

Session 2A: Governance and Institutional Arrangements for EWS in the Caribbean

Bog Walk Gorge EWS & Road Closure St. Catherine, Jamaica

Caribbean Early Warning System Workshop

April 14-16, 2016

Bridgetown, Barbados



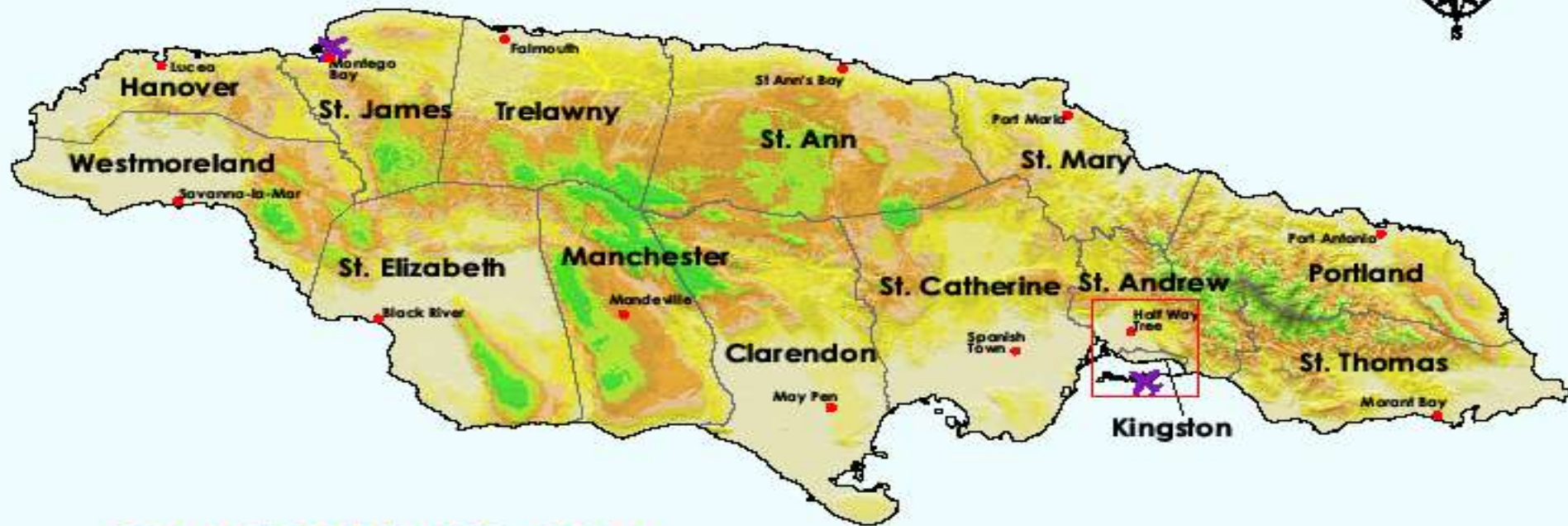
Outline

1. Jamaica and Hazards
2. EWS Advances and Challenges
3. Bog Walk Gorge EWS
4. Governance & Institutional Arrangements (Gaps/Challenges)
5. Way Forward





JAMAICA



CARIBBEAN SEA



JAMAICA

Jamaica is an island country situated in the Caribbean Sea, comprising the third-largest island of the Greater Antilles.

Capital: Kingston

Area: 10,990 square kilometres (4,240 sq mi) in area

Population: 2,709,300 (2011)

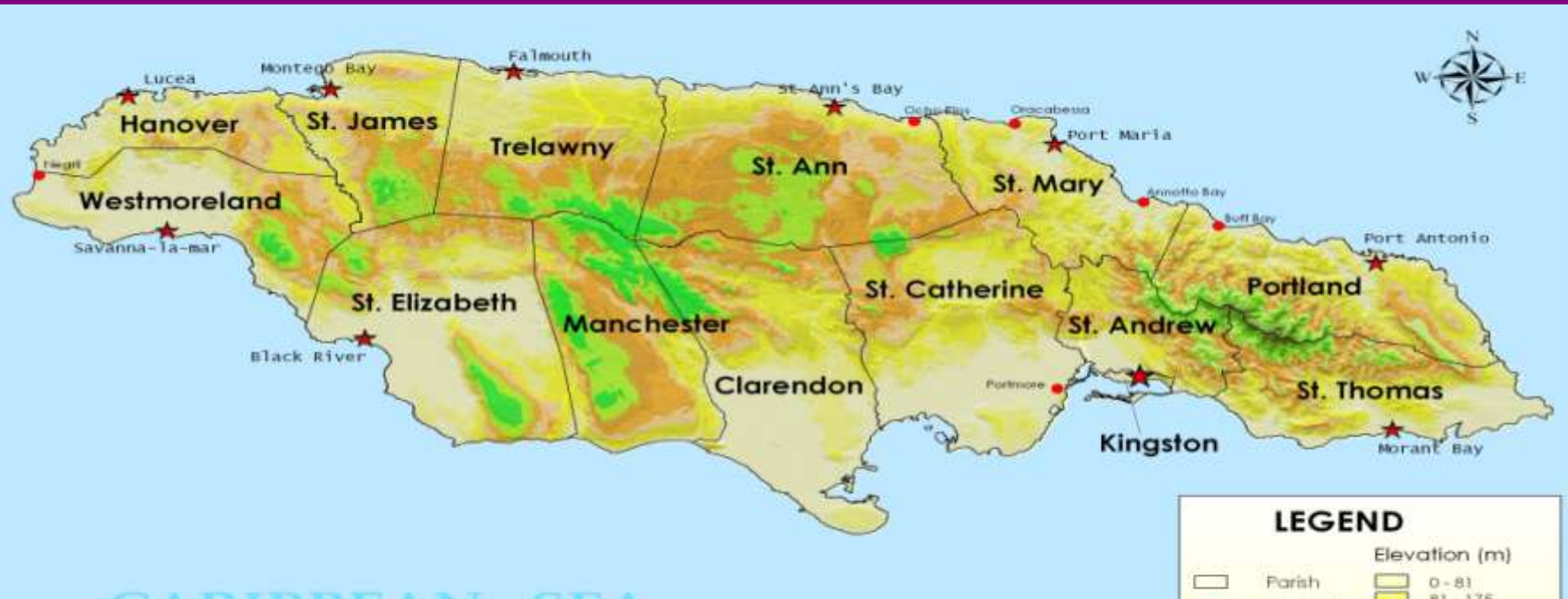
Government: Constitutional monarchy, Parliamentary system, Democracy

Independence: Full Independence 1962

Natural and Technological/manmade Hazards Affecting Jamaica

- NATURAL

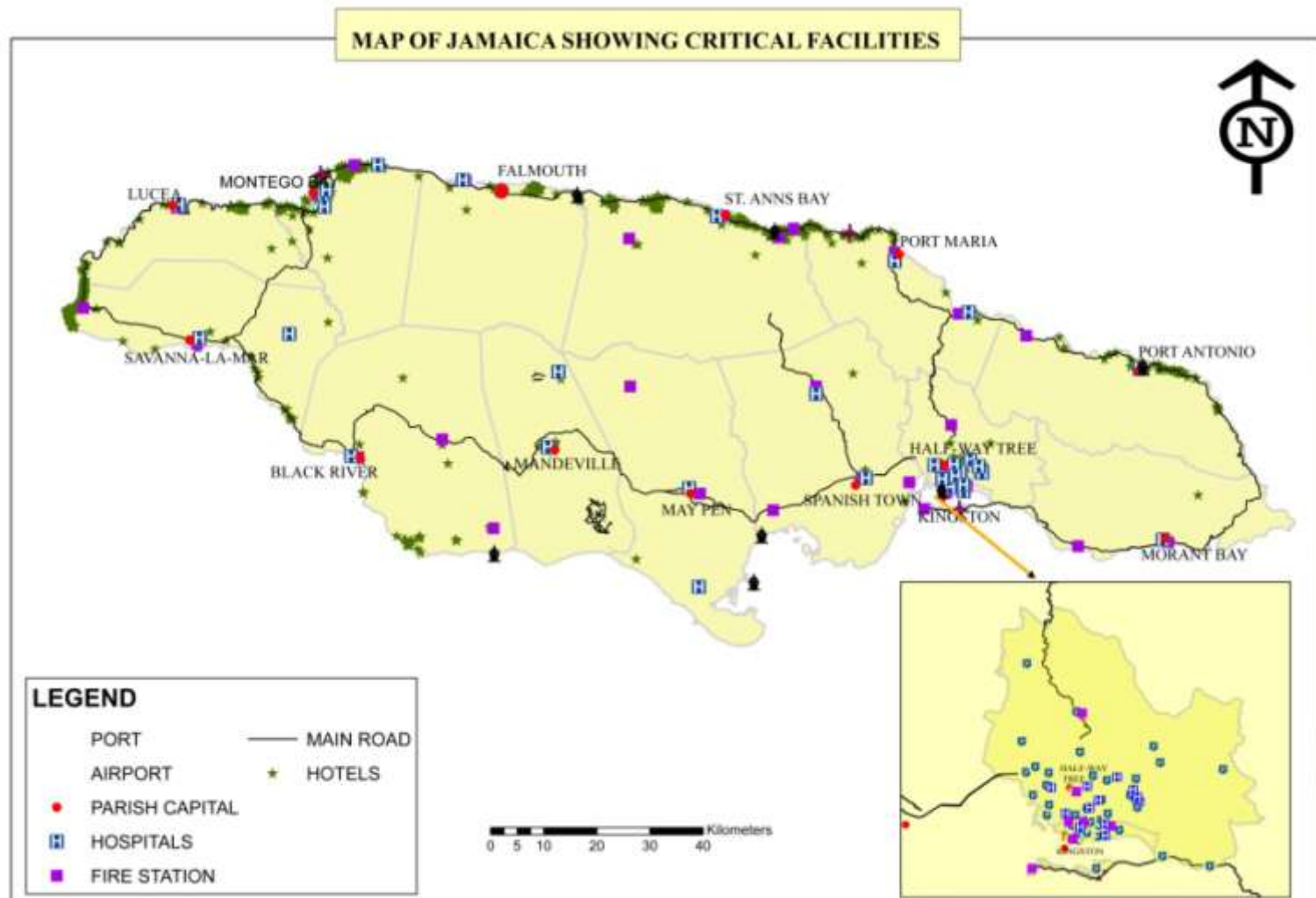
Floods, Hurricanes, Storm surges, Earthquakes, Landslides
Droughts



- TECHNOLOGICAL

– Hazardous Material release, Epidemics, Plant and animal diseases, Fires

LOCATION OF ASSETS AND POPULATION ALONG THE COAST





OFFICE OF DISASTER PREPAREDNESS AND EMERGENCY MANAGEMENT

EWS Advances

Initiatives/Programmes

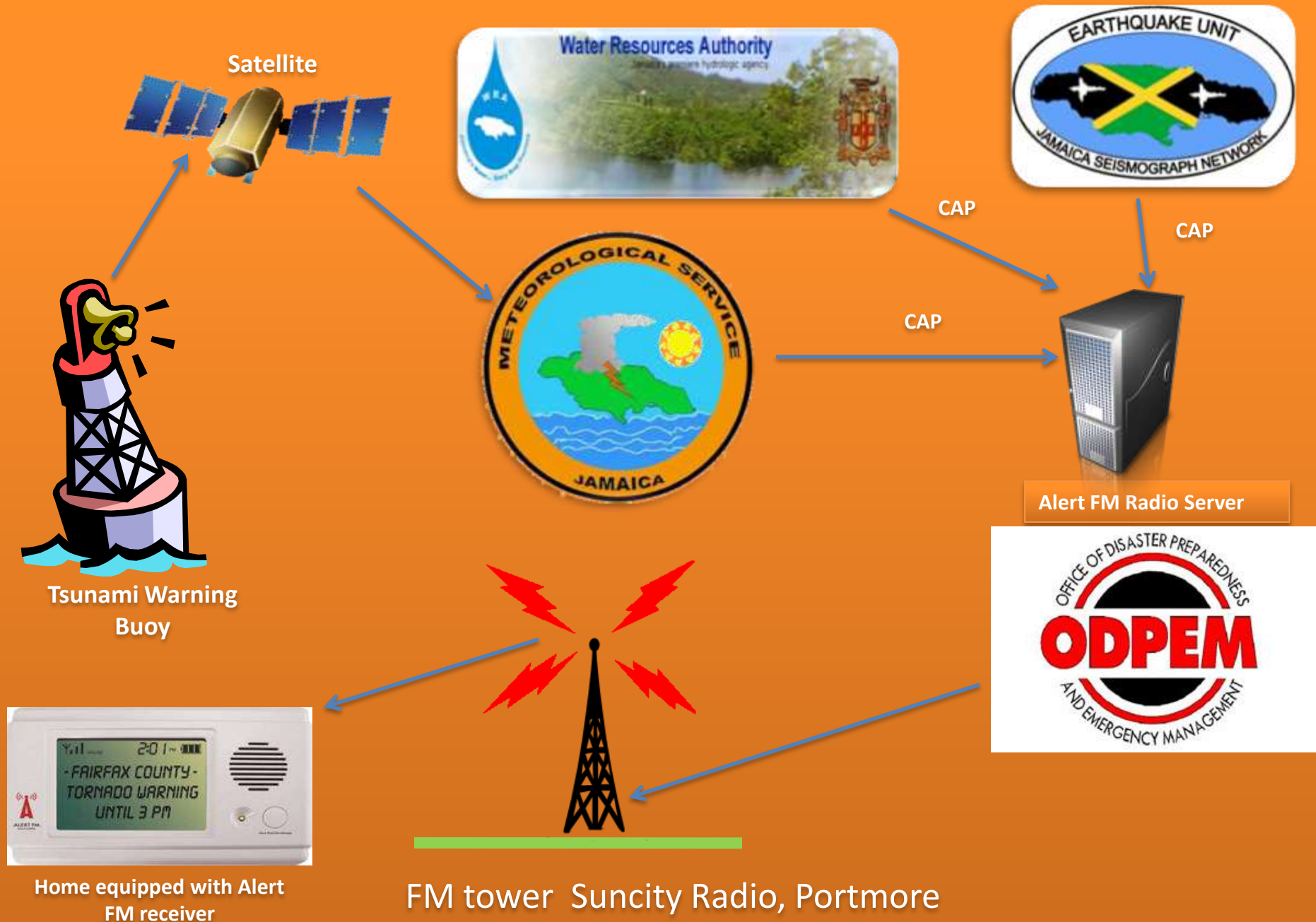
- ❖ Emergency Affiliate Radio Service (EARS)
- ❖ ALERT FM Pilot Project
- ❖ Early Warning Siren – Old Harbour Bay, St. Catherine
- ❖ Training of Communities in Basic Radio Telecommunications
- ❖ Improvements in the ODPEM Radio Network
- ❖ Equipping of Communities and Local Authorities
- ❖ Proposed Major Emergency Telecoms Enhancement Project



OHB Warning Siren

1. 1st of its kind in Jamaica
2. Will be a Pilot for similar community initiatives

Alert FM Integrates with Multiple Systems using CAP



E.A.R.S. TRAINING



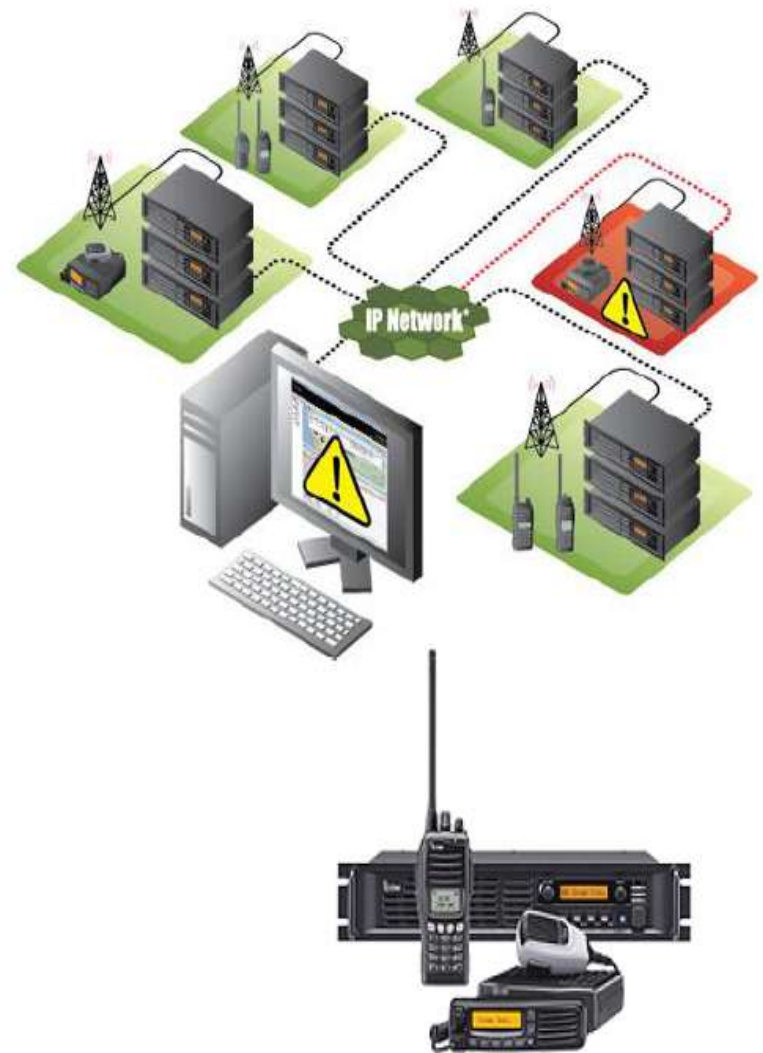
St. Ann & Portland E.A.R.S. Emergency



HelpAge International Radio Operators Training



1. Concept | DECOM (not NETS)
2. Cost | Availability of Funding determines final design.
3. Coverage | Nationwide and Area
4. Capacity | At least 2 Repeater channels per site
5. Complexity | Wide Area Networking | Integrate-able with any system | Digital | Trunked | Etc.



Bog Walk Gorge EWS & Road Closure

The Bog Walk Gorge

1. Main North South Corridor
2. Approximately 5km for Road Way
3. Meandering road along the Rio Cobre River
4. Fairly frequent accidents (trucks and cars)
5. Communities within and a connector to main communities Bog Walk and Spanish Town

The Flat Bridge



Common Impacts



Objectives of System

The main objects of the system are as follows:

1. To ensure early warning of the likelihood of dangerous flooding in the gorge.
2. To prevent loss of life or injury by persons braving flood waters.
3. To ensure early notification to motorists to use alternative routes.
4. To reduce the number of incidents in the gorge requiring rescue operations and or other emergency services.

Key Stakeholders Involved

1. ODPEM – Emergency Management considerations and support (Project Facilitator)
2. WRA – Monitoring and Notification support services.
3. NWA – Key player in road way improvement and monitoring (Lead)
4. Police – Road traffic control and monitoring
5. PDC – Parish Emergency Management consideration (Key Parish Facilitator & Monitor)
6. Ministry of Local Government and Community Development
7. National Irrigation Commission (NIC)
8. Communities (Dam Head, Ackee Walk, Kent Village)
9. Motorists/Road Users

OPERATIONS

Location of Gates shall be as follows:

- ☐ **Gate 1** - Northern entrance/exit of the Bog Walk Gorge, intersection with road leading to Sligoville.
- ☐ **Gate 2** - Close to the Kent Village Community (in vicinity of the Marble Factory - southern end).
- ☐ **Gate 3** - Opposite Angels' Estates (Water Resources Authority Installation Dam).

OPERATIONS

Departments Authorized to Issue Warning:

1. The Water Resources Authority (WRA)
2. The ODPEM is the primary agency responsible for issuing Flood Early Warning as it relates to the Flooding in the gorge
3. The St. Catherine Parish Council (SCPC)
4. The National Works Agency (NWA)
5. The Jamaica Constabulary Force (JCF)

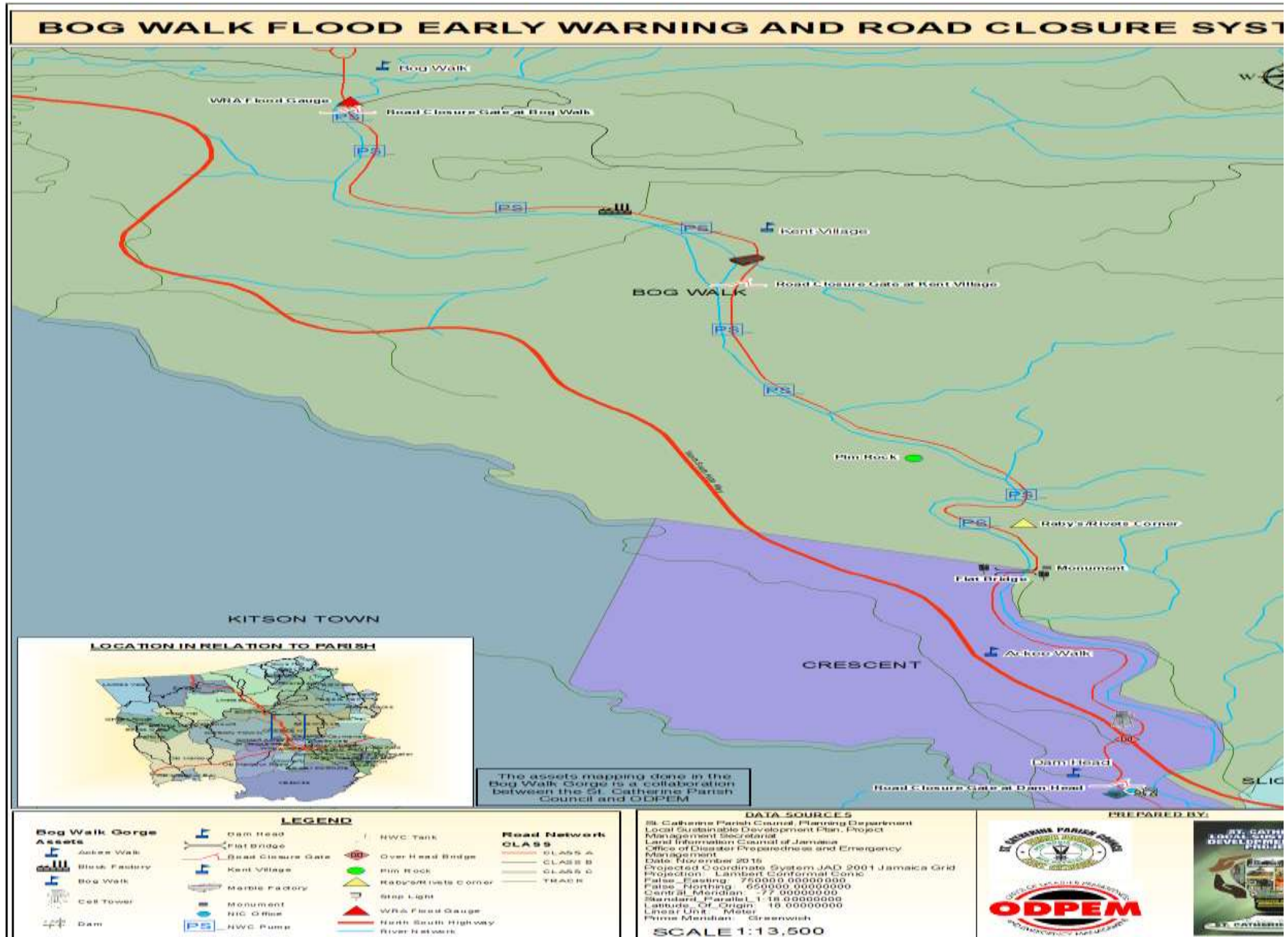
OPERATIONS

The gates are ordered closed under three (3) categories or classification as follows:

1. Flood Early Warning (Primary Use) – In the event of anticipated floods, associated landslides, falling rocks or continuous rains in the St. Catherine area or upper Watershed.
2. Emergencies (Secondary) – In such cases as road accidents (vehicle collision or overturned vehicle in the river) or security threat or criminal pursuit, if deemed absolutely necessary by the Security Forces.
3. Non-Emergency (Routine/Periodic) – In such cases for routine or major maintenance/upgrade of the Gates, or System Infrastructure, or the Roadway.

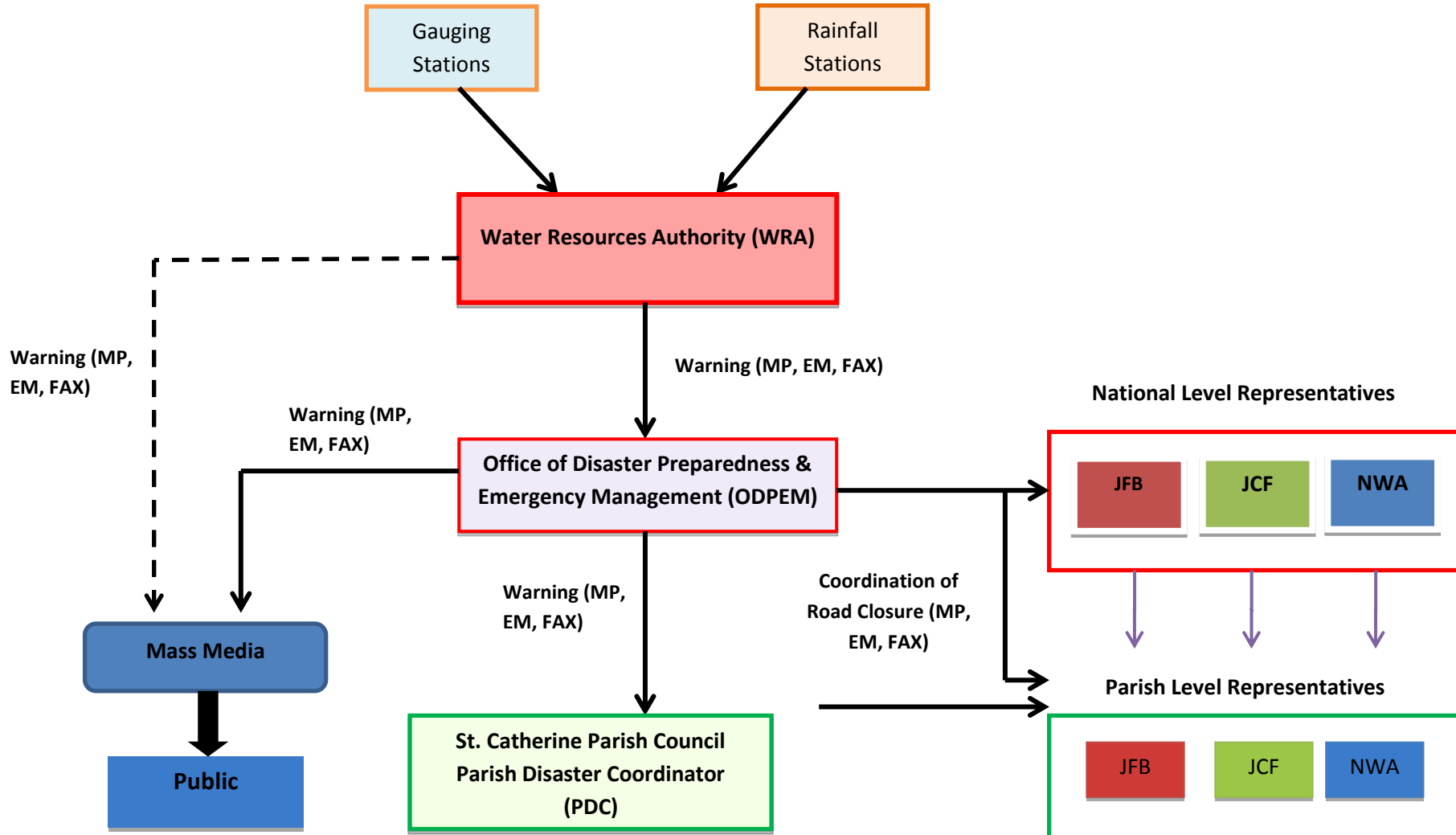
Appendix 6

LOCATION MAP (GATES, AND OTHER INFRASTRUCTURE)



**FIGURE 1 - COMMUNITY FLOOD WARNING SYSTEM
INFORMATION FLOW**

Monitoring & Early Warning Systems for Floods in the Rio Cobre River, St. Catherine

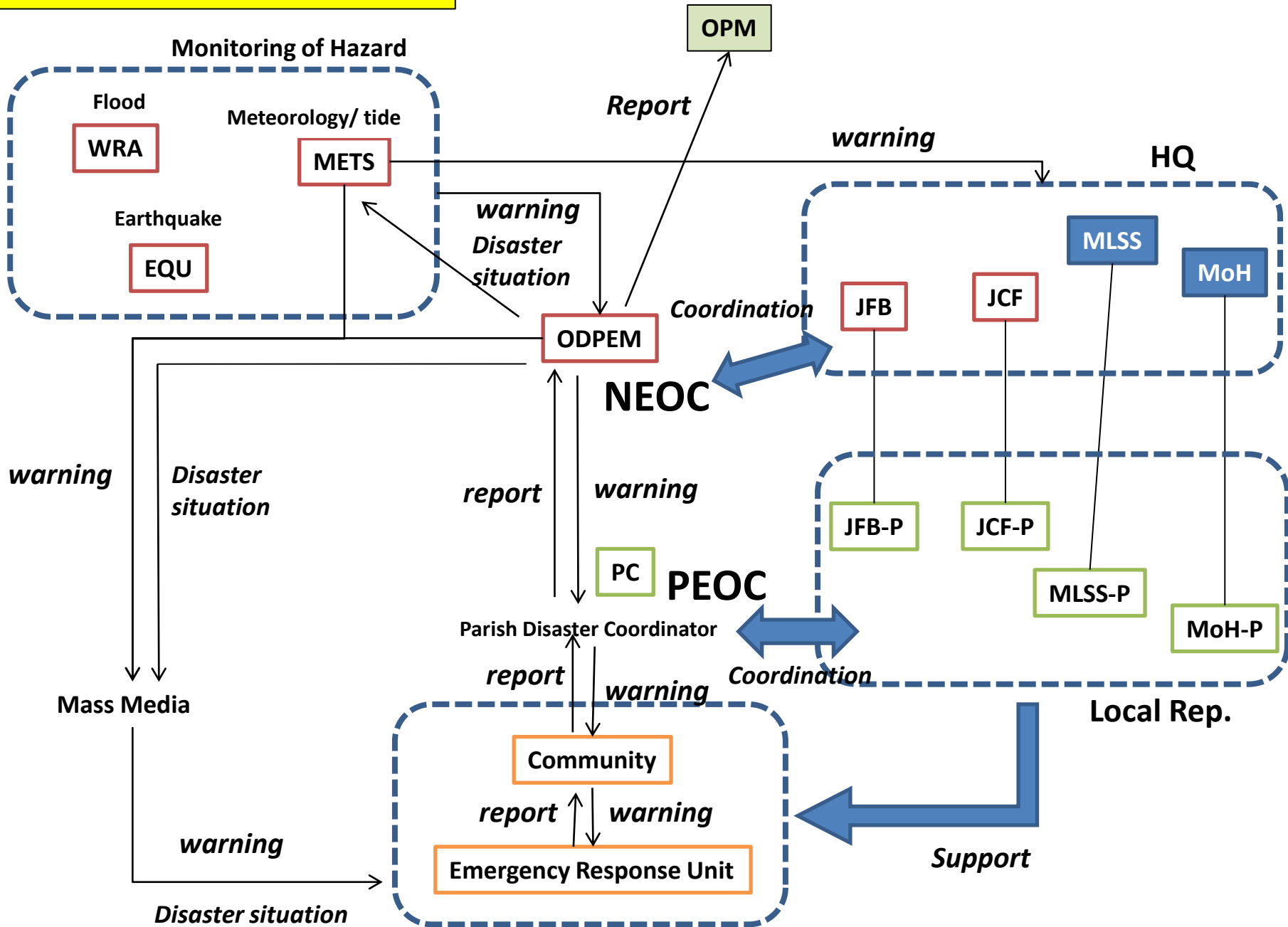


OPERATIONS

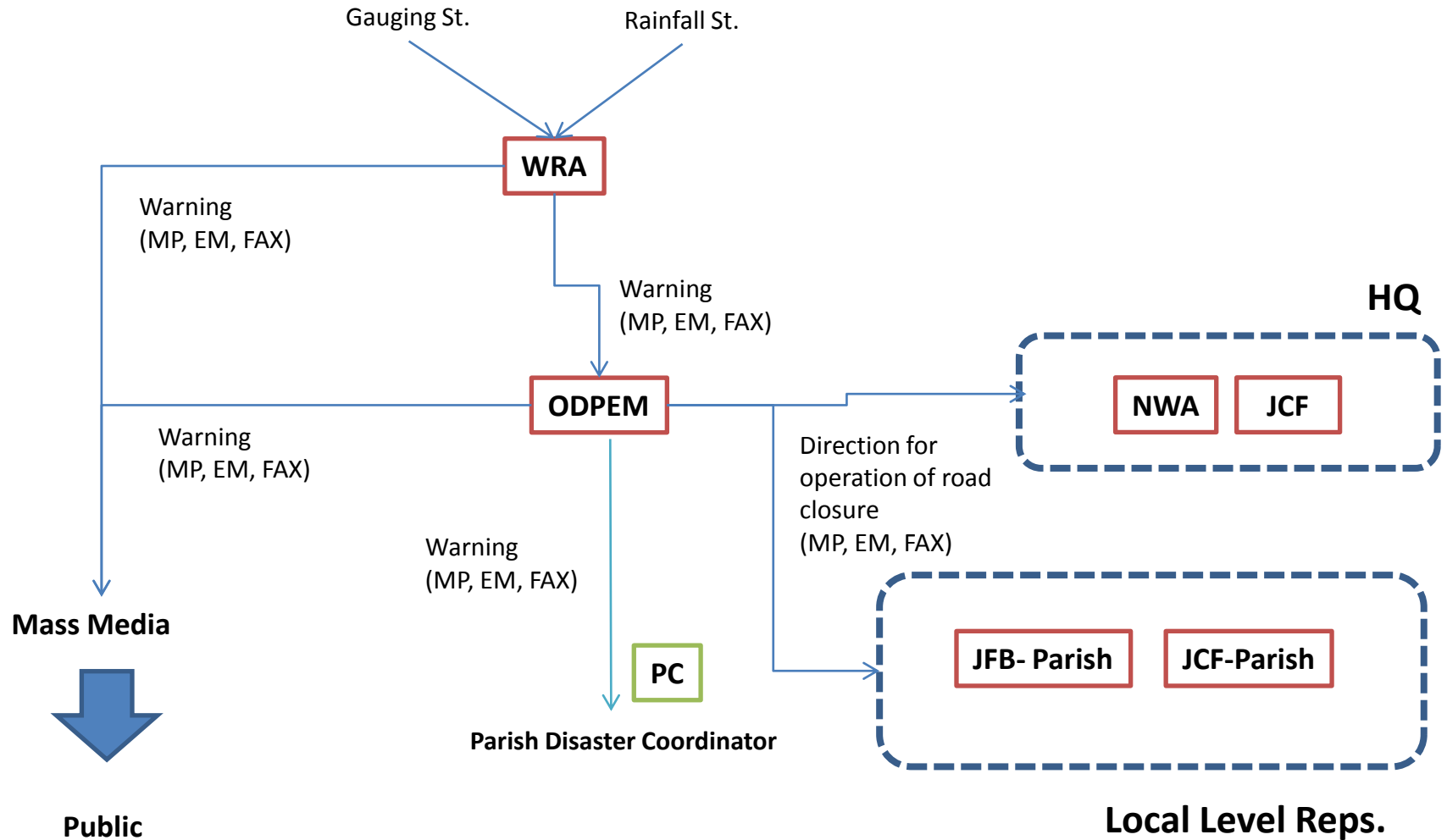


Governance & Institutional Arrangements (Gaps/Challenges)

Early warning and Response Stage



Monitoring and Early warning for Flood in Rio Cobre River



Issues & Challenges

PART VIII. *National Alert System*

National
Alert System.

33.—(1) There shall be established, for the purposes of this Act, a National Alert System for Jamaica.

(2) The National Alert System shall be operated under the supervision of the Director-General and shall consist of any one or more of the following—

- (a) a National Emergency Broadcast System;
- (b) a National Siren System;
- (c) any other system approved by the Director General.

(3) The National Alert system shall include the National Alert Tone or any other component approved by the Director General and published throughout Jamaica.

Issues & Challenges

Main Points:

- ✓ Existing Legislation only articulates the need and mandate to establish Alerting System.
- ✓ Regulations needed
- ✓ Ownership – Overall and for different Component/Types of EWS
- ✓ Early engagement of Community (Pros & Cons)
- ✓ Changes in Administrative & Political Leadership
- ✓ Integration into wider SOPs and Operations of partners/agencies/stakeholders
- ✓ Discomfort and Inconveniences
- ✓ Public Awareness, Acceptance and Understanding

Way Forward

Key Areas for continued **ACTION**:

1. National Definition of EWS – Scope, Components and sub-components
2. Implementation of Regulations/Guidelines
3. Systems Administration & Relationships
4. Stronger Political Support and Understanding of EWS
5. Enhanced integration of local knowledge with scientific information
6. Execution of Strategic EWS Projects
7. Role of Telecoms and ICTs



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