MINISTERIAL STATEMENT BY HONOURABLE WILFRED ABRAHAMS, S.C., M.P., ON THE PASSAGE OF HURRICANE BERYL

Mr. Speaker

Honourable Members

The last two weeks have been life changing for many in the Caribbean and for us here at home in Barbados. During this period, we watched and tracked the development of the second tropical depression for this Atlantic hurricane season as it went from a depression to the second named storm, to a hurricane, to the most powerful weather system in history to develop in the month of June.

The storm went from a Category 2 hurricane to a Category 3 with the projection for it to be Category 4 strength before the eye passed to the south of Barbados. We knew we were going to be seriously affected; it was a matter of when and how hard.

The context of our experience must be considered against the fact that 12 days ago almost all models and projections were pointing to a near direct hit on Barbados and it was literally within the last 72 hours before impact that the system jogged or wobbled twice to take its track farther south, away from Barbados. Instead it set on course for Grenada, Cariacou and Petit Martinique and St Vincent and the Grenadines.

At this point, I wish to pause and thank the Barbados Meteorological Services for its sterling work over the last few years and particularly in its monitoring of Hurricane Beryl. We all know

Director Sabu Best, who has undertaken much innovation and led the MET Office with distinction, Behind the scenes he is ably supported by a strong team of meteorologists and administrative and support personnel, who are the lifeblood of the department.

What the majority of Barbadians do not know is that we were receiving reports from the Met Service literally every hour over the 48 hours preceding the storm and almost every 15 minutes during the actual passage. This level of commitment and dedication is to be appreciated and applauded, and I wish the record of this Parliament to reflect our appreciation.

The National Emergency Operations Centre (NEOC)

The National Emergency Operations Centre was stood up on the night of Sunday of 30th June, 2024 to manage the national response to the passage of Beryl before the effective National Shutdown and the NEOC remained in place until the post event situation was stabilized and under control. The NEOC comprises representatives from key organizations in Barbados, both Governmental and Private Sector. Its task is to receive all information and reports, collate the information and then make the decisions that keep the country safe. The organisations that were represented in the NEOC during the passage of Beryl were:

- 1. Ministry of Home Affairs and Information (MHAI)
- 2. Ministry of Education, Technological and Vocational Training
- 3. Caribbean Disaster Emergency Management Agency
- The Barbados Police Service
- 5. Department of Emergency Management

- 6. Barbados Fire Service
- 7. Barbados Statistical Service
- 8. National Housing Corporation
- 9. Barbados Defence Force
- 10. Ministry of People Empowerment and Elder Affairs Welfare Department
- 11. Barbados Light and Power
- 12. Barbados National Oil Company Limited
- 13. National Petroleum Corporation
- 14. Ministry of Transport and Works
- 15. Barbados Meteorological Services
- 16. Barbados Government Information Service
- 17. Ministry of Industry, Innovation, Science and Technology
- 18. Ministry of Housing and Lands
- 19. Barbados Red Cross
- 20. Ministry of Health and Wellness
- 21. Barbados Water Authority
- 22. District Emergency Organisations
- 23. Ministry of Tourism and International Transport
- 24. Barbados Hotel and Tourism Association
- 25. Barbados Citizens' Band Radio Association

I wish to thank all who were present at the NEOC and indeed **ALL** essential workers who were called out on duty during the passage of Hurricane Beryl — all who left their families, their spouses, children, parents and other loved ones at home to perform their national duty for as long as it took for the ALL-CLEAR to be given. We appreciate that it is not easy focusing on the national response and saving lives while in many instances not knowing what is happening at home. On behalf of the Government, I would like to

thank yet again all the essential personnel for the sacrifices they have made and continue to make in the name of national service.

Between the night of 30th June and the first 12 hours of 01st July, Barbadians watched and felt the passage of Hurricane Beryl as it tracked towards Barbados from an area to the southeast of the island.

As was noted at the time, Beryl was the first hurricane to form in the Atlantic this early in the hurricane season. Clearly our adage of "June too soon, July stand by..." no longer reflects our reality. Not only that, but the fact that Beryl intensified rapidly to a Category 3 by the time the eye passed to the south of Barbados before strengthening to a Category 4 hours after, and then to a Category 5 hurricane on 2nd July 2024, was also a new phenomenon, This clearly highlights the deleterious effects of the climate crisis. Beryl became the earliest Category 5 hurricane in the Atlantic on record and only the second Category 5 hurricane to occur in July after Hurricane Emily in 2005, this according to the National Hurricane Center — and Beryl beat Emily's record by more than two weeks.

At maximum strength, Beryl became the strongest July Atlantic hurricane on record with winds of 165 mph.

This is exceptionally early for a major hurricane (Category 3 or above), let alone for a Category 5 to develop. On average, the first major hurricane does not form until around early September. These statistics have struck scientists on just how exceptional Beryl has been this early in the season. Meteorologists and scientists have indicated that the development of hurricanes is directly linked to

the temperature of the ocean - and, Sir, I ask that you take note for the temperature of the Atlantic Ocean is breaking all records.

I must say one final thing in relation to the record-breaking Hurricane Beryl. In speaking to fisherfolk and those who make their living from the sea or along the coast, never in living memory has anyone seen sea swells like those which pounded the south coast and decimated much of the west coast. Even infrastructure designed decades ago to withstand severe weather systems proved little match for the destructive swells of Hurricane Beryl. One only need consider the reports of damage to the Bridgetown Port, Bridgetown Fisheries Complex and the boats sheltering there and the damage seen on the south and west coasts to understand the scale of the impact on Barbados and our economy... and with all of this it must be borne in mind that Barbados did not experience the actual hurricane-force winds associated with Beryl.

It is important to state all these facts because, across the world, the vulnerable Small Island Developing States and indeed our own Prime Minister have been calling the attention of the world to the fact that we, as the least of the polluters, are bearing the disproportionate brunt of the climate crisis.

Now, Mr. Speaker, I turn to the actual on-the-ground report from the passage of Hurricane Beryl:

Representatives from the public and private sector, forming the National Emergency Operations Centre (NEOC), gathered at the Department of Emergency Management from June 30th to monitor the hurricane, assess reported impacts, and consider potential

ones, all with the aim of increasing our ability to mount responses as quickly as possible to various events and situations. The affiliated Caribbean Disaster Emergency Management Agency (CDEMA) also supported our efforts.

Hurricane Alerts

The hurricane watch was issued by the BMS on Saturday 29th June 2024 at 5:00 a.m. and this was upgraded to a hurricane warning at 5:00 pm the same day.

BMS discontinued the hurricane warning on Monday, July 1^{st} , 2024, at 2:00 p.m.

At 2:05 pm on July 1^{st} , 2024, the ALL-CLEAR was given, and the public was advised to exercise caution as they moved around to check on their homes and businesses. It was also announced that schools would remain closed on Tuesday, July 3^{rd} , and Wednesday, July 4^{th} , 2024.

NEOC Deactivation (July 1st, 2024, at 8:42 p.m.)

The NEOC remained fully operational until eventual deactivation at 8:42pm on July 1st, 2024.

IMPACT

Given that Hurricane Beryl was slated to directly impact Barbados as a Category 2 storm, it was expected that there could be serious damage to the island. Although Beryl strengthened to a strong Category 3 Hurricane before passing to the south of Barbados, we remained outside the range of its sustained hurricane-force winds. Thankfully we had no reported loss of life from the hurricane. I think it is safe to say that the damage on land was minimal in the

wider scheme of things. This is certainly not meant to minimize the 261 incident reports that were received on July 1^{st} , 2024, which included damage to roofs or houses, fallen trees, damage to our utilities or any other type of adverse impact.

According to the Damage Assessment and Needs Analysis Committee, forty–five (45) reports of house damage were received by the National Emergency Operations Centre on Monday July 1st, 2024, as follows:

St. George – 5; St. Thomas – 4; St. James – 1; St. John – 3; St. Michael – 18; St. Philip – 3; Christ Church – 11

Teams of damage assessors comprising persons from the Welfare Department, Ministry of People Empowerment and Elder Affairs, the District Emergency Organisations and National Housing Corporation were deployed to the areas.

In several instances, however, assessors were unable to locate some persons on the list.

Since 1st July information has been continually gathered and analysed by the agencies as the Damage Assessment and Needs Analysis exercise continued, and is still ongoing, all with the aim of obtaining a comprehensive understanding of the impact of Hurricane Beryl on the country.

I take this opportunity now to provide a synopsis of the impacts across the different sectors.

Commented [1]: We must know how many persons we did not find.

IMPACT ON COASTAL AREAS AND THE FISHERIES AND BOATING SECTORS

With the hurricane passing to the south of Barbados it meant that the South Coast was particularly exposed. And indeed, in our original assessments, we noted that the coastal area along part of Highway 7 suffered extreme effects of storm surges that left at least two areas impassable. Other areas of the coastline, in the northwest such as Speightstown, also recorded damage from the storm surge.

The images of the destruction on the South Coast could not prepare us, however, for the destruction wrought on the fisheries sector and the livelihood of the men, women and families who practice their craft to earn a decent living, as well as provide food for the rest of us who have not a thought of venturing into those potentially treacherous waters.

The images, horrendous as they were, proved no match to the actual lived experience of the devastation at the Bridgetown Fisheries Complex (BFC). Our hearts go out to all of those impacted and who now face the daunting task of putting their lives back on track. These effects are not only financial, but social and psychological.

As of July 5th, 2024, a total of 209 boats were affected, directly impacting 560 persons associated with these vessels. At the time of this report 200 boats were recorded as receiving some form of damage to their structure, and 9 boats were confirmed by surveyors as total losses in the BFC.

Prior to the passing of Hurricane Beryl approximately 312 registered boats were active across the island for 2024, based on information from the data collectors, with the Bridgetown Fisheries Complex accounting for 175 of these vessels and Oistins 21. On average, from January to May this year the BFC has contributed 82.3% to the total landings and Oistins has contributed 9.3%. Therefore, landings can be expected to be significantly impacted .

Currently, the number of boats docked in the BFC when Beryl struck is unclear, as boats from other landing sites also docked there during the passage of the hurricane. Please note that approximately 10-15 boats from Oistins sheltered in the BFC which is around half of their 21-boat fleet. We are at the end of the fishing season so it is likely that fish landings would have decreased for the large pelagic species, but it is estimated that it is not yet clear how long it will take to get half of the fleet back in operation. We will keep the Honorable House of Awssembly and the public updated on this matter once we have clarity on the scale and details of the damage and the consequential repairs or replacement necessary.

The total number of boats affected by Hurricane Beryl, damaged or totally lost, as indicated earlier was 209. Ice boats stand as the most affected at 108, longliners follow at 32, and moses, day boats, launches and sports fishing vessels number 35, 17, 15, and 1 respectively. There was one boat that it's type remained unidentified. Worthy of note is the fact that we have been informed that 90% of the affected boats were uninsured.

Boat Removal to Date

As of July 7th, 2024, 114 boats were removed from the BFC. Vessels were hauled out by companies that included Hinds Transport Services Ltd, Marenco Marine Ltd., and Crane and Equipment Ltd.

Commented [2]: These numbers do not add up to 312 registered boats. Where are the rest of hte boats to be found?

Thirteen boats were able to travel out on their own to the Careenage. The hauled-out boats are being temporarily housed at lots near to BICO Ltd., the Barbados Coast Guard, and Kensington Mall and a lot near the Spring Garden Highway at Indian Ground. Twenty-nine boats were scheduled to be lifted on July 8th and 9th, 2024.

Yesterday 8th July, 2024, the Barbados Defence Force, Marenco, BARNUFO and Cleanup Barbados were scheduled to commence clearing the debris from the water.

We have been hearing a lot about the Fish Aggregating Devices (FADS) that were installed to assist fishermen by attracting fish to a particular location - these also sustained some damage with FADs 1 and 2 being moved by the swells from their original and charted location and FADs 4 and 5 lost entirely.

While longer term solutions are sought to provide more resilient infrastructure for the fisheries sector, in the face of the increasing vagaries associated with the climate crisis, I can give the assurance that everything will be done to provide relief in the short term to the hundreds of people directly affected by the events. Following the damage assessments undertaken by the relevant departments, such as the Fisheries Department, the Prime Minister on Friday 5th July, 2024, announced a suite of measures that would be put in place to assist the fisherfolk. These include capitalising the Fisheries Benevolent Fund with the humanitarian donation of 250,000 U.S. dollars from the Latin American Development Bank (otherwise referred to as CAF) to the Government of Barbados; providing grants of up to 25% of the relevant costs to assist in the replacement or repair of fishing boats.

The Prime Minister also has given instructions to work with the financial institutions to establish and fund a 30-year Fisheries Revolving Fund that will be available to help fishermen finance any new boats and to tackle existing debt, where necessary and possible.

The damage has been far more severe than initially thought because not only was the fisheries sector impacted, but the coastal infrastructure took a severe beating with almost all of the beaches on the west coast having been decimated; the Bridgetown Fishing Harbour had a third of it's breakwater destroyed; and the jetty in Oistins received substantial damage with half the privately owned ice jetty destroyed. The damage to the Coast Guard, Paynes Bay Fishing Market and other private facilities from hotels to restaurants to private properties is still being assessed.

Barbados Port Inc.

Information received from the Barbados Port Inc. indicates that there was negligible damage at the Cargo Terminals. On the other hand, the **Bridgetown Cruise Passenger Terminal** sustained significant damage due to storm surge. Of the 66 businesses there, 41 have been impacted by water and debris—19 duty free shops on the interior of the Terminal; 2 pushcart kiosks on the interior, 19 courtyard shops; and the lone restaurant and bar. The Terminal Tour Bays on the exterior were flooded with water and debris and the Taxi Dispatch Centre has been extensively damaged and will have to be demolished. In addition, the newly refurbished signal station was damaged by storm surge.

It should be noted that the same Bridgetown Port which has withstood many serious storms also proved inadequate and being able to prevent the storm surge from causing the sinking of some of the more well-known pleasure vessels (Jolly Roger and Dream Chaser).

UTILITIES

I turn now to one of the most critical areas for all of us. The performance of the utilities is of utmost importance as it affects the way in which we can continue our lives during and post hurricane impact. There is a high interdependency between the two main utilities – water and electricity.

Barbados Water Authority (BWA)

The Emergency Operations Group (EOG), comprising departmental representatives was stood up on Saturday 29th June, 2024, to commence preparations for the weather system forecasted to impact the country. The Hurricane Preparedness Committee (HPC) convened a meeting to initiate preparations for the weather system forecasted to impact the island. The procedures for securing facilities, computers, equipment and data at offices were completed by staff as the system was approaching over the weekend.

Potable water pumping stations were taken offline on a phased basis to safeguard pumps and electronic equipment through a manual process which commenced at 1930 hours on 30th June 2024. The process was completed at 2258 hours with the major production stations done last. The Wastewater plants, Lift Stations

and temporary marine outfall were prepared for continuous operations during the event and emergency generators were delivered to Aquatic Gap, River Road Lift stations and BSTP.

Water tanker service was activated to provide service to customers in areas experiencing outages. The service was terminated at 1630 hours and tankers were filled with water and refuelled.

Heavy equipment and vehicles were transported from the laydown sites in the North to the safe area at the Belle and Pine Headquarters.

All lift stations on the South Coast network were visited. There were no signs that any extraneous water intrusion, perceived or actualized, had in anyway negatively affected the station's pumping operations. Levels at all but one station sump were normal. At that one location, Palm Beach, the high sump level was capably managed by the two installed pumps.

Water Restoration at Barbados Water Authority Facilities

As at 11.30 pm AST on July 1, 2024, the Barbados Water Authority had restored production capacity to 86.2%.

Facilities hindering 100% capacity included:

- 1. Groves Station was pumping at 50% after an error on display prevented startup of the boosters. Works continued to get plant to 100%. Groves is responsible for supplying water to Haggatts, Mount Pleasant, Ozone and Vineyard.
- 2. Sweet Vale Bore Hole #2 Moisture entered a control panel and the station was offline with works continuing.

- 3. Ionics Desalination Plant was operating at 2/3 capacity with no production from the new section of the plant because voltage had not stabilised enough to start that section.
- 4. The Bowmanston Station was operating at 100%. However, it was on generator power until power from Barbados Light & Power Company Ltd. had been restored.

As at 6:00 pm July 4th, 2024, the Barbados Water Authority (BWA) had restored production capacity to 98% and this water was being pumped into the associated distribution systems. By 10 pm all of the pumping stations operating were using utility power and they continue to do so.

There were still some pockets in the distribution system where customers experienced low pressure and outages. This was mostly due, we are informed, to the high demand for water and the length of time it takes to refill reservoirs. Customers in the affected areas have been assisted by the water tankers. Let us use this occasion to reinforce among our families and our communities the need for us to heed the advice to store 5 gallons of water per person per day for at least five days while we confront other systems this season and in future years.

Sewage outfall pipes

Another area that has engaged the attention of the BWA since the passage of the hurricane is the sewage outfall pipes at Worthing. Following the passage of Beryl, the BWA requested that the divers go in as soon as the seas allowed them to safely do so. On the same morning that they were proceeding with the inspection the BWA received a call about pipes floating in the sea of Worthing.

Following the inspection the divers reported that anchor blocks were displaced along a section of the 8" sewage outfall which was severed just south of the reef on the section of pipeline between the reef and the diffuser end of the sewage outfall pipes. This breakage is approximately 400 – 500 m offshore.

The divers also reported that anchor blocks along the alternate 12-inch pipeline had been displaced causing a section of this pipeline to float just south of the reef to the diffuser section, but that this 12-inch pipeline was still intact. The use of the 8-inch outfall has been halted and discharge routed solely through the intact 12-inch outfall. The built in redundancy has ensured that operations of the plant can continue while the necessary repairs are effected.

The BWA has the necessary pipes and fittings and anchor blocks on hand to effect swift repairs and the process has commenced. In the interest of public safety, it was recommended that Worthing beach be closed immediately and remain closed until testing of the waters confirm that it is safe. The repairs are dependent on the weather and the sea conditions but it is expected that this may take approximately 8 weeks with no major disruptions.

Barbados Light and Power Co. Ltd.

The BL&P's grid performed well, with protective systems operating to isolate impacted areas to protect the safety of customers, employees and the network. The first outage was recorded around 2 a.m. on July 1. During the passage of the system 13 of the 61

feeders across the island tripped or were manually taken out of service due to the weather conditions.

After the operational all-clear was given at around 11a.m. on July 1st, 2024, field teams assessed the grid and restoration commenced. Approximately 25% or 35,000 customers were without supply at the start of restoration. At 7 a.m. on July 2nd, 2024, there were approximately 3% or 4,700 customers without supply and by 7 a.m. on July 3, 2024, that was further reduced to 0.25% or 343 customers without supply.

As of July 5^{th,} 2024, no customers were without supply. During the event, most of the outages were related to tree contacts with electrical infrastructure, broken conductors and wires coming off insulators. There were fewer than 15 damaged poles or blown fuses.

National Petroleum Corporation

The natural gas supply was maintained throughout the passage of Beryl and the National Petroleum Corporation has reported that there were no reports of low gas pressures. While noting that there were a few calls from the public they were able to respond and solve the situations.

Barbados National Oil Company

Neither the Barbados National Oil Company Limited (BNOCL) nor the Barbados National Terminal Company Ltd. (BNTCL) experienced significant damage from the passage of Hurricane Beryl. Crude and natural gas production from the oilfield continued unaffected for the duration of the storm event as did production from the Gas Plant, with the transmission pressure supplied to the National Petroleum Corporation never dipping below 200 psi for the duration of the event.

Government Engineering and Electrical Department

The Government's Engineering and Electrical Department suffered no structural damage to any of its buildings and their maintenance crews were deployed for normal routine maintenance calls and repair work.

The department continued to work with the utility to refine its assessment framework and coordination with the utility (BL&P) in response to those instances that required an electrical inspection before service was restored.

HEALTH SECTOR REPORT

Prior to impact, the Ministry of Health and Wellness, in addition to having a representative placed in the National Emergency Operations Centre at the DEM, stood up its Health Emergency Operations Centre to coordinate the Health Sector response to the system and activated its disaster management plans. During the storm, the sector's residential facilities remained open. The polyclinics, Ministry of Health and Wellness headquarters and other units were closed.

The Queen Elizabeth Hospital relayed that there were no issues during impact and up to the present. There were minor issues at the St. Philip District Hospital, Geriatric Hospital and the Psychiatric Hospital. There were no issues at the St Lucy District Hospital.

Once the all-clear was given on July 1, 2024, assessments were made to the polyclinics, and other facilities, including the Barbados Drug Service (administration office and storage sites), Best Dos Santos Laboratory, National Nutrition Centre, and Albert Cecil Graham Development Centre. The initial reports from the Polyclinics indicated no damage to buildings, equipment or vehicles.

Environmental Health conducted visits in the Oistins and Hastings areas. Full Environmental Health Assessments, including food establishment, were being conducted in all catchments from July 2nd, 2024.

The Environmental Health Department maintains a presence at the Grantley Adams International Airport. There were no issues reported at the Animal Control or Environmental Sanitation Unit.

Bridgetown Port Health staff continued any major assessments of the facility as required.

SHELTER MANAGEMENT

33 Category 1 shelters were activated on June 30, 2024. They accommodated a total of 443 individuals across various shelters with the highest numbers being registered at LESC (87) and Combermere School (43). Minor issues were reported in the aftermath. These will be treated to internally by the Ministry of Education.

Government Installations: No major damage reports were received for inland public sector government buildings as of July 5, 2024. The Property Management Unit (PMU) of the Ministry of Housing, Lands and Maintenance (MHLM), which manages a total of sixty-five public service accommodations and twenty-five (25)

state-owned office accommodations, has advised that except for what has been detailed here, no other damage was reported concerning Government accommodation.

Barbados Defence Force (BDF)

The BDF experienced infrastructural damage, particularly at Barbados Coast Guard, due to intense storm surges. BCGS PELICAN faced significant damage due to sea surges, impacting operational capabilities. Extensive damage to piers, small boats, and essential facilities at the Coast Guard base, rendered some areas unusable. All damage will be quantified and a plan of action to effect repairs will be developed and implemented.

Despite challenges, the BDF successfully utilised drone teams to provide rapid situation assessments and coordinated with various national agencies to address immediate threats and restore essential services.

SANITATION SERVICE AUTHORITY

On Saturday, June 29th, 2024; two hundred and fifty-one (251) tons of garbage was cleared from across the country, while on Sunday, June 30th, 2024, an additional one hundred and sixty-two (162) tons was cleared despite having to close to allow refueling or charging and securing equipment prior to the passage of the system.

Once the all-clear was announced, assessments were conducted to ensure that all was well at various locations within the organization after the passage of the system. The Sanitation Service Authority worked with the assistance of the Barbados Defense Force (BDF) and the Ministry of Transport Works (MTW) to remove debris from

the affected areas between Oistins and Hastings and later assisted with the removal of materials from the Bridgetown Fisheries Complex as well as the Princess Alice Highway (opposite Trevor's way).

Environmental Protection Department

The Environmental Protection Unit reported that there was a strong diesel odour in the Bridgetown Fisheries Complex, as is to be expected, resulting from the sunken vessels that released fuel into the inner basin of the complex. The odour is expected to dissipate by wave action, wind and sunlight. The team at EPD will continue to monitor the diesel spill in the Bridgetown Fisheries Complex and liaise with all the relevant agencies/departments to keep abreast of developments.

Agricultural Sector (Ministry of Agriculture)

- No significant damages to the Ministry of Agriculture and the Agricultural Sector installations. Of note, the Animal Nutrition Unit (ANU) reported that a small Rubber Maid Shed (about 10x10ft)was destroyed.
- 2. **Livestock:** The Animal Nutrition Unit (ANU), the Black Belly Sheep Program and the Greenland Livestock Research Station reported no injury to animals.
- 3. **Central Agronomic Research Station:** There was damage to pawpaw (20% of 1/4acre field) and plantain crop (20% of 1/4acre field).
- 4. Extension officers of BADMC and MAFS commenced initial damage assessment in the farming community. The main damage was banana crops. We have been informed that some 35 acres were affected.

Tourism Sector

The Ministry of Tourism and International Transport <u>initially</u> reported that there were no adverse reports from the Barbados Hotel and Tourism Association (BHTA) resulting from the passage of Beryl. The BHTA and its associates namely Intimate Hotels of Barbados, Barbados Entrepreneurship and Tourism Association (BETA) and Barbados Tourism Marketing Inc. maintained contact throughout the passage of Beryl and no damage to property had been reported in the early stages after the passage of Beryl.

Barbados Hotel Tourism Association

The BHTA later conducted an additional audit of the coastal and inland damage that members received from their properties and businesses. The percentage of respondents who suffered damage because of the passage of Hurricane Beryl are:

- 1. Accommodations 73.5%
- 2. Villas 9.4%
- 3. Other Vessels (Catamarans) 1.6 %
- 4. Restaurants 15.7%

80% of the respondents will not be closing for operation and 10% will be implementing a partial closure in instances where parts of their operations were damaged but repairable in the short term for operation. 10% will be closing fully due to severe damage to their

businesses. The period for partial and full closures will be 1-6 weeks. As a result of the closures, 19% of the respondents indicated that they would have staff layoffs, impacting over 209 team members across the industry. We await the submission of the greater details of damage to the Department of Emergency Management.

Ministry of Transport and Works (MTW)

As part of the National Emergency Organising Committee MTW personnel were on hand at the operation centre to record any reported incidents from the public. Those reports were passed to Senior Technicians at the Ministry's depots to action once the all-clear was given. While there were many areas that required clean up after Hurricane Beryl passed to our south, as indicated earlier, the three that stand out because of the storm surge activity were Highway 7 (along Hastings), the Bridgetown Port and Oistins area.

Transport Board

The Transport Board successfully executed all its activities related to the passing of Hurricane Beryl that included:

- 1. Initiating and carrying out the smooth shutdown of bus services across the island by 8 pm on Sunday, June 30th, 2024.
- 2. Resuming services on Monday, July 1st, 2024, after the all-clear was announced.
- 3. Allocating and assigning buses to the Barbados Defence Force (BDF) for their use before the arrival of Hurricane Beryl.

Overall, the Board's framework and policies to handle these critical activities were completed within the projected timelines.

Barbados Police Service

The Barbados Police Service did not encounter any issues, before, during or after the passing of Hurricane Beryl. The major issue from a law enforcement and policing perspective is the disregard by members of the public of the notice to stay indoors until the all-clear has been given.

Barbados Fire Service

For the passage of Hurricane Beryl the Barbados Fire Service implemented an Internal Disaster Plan, which included, but was not limited to the following:

- a. Fuel tanks were filled to capacity.
- b. Vehicles were topped up.
- c. Shutters, where applicable, were checked and put in place.
- d. The Port and Bridgetown Fire Station personnel and appliances were relocated to Arch Hall Fire Station and Worthing Fire Station respectively. This was done because it was felt that the Port Station would have been vulnerable to extreme tidal activity and the vehicles at the Bridgetown Station would be vulnerable to the high winds, rainfall, and flying debris.

There was no reported damage at any of the stations except for the flood waters in the Bridgetown Port encroaching on the reception and back corridor of the Bridgetown Port Fire Station.

The impact was not significant, and it was cleaned by members of the Service and reoccupied.

The service responded to two incidents during period when the wind speed was below storm force of 40 miles per hour: a house

fire at Sargeant's Village, Christ Church and an activated alarm at Wildey, St. Michael.

The Service will constantly re-evaluate its Standard Operating Procedures to ensure that these are appropriate for the evolving conditions.

BMS Report on Hurricane Beryl

Barbados was impacted by Hurricane Beryl from 8 pm on Sunday 30th June 2024 until 2 pm on Monday 1st July 2024. BMS Radar imagery showed the centre of Beryl passing approximately 150 km to the south of Barbados between 4 am and 5 am on 1st July 2024. At that time, Hurricane Beryl was a Category 3 hurricane with maximum wind speeds of 120 mph (195km/h). Sustained stormforce wind from the system generated large swells resulting in storm surge particularly on the southern and western coastlines of Barbados.

In Barbados, sustained storm-force winds were observed from 12:30 am to 1 pm on 1^{st} July, 2024, with a peak in windspeeds from approximately 2 am to 9:30 am. During this time, maximum wind gust recorded at Charnocks, Christ Church was 68.4 mph(110 kmh) at 6:03 am.

The BMS was unable to measure swell heights during the passage of Beryl. However, the department was able to approximate the onset of increased wave activity nearshore using BMS water level sensors. Data from the water level sensors located at BDF Coast Guard and Oistins jetty showed increased wave activity from approximately 2:00 am on 1^{st} July, 2024.

Meanwhile, data from the water level sensor on Speightstown jetty showed this increased activity at 9 am on 1st July, 2024. The department is unable to verify the height of these waves or quantify how hazardous the wave the activity observed was. During the passage of the system these three sensors were compromised because of wave activity and therefore the department does not have data regarding the cessation of the increased wave activity.

Rainfall activity during the passage of Beryl for Barbados was minimal with a maximum of 0.5 inch of rainfall recorded from our 3DPAWS (3D Printed Automatic Weather Stations) stations across the island. These are made in house by the Barbados Meteorological Services.

The Barbados Meteorological Services monitored the progress of the system internally and began updates to the Ministry of Home Affairs, stakeholders and the public when global numerical models projected the system to develop into tropical cyclone that could have impacts on Barbados. Initial statements were issued by the department on 26th June 2024, at 10 am. At this time the system was a strong tropical wave which was projected by all local and international numerical weather guidance and official forecast from the National Hurricane Centre, NOAA to be a tropical storm when reaching Barbados on the 30th June to 1st July.

The BMS continued to issue daily statements regarding the progress and development of the system highlighting the possible impacts for hazardous sea conditions, strong winds and excessive rainfall. A Small Craft and High Surf Warning was issued on Friday 28th June 2024 (48 hrs in advance of expected marine impacts) for

Barbados. At that time the department forecast swell heights of up to 4 metres (13ft) in open water for the marine area of Barbados.

As the system developed, updated projections on Friday evening showed the system could develop into a Category 1 hurricane. A hurricane watch was subsequently issued for Barbados at 5 am on 29th June 2024 (48 hrs in advance of the projected time of the centre passing near Barbados). A hurricane warning was issued for Barbados at 5 pm on 29th June 2024, (36 hrs in advance of the projected time of the centre passing near Barbados).

At the 11 am update from the NHC on 29th June 2024, Beryl was forecasted to become a Category 3 Hurricane when it reached Barbados. As a result, the department revised its marine forecast for swell heights to 8 metres (26ft) on Saturday afternoon.

After the passage of Beryl, the Hurricane warning was discontinued at 2 pm on 1^{st} July 2024.

Barbados Statistical Services

Our Barbados Statistical Services received 261 incidence reports from the public, including 40 extracted priority cases with damage to dwelling units' roofs. Damage assessment teams from BSS, with the Ministry of Housing and Social Care assessors, started to investigate the initial 40 cases after the all-clear.

Housing and Rehabilitation

Following the impact of Hurricane Beryl on the island, the Housing and Rehabilitation efforts are being undertaken by the Ministry of Housing, Lands and Maintenance, the National Housing Corporation and the Urban and Rural Development Commissions. Utilising the incident reports from the Barbados Statistical Service, technical assessments commenced shortly after the all clear was declared.

To date, a total of fifty-five reports of house damage were received from seven parishes:

- 1. Christ Church 19
- 2. St. George 7
- 3. St. James 1
- 4. St. John 3
- 5. St. Michael 15
- 6. St. Philip 7
- 7. St. Thomas 3

Thus far, there are six reports of major house damage where portions of roofs were torn off. Our teams have started the process towards repairs and will continue their efforts to repair these homes and build resilience into the housing stock.

I hope that with this synopsis of the work before, during and after the passage of Beryl you will appreciate that the task is continuous for the Ministry of Home Affairs, the Department of Emergency Management and the teams that work assiduously during the hurricane season to ensure the safety of all of us.

While we continue our assessments, cleanup, and rebuilding, we need to also spare a thought for our Caribbean neighbours – those who have already endured the strike of a stronger Hurricane Beryl

(such as our sister islands of Grenada, including Carriacou and Meyraud; St. Vincent and the Grenadines, in particular Union Island and Canouan; Jamaica; Cayman Islands; and our Central American neighbours such as Mexico).

We remind Barbadians that however, badly we have been hit we can always assist others who may be in as bad or a worse predicament. Let me remind you of the account which have been opened. There is the fisherman benevolent fund, and there is the fund to support those who suffered damage in Grenada and St. Vincent and the Grenadines.

Let us not forget to donate where we can to both accounts.

Conclusion

On behalf of the Government of Barbados, I wish to thank all who worked tirelessly and continue to work to make the best possible decisions in the interest of the Barbadian people and all who share this island with us.

I also wish to thank Barbadians, our media personnel and visitors for their support and understanding in these challenging times, including of course you, my colleagues. Our teams were helped significantly by many Barbadians who stepped up to lend assistance in the route clearing exercise, once the all-clear was given.

I commend all of those who so ably assisted as we maintained the commitment which we made over a year ago to stage the finals of ICC T20 Cricket World Cup and did so successfully less than 48 hours before we experienced the first impacts of Hurricane Beryl.

July is here, and the season has just started. We are continuing the hard work to ensure that we remain prepared for a season which we had declared unofficially started in May, but which has surely begun with a vengeance.

As we prepare to face these next five months of the 2024 season that is expected to bring above-average hurricane activity, we call on all Barbadians to continue their preparations and monitor all the information provided by the various services.

I am obliged.