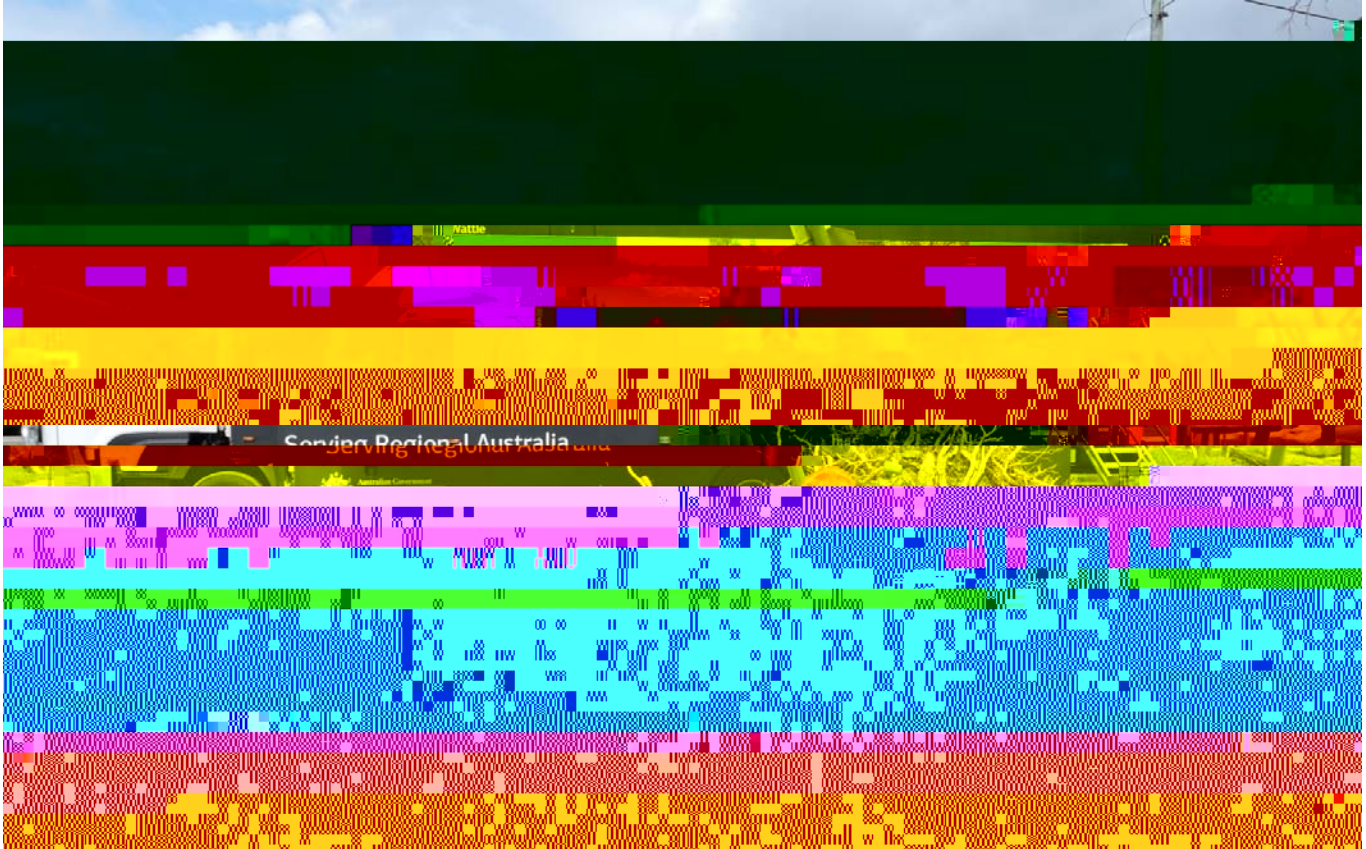


## COMMUNITY POST IMPACT ASSESSMENT – RAPID APPRAISAL

Tropical Cyclone Debbie, Whitsunday Coast, QLD, Australia  
5 - 8 April 2017



*Airlie Beach Government Recovery Service Trailer 7 April 2017*

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## BACKGROUND TROPICAL CYCLONE DEBBIE

On Tuesday 21 March 2017, a well defined but weak area of low pressure

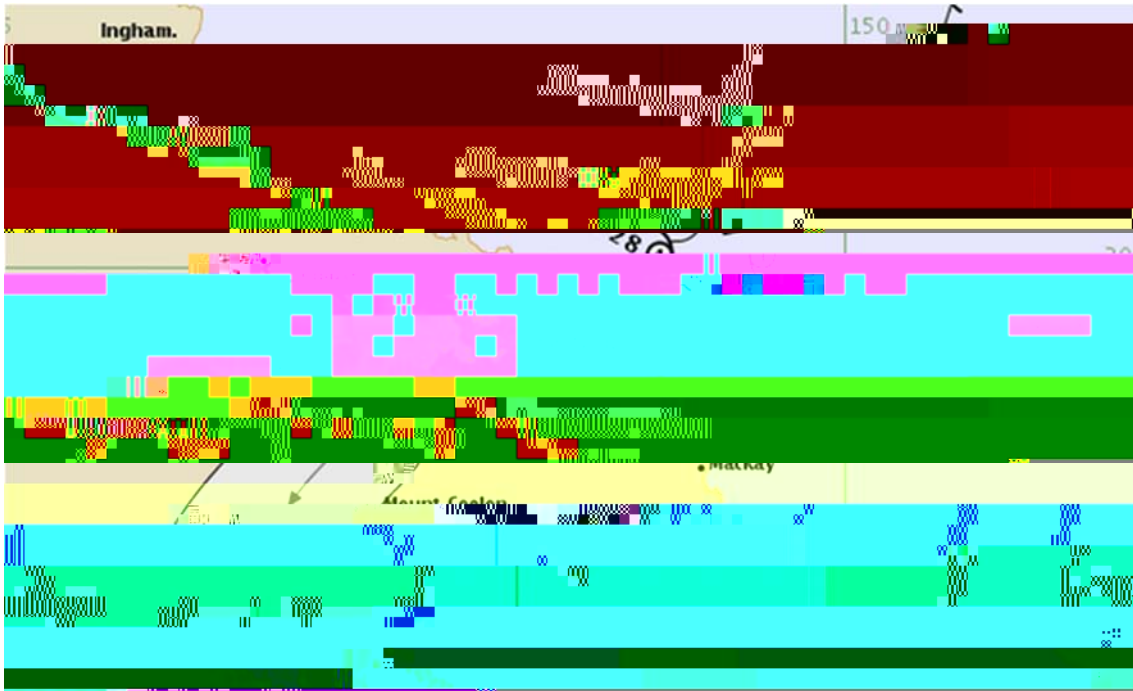


Figure 1. Bureau of Meteorology Tracking Map of Tropical Cyclone Debbie 29 March 2017



Figure 2. Bureau of Meteorology Satellite Image Tropical Cyclone Debbie 28 March 2017



## WHITSUNDAY COAST COMMUNITY POST IMPACT ASSESSMENT – RAPID APPRAISAL

Given the proximity of the impacted region, social researchers from the Centre for Disaster Studies, James Cook University visited the communities of Bowen, Cannonvale, Airlie Beach and Proserpine between 5-8 April 2017 to undertake unstructured/informal and semi structured interviews with residents, community support providers, and a number business operators in order to gain preliminary insights into Tropical Cyclone Debbie impacts. Key themes addressed were; hazard awareness and preparedness; sheltering and







### *Cannonvale and Airlie Beach*

The Cannonvale and Airlie Beach section of the Whitsundays coast (including Woodwark, Jubilee Pocket and Flametree) is widely known for tourism. As the access point to the Whitsunday Islands, and the internationally

Figure6. Temporarylocalgreenwastedump and mulching,Cannonvale

Figure7. Structuraldamageandfoliage loss,Cannonvale







**Figure 12.** Extensive business premises damage, Proserpine

While significant damage to buildings and dwellings was still apparent on April 7, the majority of yards and streetscapes around the community of Proserpine had already been cleared of debris.



## COMMUNITY AWARENESS AND PREPAREDNESS PRE EVENT

### *Risk and Hazard Awareness*

Although informants for this rapid community assessment were asked to retrospectively comment on their preparation before TC Debbie, each person interviewed indicated that they were well aware of potential cyclone hazards prior to the event, having received information and advice from a variety of sources including local council, television, radio, print and social media, friends, and family. As most also had previous cyclone experience they knew that residents in the forecast impact zone should: tidy up loose items in yards and gardens; tie down sheds, boats and trampolines; secure windows, doors and external fittings; sandbag buildings prone to flooding; and, organise sufficient food, water and relevant supplies.

While familiar with the risks of wind damage and storm surge exposure for any resident living along the foreshore, there was less clarity regarding the demarcation of storm surge and flood zones in relation to the position of personal dwellings. A number of informants indicated that they knew they were in the "Red Zone" for storm surge inundation, as they lived in low lying areas close to the coast, however were not able to clearly identify risk exposure to riverine and/or flash flooding. Other residents were unsure of their susceptibility to any type of water inundation threat. Consistent with this degree of uncertainty, none of the informants advised that they had an established, written disaster plan for their household prior to the event.

Demographic characteristics, household composition, dwelling type, home ownership, rental occupancy, and insurance coverage was highly variable between individuals, and had limited apparent influence on early planning or preparation activities.

### *Pre Event Preparedness (community response to cyclone watch/warnings)*

As TC Debbie was a large, relatively slow moving system that altered track a number of times prior to making landfall, informants reported being initially complacent about their preparation activities. Given the extensive cyclone "watch" and "warning" zones initially identified by BOM, many chose not to undertake recommended actions until it was evident that the winds were starting to pick up in their region. Such activities included cleaning yards, moving household items that would be subject to flooding, securing property, and organising disaster kits. Friends, family and social networks were apparent in this preparation process; however,

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*We knew how to prepare for the cyclone, we had a cyclone kit and we trimmed trees, but there is only so much you can do alone. No one came to help*



### *Shelter in place*

The reasons given by residents for not evacuating or opting to shelter in place were numerous. Several people said that they had not been advised to evacuate, or did not understand the warning messages, so simply decided to stay. Others felt that they would be safer and more comfortable in their own homes during the cyclone event. Commitment to personal pets and poor perceptions of evacuation centres were the most frequent explanations provided.

*There was an evacuation order for my street the day before Debbie but I don't trust the police so I didn't open the door to receive the message. I trust don't*





*I have a wide experience of disasters, I have been living in the area for 20 years, but Debbie was a real monster, it was very slow and just got bigger and bigger. Because it was so slow and information kept changing it was so stressful. I found that it was one of the most frightening disasters. I lost power, I lost internet and there was lots of water infiltration, but that was not really scary as it is not a safety issue. What was scary was the roof of the shed that flew away. Seeing that metallic sheet flying was very frightening Resident – Bowen*

While people expected significant wind gusts and impacts associated with TC Debbie there appeared to be less awareness and preparation for the severe storm and rainfall that affected the community the following night. Most informants had not anticipated flooding after the cyclone had made landfall, and in many cases existing damage was compounded.

*Everyone knew the cyclone was coming, there was plenty of warning and plenty of information, most of us have prepared before. There was no excuse for not being ready it was so slow in developing... What we weren't prepared for was how much rain came from the storm the next night that's where we suffered the most damage. Business operator Bowen*

*The house I live in is about 40 years old – there was extensive water intrusion through the ridge caps and window seals, and the door blew in. I spent 16 hours the night of the cyclone mopping up and 14 hours the night of the storm, I am still exhausted. Neither the real estate, nor owner, have bothered to contact me or check. There is wet carpet, walls and fittings – I am trying to dry it all out yet there are obvious issues of damage and I am worried about health and sanitation issues including mould. I am pretty self reliant though, I will continue to clean it up by myself. Resident Bowen*

*It was a 30 – 40 hour event. The wind kept howling it came from one way for 4 5 hours, the eye was 2 3 hours big, and then we were hammered the other way. I have experienced nothing like it... With the winds before and then the severe storm the next night – everything got flooded, the ground was saturated and we lost even more trees Resident – Airlie Beach*

In addition to the observed impacts on homes, businesses, and the natural environment, preliminary wind and flood damage from TC Debbie included significant agricultural loss to horticulture crops, sugar cane fields, irrigation equipment and cane train infrastructure. Transport, water sanitation, and electricity network recovery was delayed by the extent of rain and debris generated by the event. For Airlie Beach and the Whitsunday Islands the tourism sector was faced with extensive damage to

### *Community capacity and government support*

In reviewing the first few days following TC Debbie, informants described varied response behaviours. The majority of people indicated that friends, families, neighbours and/or other spontaneous volunteers worked together to help clear roads, fix fences, remove yard debris and damage, and share available resources. In some cases such altruism extended to the offer of customised support and accommodation.

*I cannot commend the community spirit and support enough everyone stepped up to help each other. There was free food and water, and cook ups. "Whitsundays food service" provided everyone from Jubilee Pocket free food at their own expense. ... The tourists haven't stopped whinging it's all they do, but some of them are good – there were a whole heap of backpackers that were getting in and working and helping clean stuff off the roads was good to see them helping in Airlie Resident – Jubilee Pocket*

*There has been incredible community support. There are 2 girls that are offering help to older people, they are in the local pub and anyone can come and ask them to register them online for recovery assistance. Community support officer Bowen*

*I am currently hosting 2 people who were previously strangers that I met at the PCYC evacuation centre. The community was asking for help and I had the room. It's what you do, you help out. ~~Sherifi~~*



*I heard that a guy went into Bunnings just before the cyclone and bought all of the generators they had in stock, and then sold them for a huge profit to community the day after...*

*Community support provider Cannonvale*

Although it was evident that people were working collectively towards community recovery, some informants revealed limited initiative, with an underlying expectation that the government should be doing more. In the aftermath of the event, informants reported waiting *in situ* for authorities and outreach services to come directly to them to offer information, support and/or assistance.

*No one came to help, not the police, not the army, not the neighbours. I don't even know how my neighbours are doing. Everyone is working for themselves Resident Bowen*

*I have not spoken to my neighbours and no one has come to*

In catering to diverse community demographics, a number of observations were made by both staff and community informants regarding the functional capacity of the community hubs. In the Cannonvale hub which assisted numerous visitors and tourists from Airlie Beach and the islands, there was a clear recognised need for a translation service or multi lingual interpreters to facilitate communication and processing. While a phone based system was eventually set up, it proved very slow with limited capacity. Although not considered an operational issue, another informant noted that the traditional “sausage sizzle” and water respite





Social networks were valuable in all aspects of awareness, preparation, response and recovery

## ACKNOWLEDGEMENTS

This report was based on rapid appraisal fieldwork conducted by researchers from the Centre for Disaster Studies (James Cook University), supplemented by relevant available media reports and information. The objective of the Centre is to facilitate sustainable community based disaster management through the effective delivery of research output. The purpose of the study is to provide a preliminary assessment of community awareness, behaviour and responses to Tropical Cyclone Debbie to assist all levels of government, emergency services and relevant agencies to identify and develop strategies to enhance community resilience for future hazard events.

Please visit [www.jcu.edu.au/cds](http://www.jcu.edu.au/cds) for additional information, and for access to previous rapid appraisal and community recovery reports. Questions and comments on any aspects of our work are most welcome. Please direct your enquiries to [yetta.gurtner@jcu.edu.au](mailto:yetta.gurtner@jcu.edu.au)

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