

## *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 HAGLEY GAP, ST. THOMAS**

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Funded by



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## GLOSSARY OF TERMS

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

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**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.

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**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.

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**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.

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**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.

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

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**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”.

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

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**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.

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**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.

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**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.

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**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.

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

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

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**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.

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**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.

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

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**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.

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**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.

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

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**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.

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**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.

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

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

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**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.

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**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.

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

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**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.

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**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.

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

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

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

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

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**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.

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**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.

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**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.

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**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.

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**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.

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## ABBREVIATIONS

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

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

## PREAMBLE

### Name of the Plan

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

### Background

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

### Purpose of the Plan

This plan provides:

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

## Actors (and contact list)

**Table 1. DRM actors and contact details**

LEVEL	ACTOR	CONTACT PERSON	TELEPHONE Nº/EMAIL
Community and Parish	Members of the Hagley Gap Community Disaster Risk Management Committee	Mr. Michael Barton	(876) 340-0375
	CERT (Community Emergency and Response Team).	Cassandra Cain	876 (547-2692)
	St Thomas Municipal Corporation.	Mrs Martina Medley – Parish Disaster Coordinator	876 982-2227/2276; (876) 367- 2828 656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
	St. Thomas Parish Disaster Committee.	Mrs Martina Medley – Parish Disaster Coordinator	876 982-2227/2276; (876) 367- 2828 656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
	Ministry of Labour and Social Security.	Mrs. Lorian Peart-Roberts – Parish Manager	876 858-2978/ <a href="mailto:dean_javie3@hotmail.com">dean_javie3@hotmail.com</a>
	Social Development Commission.	Mr. Horace Thomas – Deputy Superintendent	876 549-8809 / <a href="mailto:Peartlorian@yahoo.com">Peartlorian@yahoo.com</a>
	Jamaica Fire Brigade.	Ms. Allison Byfield - Superintendent	876 982-1214 / <a href="mailto:dhstthomas@jfb.gov.jm">dhstthomas@jfb.gov.jm</a>
	Jamaica Constabulary Force.	Dr. Doyen Smith – Medical Officer of Health	876 982-2233 / <a href="mailto:Stthomasdivhq@jcf.gov.jm">Stthomasdivhq@jcf.gov.jm</a>
	Ministry of Health.	Miss Sophia Mitchell – Regional Coordinator, East	876 703-6182 / <a href="mailto:doyensmith@gmail.com">doyensmith@gmail.com</a>
National	Office of Disaster Preparedness and Emergency Management (ODPEM).	Mrs. Lorian Peart-Roberts – Parish Manager	876 430-5585 / <a href="mailto:smitchell@odpem.org.jm">smitchell@odpem.org.jm</a>



## 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 Hagley Gap. It is one of several CDRM and CCA Plans that support the formation of the Zonal Disaster Risk Management and Climate Change Adaptation Committees/Plans for St. Thomas.

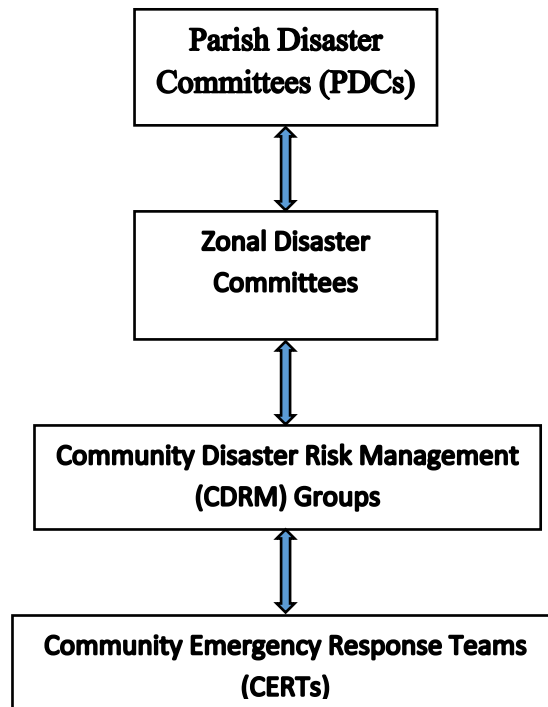
Under the DRM Act (Section 20), ‘each local authority for a parish shall be responsible for the functions of managing and giving effect to the prevention of, mitigation of, preparation for, response to and recovery from disasters.’ According to section 23(1) of the DRM Act, each Parish Disaster Committee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

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

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

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

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



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

## Responsibility

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

## Leadership of the CDRM Group

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

## Frequency of CDRM Meetings

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

# 1 COMMUNITY PROFILE

## 1.1 Description of the community

Hagley Gap is a rural community situated along the Blue Mountain hills in St. Thomas parish. Topographically, the community can be described as undulating consisting of a series of steeply sloping hills and valleys and is drained by an extensive network of rivers, tributaries and streams. The Yallahs River is the main river traversing the community; however, there are also the Negro River and White River.

Hagley Gap has an estimated population of 1,548 persons with males and females accounting for 55% and 45% respectively (2011 Population Census). The majority of the population (63%) are among the working-age cohort while the vulnerable group comprising children and elderly persons make up the remaining population. Over half of the houses in the community are constructed of block and steel, and 90% of these are in good condition and the remaining are either fair or poor.

The major economic activity in Hagley Gap is agriculture, with about 46% of households engaged in farming activities. Cash crops, ground provisions, coffee and green bananas are most widely cultivated and a small portion of farmers rear livestock and poultry. Some persons operate small businesses and others are employed in entertainment.

Most households are equipped with basic amenities such as piped water, telephone and electricity. Various means of transportation, both private and public are available to community members, however, sections of the Ness Castle to Mavis Bank main road are often blocked by landslides and rockfalls and many parochial roads, farm roads and pathways are very poor condition, thereby reducing the ease of transportation within the community. Schools, churches, health clinics, community centres and post office/agency are among the social amenities available within the community. The nearest Fire Brigade is in the town of Yallahs and Hagley Gap is one of four communities served by the Cedar Valley Police Station.

### 1.1.1 Summary of main hazards

Landslides and flooding are the two main hazards affecting the community. Steep sloping areas are susceptible to landslides/mudslides and rockfalls while southern sections of the community and roads are affected by riverine flooding; the Yallahs River has historically overflowed its banks inundating adjacent areas. Other areas are also affected by wind damage owing to their high altitudes.

## 1.2 Location and districts of community in this Plan

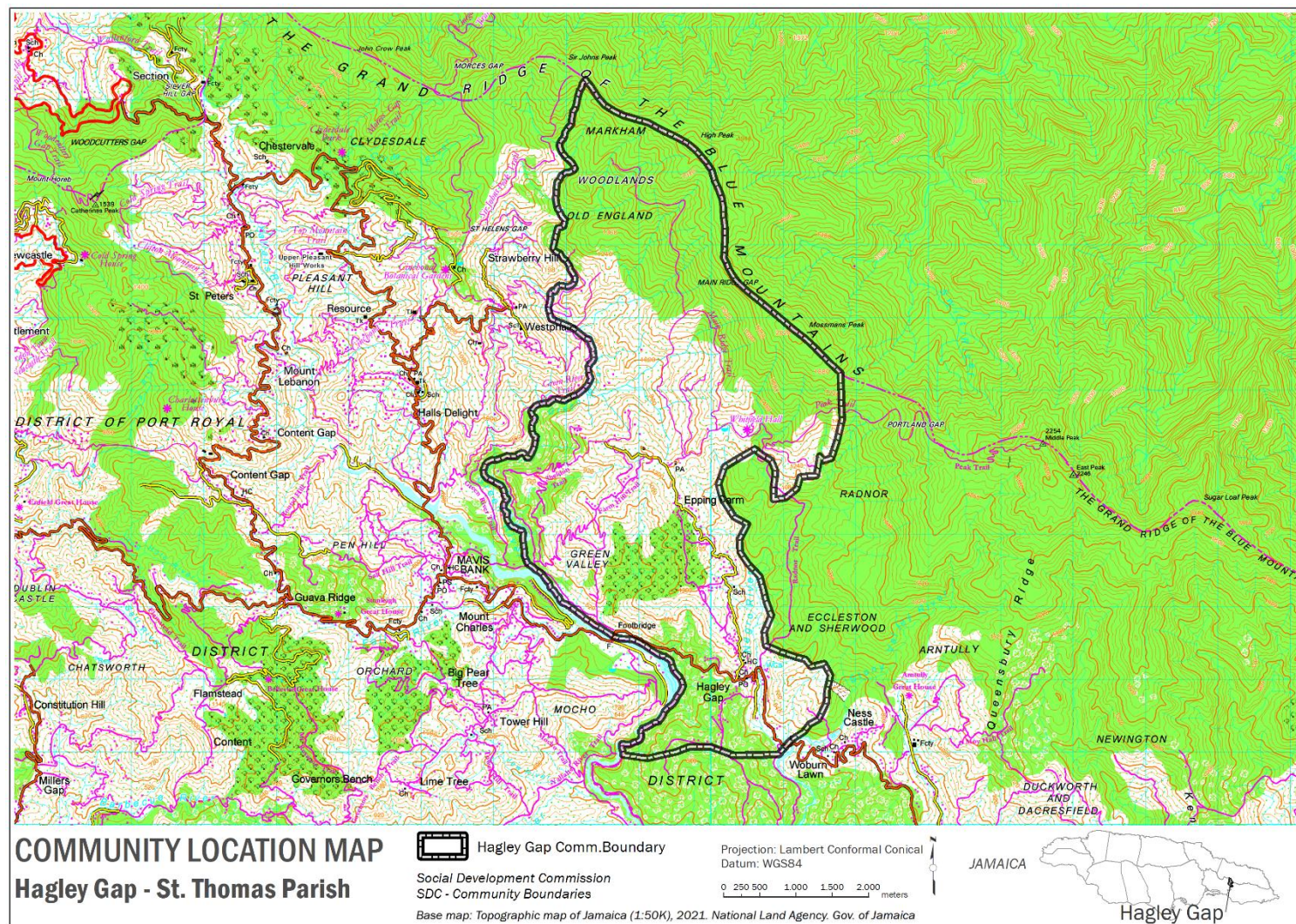
The community of Hagley Gap comprises six small districts, which are covered under this plan. These districts are the same as those of the Social Development Commission. These include:

**Table 2. Districts and Coordinators Contact List**

#	DISTRICT	TEAM LEADER	CONTACT #	E-MAIL
1.	Brooklodge.	Cassandra Cain .	(876) 547-2692.	-
2.	Carrick Hill.	Latteicia Walker.	(876) 432-2613.	-
3.	Epping Farm.	Neville Garden.	(876) 856-4762.	-
4.	Minto.	Romell Phinn.	(876) 510-5484..	-
5.	Penlyne Castle.	Asheika Tait.	(876) 406-0365.	-
6.	Hagley Gap Proper.	Dothlyn Mowatt.	(876) 864-7007.	-



## 1.2.1 Location Map



## 2 DISASTER RISK MANAGEMENT (DRM) ORGANIZATIONAL STRUCTURE

### 2.1 National institutions

The institution at the national level that coordinates disaster risk management is the Office of Disaster Preparedness and Emergency Management (ODPEM). The ODPEM is also the secretariat to the National Disaster Risk Management Council (NDRMC), which is chaired by the Prime Minister of Jamaica. The deputy chairperson for the NDRMC is the Minister of Local government and Rural Development, the Ministry under which disaster management falls. The NDRMC leads the planning and coordination of disaster management. Seven committees work to support the National Disaster Risk Management 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 St Thomas Municipal Corporation is responsible for coordinating disaster management including working with communities to develop their capacities and their plans. This coordination is done through a Parish Disaster Committee, which is chaired by the Mayor (or his designate). This committee comprises several agencies and communities at the parish level. The Parish Disaster Coordinator, the person appointed by each local authority to carry out day-to-day execution of the disaster risk management functions acts as the advisor to the Parish Disaster Committee.

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

Communities are also part of the disaster management organization of the parish and are represented at the parish level through zonal committees (also known as Community Disaster Risk Management Groups). This committee is made up of community members and the community can invite external organizations to participate in their risk reduction activities.



**Table 3. DRM Group composition**

DRM GROUP POSITION	CONTACT PERSON	TELEPHONE Nº/EMAIL
Chairman.	Michael Barton.	(876) 340-0375.
Vice-Chairman.	Cassandra Cain.	(876) 547-2692.
Secretary.	Latteicia Walker.	(876) 343-9466.
Treasurer.	Shanika Davis.	(876) 491-7296.
Assistant Secretary.	Romel Phinn.	(876) 510-5484.
Coordinator – Public Education & Fundraising.	Asheika Tait.	(876) 896-6553.
Coordinator – Vulnerability & Risk Identification.	Dothlyn Mowatt.	(876) 864-7007.
Coordinator – Prevention, Mitigation & Adaptation.	Aufant Grant.	(876) 531-2157.
Coordinator - Response & Recovery.	Maxine Edwards.	(876) 539-2358.
Coordinator Preparedness.	Shivaughn Anderson.	(876)-858-1669.

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

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

The community should have persons trained in these areas.

## 2.3 Gaps and challenges

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

### 3 DISASTER HISTORY

#### 3.1 History of disasters and coping mechanisms

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

**Table 4. Historical Overview of Disasters**

DISASTER   YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
2021.	Major landslides occurred across the community, especially along Mahagony main road.	Cleared them as best as they could as well as asked for external assistance.
Oct-Dec 2020 Heavy Rains.	<p>Hagley Vale through to Hagley Gap road was blocked by landslides, caused by heavy rains that loosened the soil.</p> <p>Walls collapsed near Hagley Gap square and blocked the road leading into the square. The residents tried to clear a path so they can traverse the area, however, the road is still not cleared. The walls that collapsed were retaining walls for houses.</p> <p>Carrick Hill road near the square (above Barton Shop) was blocked due to a landslide. That road is still partially blocked.</p>	<p>Residents were marooned in the community for a while until the rains paused.</p> <p>After the rains residents got together and tried to clear some of the road blocks however for the most part their efforts were futile.</p> <p>NWA came in to clear some roads but was unable to clear them totally.</p> <p>Residents had no way to get into Kingston as there was a major breakaway on Gordon Town Road that has yet to be fixed. At the time of validation, the road was since repaired.</p> <p>A new road had to be built by Savage Pen for an alternate route.</p>

DISASTER   YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
	Minto to Penlyne Castle road above the Baptist church was blocked due to landslides from rains.	NWA tractors, along with the labour of residents, were used to clear the roads, although all remain partially blocked.
Heavy Rains 2014.	Heavy rains led to landslides and a collapse of a wall in Minto. That wall blocked the road and is still not fixed.	Residents had to cut a road through private property, under the original road to traverse the property. The wall needs to be fixed as soon as possible.
Hurricane Sandy, 2012.	Led to lots of landslides that impact homes, business places, Sandy flood homes in Negro River in Brook lodge.	-
Tropical Storm Nicole, 2010.	Damage to houses, and roads; loss of livestock; flooding; disruption in utilities. The bridge at Mahogany Vale Ford was destroyed (a temporary flat bridge is now in place).	Red Cross, Municipal Corporation and ODPEM along with community members helped in the rebuilding process. A flat Bridge was built by the community.
Hurricane Gustav, 2008.	Extensive flooding, damage to houses, loss of roofs, damage to roads and Mahogany Vale Bridge, disruption in utilities, evacuation of community members, agricultural sector damaged, the gorge was extensively damaged.	Municipal Corporation and ODPEM along with community members helped in the rebuilding process. The community members kept up to date with information from the media via radio. Strong communication and social network.
Hurricane Dean, 2007.	Damage to houses and roads, loss of livestock, flooding, disruption in utilities and flooded community centre.	Red Cross, Municipal Corporation and ODPEM along with community members helped in the rebuilding process.
Hurricane Emily.	Damage to houses and roads, loss of livestock, flooding, disruption in utilities.	Red Cross, Municipal Corporation and ODPEM along with community members helped in the rebuilding process.
Hurricane Dennis, 2005.	Damage to houses and roads, loss of livestock, flooding, disruption in utilities.	Red Cross, Municipal Corporation and ODPEM along with community members helped in the rebuilding process.

DISASTER   YEAR	IMPACT	HOW DID THE COMMUNITY RESPOND?
Hurricane Ivan, 2004.	Damage to houses and roads, loss of livestock, flooding, disruption in utilities.	Red Cross, Municipal Corporation and ODPEM along with community members helped in the rebuilding process.
Heavy rains, 2003.	The bridge at the Mahogany Vale Ford was partially damaged.	-
Hurricane Gilbert, 1988.	Damage to houses, livestock and roads, injuries to persons, disruption of utilities, flooding	Red Cross, Municipal Corporation and ODPEM along with community members helped in the rebuilding process.

### 3.2 Lessons learnt

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

1. Once there is a storm or heavy rains, the Mahogany Vale river overflows its banks and blocks the road from Mahogany Vale to Hagley Gap on both sides (side to St. Thomas as well as side to St. Andrew) hence community members are totally marooned.
2. The road from Mount Charles to Mahogany Vale is impacted continuously by landslides and maroons in the community of Hagley Gap to Penlyne Castle.

## 4 COMMUNITY ASSETS

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

- » NATURAL: Farming land, community springs, rivers, forests, ocean, etc.
- » PHYSICAL: Infrastructure such as bridge into town, schools, clinics and equipment (tools, machines) for transport, local water management/distribution system, telephone lines, mobile phone towers.
- » FINANCIAL, HUMAN AND SOCIAL: liquid assets such as livestock, professional capacities and knowledge (nurses, police, etc.).

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

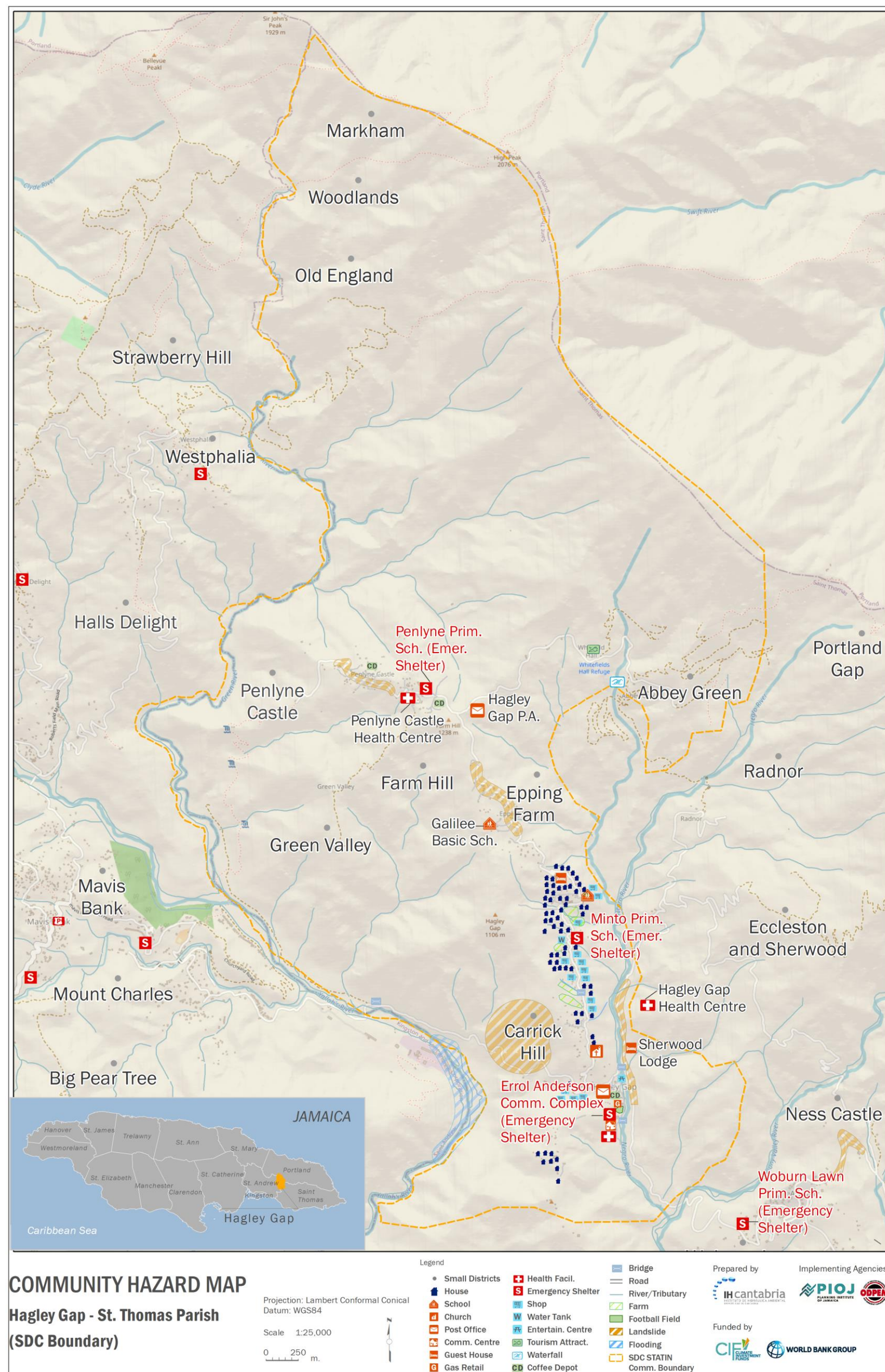
**Table 5. Community Assets**

ASSET CATEGORY	ASSETS
Natural.	Yallahs River, White River and Negro River.
	Streams and tributaries, Springer Share wood Spring, Eighteen Spring, Empty Gully Spring.
	Mahogany Vale Ford, when this is impassable, the citizens are marooned and get flooded once it rains.
	Arable lands, forested areas, Hiking tracks.
Physical.	Five churches.
	Six educational institutions: four basic and two primary schools – Minto Primary, Penlyne Castle Primary.
	Cedar Valley Police Station.
	One Community Centre.
	The health centre is operated by the Hagley Gap Baptist Church.
Financial, human and social.	Poorly maintained roads.
	CBOs: Blue Mountain Development organization, six Parents and Teachers' Associations, Environmental group, Youth Club (this is no longer active).
	Farming area: Blue Mountain coffee, banana, cash and catch crop, known for scallions and thyme. There are mostly chickens but cow goat and pigs are also there.

## 5 COMMUNITY HAZARD MAP

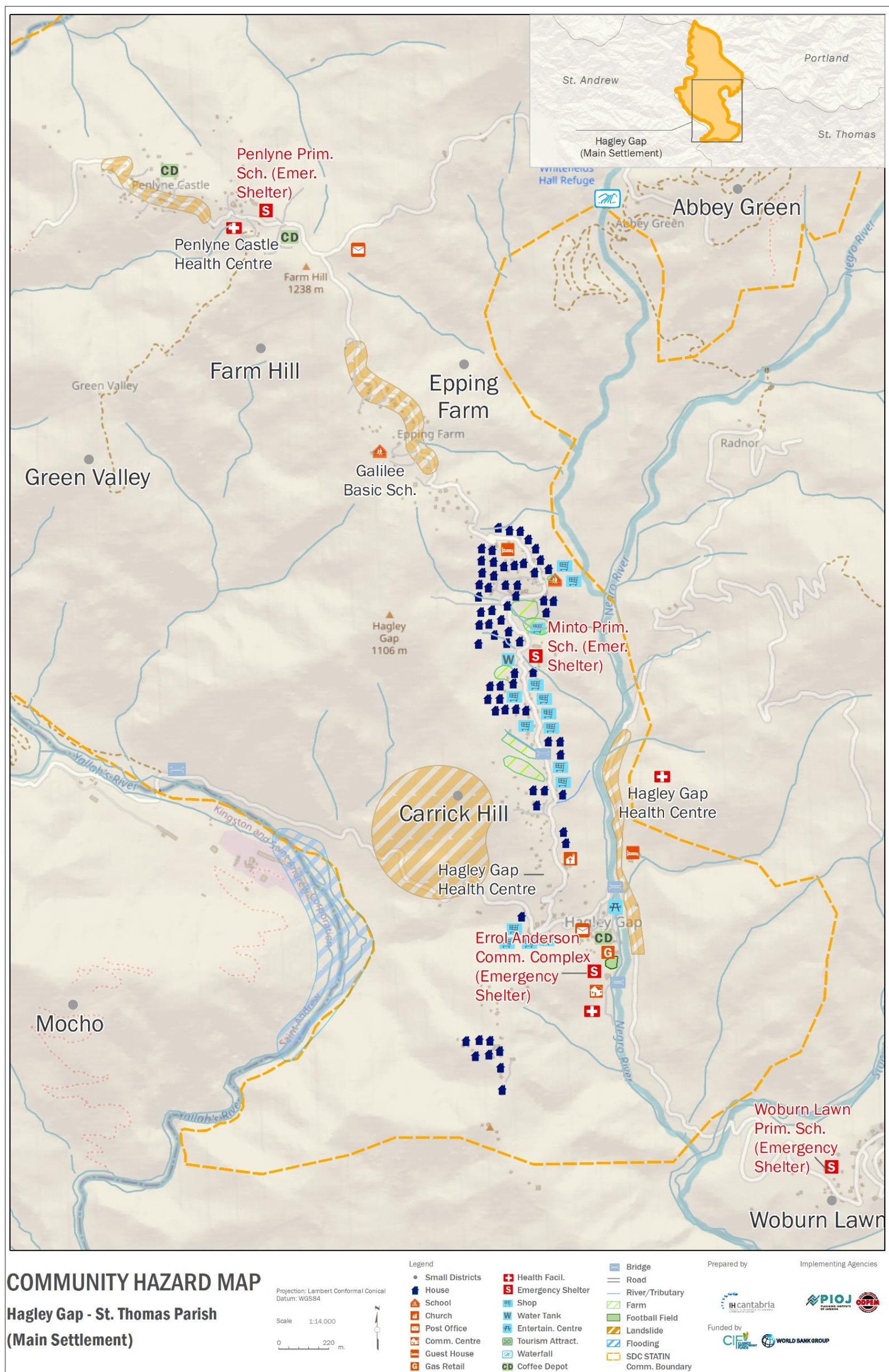
The Community Hazard Maps were prepared with the involvement of the community during the Community Disaster Risk Management Plan workshop. The hazard maps identify the zones where hazards occur and the assets (houses, roads, shops, schools, shelters etc.) that are located in these zones. The community 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).





Hagley Gap Community Hazard Map (SDC Boundary) Digitized from Community Input.





Hagley Gap Community Hazard Map (Main Settlement) Digitized from Community Input.

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

Table 6 identifies (i) climate and non-climate related hazards that the community experiences, and (ii) climate hazards expected to continue to experience into the future considering climate change scenarios. Climate change projected scenarios have been extracted from (CSGM), 2017: State of the Jamaican Climate 2015<sup>1</sup>, 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- during heavy rains the river overflows its bank at Brooklodge.	N/A	Once it rains.	2-7 ft.	Homes, livestock, roads.
	Hurricanes (especially wind).	N/A	2 -3 times per year.	2 – 8 ft or higher of flood waters. Very strong winds are normally experienced usually based on the category of hurricane.	JPS Poles and wires, homes, buildings, schools, water supply, livestock, farmlands, roads churches, post office.
	Landslide.	N/A	ANY rainfall and even without rain.	Major landslides lead to blocked roads and sometimes loss of property.	Houses, farmlands, livestock, roads, schools, JPS poles and trees.

<sup>1</sup> 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)
	Landslide.	N/A	Very often due to the type of soil, so it happens without heavy rains.		Roads, JPS poles, NWC pipes wash away, houses and trees.
CLIMATE HAZARD – FUTURE CC SCENARIO.	Flooding.	-	-	-	-
	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.			-
	Landslide.	-	Occurs often as a result of the type of soil.	-	Roads, JPS poles, wires.
NON-CLIMATE HAZARD.	Fire (man-made).	N/A	Annually during the summer or very dry time (even in March).	-	Farmlands, roads (stones roll and block the road), homes.



## 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.	Roads, some houses in Hagley Gap, Hagley Gap community centre, Mahogany Vale bridge.	Location, the river comes over its bank.	Home owners, all persons using the road. The entire community marooned.	» No transport until NWA clears roads and the river slowly recedes. » Children are unable to go to school.
	Hurricanes – winds and rains.	Light post, roofs, crops, trees, animals sometimes.  Schools (4 basic schools, 2 primary schools), Penlyne Castle Postal Agency, Hagley Gap P.O. churches.	Climatic conditions.	Home owners, farmers Loss or damage to roof, broken windows, damage to buildings, separation of family members, food shortage, loss of animals and crops.  The Penlyne Castle Postal Agency is not in use after damage from the storm.	Affects vendors in the market.  Food security in the area.

HAZARD CATEGORY	HAZARD	VULNERABLE ASSET	DRIVERS OF VULNERABILITY	DIRECT IMPACTS	INDIRECT IMPACTS
	Landslides.	Roads, houses in Hagley Gap, farms.	<p>Landslides are triggered by:</p> <ul style="list-style-type: none"> <li>» Rain leads to landslides.</li> <li>» Deforestation.</li> <li>» Bush fires.</li> </ul>	<p>All road users, farmers and homeowners.</p> <p>Affects access and egress, blocks roads and drains, causes water to change course, and affects the power supply which in turn affects social life and comfort.</p>	<ul style="list-style-type: none"> <li>» Ability to enter or leave the community</li> <li>» Affects the quality of social life and comfort due to the absence of utilities and access to services.</li> </ul>
NON-CLIMATE HAZARD.	Bushfire.	Farmlands.	Persons start a fire to clear land.	Farmers and all road users.	Eco-tourism is impacted as well as farmers, and road users.
	Deforestation.	Farm.	-	-	-

## 8 COMMUNITY CAPACITY ANALYSIS

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

**Table 8. Community Capacity**

CAPACITY	TYPE OF RESOURCE	TASK
Skills.	<ul style="list-style-type: none"> <li>» Chainsaw operators.</li> <li>» Counsellors, pastors.</li> <li>» Tradesmen, plumbers, farmers, teachers, masons, carpenters, welders, mechanics.</li> <li>» Nurses.</li> </ul>	Assist in the clearing of roads, provide counselling, psychological support, providing food, tradesmen assist in prevention and mitigation.
Knowledge.	<ul style="list-style-type: none"> <li>» Hazard history of the community.</li> <li>» Coping mechanisms.</li> <li>» Knowledge and awareness of the community's vulnerabilities and risk reduction measures.</li> <li>» Early warning systems.</li> <li>» Evacuation procedures.</li> <li>» Elements of disaster preparedness and response.</li> <li>» Trained persons- first aid, initial damage assessment, shelter management.</li> </ul>	Contributes 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, and shelter management.

CAPACITY	TYPE OF RESOURCE	TASK
Transportation.	Taxi operators, truck operators, owners of private motor vehicles, motor bikes, buses, and donkeys.	Assist with general transportation of persons from one point to another and assist in the evacuation.
Building/Infrastructures.	Schools, churches, clinics.	These served as an emergency shelter.
Means of Care/Medical Care.	Registered nurse, community health aid, nurse.	Provide first aid service and general health care.
Means of Communication.	Shops & Wholesales.	Source of food supplies, Avenue to de-stress and debrief after a disaster.
Commercial Enterprises.	Grocery Shops and wholesales.	Provides quick access to food supply during an emergency.

## 9 DISASTER RISK REDUCTION

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

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

### 9.1 Prevention and Mitigation

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

#### 9.1.1 Areas which should not be developed

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

**Table 9. Areas for No Development**

AREA	REASON FOR NO DEVELOPMENT
Negro River.	Community main source of water. Any development would corrupt the water supply.
Grass Piece.	The area is a riverbed.
Sherwood Forrest.	A threat to grass piece due to deforestation and excavation on the hillside.

#### 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
Mahagony Main Road.	All the culverts along this road need to be cleaned as they are blocked.
Hagley Gap Community Centre (Playfield).	Expanding the community centre, refurbishing the library, proper lighting, and lifting the field.
Hagley Gap Post Office.	Refurbishing and expanding.
Hagley Gap Basic School.	Refurbishing and expanding.
Epping Farm and Galilee Basic School.	Refurbishing and expansion.
Sections of Penlyne Castle.	The community centre, clinic.

### 9.1.3 Areas which can be developed with Appropriate Mitigation Activities

**Table 11. Special Areas for Development**

AREA	MITIGATION MEASURES NEEDED
Hagley Gap Community Centre Brooklodge.	Building to be outfitted as a training centre for youths.
Negro River.	The bridge is needed and river groyne.
Mohagony Vale River and Negro River.	The bridge is needed as well as a boat as community members are marooned during flooding. Negro River bridge needs rails for safety.
Hagley Gap – Post Office.	Needs refurbishing (very old).
Hagley Gap main road.	<ul style="list-style-type: none"> <li>» Mitigation work needs to be done on the Hagley Gap Main Road.</li> <li>» River Training.</li> <li>» Retaining Walls.</li> </ul>

#### 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.	Go to shelter if impacted. Stay inside and wait on the water to recede.	Yes.	<ul style="list-style-type: none"> <li>» Clean the drains and many also need repair – <b>NWA.</b></li> <li>» Training of Negro River at the bridge to prevent it from damaging the community - <b>NWA.</b></li> </ul>	<ul style="list-style-type: none"> <li>» Help to maintain the drains.</li> <li>» De-silt the river.</li> <li>» Plant trees.</li> </ul>	Hagley Gap Proper, Farm Hill, Epping Farm – S Corner, Penlyne Castle, Farm Hill to Abbey Green, vicinity of Yallahs River.
Hurricane.	Batten down Go to shelters if impacted	Yes.	<ul style="list-style-type: none"> <li>» Public education and awareness – <b>Municipal Corporation, ODPEM.</b></li> <li>» A bridge is needed at Negro River, only a foot bridge is</li> </ul>	<ul style="list-style-type: none"> <li>» Use hurricane straps.</li> <li>» “Seal” the eaves of roofs.</li> <li>» Build according to the building code.</li> </ul>	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
	Prepare with food etc. because they are likely to be marooned.		there now – <b>NWA.</b> » Mahogany Vale needs a bridge right now as many lives are lost as persons try to cross – <b>NWA.</b> » Planting trees – <b>RADA, Forestry Department.</b> » De-silting of the river – <b>NWA.</b>	» Reap crops early and store them. » Batten down the roof of animal shelters. » Brace or tie trees. » Cut down overhanging trees.	
Landslide.	Watch.	Nothing else to do.	» Clear areas blocked quickly – <b>Municipal Corporation, NWA</b> » Have a tractor parked in the area to quickly clear the road – <b>NWA</b> » Erect warning signs – <b>Municipal Corporation, NWA</b> » Establish no-build zones – <b>Municipal Corporation</b>	» Do not light a bush fire. » Plant trees, reforestation. » Practice terracing.	Farm ill Trail.

## 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
Flooding / hurricane.	Disaster Risk Management sensitization meetings.	Town cry, posters and fliers. Letters to churches, clubs, schools, businesses.	April – May.	Coordinator - Public Education and fundraising - Asheika Tait.
Landslide.	Landslide sensitization.	Town Hall meeting and invite resource persons.	Ongoing.	Coordinator - Public Education and fundraising - Asheika Tait.
Earthquake.	Earthquake sensitization.	» In conjunction with fund-raising activities. » Partnering with other stakeholders when they are having fairs etc.	January – February.	Coordinator - Public Education and fundraising - Asheika Tait.

## 9.2.2 Monitoring and Warning

The following persons (belonging to the CDRM Group) are responsible for monitoring and warning situations of impending disasters (e.g., hurricane, flooding, storm surge, landslide) that may affect the community and disseminate information to the DRM Group.

**Table 14. Community Monitoring and Warning Programme**

HAZARDS	MONITORING/WARNING METHOD	RESPONSIBILITY	PROCEDURES
Hurricane.	Listening to the radio for official information.	Coordinator – Public Education and Fundraising - Latteicia Walker.	<ul style="list-style-type: none"> <li>» The Coordinator – Public Education and Fundraising issues an alert to the zonal group via SMS or internet-based messaging system. Red Cross had a system.</li> <li>» A town crier is dispatched to warn the community.</li> <li>» Shelter managers were placed on alert.</li> </ul>
	Farmers' weather forecast.	Coordinator – Public Education and Fundraising - Latteicia Walker.	<ul style="list-style-type: none"> <li>» Warning sent to the president of the farmers' cooperative</li> <li>» It is proposed that a WhatsApp group for farmers is created that will be used to disseminate information to the farmers.</li> </ul>
Flooding.	A community gauge is suggested at the flat bridge in Negro River in Hagley Gap.	Community gauge reader Shivaughn Anderson.	-

### 9.2.3 Evacuation

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

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

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

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

EVACUATION ZONE	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT COORDINATOR
Brooklodge.	From the community, turn left on the main road and proceed to the end of the road (dead end) where the shelter is located.	Hagley Gap Community Centre is the official centre.	Walk The elderly might need transportation.	Cassandra Cain.

EVACUATION ZONE	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT COORDINATOR
Epping Farm Minto District.	<p>Exit Epping Farm, turn left on the main road. The school is on the left.</p> <p>Exit Minto, turn right on the main road, the school is on the right side of the road.</p> <p><b>DIRECTIONS TO MINTO CHURCH</b></p> <p>Exit both communities and make a left onto the main road. The church is on the left on Minto Hill</p>	<p>Minto Primary School official centre.</p> <p>Minto Baptist Church is the alternate centre.</p>	<p>Walk.</p> <p>The elderly might need transportation.</p>	Shanika Davis.
<p>Farm Hill/ Penlyne Castle.</p> <p>(Penlyne Castle citizens do not usually use the shelter).</p>	<p>From the district, turn left on the Farm/Hill Penlyne Castle Road. The church is on the hill ahead for a few meters.</p> <p>From Penlyne Castle, make a left unto the main road, continuing along the road for a few metres. The school is on the right.</p>	<p>Penlyne Castle Church of God.</p> <p>Penlyne Castle Primary.</p>	<p>Walking distance.</p>	Asheika Tait.



EVACUATION ZONE	EVACUATION ROUTE	SHELTER	TRANSPORTATION	ASSEMBLY POINT COORDINATOR
Carrick Hill. Hagley Gap.  <i>*These persons are less likely to go to the shelter as the route is always blocked by flood waters.</i>	From Garrick Hill, turn right and head to Hagley Gap road until the river is reached. Turn right at the river (do not cross the river) and continue to the community centre.	Hagley Gap Community Centre.	Very far away from the community. Transportation is required.	Latteicia Walker – Carrick Hill. Dothlyn Mowatt – Hagley Gap.

**Table 16. Evacuation Procedures**

ACTIVITY	PERSON RESPONSIBLE
Evaluate threat or liaise with PDC/ODPEM on the need for evacuation.	Chairman- Mr. Michael Barton. VP: Cassandra Cain.
Alert residents on possible evacuation.	Coordinator – Preparedness - Shivaughn Anderson.
Decide on timing.	Coordinator - Response & Recovery - Romel Phinn Brianna Ogilve.
Ensure special needs populations are assisted.	Coordinator – Preparedness - Dothlyn Mowatt Shivaughn Anderson.
Organize transportation.	Coordinator - Response & Recovery - Penlyne coordinator – Asheika Tait.

ACTIVITY	PERSON RESPONSIBLE
Identify the route to be used.	Coordinator - Response & Recovery - Coordinator - Response & Recovery: Samesha Hartley .
Ensure shelter available.	Coordinator - Response & Recovery - Natasha Walker.
Register all persons who are evacuating and their destination.	Coordinator - Response & Recovery - CERT Mr Grant Maxcine Edwards.
Start evacuation.	Coordinator - Response & Recovery.
Check that all areas are safely evacuated.	Chairman - Mr. Michael Barton.
Inform Parish Disaster Committee.	Chairman - Mr. Michael Barton.

Table 17 shows the evacuation responsible for each evacuation zone who will monitor that all evacuation activities are being conducted. The evacuation zone responsible will contact the vulnerable group responsible if needed (and vice versa).

**Table 17. Evacuation Team**

EVACUATION ZONE	PERSON RESPONSIBLE FOR EVACUATION	VULNERABLE GROUP TO BE EVACUATED	PERSONS RESPONSIBLE FOR EVACUATION OF VULNERABLE GROUPS
Epping Farm, Minto.	-	Elderly, persons with disability.	Minto Baptist and haggle gap Seven day Baptist.
Penlyne Castle.	-	Elderly, persons with disability.	Churches such as Penlyne Castle Church of God.
Hagley Gap.	-	Elderly, persons with disability.	N/A
Brooklodge.	-	Elderly, persons with disability.	N/A

Appendix E highlights the designated shelters for the community. All persons are encouraged to carry food to last them for three days. See Appendix D for a list of items needed.

## 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
Earthquake drill.	Municipal Corporation.	January and June.
Test call-out procedures.	Municipal Corporation.	January and June.
First Aid.	Red Cross.	March- April.
Disaster Preparedness and Management Training.	ODPEM.	March- April.
Fire Drill.	Fire Brigade.	March- April.
Search and Rescue.	JDF.	March- April.
Clean all drains.	Municipal Corporation.	April – May.
Full radio communication system.	Municipal corporation & ODPEM.	2022.
Shovel, first aid kits and tools needed to assist persons during storms.	Municipal corporation & ODPEM.	Partially Received.
Stand-by generator.	Municipal corporation & ODPEM.	2022.

### 9.2.5 Response and Relief

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

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

The Chairman shall declare an emergency when a predetermined condition has been met or when advised by the Office of Disaster Preparedness and Emergency Management (ODPEM). Operating procedures will be activated as set out in the relevant Standard Operating Procedures / Plans as outlined in the Appenidec 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
<b>Send out Search and Rescue and First Aid Team to check on:</b>		
Elderly.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
Persons with Disabilities.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
Single Mothers.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
Damaged Buildings and Houses for Occupants.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
Persons Stranded by Floodwater.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
<b>Check for:</b>		
Deaths.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
Injuries.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
Persons in Need of Emergency Assistance.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
Call for any External Assistance.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
Update PDC, ODPEM.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.
Update Community.	Coordinator - Response and Recovery - Maxcine Edwards.	Committee Chair and Parish Disaster Coordinator.

**Table 20. Initial Damage Assessors**

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

### 9.2.5.2 Damage Assessment Procedure

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

**Table 21. Community Damage Assessors**

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



### 9.2.5.3 Response Action Plan

**Table 22. Community Response Action Plan**

RESPONSE ACTIONS IN ORDER OF PRIORITY	RESPONSIBLE PERSON(S)/AGENCY(S)	AGENCY TO REPORT TO
Evacuation Route Management.	Coordinator - Response & Recovery – Maxine Edwards.	Municipal Corporation – Parish Disaster Coordinator.
Evacuation.	Coordinator - Response & Recovery – Maxine Edwards.	Municipal Corporation – Parish Disaster Coordinator.
Trucking of Water.	Coordinator - Response & Recovery – Maxine Edwards.	Municipal Corporation – Parish Disaster Coordinator.
Alternative Sources of Lighting.	Coordinator - Response & Recovery – Maxine Edwards.	Municipal Corporation – Parish Disaster Coordinator.
Search and Rescue.	Search and Rescue Coordinator.	Municipal Corporation – Parish Disaster Coordinator.
Children Welfare and the Disabled.	Coordinator - Response & Recovery – Maxine Edwards.	Municipal Corporation – Parish Disaster Coordinator.
Initial Damage Assessment.	Coordinator - Response & Recovery – Maxine Edwards.	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
<b>Identify members of community who have:</b>	
Received damage.	Damage Assessment Coordinator.
Need shelter.	Shelter Management Coordinator.
Lost means of income.	Coordinator - Response & Recovery.
Need assistance.	Coordinator - Response & Recovery.
Identify members of the community in need of psycho-social support or counselling.	Coordinator - Response & Recovery.
Compile a list and update PDC and ODPEM.	Coordinator - Response & Recovery.

## 9.2.6 Recovery

**Table 24. Recovery Action Plan**

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

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

## APPENDIX A – COMMUNITY EMERGENCY CONTACT LIST

COMMUNITY EMERGENCY CONTACT LIST	CONTACT PERSON	TELEPHONE Nº/EMAIL
CDRM Group President.	Mr. Michael Barton	876 340-0375
CERT President.	Cassandra Cain	876 547-2692
Police.	Ms. Allison Byfield	876 982-2233 <a href="mailto:Stthomasdivhq@jcf.gov.jm">Stthomasdivhq@jcf.gov.jm</a>
Fireman.	Mr. Horace Thomas	876 982-1214 <a href="mailto:dhstthomas@jfb.gov.jm">dhstthomas@jfb.gov.jm</a>
Health.	Mr. Verol Denton	876 703-6182 <a href="mailto:doyensmith@gmail.com">doyensmith@gmail.com</a>

## APPENDIX B – VULNERABLE POPULATION

TYPE OF VULNERABILITY (FOR EXAMPLE, ELDERLY, DISABLED, SINGLE MOTHERS....)	NUMBER OF VULNERABLE PERSONS	LOCATION OF VULNERABLE	NEXT OF KIN/CARE GIVER & CONTACT INFO	CDRT/CERT MEMBER RESPONSIBLE
Persons with Disabilities.	25 persons.	Epping Farm, Hagley Gap, Ladies View, Minto, Penlyne Castle, Brookelodge.	N/A	N/A
Programme of Advancement Through Health and Education (PATH) Beneficiaries.	129 persons.	Garrick Hill, Epping Farm, Hagley Gap, Ladies View, Minto, Penlyne Castle.	N/A	N/A
Elderly.	1 person.	Hagley Gap.	N/A	N/A

## APPENDIX C – EQUIPMENT ALREADY AVAILABLE IN THE COMMUNITY

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

ITEMS (QUANTITY PER ITEM)	STORAGE LOCATION	CONTACT PERSON(S) FOR STORAGE	CONTACT NUMBER
Water Boots.	None.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Machetes.	None.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Shovels.	None.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Forks.	None.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Hazardous infection diseases protection materials: masks and alcohol-based gel.	Limited amount at Municipal Corporation.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>



## APPENDIX D – ITEMS REQUIRED EXTERNALLY

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	CONTACT INFORMATION
First Aid Kits.	Yes, required.	Ministry of Health, Jamaica Red Cross, Food for the Poor.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Hazardous infection diseases protection materials: masks.	Yes, required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Hazardous infection diseases protection materials: alcohol-based Gel.	Yes, required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Shovels.	Yes, required.	ODPEM, Ministry of Agriculture, RADA, Jamaica Agricultural Society, Jamaica Fire Brigade.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Water boots.	Yes, required.	Hardware, Food for the Poor, Department of Fisheries, Fisherman's Corp.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Heavy-duty gloves.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	CONTACT INFORMATION
Rain cloaks.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Hard hats.	Yes, required.	Hardware, Food for the Poor, Livestock Association.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Machetes.	Yes, required.	Municipal Corporation, ODPEM, MLSS, Red Cross.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Canvas Stretchers.	Yes, required.	Hardware, Food for the Poor, Department of Fisheries, Fisherman's Corp.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Crow bars.	Yes, required.	Municipal Corporation, ODPEM, MLSS, Red Cross.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Rip/Crosscut Saws.	Yes, required.	Tankweld, Rhino.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Power saws.	Yes, required.	Wisynco, Hardware.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Heavy duty Screw Drivers.	Yes, required.	Ministry of Health, National Water Commission.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>

ITEMS REQUIRED	QUANTITY	SOURCE AGENCY/BUSINESS	CONTACT PERSON(S) FOR STORAGE	CONTACT INFORMATION
Large/medium Cold Chisels.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Claw Hammers.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Heavy duty Sledge Hammers.	Yes, required.	Gas Station.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>
Flashlights.	Yes, required.	ODPEM, Hardware.	Miss Martina Medley.	876 487-2656 <a href="mailto:Stthomasdm@gmail.com">Stthomasdm@gmail.com</a>

## 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
<b>Official Shelters</b>				
Minto Primary.	Hagley Gap PO, Hagley Gap, St. Thomas.	Minto, Epping Farm, Grass Piece, Hagley Gap.	Rosetta Edwards Nincora Milwood.	876 488-2215.
Penlyne Castle Primary.	Penlyne Castle, Penlyne Castle PA, St. Thomas.	Penlyne Castle, Ladies View, Top Epping Farm.	Ipal Smith.	876 406-3368.

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

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

## APPENDIX G – HURRICANE STANDARD OPERATING PROCEDURES (SOPS)

### Purpose

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

### Objectives

The concepts and procedures in this SOP are set to:

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

### Threat Assessment

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

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

## Basic Planning Assumptions

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

## Concept of Operations

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

Procedures will be categorized into the following phases:

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



## Hurricane Categories

### Category One Hurricane

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

### Category Two Hurricane

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

### Category Three Hurricane

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

### Category Four Hurricane

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

### Category Five Hurricane

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

## Warnings and Watches

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

### ***Tropical Storm Watch***

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

### ***Tropical Storm Warning***

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

***Hurricane Watch***

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

***Hurricane Warning***

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

***Flash Flood Watch***

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

***Flash Flood Warning***

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

## Operating Procedures

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

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Continue to support and promote public information and awareness programmes.	Coordinator – Public Education and Fund Raising.	Asheika Tait.
2. Sensitize special needs population	Coordinator – Public Education and Fund Raising.	Asheika Tait.
3. Organize how special needs population will be evacuated and transportation required.	Coordinator – Preparedness.	Shivaughn Anderson.
4. Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol	Coordinator – Preparedness.	Shivaughn Anderson.
5. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible	Coordinator – Preparedness. Coordinator - Response & Recovery.	Maxcine Edwards.
6. Sensitization of persons in the community without vehicles of assembly area for transportation to more safe location.	Coordinator – Public Education and Fund Raising.	Asheika Tait.
7. Identify areas in the community where high potential for infrastructure/ property damages.	Coordinator - Vulnerability & Risk Identification	Dothlyn Mowatt .

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
8. Ensure DRM teams are aware of all high-risk locations in the community.	Coordinator - Vulnerability & Risk Identification	Dothlyn Mowatt
9. Prepare areas for sheltering persons in need	Coordinator – Preparedness	Shivaughn Anderson
10. Re-engage community volunteers to provide assistance in shelters and other areas. Consult with PDC for facilitating training or refresher courses.	Coordinator – Preparedness	Shivaughn Anderson
11. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Coordinator - Coordinator – Prevention, Mitigation and Adaptation	Aufant Grant
12. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC.	Coordinator - Coordinator – Prevention, Mitigation and Adaptation	Aufant Grant

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

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> <li>1. Meet and assess the community's state of preparedness for a hurricane</li> <li>2. Advise community to listen to all weather advisories</li> </ol>	Chairman - Mr. Michael Barton
<ol style="list-style-type: none"> <li>1. Issue warning of threat</li> <li>2. Alert and notify: <ul style="list-style-type: none"> <li>» PDC that community DRM teams are activated</li> <li>» Other CBOs</li> <li>» Shelter Managers</li> <li>» Response personnel</li> </ul> </li> <li>3. Make available all relevant information on the hazard to the general community.</li> </ol>	Coordinator – Preparedness - Shivaughn Anderson
<ol style="list-style-type: none"> <li>1. Pre-check and activate SOPs</li> <li>2. Alert all trained community first aiders and search and rescue personnel.</li> <li>3. Have first-aid kits prepared</li> </ol>	Coordinator – Preparedness - Shivaughn Anderson
<p>Personal for families:</p> <ul style="list-style-type: none"> <li>» Make sure your family goes over the family disaster plan.</li> <li>» Make plans for protecting your house, especially the roof, windows</li> </ul>	<p>Coordinator – Preparedness - Shivaughn Anderson</p> <p>Coordinator - Response &amp; Recovery - Maxcine Edwards</p>

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

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

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

**A. HURRICANE WATCH - 48 Hours before Impact**

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

**B. HURRICANE WARNING - 36 Hours before impact**

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> <li>1. Activate and brief all community teams and volunteers</li> <li>2. Test the systems of communication within the community.</li> </ol>	Coordinator - Response & Recovery - Maxcine Edwards



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

ACTIVITIES	PERSON(S) RESPONSIBLE
<ul style="list-style-type: none"> <li>» Communications equipment</li> <li>» Manpower</li> </ul>	<p>Coordinator - Response &amp; Recovery - Maxcine Edwards</p> <p>Coordinator – Preparedness - Shivaughn Anderson</p>

**C. 24 HOURS BEFORE IMPACT**

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

ACTIVITIES	PERSON(S) RESPONSIBLE
<ul style="list-style-type: none"> <li>» Monitor radio for hurricane warnings and public information via news releases through ODPEM and Met office.</li> <li>» Monitor Radios for precautionary tips together with packaged information of the activities of responding agencies.</li> </ul>	Coordinator - Response & Recovery - Maxcine Edwards
Alert community Initial Damage Assessment Team(s).	Coordinator - Response & Recovery - Maxcine Edwards
Confirm lines of credit with merchants to enable easy access to relief supplies after the disaster.	Coordinator - Response & Recovery - Maxcine Edwards

**D. 16 HOURS BEFORE IMPACT TO LANDFALL**

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> <li>1. Maintain contact with PEOC.</li> <li>2. Advise PEOC of weather conditions and state of preparedness.</li> <li>3. Confirm arrival and status of evacuees in shelters.</li> <li>4. Check in with standby teams and community response personnel.</li> </ol>	<p>Chairman - Mr. Michael Barton</p> <p>Vice Chairman - Cassandra Cain</p> <p>Coordinator - Response &amp; Recovery - Maxcine Edwards</p>

## E. THE BLOW

ACTIVITIES	PERSON(S) RESPONSIBLE
Monitor and report events as far as possible.	Chairman - Mr. Michael Barton Vice Chairman - Cassandra Cain
Maintain contact with PEOC, Shelters and response personnel.	Coordinator - Response & Recovery - Maxcine Edwards

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

ACTIVITIES	PERSON(S) RESPONSIBLE
1. Check with PDC for persons to return home but only after authorities say it is safe to do so. Keep tuned to your local radio or TV station for recovery information. Confirm All Clear	Coordinator - Response & Recovery - Maxcine Edwards
<ol style="list-style-type: none"> <li>1. Deploy community damage survey teams or assessors.</li> <li>2. Deploy community response teams to check on vulnerable (elderly and physically challenged) and critical facilities.</li> <li>3. Check for deaths, injuries and persons needing emergency assistance.</li> <li>4. Conduct first aid and search and rescue operations as necessary.</li> <li>5. Notify PEOC of critical/emergency cases.</li> <li>6. Provide PEOC with status report.</li> </ol>	Coordinator - Response & Recovery - Maxcine Edwards

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

ACTIVITIES	PERSON(S) RESPONSIBLE
Provide initial damage survey and needs of the community	Coordinator - Response & Recovery - Maxcine Edwards
<ol style="list-style-type: none"> <li>1. Provide ground reconnaissance intelligence to the PDC.</li> <li>2. Assist the Fire Brigade and NWA with road clearing, and search and rescue activities through the PEOC.</li> <li>3. Assist with the establishment and staffing of registration centres.</li> </ol>	Coordinator - Response & Recovery - Maxcine Edwards
<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"> <li>» Open windows and doors to ventilate or dry your home. Do not use candles or open flames in doors. Use a flashlight to inspect for damage.</li> <li>» 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.</li> <li>» Look for electrical system damage. If they see sparks or frayed wires, turn off electricity at the main fuse box.</li> <li>» If they have to step in water to reach the electric box, call an electrician for advice.</li> </ul>	Coordinator - Response & Recovery - Maxcine Edwards
<ol style="list-style-type: none"> <li>1. Check for sewage and water-line damage.</li> <li>2. If you suspect there is such damage, call the NWC Company and or PDC.</li> <li>3. Advice community not to drink or prepare food with tap water until notified it is safe to do so.</li> </ol>	Coordinator - Response & Recovery - Maxcine Edwards

**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"> <li>» To conserve water and food.</li> <li>» To stay living at their homes if it is safe to do so.</li> <li>» To take particular care with hygiene and sanitary practices.</li> <li>» Of measures being taken with respect to provision of food and water and restoration of public utilities.</li> </ul>	Coordinator - Response & Recovery - Maxcine Edwards
<ol style="list-style-type: none"> <li>1. Coordinate requests for and offers of assistance through the PEOC.</li> <li>2. Coordinate reconnaissance and damage assessment teams through the PEOC.</li> <li>3. Ascertain the early requirements for Government assistance in re-establishing the community.</li> </ol>	Coordinator - Response & Recovery - Maxcine Edwards
<p>Coordinate the establishment, staffing and management of emergency shelters for sustained use in community.</p> <p>Encourage persons affected to stay with friends or family as first options.</p>	Coordinator - Response & Recovery - Maxcine Edwards
Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.	Coordinator - Response & Recovery - Maxcine Edwards
<ol style="list-style-type: none"> <li>1. Assist with the distribution of supplies.</li> <li>2. Assist with the tracing of missing persons.</li> <li>3. Assist with needs assessments.</li> <li>4. Assist in the provision of welfare information to persons affected.</li> <li>5. Begin to effect minor repairs to critical facilities and clear road ways and drains.</li> <li>6. Continue to provide feedback and assistance to the community through the PDC and PEOC.</li> </ol>	<p>Coordinator - Response &amp; Recovery - Maxcine Edwards</p> <p>Chairman - Mr. Michael Barton</p> <p>Vice Chairman - Cassandra Cain</p>

#### PHASE 4: Recovery

ACTIVITIES	PERSON(S) RESPONSIBLE
<ol style="list-style-type: none"> <li>1. Mobilize Community members to assist each other with rehabilitation and reconstruction activities.</li> <li>2. Encourage community members to rebuild bearing in mind mitigation measures (build back better).</li> <li>3. Mobilize and conduct repairs to critical facilities and infrastructure (Schools, clinic, water supplies and others)</li> </ol>	<p>Coordinator - Response &amp; Recovery - Maxcine Edwards</p> <p>Coordinator - Coordinator – Prevention, Mitigation and Adaptation - Aufant Grant</p>
<ol style="list-style-type: none"> <li>1. Update PDC on recovery activities by external agencies/ departments/organizations.</li> <li>2. Monitor progress and ensure deficiencies are reported.</li> </ol>	<p>Chairman - Mr. Michael Barton</p> <p>Vice Chairman - Cassandra Cain</p> <p>Coordinator – Public Education and Fund Raising - Asheika Tait</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 - Mr. Michael Barton</p>
<p>Identify and share Lessons Learnt to enhance future preparedness and response activities:</p> <ul style="list-style-type: none"> <li>» Challenges in responding to incidents</li> <li>» Which systems were overburdened?</li> <li>» What resources were lacking (human and physical)?</li> <li>» How did the community cope?</li> <li>» What areas of the SOPs need to be reconsidered?</li> </ul>	<p>Chairman - Mr. Michael Barton</p> <p>Vice Chairman - Cassandra Cain</p>
<p>Revise SOPs as necessary</p>	<p>Chairman - Mr. Michael Barton</p> <p>Vice Chairman - Cassandra Cain</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**

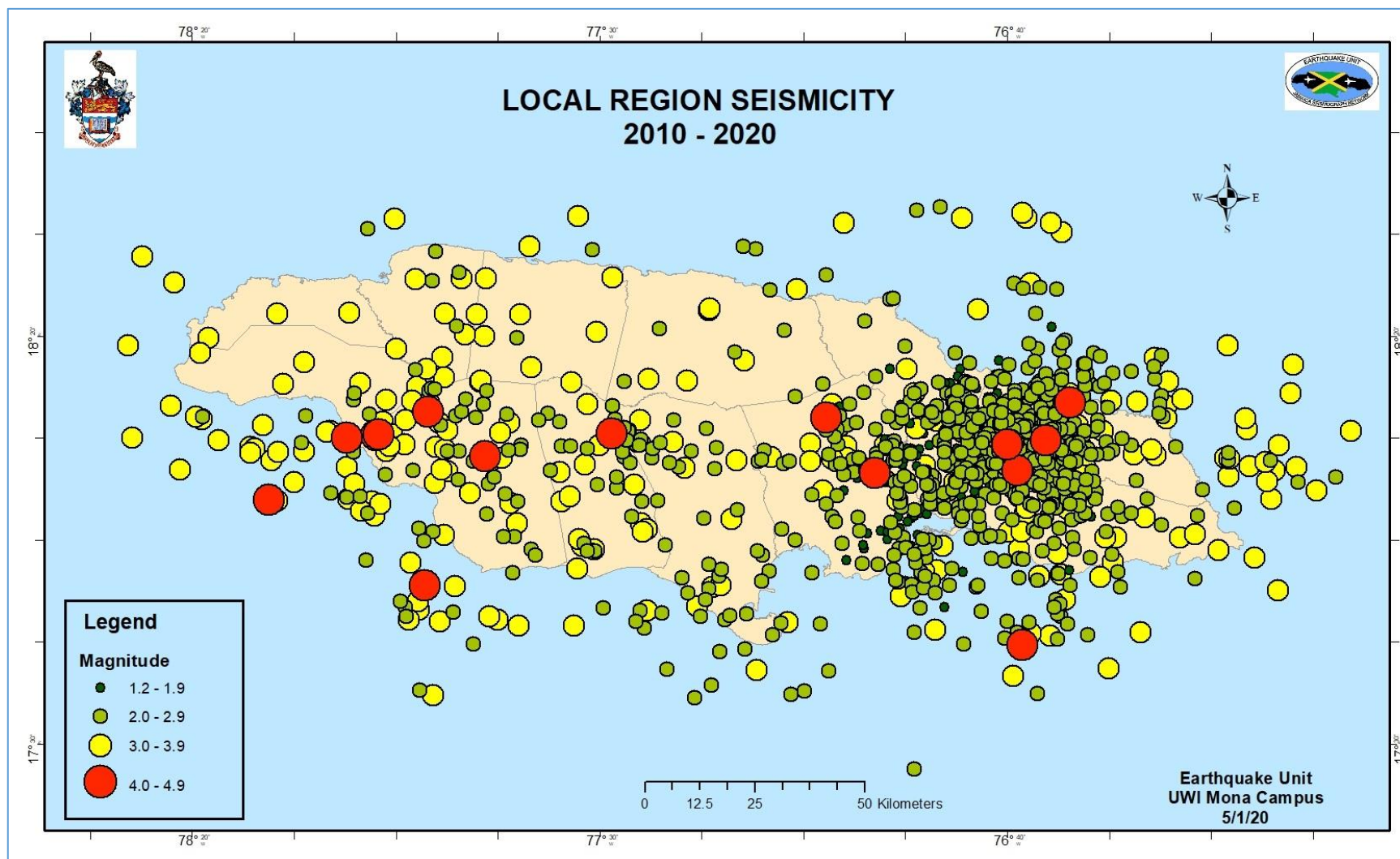
Tremors or smaller earthquakes that occur after the main shock is felt. After-shocks can occur over a few hours to months after the main shock.

### **Tremor**

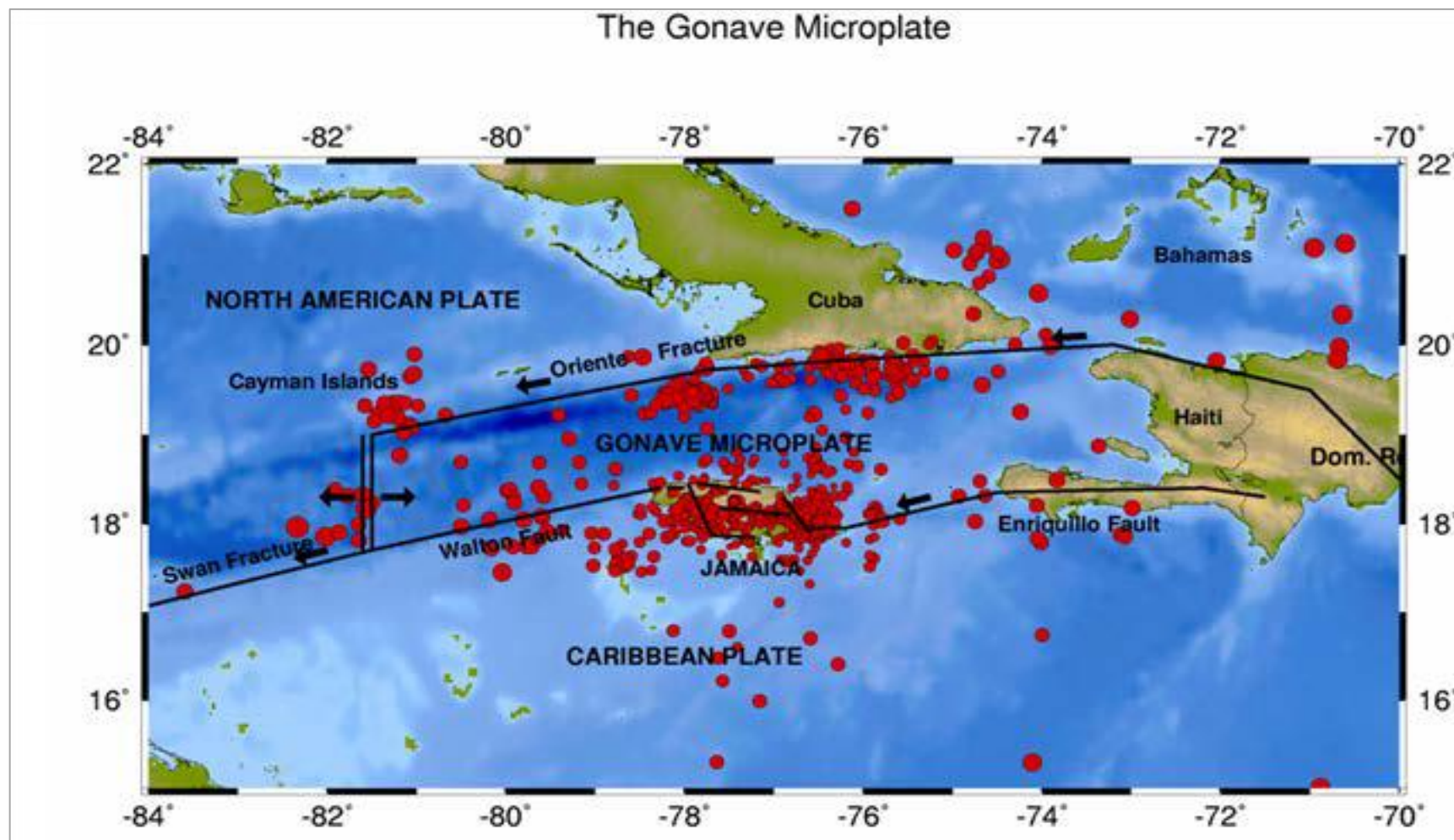
The shaking or seismic waves felt or caused by an earthquake or explosion.

### **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](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	Asheika Tait
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	Shivaughn Anderson
4. Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol.	Coordinator – Preparedness	
5. Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible.	Coordinator – Preparedness	
6. Sensitization of persons in the community without vehicles of assembly area for transportation to more safe location.	Coordinator – Public Education and Fund Raising	Asheika Tait
7. Identify areas in the community where high potential for infrastructure/property damages.	Coordinator - Vulnerability & Risk Identification	Dothlyn Mowatt
8. Ensure DRM teams are aware of all high-risk locations in the community.	Coordinator - Vulnerability & Risk Identification	
9. Prepare areas for sheltering persons in need.	Coordinator – Preparedness	

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	Shivaughn Anderson
11. Ensure new developments are assessed and relevant measures put in place to safeguard community.	Coordinator - Coordinator – Prevention, Mitigation and Adaptation	Aufant Grant
12. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC).	Coordinator - 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	Cassandra Cain
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	Cassandra Cain
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	Latteicia Walker
16. Liaison for maintenance and to keep open all access routes – main transportation routes and alternative access routes.	Coordinator - Coordinator – Prevention, Mitigation and Adaptation	Aufant Grant
17. Community inventory of building quality.	Coordinator - Coordinator – Prevention, Mitigation and Adaptation	Aufant Grant



ACTIVITIES		POSITION	PERSON(S) RESPONSIBLE
18.	Community inventory of road networks and updating of community map.	Coordinator - Coordinator – Prevention, Mitigation and Adaptation	Aufant Grant
19.	Identify alternative sources of water, sources of alternative/temporary housing solutions.	Coordinator - Coordinator – Prevention, Mitigation and Adaptation	
20.	Put mutual aid agreements in place for emergencies such as earthquakes.	Coordinator – Preparedness	Shivaughn Anderson
21.	Meet and assess the community's state of preparedness for an earthquake	Coordinator – Preparedness	Shivaughn Anderson
22.	Organize or initiate and support drills <ul style="list-style-type: none"> <li>» Trained community first aiders</li> <li>» Search and rescue personnel</li> <li>» Have first-aid kits prepared</li> <li>» Support for school and business community drills</li> </ul>	Coordinator – Preparedness Coordinator - Response & Recovery Coordinator – Public Education and Fund Raising	Maxcine Edwards Asheika Tait
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		
25.	Protecting the community: <ul style="list-style-type: none"> <li>» Encourage residents to check and address building and roofing strength. Keep yards clear of debris</li> <li>» Keep roads and open lots clear of solid waste and debris.</li> </ul>	Coordinator – Preparedness Coordinator - Coordinator – Prevention, Mitigation and Adaptation Coordinator – Public Education and Fund Raising	Aufant Grant Asheika Tait

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Monitor and report events as far as possible.	Chairman Vice Chairman	Mr. Michael Barton Cassandra Cain
2. Maintain contact with PEOC, Shelters and response personnel.	Coordinator - Response & Recovery	Maxcine Edwards
3. Depending on the severity, ensure all buildings are vacated. Account for missing persons.	Coordinator - Response & Recovery	Maxcine Edwards
4. DRM Team Advise the Community to listen to all advisories and remain alert for after shocks	Coordinator – Preparedness	Shivaughn Anderson

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Check with PDC for persons to return home but only after authorities say it is safe to do so. Keep tuned to your local radio or TV station for recovery information. Confirm All Clear.	Coordinator - Response & Recovery	Maxcine Edwards
2. Deploy community damage survey teams or assessors		
3. Deploy community response teams to check on vulnerable (elderly and physically challenged) and critical facilities.		
4. Check for deaths, injuries and persons needing emergency assistance.		
5. Conduct first aid and search and rescue operations as necessary.		
6. Notify PEOC of critical/emergency cases.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
7. Provide PEOC with status report. 8. Provide initial damage survey and needs of the community 9. Provide ground reconnaissance intelligence to the PDC. 10. Assist the Fire Brigade and NWA with road clearing, and search and rescue activities through the PEOC. 11. Assist with the establishment and staffing of registration centres.	Coordinator - Response & Recovery	Maxcine Edwards
12. Beware of downed or lose power lines. Report them immediately to the JPS, Police or Fire Department.	Coordinator - Response & Recovery Coordinator – Public Education and Fund Raising	Maxcine Edwards
13. Advise community members to enter their homes with caution: <ul style="list-style-type: none"> <li>» Check for sewage leaks in homes/yards. Cordon off area and report to NWC and Parish Disaster Coordinator/Municipal Corporation/PEOC.</li> <li>» Check for water leaks in homes/yards. Report to NWC and Parish Disaster Coordinator/Municipal Corporation/PEOC.</li> <li>» 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.</li> <li>» Look for electrical system damage. If they see sparks or frayed wires, turn off electricity at the main fuse box.</li> <li>» If have to step in water to reach the electric</li> <li>» box, call an electrician for advice.</li> </ul>	Coordinator - Response & Recovery	Maxcine Edwards
14. Check for general sewage and water-line damage in the community.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
15. If you suspect there is such damage, call the NWC company and or PDC.	Coordinator - Response & Recovery	Maxcine Edwards
16. Advise community not to drink or prepare food with tap water until notified it is safe to do so.		
17. Constantly advise the community: » To conserve water and food; » To stay living at their homes if it is safe to do so; » To take particular care with hygiene and sanitary practices; » Of measures being taken with respect to provision of food and water and restoration of public utilities.		
18. Coordinate requests for and offers of assistance through the PEOC.		
19. Coordinate reconnaissance and damage assessment teams through the PEOC		
20. Ascertain the early requirements for Government assistance in re-establishing the community.	Coordinator - Response & Recovery	Maxcine Edwards
21. Coordinate the establishment, staffing and management of emergency shelters for sustained use in community.	Vice Chairman	Mr. Michael Barton
22. Encourage persons affected to stay with friends or family as first options.		Dothlyn Mowatt
23. Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.	Coordinator - Vulnerability & Risk Identification	
24. Assist with the distribution of supplies	Coordinator - Response & Recovery	Maxcine Edwards
25. Assist with the tracing of missing persons		

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

### PHASE 3: RECOVERY

ACTIVITIES		POSITION	PERSON(S) RESPONSIBLE
1.	Mobilize Community members to assist each other with rehabilitation and reconstruction activities.	Coordinator - Response & Recovery Coordinator - Public Education and Fund Raising	Maxcine Edwards
2.	Encourage community members to rebuild bearing in mind mitigation measures (build back better).		Asheika Tait
3.	Mobilize and conduct repairs to critical facilities and infrastructure (Schools, clinic, water supplies and others)		Asheika Tait
4.	Update PDC on recovery activities by external agencies/departments/organizations.	Coordinator - Response & Recovery	Maxcine Edwards
5.	Monitor progress and ensure deficiencies are reported.		
6.	Mobilize CDRM Group to seek assist from NGOs (e.g. Red Cross, Food for the Poor, ADRA and Others) to assist in community recovery initiatives.		
7.	Identify and share Lessons Learnt to enhance future preparedness and response activities: » Challenges in responding to incidents? » Which systems were overburdened? » What resources were lacking (human and physical)? » How did the community cope? » What areas of the SOPs need to be reconsidered?		
8.	Revise SOPs as necessary	Chairman	Mr. Michael Barton

## 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
<b>ALL CLEAR</b>	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 <b>All Clear</b> , for Fire – is when the fire has been fully extinguished and buildings and property are no longer threatened.
<b>EMERGENCY OPERATIONS CENTRE (EOC)</b>	A multi-agency coordination centre that provides support and coordination to the on-scene responders.
<b>INCIDENT</b>	A natural or human-induced event that requires the action of emergency services to protect lives, goods and the environment.
<b>FIRE</b>	Combustion or Fire is a chemical reaction or series of reactions in which heat and light are evolved.
<b>FACTORS NECESSARY FOR COMBUSTION</b>	HEAT, FUEL and OXYGEN
<b>WAYS IN WHICH HEAT CAN BE CREATED</b>	OPEN FLAME, SPARKS, ARCS, FRICTION, CHEMICAL REACTION, ELECTRICAL
<b>FUEL</b>	Fuels are found in all three (3) stages of matter: <b>SOLIDS:</b> Cloth, Paper, Wood, Coal <b>LIQUIDS:</b> Gasoline, Kerosene, Alcohol, Paint <b>GASES:</b> Methane, Butane, Propane, Acetylene
<b>OXYGEN</b>	21.2% of the earth's atmosphere is oxygen, but only 15% is needed for combustion.
<b>BUSH FIRE</b>	A fire in the bush or a forest area spreads quickly and goes out of control easily.
<b>EMERGENCY EVACUATION</b>	The immediate and rapid movement of people away from the threat or actual occurrence of a hazard.
<b>EXTINGUISH</b>	To put out a flame or fire; to cause a flame or fire to cease to burn or shine.
<b>R.A.C.E</b>	Acronym for <b>R</b> escue, <b>A</b> lert, <b>C</b> ontain (confine fire and smoke) and <b>E</b> vacuate or <b>E</b> xtinguish.
<b>P.A.S.S.</b>	Acronym for <b>P</b> ull, <b>A</b> im, <b>S</b> queeze, <b>S</b> weep (at base of fire). Use to remind users of fire extinguishers how to properly use a CO <sub>2</sub> , 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	Asheika Tait
2.	Sensitize special needs population.		
3.	Organize how special needs population will be evacuated and transportation required.	Coordinator – Preparedness	Shivaughn Anderson
4.	Put arrangements in place to have vehicles to be used in evacuation fuelled with petrol.		
5.	Ensure that appropriate fire extinguishing materials are in place in community centre and shelters.		
6.	Ensure that First Aid Kits and Rescue equipment are stocked and in good condition for use in the event of an emergency.	Coordinator - Response & Recovery	Maxcine Edwards
7.	Send a reminder/update to the Fire Brigade of the evacuation route for the community. Do a walk through if possible.	Coordinator – Preparedness	Shivaughn Anderson
8.	Sensitization of residents on fire safety to be conducted on a yearly basis.	Coordinator – Public Education and Fund Raising	Asheika Tait
9.	Identify areas in the community where high potential for infrastructure/property damages.	Coordinator - Vulnerability & Risk Identification	Dothlyn Mowatt

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
10. Ensure DRM teams are aware of all high-risk locations in the community.		
11. Prepare areas for sheltering persons in need.	Coordinator – Preparedness	Shivaughn Anderson
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 - Coordinator – Prevention, Mitigation and Adaptation	Aufant Grant
14. Organize mitigation and prevent projects and work days with technical guidance from relevant agencies (with the help of the PDC and Fire Departments.		
15. Meet and assess the community’s state of preparedness for a fire.	Chairman	Mr. Michael Barton
16. Conduct Fire Drills at least once yearly.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>17. Personal for families and businesses:</p> <ul style="list-style-type: none"> <li>» Make sure your family goes over the family disaster plan.</li> <li>» All family members should know their evacuation plan.</li> <li>» Store important documents in fireproof box (where possible) or safe.</li> <li>» Houses should be safely wired. An electrical inspection should be conducted: <ul style="list-style-type: none"> <li>✓ For new buildings or building extensions; and</li> <li>✓ 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.</li> </ul> </li> <li>» 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.</li> <li>» Insure house/building, contents and other assets, where possible.</li> <li>» Have a business continuity plan (businesses).</li> <li>» Employees / Family members should know exit routes and what to do in case there is a fire. (Have regular drills).</li> </ul>	<p>Coordinator – Preparedness Coordinator - Response &amp; Recovery Coordinator – Public Education and Fund Raising</p>	<p>Shivaughn Anderson Maxcine Edwards  Asheika Tait</p>

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>18. Protecting the community (from bush fires):</p> <ul style="list-style-type: none"> <li>» Trim dead or weak branches from trees.</li> <li>» Keep yards free of debris.</li> <li>» Avoid open burning, especially dry season.</li> <li>» Remove all dead limbs, needles and debris from gutters.</li> <li>» Build fires away from nearby trees or bushes, always have a way to extinguish this fire.</li> <li>» Monitor all fires while they are burning.</li> <li>» Prune all branches around to a height of 8-10 feet.</li> <li>» Ensure trees adjacent to buildings are free of dead or dying wood and moss.</li> </ul>	<p>Coordinator - Coordinator – Prevention, Mitigation and Adaptation Coordinator – Preparedness</p>	<p>Aufant Grant Shivaughn Anderson</p>
<p>19. Protecting the community (businesses):</p> <ul style="list-style-type: none"> <li>» Install smoke detectors within Business and institutions.</li> <li>» Exit signs must be fitted to all exit doors. Signs must be written in bold red and white background.</li> <li>» All buildings must have proper exits, evacuation routes and emergency assembly areas.</li> <li>» Encourage the usage of fire-resistant materials when building, renovating, or retrofitting structures.</li> <li>» Encourage the storage of combustible/ flammable materials in approved safety containers and keep away from home.</li> </ul>	<p>Coordinator - Coordinator – Prevention, Mitigation and Adaptation Coordinator – Preparedness</p>	<p>Aufant Grant Shivaughn Anderson</p>

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>20. Ensure each response team are equipped with the following:</p> <ul style="list-style-type: none"> <li>» Knowledge and drills for recognizing types of fire and assessment for response;</li> <li>» Fire Brigade telephone number and means of emergency telecommunications (mobile phone, radio – if necessary);</li> <li>» Sand box and shovels;</li> <li>» Pails and water source (drum);</li> <li>» Fire Extinguisher (if possible);</li> <li>» First Aid kit.</li> </ul>	<p>Coordinator - Coordinator – Prevention, Mitigation and Adaptation Coordinator – Preparedness</p>	<p>Aufant Grant Shivaughn Anderson</p>
<p>21. Obtain local building codes and weed abatement ordinances for buildings near wooded areas.</p>	<p>Chairman Coordinator – Preparedness</p>	<p>Mr. Michael Barton Shivaughn Anderson</p>
<p>22. Brief community of activation of evacuation and persons to be evacuated:</p> <ul style="list-style-type: none"> <li>» Review evacuation routes and gather your disaster supply kit in case you are instructed to evacuate.</li> <li>» Communicate assembly points and deploy marshals.</li> <li>» Make contact with shelter managers to receive evacuees.</li> <li>» Inform PDC of actions to be taken.</li> <li>» All electricity and gas supplies should be shut-down when closing businesses or evacuating homes.</li> <li>» Ensure the Elderly and physically challenged to be evacuated and make special arrangement for them.</li> </ul>	<p>Coordinator - Response &amp; Recovery  Coordinator - Response &amp; Recovery</p>	<p>Maxcine Edwards  Maxcine Edwards</p>

## During the fire

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

DRILLS SAVE LIVES

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

**A – ALARM/ASSESS** (simultaneous to immediate rescue)

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

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

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Call out <b>ALARM</b> - If trapped in a fire you cannot out run it. Once a fire is detected immediately call the JPS, Police and Fire Department.	Coordinator - Response & Recovery	Maxcine Edwards

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>2. Once an <b>ALARM</b> is activated: <b>At location of fire (buildings):</b></p> <ul style="list-style-type: none"> <li>» Building should be immediately evacuated. Do not enter a burning building.</li> <li>» Ensure that persons who need assistance while evacuating are assisted (Elderly, Physically Challenge, Children).</li> <li>» Assess the situation.</li> <li>» Establish safety zone.</li> <li>» If a fire is small and its safe attempt to extinguish with a fire extinguisher.</li> <li>» Never allow fire to come between you and the exit path.</li> <li>» 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.</li> <li>» Close gas valves and turn off electricity at the main fuse box.</li> <li>» Remove combustible items (outdoor furniture, umbrellas, tarp coverings, and firewood) from around the home.</li> <li>» Place valuables that will not be damaged by water, in a pool or pond – if necessary.</li> </ul>	Coordinator - Response & Recovery	Maxcine Edwards
<p><b>At location of fire (bush):</b></p> <ul style="list-style-type: none"> <li>» Quickly assess the situation – wind direction &amp; speed, likely path &amp; combustion, risks involved.</li> <li>» Ensure that persons who need assistance while evacuating is assisted (Elderly, Physically Challenge, Children).</li> <li>» 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.</li> <li>» Never allow fire to come between you and the exit path.</li> <li>» Cut off path of fire to homes and farms, if safe to do so.</li> <li>» Remove animals and items that can be moved to safety, if necessary.</li> </ul>		Maxcine Edwards



ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<b><i>Around the perimeter of the fire:</i></b> <ul style="list-style-type: none"> <li>» Cordon the area and keep persons at a safe distance.</li> <li>» Ensure persons do not enter a burning building.</li> <li>» Keep the scene calm. Ensure the comfort/safety of the distraught.</li> </ul>	Coordinator - Response & Recovery	Maxcine Edwards
<b><i>On exit of the building, at the assembly point or safety zone:</i></b> <ul style="list-style-type: none"> <li>» Check for deaths, injuries and persons needing emergency assistance.</li> <li>» Attend to injured persons. Seek assistance for those who require serious medical intervention.</li> <li>» Conduct first aid and search and rescue operations as necessary</li> <li>» Conduct a roll call when students/ staff are assembled (institutions &amp; businesses).</li> <li>» Have information on the missing and injured available for emergency personnel (fire, EMS or police)</li> </ul>		Maxcine Edwards
<b>3. Remind community persons to have contact numbers for the Fire Department and Community Emergency Preparedness and Response Team.</b>	Coordinator – Preparedness	Shivaughn Anderson

## After a fire

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
1. Constantly advise the community that after fire persons should not re-enter building until authorities say it is safe to do so. Confirm All Clear.	Coordinator - Response & Recovery	Maxcine Edwards
2. Conduct Damage & Needs Assessment <ul style="list-style-type: none"> <li>a. Deploy community damage survey teams or assessors (with Municipal Corporation if more than 3 homes/properties are affected).</li> <li>b. Deploy community response teams to check on vulnerable (elderly and physically challenged) and critical facilities.</li> <li>c. Check for associated deaths, injuries and persons needing emergency or psychosocial assistance.</li> <li>d. Conduct first aid and search and rescue operations as necessary.</li> <li>e. Notify emergency personnel of additional critical/emergency cases.</li> </ul>		
3. Provide initial damage survey results and needs assessment for the community to Fire Department, Municipal Corporation and other relevant authority (e.g. Social Worker from Ministry of Labour and Social Security)		
4. Encourage persons affected to stay with friends or family as first options after a fire.		
5. Coordinate the establishment, staffing and management of emergency shelters for sustained use in community.		
6. Coordinate requests for and offers of assistance through the Municipal Corporation. <ul style="list-style-type: none"> <li>» Coordinate requests, receipt and distribution of food, clothing and water supplies through the PEOC.</li> <li>» Assist with the distribution of supplies.</li> <li>» Assist with needs assessments.</li> <li>» Assist in the provision of welfare information to persons affected.</li> </ul>		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
7. Assist with the tracing of missing persons.	Coordinator - Response & Recovery	Maxcine Edwards
8. Begin to effect minor repairs to critical facilities and clear road ways and public spaces, if affected.		
9. Continue to provide feedback and assistance to the community through the PDC and PEOC.		
10. Mobilize Community members to assist each other with rehabilitation and reconstruction activities.		
11. Encourage community members to rebuild bearing in mind mitigation measures (build back better).		
12. Mobilize and conduct repairs to critical facilities and infrastructure (Schools, clinic, water supplies and others), if affected.		
13. Update PDC on recovery activities by external agencies/departments/organizations.		
14. Monitor progress and ensure deficiencies are reported.		
15. Mobilize CDRM Group to seek assist from NGOs (e.g. Red Cross, Food for the Poor, ADRA and Others) to assist in community recovery initiatives, as required.		

ACTIVITIES	POSITION	PERSON(S) RESPONSIBLE
<p>16. After Action Assessment (Community &amp; community/agency) – to identify and share <b>lessons learnt</b> to improve future preparedness and response activities (de-briefing of incident):</p> <ul style="list-style-type: none"> <li>» Challenges in responding to incidents</li> <li>» Which systems were overburdened?</li> <li>» What resources were lacking (human and physical)?</li> <li>» How did the community cope?</li> <li>» What areas of the SOPs need to be reconsidered?</li> </ul>	Coordinator - Response & Recovery	Maxcine Edwards
17. Revise SOPs as necessary.	Chairman	Mr. Michael Barton

## 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

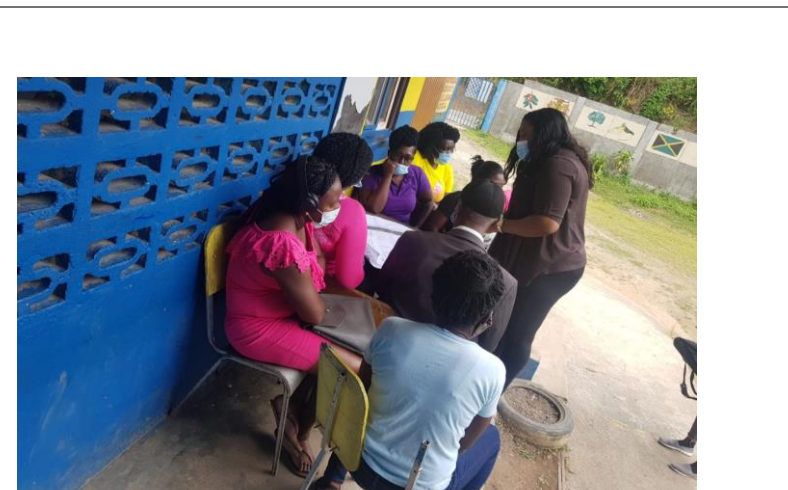


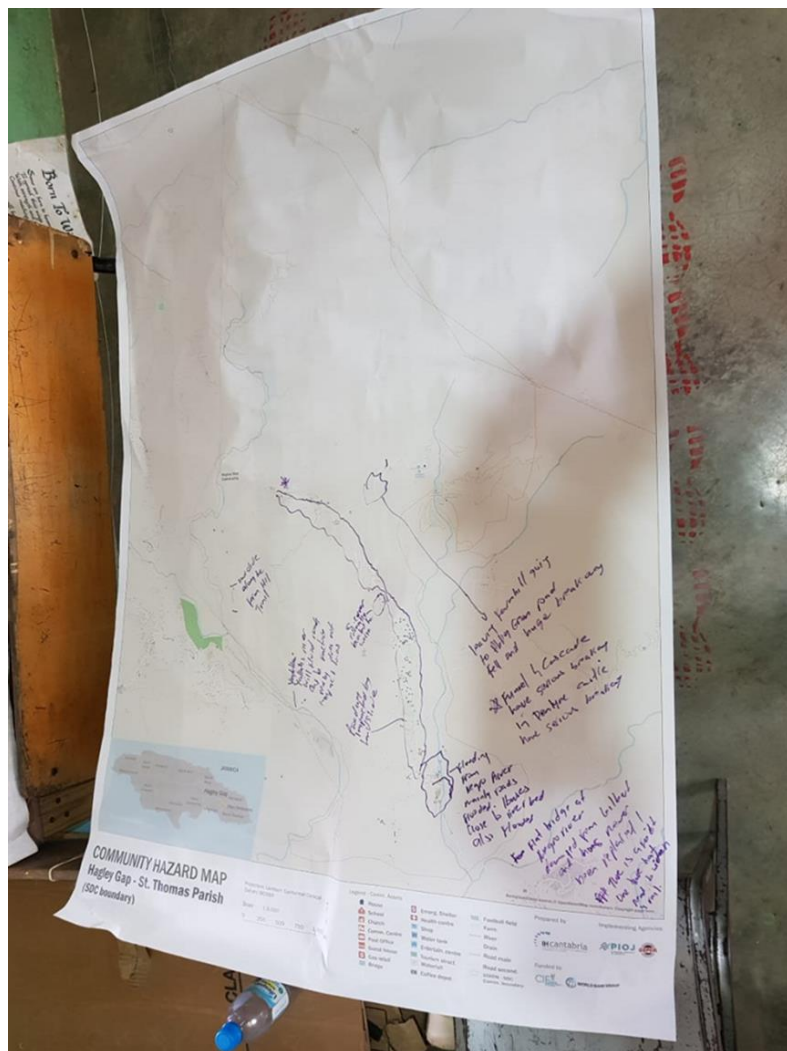
**Photo 52:** View of landslide in Penlyne Castle (Y-S road). Material has been dumped on the roadway to improve access.  
 [Photo: M. Downswell]

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



## COMMUNITY GROUP MEETING.





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