

VULNERABILITY OF PORTMORE

Prepared by: Disaster Management &
Planning Department

BACKGROUND

Location

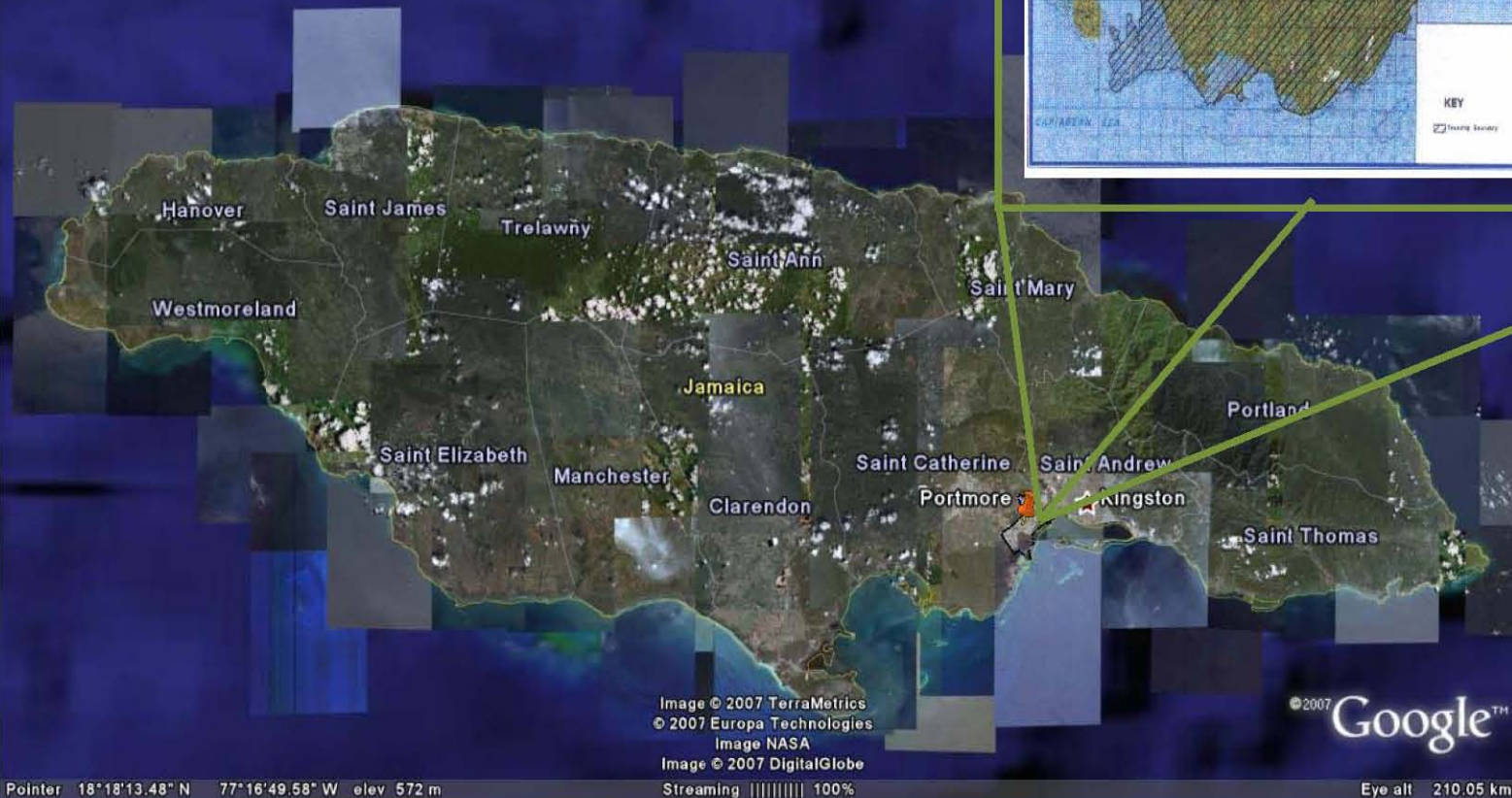
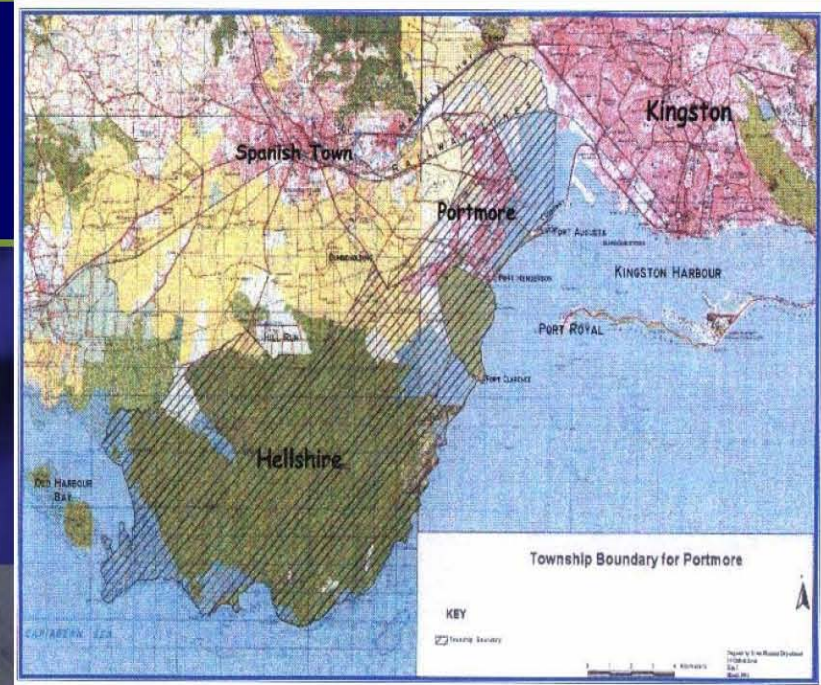
- ⦿ Portmore located south east of St. Catherine
- ⦿ 13 km west of Down Town Kingston
- ⦿ 9 km south east of Spanish Town

Size

- ⦿ 32,400 acres (13,112 hect. or 50.63 sq. miles)
- ⦿ Population size 182,153

Location of Portmore

Location Map showing Portmore, St. Catherine



ATTRIBUTES OF PORTMORE

- ◉ People
- ◉ Recreational facilities
 - ◉ Caymanas Horse Racing Track
 - ◉ Beaches
- ◉ Hellshire Forest (PBPA)
 - ◉ Flora/Fauna
 - ◉ Geological features
- ◉ Educational and Social Institutions
- ◉ Physical Infrastructure
- ◉ Economic Sector
 - ◉ Fishing villages
 - ◉ E-commerce
 - ◉ Commercial Districts

THE REALITIES OF PORTMORE

CHALLENGES

- ◉ Geographical location and Geological formation
 - Hurricane
 - Storm Surges
 - Flooding
 - Evacuation routes are highly prone to flooding
 - Earthquake
 - Tsunami
 - Liquefaction
- ◉ Climate Change (Social & Economic problems)
- ◉ Flight Zones (Close proximity to the Norman Manley Int'l Airport)

CHALLENGES CONT'D

- ⦿ Dense population growth (Rapid Urbanization) which is not complimented with the requisite resources to address the growing needs of the population.
 - ⦿ Fastest growing town in the Country (Human settlement)
 - ⦿ Large vulnerable population (Person with disability , Elderly, children)
- ⦿ Limited integration of Environment Management into Disaster Management and Climate Change Adaptation
- ⦿ Beach Erosion
- ⦿ Damage Groyne

CHALLENGES CONT'D

- ◉ Degradation of coastal ecosystems
 - ◉ Man's activity
 - ◉ Intense hurricanes
- ◉ Limited public awareness
- ◉ limited Financial resources
- ◉ Critical facilities are located in flood prone areas
- ◉ None existence of a Comprehensive Disaster Management Plan

CLIMATE CHANGE AND DRR

- Refers to a significant change in the condition of our climate(eg. precipitation, temperature) over an extended period of time
- Contribute to more frequent, sever and unpredictable weather -related hazards such as
 - Drought
 - Hurricane
 - Storm surges
 - Flooding (Coastal & River)
 - Landslides

Rise in sea level is also a trend of CC

SEA LEVEL RISE IMPACT

- ⦿ Human settlement and livelihoods (people live and work along the coast)
- ⦿ Coastal erosion loss of beaches
- ⦿ Ground water supplies (salt water intrusion)
- ⦿ Reef and mangroves

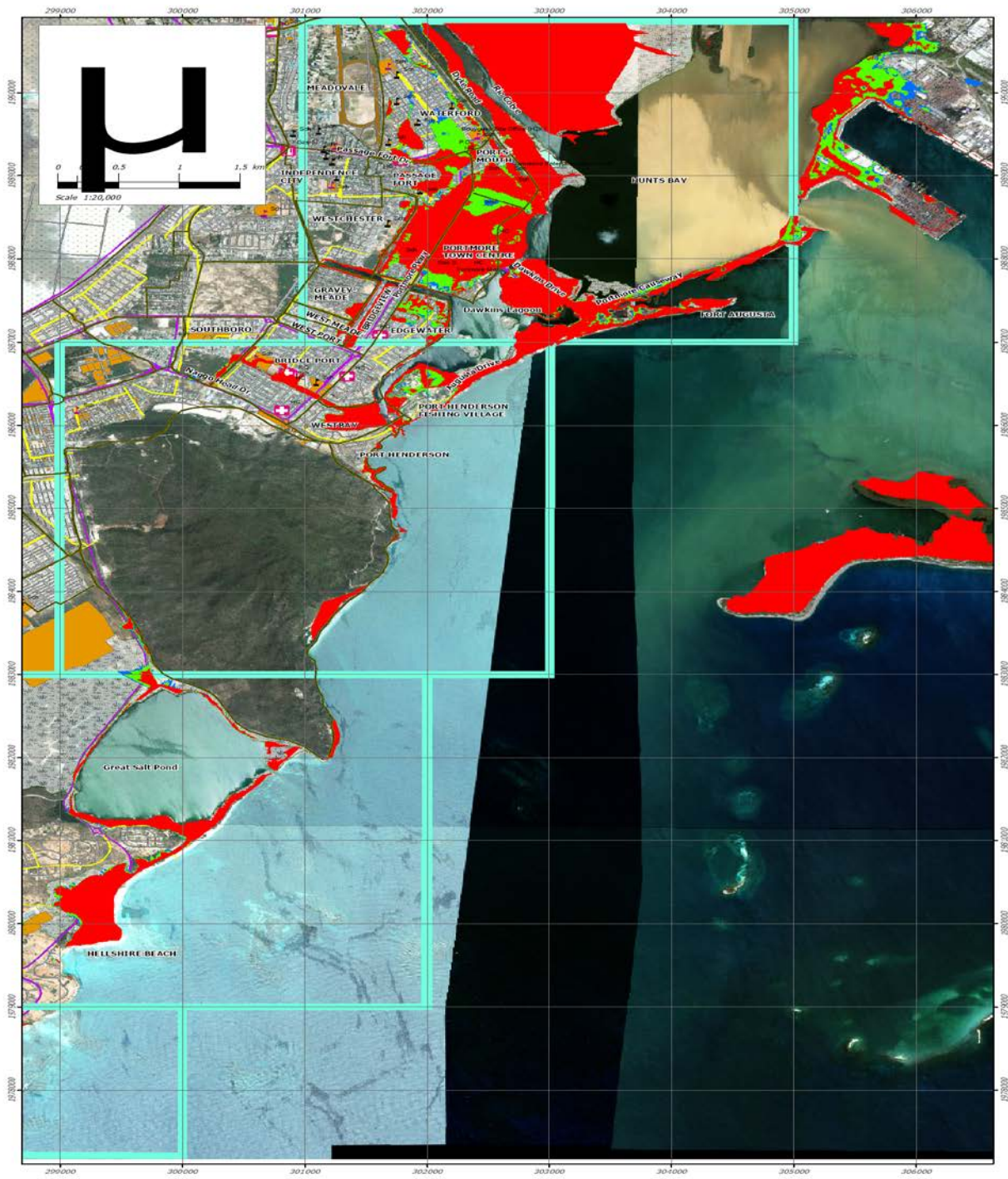
PORTMORE COULD DROWN



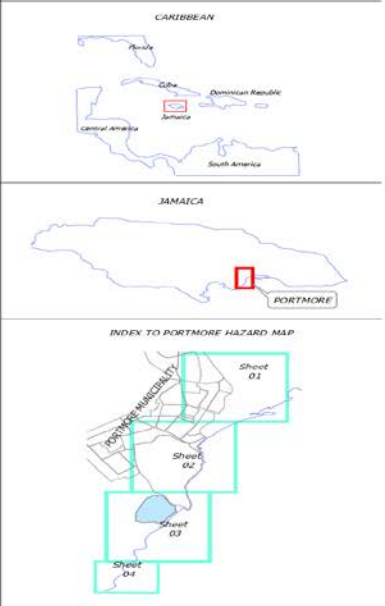
JAMAICA, IF THE ICE CAPS MELT



IMPACT OF STORM SURGES ON PORTMORE



LOCATION MAPS



LEGEND

- Sub-division
- Major Connecting Rds
- Major Roads
- Minor Roads
- 50-yr Event-1.4m
- 100-yr Event-1.55m
- 150-yr Event-1.6m

Return Period T (years)	Static Storm Surge Level (m)
50	1.40
100	1.55
150	1.60

Note:
A flooding event with a Return period of T- years is the flood which is expected to occur on average once every T- years.

Hazard Map Interpretation

- It is recommended that the 150 year storm surge hazard map be used for planning purposes;
- It is recommended that the 50 year storm surge hazard map be used for preparedness measures;

Map Use Limitations

- The accuracy of the topographic data determines the accuracy of the prediction of storm surge extent.
- A buffer zone may be applied to the storm surge extent as a precautionary measure for preparedness purposes.

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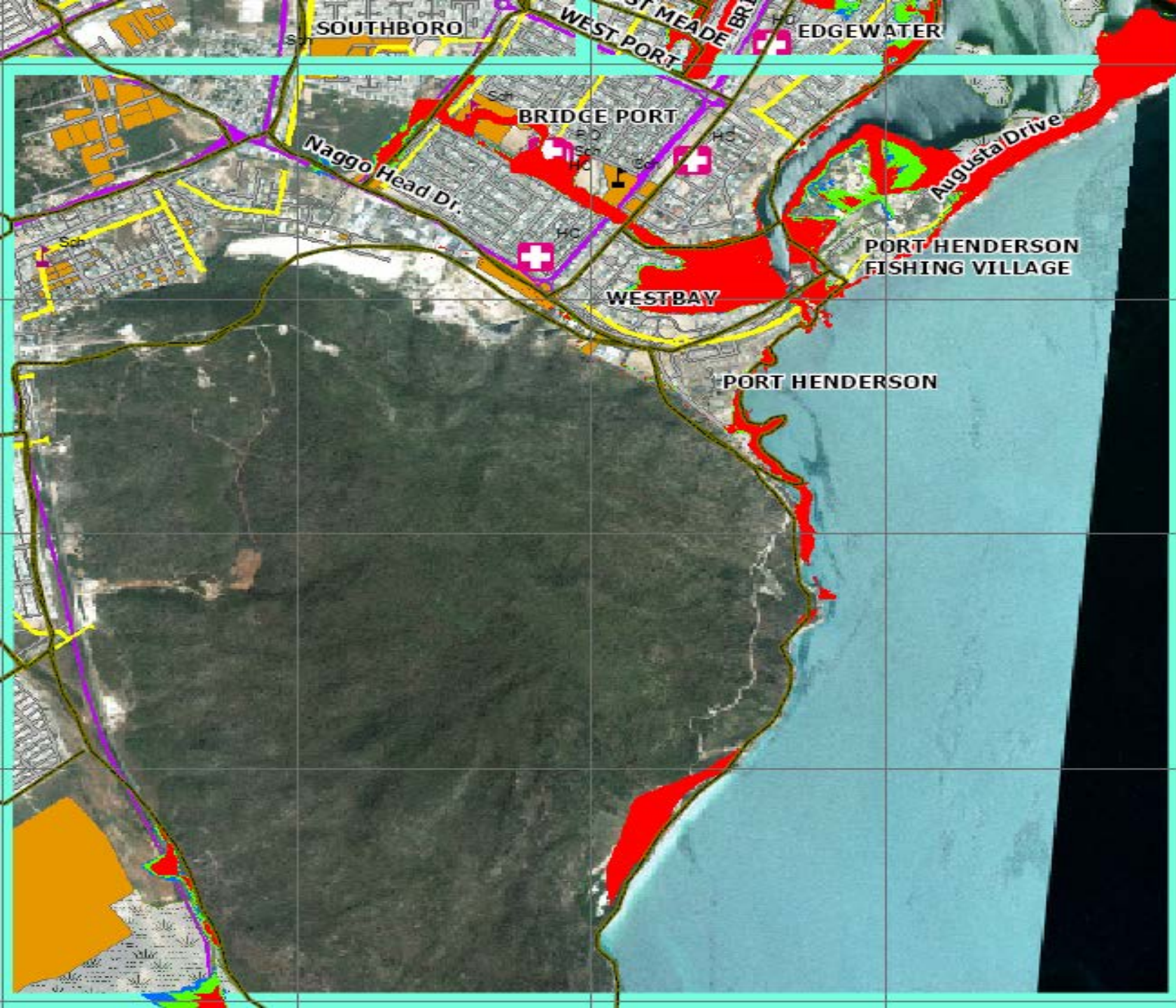
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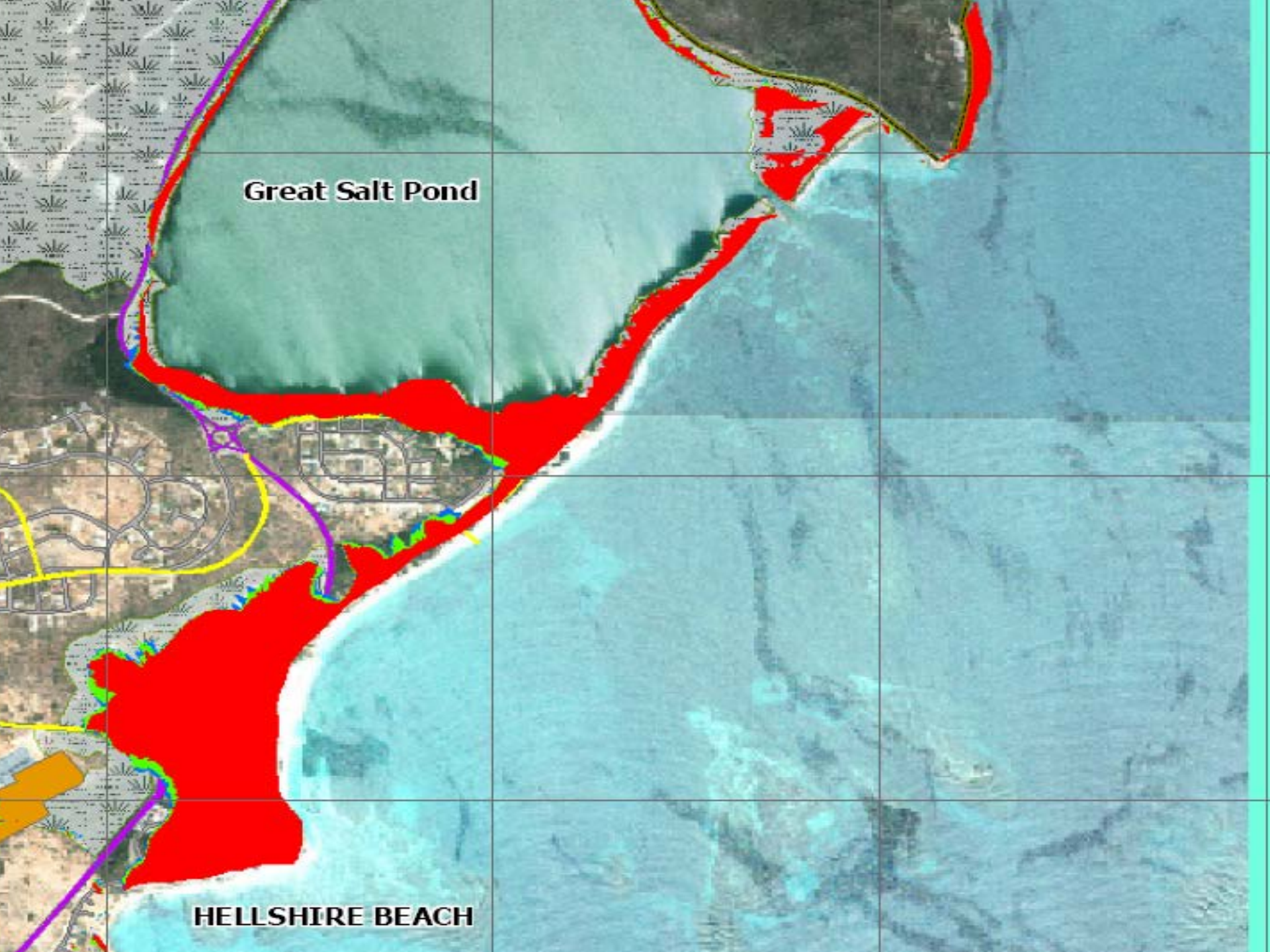
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Great Salt Pond

HELLSHIRE BEACH

Impacts of hurricane Dean 2007



Plate 7. Impacts of storm surge activity on Hellshire Beach.

A. Concrete structure of fishing village destroyed Wall destroyed by waves. B. Wooden shacks of fishing village destroyed

Source : Natural Hazard and Risk Assessment for Portmore, St. Catherine, Nov 2008



Hurricane Ivan 2004



Drains long Hellshire Main Rd



Roadway long Hellshire Main
Rd



Tropical Storm Nicole



LINK BETWEEN DRR AND CC

Significant overlap between DRR and CCA

- ◉ They seek to ensure that we can build resilience to hazards for sustainable development
- ◉ DRR essential part of adaptation
- ◉ For CCA policies and measures arte to be efficient and effective it must build on and expand existing DRR effort

IMPACT ON HEALTH SECTOR

Some Health problem common to all natural disasters

- Communicable diseases
- Food and nutrition
- Water supply and sanitation
- Mental health
- Damage to health infrastructure

Example of effects in Portmore

- ⦿ Respiratory problems
- ⦿
- ⦿ Warmer temperature increase dengue outbreak cause by mosquito
- ⦿ Water borne disease - Flood events can make condition right for the outbreak of leptospirosis and other diseases

INITIATIVE TAKEN

- ◉ Public Education
- ◉ Development of Evacuation Plan (Need Review)
- ◉ Building Community resilience through the implementation of projects.
 - ◉ *ODPEM - BDRC project*
 - ◉ *Helpage Int'l - Helping vulnerable populations and communities to manage risks associated with hurricanes and floods*
 - ◉ *Panos Caribbean - Increasing the disaster response mechanism for persons with disabilities in Portmore, St Catherine, Jamaica via a pilot early warning system.*

INITIATIVE TAKEN CONT'D

- ◉ Capacity Building (Training)
- ◉ Drain Cleaning
- ◉ Stock Piling of Emergency Supplies
- ◉ Land Use Survey currently being undertaken
- ◉ Proposal for the Preparation of the Municipality's Local Sustainable Development Plan

NEEDS ANALYSIS

- ◉ Comprehensive Disaster Management Plan
- ◉ The need to incorporate Climate Change Adaptation in Disaster Risk Management
- ◉ Sustainable Development Plan with special emphasis on the environment and coastal ecosystem
- ◉ Greater integration of development activities with environmental management
- ◉ Development of early warning systems
- ◉ Proper data base of vulnerable population

NEEDS ANALYSIS

- ◉ Strengthening of public education programme
- ◉ The need for more Scientific Research
- ◉ More Private/Public partnership

THANKS YOU