assist with the tracing of missing persons	Coordinator – Response and Recovery	Shana-Kay McCalla
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 roadways 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 and Recovery Coordinator – Public Education and Fund Raising	Shana-Kay McCalla
2. Encourage community members to rebuild bearing in mind mitigation measures (build back better).		Tianah Polo
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 and Recovery	Shana-Kay McCalla
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	Patrick McCalla

APPENDIX I – FIRE STANDARD OPERATING PROCEDURES

Purpose

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

Objectives

The concepts and procedures in this SOP are set to:

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

Basic Planning Assumptions

- » At least one major Fire will probably affect the country/community.
- » CDRM Group will remain active and functional.
- » Community members will be responsive to CDRM Group programmes, initiatives, warnings and other information.
- » There is commitment and support from agencies and departments of government to assist the community.
- » The community is willing to utilize its resources in preparedness and response.
- » CDRM Group will train and establish Community Emergency Response Team(s) (CERTs) to reduce the danger to which the community is exposed in the event of a bush or building fire.
- » CDRM actively ensure members of their community are aware of possible hazards and how to prevent, mitigate and prepare in the event of likely hazards, including fires.
- » The Jamaica Fire Brigade is recognized as the formal First Responder to fires as part of the National Emergency Response Matrix.

Concept of Operations

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

Procedures will be categorized into the following phases:

- Phase 1:** Prevention, Mitigation and Preparedness
- Phase 2 (a):** Event and Event Response – Building Fires (Homes, Small Businesses)
- Phase 2 (b):** Event and Event Response – Bush Fires
- Phase 3:** Recovery

Glossary of terms

TERM	MEANING
ALL CLEAR	An All Clear is a statement issued by the pertinent authority (Fire Department, Police – if the fire department is not present) when a threat has passed. The All Clear , for Fire – is when the fire has been fully extinguished and buildings and property are no longer threatened.
EMERGENCY OPERATIONS CENTRE (EOC)	A multi-agency coordination centre that provides support and coordination to the on-scene responders.
INCIDENT	A natural or human-induced event that requires the action of emergency services to protect lives, goods and the environment.
FIRE	Combustion or Fire is a chemical reaction or series of reactions in which heat and light are evolved.
FACTORS NECESSARY FOR COMBUSTION	HEAT, FUEL and OXYGEN
WAYS IN WHICH HEAT CAN BE CREATED	OPEN FLAME, SPARKS, ARCS, FRICTION, CHEMICAL REACTION, ELECTRICAL
FUEL	Fuels are found in all three (3) stages of matter: SOLIDS: Cloth, Paper, Wood, Coal LIQUIDS: Gasoline, Kerosene, Alcohol, Paint GASES: Methane, Butane, Propane, Acetylene
OXYGEN	21.2% of the earth's atmosphere is oxygen, but only 15% is needed for combustion.
BUSH FIRE	A fire in the bush or a forest area spreads quickly and goes out of control easily.
EMERGENCY EVACUATION	The immediate and rapid movement of people away from the threat or actual occurrence of a hazard.
EXTINGUISH	To put out a flame or fire; to cause a flame or fire to cease to burn or shine.
R.A.C.E	Acronym for R escue, A lert, C ontain (confine fire and smoke) and E vacuate or E xtinguish.
P.A.S.S.	Acronym for P ull, A im, S queeze, S weep (at base of fire). Use to remind users of fire extinguishers how to properly use a CO ₂ , Dry Powder or Water fire extinguisher.

Operating procedures

PHASE 1: Prevention and Preparedness

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

ACTIVITIES		POSITION	PERSON(S) RESPONSIBLE
1.	Continue to support and promote public information and awareness programmes.	Coordinator – Public Education and Fund Raising	Tianah Polo
2.	Sensitize special needs population.		
3.	Organize how special needs population will be evacuated and transportation required.	Coordinator – Preparedness	Shanette Binns
4.	Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol.		
5.	Ensure that appropriate fire extinguishing materials are in place in community centre and shelters.		
6.	Ensure that First Aid Kits and Rescue equipment are stocked and in good condition for use in the event of an emergency.	Coordinator - Response and Recovery	Shana-Kay McCalla
7.	Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible.	Coordinator – Preparedness	Shanette Binns
8.	Sensitization of residents on fire safety to be conducted on a yearly basis.	Coordinator – Public Education and Fund Raising	Tianah Polo

ACTIVITIES		POSITION	PERSON(S) RESPONSIBLE
9.	Identify areas in the community where high potential for infrastructure/property damages.	Coordinator – Vulnerability and Risk Identification	Andrea Black
10.	Ensure DRM teams are aware of all high-risk locations in the community.		
11.	Prepare areas for sheltering persons in need.	Coordinator – Preparedness	Shanette Binns
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 and Adaptation	Nicole Dacres
14.	Organize mitigation and prevent projects and workdays 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	Patrick McCalla
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 	Coordinator – Preparedness Coordinator – Response and Recovery Coordinator – Public Education and Fund Raising	Shanette Binns Shana-Kay McCalla Tianah Polo

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>✓ 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.</p> <ul style="list-style-type: none"> » Actively practice fire safety when cooking and in use of matches or flammable material, in monitoring children, when smoking, use of electrics and the wiring of buildings, etc. » Insure house/building, contents and other assets, where possible. » Have a business continuity plan (businesses). » Employees / Family members should know exit routes and what to do in case there is a fire. (Have regular drills). 		
<p>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 and Adaptation Coordinator – Preparedness</p>	<p>Nicole Dacres Shanette Binns</p>
<p>19. Protecting the community (businesses):</p>	<p>Coordinator – Prevention,</p>	<p>Nicole Dacres</p>

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<ul style="list-style-type: none"> » Install smoke detectors within Business and institutions. » Exit signs must be fitted to all exit doors. Signs must be written in bold red and white background. » All buildings must have proper exits, evacuation routes and emergency assembly areas. » Encourage the usage of fire-resistant materials when building, renovating, or retrofitting structures. » Encourage the storage of combustible/ flammable materials in approved safety containers and keep away from home. 	<p>Mitigation and Adaptation Coordinator – Preparedness</p>	<p>Shanette Binns</p>
<p>20. Ensure each response team are equipped with the following:</p> <ul style="list-style-type: none"> » Knowledge and drills for recognizing types of fire and assessment for response. » Fire Brigade telephone number and means of emergency telecommunications (mobile phone, radio – if necessary); » Sand box and shovels. » Pails and water source (drum) » Fire Extinguisher (if possible) » First Aid kit. 	<p>Coordinator – Prevention, Mitigation and Adaptation Coordinator – Preparedness</p>	<p>Nicole Dacres</p>
<p>21. Obtain local building codes and weed abatement ordinances for buildings near wooded areas.</p>	<p>Chairman Coordinator – Preparedness</p>	<p>Patrick McCalla Shanette Binns</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 	<p>Coordinator – Response and Recovery</p>	<p>Shana-Kay McCalla</p>

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>you are instructed to evacuate.</p> <ul style="list-style-type: none"> » 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. 		

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
<p>1. Call out ALARM - If trapped in a fire you cannot outrun it. Once a fire is detected immediately call the JPS, Police and Fire Department.</p> <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. 	Coordinator – Response and Recovery	Shana-Kay McCalla

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<ul style="list-style-type: none"> » Conduct first aid and search and rescue operations as necessary » Conduct a roll call when students/ staff are assembled (institutions and businesses). » Have information on the missing and injured available for emergency personnel (fire, EMS or police) 		
<p>3. Remind community persons to have contact numbers for the Fire Department and Community Emergency Preparedness and Response Team.</p>	<p>Coordinator – Preparedness Shanette Binns</p>	

After a fire

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> 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. 2. Conduct Damage and Needs Assessment <ol 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. 	Coordinator – Response and Recovery	Shana-Kay McCalla

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<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. 		
7. Assist with the tracing of missing persons.		
8. Begin to effect minor repairs to critical facilities and clear roadways 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.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
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 and 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	Patrick McCalla

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

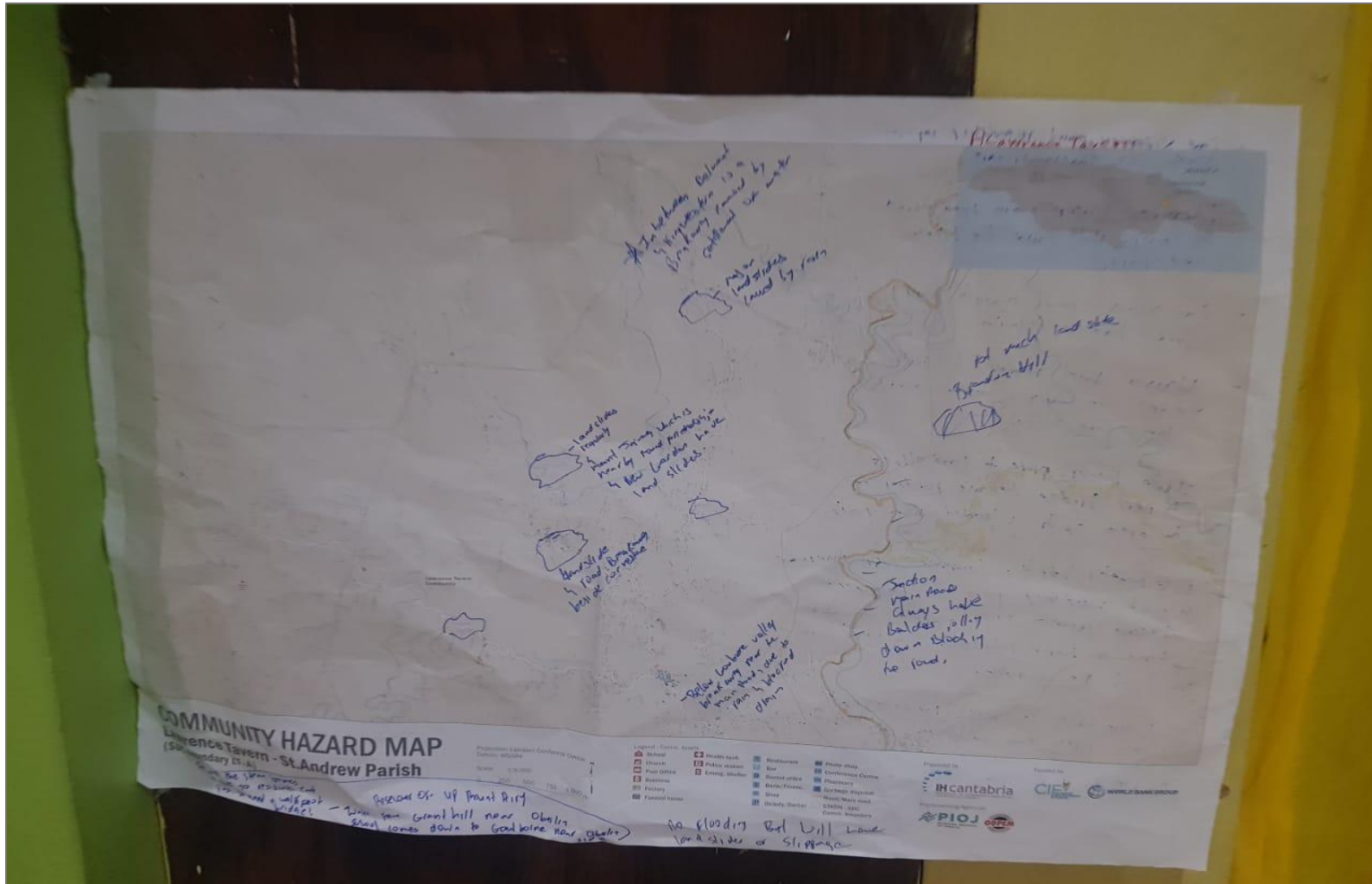


Top left and right: Flooding and landslide in Lawrence Tavern resulting from Tropical Storm Gustav, 2008
Source: ODPEM

Bottom left: Landslide in Belmont
Bottom centre: Landslide at Oberlin Conference Centre

Bottom right: Landslide behind slaughterhouse
Source: Tropical Storm Gustav Damage Assessment Report, 2008, Mines and Geology Division





Photograph of the hand drawn community hazard prepared during the plan development workshop for Lawrence Tavern