

Murphy's Creek
Flood Recovery Centre Operations
January 2011

Summary of Operations Report

1. Executive Summary

An extreme weather event occurred in the Toowoomba and Lockyer Valley Region on Monday 10 January. Severe weather continued on Tuesday 11 January. This Summary relates to the extreme weather event of a deluge of rainfall that occurred in the Murphy's Creek area on Monday 10 January and the subsequent community response and recovery.

The Murphy's Creek event involved response to extreme flooding in an area which included Ballard, Murphy's Creek, Postman's Ridge, Upper Lockyer, Lockyer Siding and Withcott.

The event resulted in the loss of life and significant damage to private and public property and assets. For the size of the population of the Murphy's Creek area it is appropriate to call the event catastrophic.

In the days following the event people from the Murphy's Creek community and neighbouring communities from the Lockyer Valley and Toowoomba Region created the *Murphy's Creek Community Flood Relief Centre* at the Murphy's Creek Tavern. Individuals and Businesses provided significant support to the centre. During its Operation State Government Emergency and Community Services Agencies provided staff who worked hand in hand with the community volunteers. In time some Local Government staff that had been seconded from across Queensland attended the centre to undertake support tasks.

Prior to and at the time of this event major flooding was occurring throughout Queensland. The same weather system which resulted in this extreme event at Murphy's Creek moved over Toowoomba and resulted in similar catastrophic flood events in that region.

2. Scope of Report

The objective of this report is to create a record of the Response and Recovery Operations that were undertaken by the community at Murphy's Creek.

The report is a record of observations made by Peter Souter and Phil Box, who took on the leadership and coordination role at the Centre. It does not include any observations from other people for example the Police, Fire or Ambulance Services. The report only provides limited coverage of emergency services response.

3. Event / Situation Description and Initial Observations

On the afternoon of Monday 10 January from about 2.45pm a deluge of rain fell on Toowoomba City escarpment / range / and valleys below the range. Significant rainfall also fell across the Helidon Hills and the upper catchment and tributaries of the Lockyer Creek which includes Murphy's Creek proper, 15 Mile Creek, Paradise Creek, Rocky creek and Gatton Creek amongst other numerous creeks and streams throughout the area.

During the event a number of residents of Murphy's Creek and Postman's Ridge area died. There are still persons missing and ongoing searches are proceeding but with difficulty as various government agencies work out what can and cannot be done with car wrecks and other various types of debris in creek lines. A number of residents who survived received physical and psychological injuries.

Parts of houses, contents of houses, shipping containers, tanks, fences and trees were swept away by the flood waters. Large numbers of vehicles of all descriptions were swept away and some of those had occupants in them. An indeterminate number of these drivers and passengers are still unaccounted for. A number of houses were totally inundated by flood water and the water hit with such force that houses were pushed off their foundations. Several houses and many sheds have been completely obliterated with only house foundations remaining. All of that man made debris now resides vast plumes in the creeks and stuck up trees and wrapped around trees and sticking out of the sand and silt in the bottom of the creeks posing a significant public health risk.

The force of the flood water destroyed long sections of the railway line and destroyed bridges and culverts with landslides also occurring over many sections of the main line. The Toowoomba Range Railway line is estimated to take between 3 and 6 months to become operational with many gangs and much machinery being directed at this restoration. The large historical reinforced concrete triple arch railway bridge over the Lockyer Creek has been damaged and an assessment needs to be made as to whether it can continue to be used in the future. The bridge which is over a hundred metres long and about 15 metres above the creek water level was flooded to a depth of about 12 to 13 metres. It has been shifted downstream by about 150mm. Flood debris as evidence remains in the bridge superstructure and cracks in the concrete structure are also evident.

The local geography of the Murphy's Creek and Helidon Hills area is a series of steep sided creeks converging into the Lockyer Creek. Being such steeply falling creeks meant that water built up considerable speed with a report of a police officer clocking a shipping container travelling at 78 kilometres an hour. The speed of the torrent was such that at the Lockyer Siding Bridge over the Lockyer Creek a 22 tonne boulder was swept into position near the bridge. Many large trees were also jammed into the space under the bridge such that 2 x 100 tonne chains were broken trying to extract large logs.

In places the creeks have been dredged of all sediment and have had their beds lowered by up to 2 metres down to bed rock. There is evidence of vast widening such that they look like many bulldozers side by side have completely scraped the bottom and sides of the creek beds. Where the flow of water slowed the sediment load has been deposited and has raised the level of the creek up to 12 metres higher than before the event. Many alluvial plumes on productive farming land have been created. Several moving walls of debris and walls of water swept down the Lockyer

Creek past a point below the large reinforced concrete railway bridge upstream of the Lockyer Siding road bridge.

The flow of water contained very high loads of sediment which included abrasive sand, gravel, boulders, building materials, cars, trees, vegetation and other flood born debris.

Of particular interest is that downed trees show evidence of extreme violence. Trees have been undermined and otherwise uprooted and knocked over by extreme water and suspended sediment load velocities. Once uprooted the trees have then had their root bowls battered off to such an extent that they now appear to be simply saw logs. Most if not all of their bark has been removed and the trunks have been battered by impacts of rock and other flood debris.

It was reported that a large swirl pool that acted as an accumulator reservoir retention basin was in evidence on at least one bend of the Lockyer Creek near the Lockyer Siding road bridge.

The plumes of debris over a very large area and length of the various creek lines needs to still be sifted through to recover human remains and subsequently for the debris to be removed from the creek margins and alluvial deposition.

Thought should be given to removing via commercial extraction licences of all the flood alluvial depositions over farmer's productive lands. Same goes for the large trees in the creeks that may become a liability during future floods as they could become beaver dams and sieves up against bridges etc. The local community is very nervous about these trees remaining in the creeks which would simply recreate new beaver dams and significantly increase the risk of future flood events. The local community is very anxious that the rubbish and trees be removed from the creeks. Large standing trees near roads and habitation that have been undermined should also be cut down to remove a public health hazard.

The community response commenced on 10 January and response and recovery operations were continuing as at 28 January. It is expected that future operations will have a focus of infrastructure recovery and social and community well being recovery.

Initial Actions: Afternoon and Evening of Monday 10 January

The Murphy's Creek tavern became involved in the response to the event whilst the event was still "hitting". A resident that had been affected sought out help from the staff at the Tavern. The tavern provided immediate shelter and food and as the afternoon became night more residents sought out refuge in the Tavern. As the body of floodwater passed more residents also attended the Tavern with the Tavern effectively becoming an Evacuation Centre. The local school was also used as an evacuation centre but with limited infrastructure available due to the school being inundated during the flood, it was not suitable for the subsequent flood of displaced persons and volunteers.

Emergency Services commenced emergency response and authorities became aware of the scope of the catastrophe. The Rural Fire Brigade which is the key local emergency service had their facilities and equipment destroyed in the flood. Murphy's Creek Road was significantly affected and was cut in several places.

A number of residents effected swift water rescue of their family, friends and neighbours.

4. Community Coordination of Response

In the week following the event coordination at the Tavern was undertaken by the management at the hotel. From Friday 14 January Peter Souter took on the coordination task and put in place a coordination structure and systems to ensure that help was able to be provided to residents.

Peter Souter's key supports in operating the Centre were:

- Phil Box - Office (and general coordination when Peter Souter off site), mapping and communications
- Ean Stewart - Technical support (radios, telecommunications etc.)
- Ben Lawler - Social and humanitarian services and coordination
- Jerry Keogh - support with minor and major engineering works.

Systems developed included processes for:

- Coordination Centre Office and Communication Centre
- Volunteer Management, including creation of database to record offers of assistance and offers of help.
- Volunteer registrations, ensuring all volunteers were registered and able to be tracked and matched to jobs.
- Assessment of affected areas undertaken by volunteer teams.
- Matching tasks to request for assistance
- Catering at Centre
- Donation Management
- Emergency Reconstruction and emergent works.
- Clean Up of affected properties by volunteers and by volunteer groups.
- Electrical Inspections
- Laundry Services
- First Aid corner
- Medical support
- Conduct of regular Community Meetings held at the Tavern
- Procurement of materials, temporary buildings and equipment for the effective management of disaster
- Media Liaison

Significant contributions, donations and offers of assistance were received at Murphy's Creek Flood Recovery Centre. Large Businesses also provided support including provision by Lindsay Bros of a refrigeration truck, communications equipment from Optus and Telstra and heavy machinery and expertise from GSK Group. Office Dongas from Retracom, portable office buildings and shower block and Laing O'Rourke also provided a portable office building and portable toilet. Additionally living quarters for displaced persons were also provided by these companies.

State Government Agencies recognised that the Centre was functioning at a high level by locating staff there. State Government staff from agencies such as Queensland Health and the Department of Communities conducted Outreach programs from the Centre.

From 22/01/11 a Liaison Officer was provided by the LVRC Local Disaster Management Group to provide a link from the Centre to the LDMG.

During the operation of the Centre the following community service agencies and organisations had a presence:

Ongoing presence at centre:

- Dept of Communities
- Dept. Of Community Safety (SES, EMQ, Corrections)
- Centrelink
- Lifeline
- Chaplains
- Qld Health
- Toowoomba Apex Club
- Butlin Electricals undertaking Electrical project management
- Various volunteers (See register)
- Local residents
- GSK Group (light and heavy machinery and other plant and equipment)
- Red Cross
- Global Care

Community Response Operations:

The Centre operated at 3 levels:

- First level – volunteer labour base carrying out ground logistics and matching volunteer teams to jobs.
- Second level – Matching tradespersons with public requests for assistance (light machinery).
- Third level – heavy machinery reconstruction of private driveways and local crossings.

Description of Services provided by Agencies and Organisations

Centrelink

- Provided community services officer and a social worker
- Attendance at community meetings.
- Reception of claims – Disaster Recovery Payment & Disaster Income Recovery Subsidy.
- Assessment of services required for the recovery phase

Chaplaincy Australia

- Personal Support Services and Community Outreach

Global Care

- Provision of catering services for meals for volunteers and other organisations. Provision of various services such as manning of phones when needed. Cleaning services at various times.

Lifeline

- Psychological First Aid and Personal Support at the Centre

Volunteer Services

- Toowoomba Apex Club assisted with volunteer support and staffed the volunteer registration process.
- Matching volunteers to Task identified in Database of Assessments
- Management of numerous donations of clothing, food and household goods received.
- Volunteer assessments and outreach. By Saturday 22/01/11 approximately 210 contacts had been made with people in the area, and from these contacts jobs were logged and then assigned out to people such as tradesmen that offered their services.
- Creation of an Appeal for Donations specifically for Murphy's Creek.

Queensland Health

- Qld Health provided Tetanus vaccinations.
- Qld Health Social Workers on – site. and undertook Outreach

Department Of Communities

- On site from approx Sat 15/01/11
- Processed applications for assistance for government grants to affected people
- Provided outreach and follow up to affected people

Butlin Electricals: On-site since 17/01/11 Worked with Energex on electrical issues and provided project management services for Electrical safety issues.

GSK Group Jerry Keogh

Provide machinery, staff and equipment to undertake minor and major works in the area. Provided support and advice to

ADF presence

17th Construction Squadron established at Murphy's Creek Showground during the Centre's operation. The squadron assisted with minor and major works programs.

Qld Police Service

Qld Police Service had an ongoing presence at the Centre. The Police Liaison Officer was the contact person for matters relating to searches of missing persons and also to report possible locations of deceased person. Superintendent Maurice Poyner visited the Centre on a regular basis during its operation. The Police it must be said very loudly were absolutely fantastic, extremely cooperative and generally all round down to earth Aussies. The protocols and policies that the Police Service have operated under have been spot on.

Regional and Local Business

Regional and Local business provided significant support at the centre through the provision of goods, materials, temp buildings and services. The great majority of these donations were tracked and recorded.

5/. Issues

- a. **Government response to the region** – Due to the poor communications in the region, it was impossible for the council to establish the immediate 'true

picture' within Murphy's Creek and Postmans Ridge. This does not excuse the resultant lack of back briefing by emergency services to the council following their initial reaction to the disaster. This lack of back briefing and subsequent underwhelming response by council to this area, resulted in a 'locally initiated' response, whereby a disaster relief centre was established at the tavern. Locals established and ran the disaster centre with no support from the local council and up until very recently had limited support from Lockyer Valley Regional Council (LVRC). The Disaster Management System in Queensland relies upon a bottom up approach from Local Government. Over time it became clear that the Council had become overwhelmed by the Disaster that occurred across the Valley and was operating a reduced capacity and skill level.

This meant that the Centre received limited support from the Council and for the Centre to be successful it generally operated outside of the standard practices of the Queensland Disaster Management System. Despite this the Centre was supported by State Government Emergency Services and Community Support Agencies.

- b. It should also be noted that the media had made it plain that this disaster had overwhelmed government on all levels and that the wider community should take on the task of its own support.
- c. **Communications** – Communications were the critical vulnerability of the recovery effort. The flood damaged the landline in many areas resulting in a town wide communications black out. This combined with the very limited mobile coverage by any telecommunications carrier within the township made it impossible to offer, receive and coord information in a timely and accurate manner.

Process for establishing communications

- The Murphy's Creek Tavern had one phone line which worked throughout the disaster.
- UHF hand held radios were acquired on Friday 14th of January. They were largely ineffective due to the atmospheric and line of sight issues, until a repeater was installed by this relief centre on around the 22nd of January.
- Optus provided a temporary trailer mounted mobile phone tower on the 17th January which worked with mixed results. Critically it provided several alternatives to the tavern phone which by this stage was extremely congested and the source of intense frustration amongst well meaning volunteers the people coordinating the response and tavern management. Optus also provided a base tower for our UHF public citizen band radio coms. Optus was very quick to respond. They also provided a number of mobile, wifi and satellite phones for use by volunteers.
- Telstra responded a couple of days later and had the temporary mobile phone tower at the local exchange working on approximately 22 January. Once on the job Telstra have provided exemplary service with the provision of the temporary mobile phone tower, WIFI, mobile phones, and a number of fixed phone lines piggy backing on the taverns own phone line.

Difficulties were encountered trying to source a vital UHF repeater station from any government agency or privately, so Ean Stewart a local resident built one in conjunction with Paul Ament a broadcast engineer from the Sunshine Coast. The repeater was fully active on the 21st. The large temporary UHF tower greatly improved UHF communications from the 17th. Once UHF coms were available publicly, coordination between various machinery operators, trucks and the command centre were enhanced over a very large area from Toowoomba through to Galton.

It is important to note that all communications infrastructure installed as a result of the disaster response are only temporary and the towers provided by both Telstra and Optus are being dismantled at the completion of the disaster recovery phase. This leaves the town with limited ability to respond adequately to any future disaster.

- d. **Volunteer/Emergency assistance** – SES, rural fire brigades and police conducted the initial sweeps throughout the region. This was not coordinated adequately as each organisation had their own command structure, reporting systems and missions.

Central to the communities early recovery was the 'army' of volunteers that resulted from intense media coverage of the devastation and loss of life in the township. This was a double edged sword as significant amounts of work were completed, but it was impossible to check the backgrounds of so many people and to truly understand their motivations. There is one report that the community identified a known paedophile amongst the volunteer staff. He was monitored closely and subsequently requested to leave the establishment when his behaviour/motives became questionable. It is important to note that no offence was committed by this person whilst in location and decorum was used when communicating with him.

Duplication of effort – One significant issue that arose out of the 'stove piped' effect of the differing emergency agencies was the duplication of effort. There are some houses that were doorknocked 11 times within 1 week, which generated some angst. There needs to be a system in place to establish a control centre immediately following a disaster. This control centre needs to have affective templates that the emergency services use to gain maximum information as early as possible. This information is vital in prioritising equipment, informing government agencies and for analysis post the disaster recovery stage. A template utilised by this centre is attached to this report.

There were significant liability issues that arose out of having such a large force of volunteers in what was a tavern precinct. The publican was informed that he was not covered for the activities being conducted within the tavern precinct. A request was made to council to make the relief centre a recognised centre so that it came under the disaster recovery insurance policy. This was not enacted by council and the publican only received cover when an APEX insurance representative came by and offered to cover him free of charge until this operation moved from the tavern precinct.

- e. **Equipment and stores acquisition** Due to the relief centre being established by the local community and there not being any recognised local fund to draw from, all stores and equipment for the first 2 weeks of the disaster reaction were donated. The generosity of local, regional and national business was overwhelming. The recent government announcement of the

flood levy has resulted in these companies effectively contributing twice to the relief effort. We fear that the flow on effect of the levy will result in small business being reluctant to contribute to the 'initial' response of any further disasters for fear of the resultant government levies that will follow. This needs to be raised as a significant issue to government.

The initial works were hindered by the lack of direction by the LVRC on financial reimbursement through the NDRRA scheme. Several requests were made to council for this direction to be provided to the three quarries that we were utilising to provide the materials for the driveway works. Four times these companies ceased supplying materials due to not receiving the promised direction on financial reimbursement from the LVRC.

As of 28 January, there is a permanent council representative in the relief centre to deal with the purchasing and administrative processes and to provide the continuity between the LVRC and the relief centre - some 18 days post the disaster!

- f. **Machinery** No less than 25 companies donated heavy equipment and labour to the towns initial response. They were critical in gaining access into more than 50 driveways that were either totally impassable (due to culverts being washed out) or severely damaged restricting access by light vehicles, and to the clean-up of the substantial build up of roadside rubbish piles as inundated houses were cleaned up.

A local construction company closed down for 2 weeks and established an area within the relief centre in order to coordinate this fleet of heavy equipment.

6/. Concluding Remarks and Recommendations

- The key purpose for the operation of the Centre was to provide a place where the Murphy's Creek community could receive help and support so that they could recover from the disaster.
- In the initial stages the Centre's operations were chaotic but reactive following the set up of basic structures and processes and as experience increased the Centre's operations became more efficient and successful at providing support to the Community.
- The local emergency service (CFA) should take the lead on the local reaction to any disaster of this magnitude. Unfortunately, the local CFA headquarters was inundated by the flood and their critical communications equipment and vehicles were destroyed, rendering them ineffective. Their follow on response was inadequate as they simply joined the army of emergency service organisations walking the ground.
- Adequate mobile communications needs to be established within the area as a redundancy to land line communications.
- Adequate and timely response from LVRC needs to be paramount as is the provision of financial guidance/support for relief centres in the Disaster reaction phase.
- ENERGE(X) response to the disaster was outstanding.
- Policing was adequate throughout all phases.
- Army should be mobilised to these regions quicker.
- Government agencies and NGO's need to coord their services more adequately. They need to meet daily to discuss client in confidence issues,

targeting and intent for following day. There was significant duplication between life line, Department of Health and other agencies.

- The recovery response was significantly hindered by LVRC's lack of understanding of the NDRRA funding system. They could not advise of the right processes and gave incorrect advice as to the scope of works covered under the scheme. This resulted in significant frustration and hindered the recovery efforts due to local small business not getting assurances that the services and/or products they were providing to the relief effort were in fact covered under the scheme.
- LVRC and their contracted advisors did not transition to a 'disaster mode' of operations quick enough. They were caught in significant red tape instead of proactively gaining access to private property and damaged xing points throughout the shire.
- The red tape is continuing regarding the clearance of debris from the creek lines and who is responsible to pay for it. There is significant machinery in the region prepared to clear the debris but it cannot be utilised due to the bureaucracy.

All at the Centre are grateful for the support that was provided by people, organisations, State and Federal members and companies locally and of course from across the nation.

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28 January 2011