State Disaster Coordination Centre

Annual Activity Report

1 July 2015 to 30 June 2016





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Introduction

The State Disaster Coordination Centre (SDCC) Annual Activity Report serves to provide an overview of the activities that have been undertaken within the centre for the 2015-2016 financial year. These activities include for example the more significant incidents and events that the SDCC Watch Desk supported, staff training, centre exercises, centre enhancements, numbers of tours, SES tasks requests and a statistical overview of the 'standard' reports, emails, SMS that are managed by the Watch desk. As can be recognised by the information and statistics, the SDCC through key stakeholders is an extremely active environment to continually meet the needs of the Queensland Government and also the Queensland community.

Executive Summary

The SDCC is located in the Queensland Emergency Operations Centre at Kedron, Queensland and is managed by the Queensland Fire and Emergency Services (QFES) State Operational Coordination Branch (SOCB) and Queensland Police Service (QPS) Disaster Management Unit (DMU).

The SDCC provides an operational venue for the State Disaster Coordination Group (SDCG) to deliver state-level support to disaster management operations in accordance with decisions from the Queensland Disaster Management Committee (QDMC).

The SOCB provided a skilled and coordinated approach to disaster management in Queensland by aligning its Objectives and Activities with the Vision, Core Values, Purpose and Objectives of the QFES Strategic Plan 2015-2019.

Whilst the SDCC did not formally activate between July 2015 and June 2016, the SDCC Watch Desk supported numerous operational incidents and events that occurred state-wide during this period.

Queensland experienced a number of severe weather events during the 12 month period, resulting in six activations of the Natural Disaster Relief and Recovery Arrangements (NDRRA). Severe bushfires impacted the community of Cape Cleveland in October 2015, resulting in the activation of the State Disaster Recovery Arrangements (SDRA) for the Townsville City Council local government area.

During this period the SOCB focused on the delivery of the commitments stated in the SOCB, SDCC Command Plan. The key achievements include the introduction of the new State Emergency Service (SES) Task and Management System (TAMS), the implementation of the Watch Desk Communication Strategy, involvement in the development of Emergency Alert Phase 4, implementation of a process for Heightened Level of Operations for the Watch Desk and the development of a limited scope, proof of concept State Natural Hazard Risk assessment process.

Effective, accurate and timely reporting is a key role of the Watch Desk and as part of the SDCC commitment to ensuring the needs of stakeholders are met, a new Queensland Daily Operational Brief was developed and trialled from October 2015. The target audience, format and dissemination process was determined, and the final format approved for release in January 2016.

Training of disaster management stakeholders was conducted throughout the SDCC, with Whole-of-Government personnel trained to assist during SDCC activation and SOCB staff trained to support the Watch Desk during Heightened Level of Operations. The SDCC Room Readiness process ensured the centre was operationally prepared for activation if required.

State Disaster Coordination Centre

The SOCB was involved in a variety of operations during this period. Whilst these operations did not require any status increases for the SDCC, the SOCB Heightened Level of Operations model was tested during some of the more significant weather events.

SDCC Enhancements

SES TAMS

The SDCC Watch Desk is responsible for allocating SES tasks to relevant SES units and groups throughout Queensland. The former RFA Online tasking system was replaced in August 2015 by the Task and Management System (TAMS). TAMS was developed by the Queensland SES and provides enhanced capabilities including auto notifications to SES members via SMS and email, geolocation of tasks, smart phone compatibility and current member lists for ease of tasking jobs to teams.

Watch Desk Communication Strategy

In 2015, a communication strategy was developed, with the aim of raising awareness of the functions and roles of the Watch Desk within QFES. During the latter half of 2015, Watch Desk staff visited six of the seven QFES regions, meeting with QFES staff, volunteers and local government representatives. These meetings provided the opportunity for Watch Desk staff to build relationships with regional staff; and to discuss reciprocal knowledge and expectations of the Watch Desk and stakeholders.

Emergency Alert Phase 4

SOCB is engaged to represent QFES in the first stage of procurement of an Emergency Alert solution beyond 2018 focusing on new and innovative solutions to meet the requirements for the next five to seven years incorporating flexibility around trending network and technology advances. This has involved reviewing project documentation, participating in various teleconferences with agency representatives from other Australian states and territories.

Heightened Level of Operations

The heightened level of operations model was developed to meet the increasing expectation for timely and accurate reporting of incidents, events or situations which may not immediately fall within the definition of a disaster, yet have significant political, economic, social and/or environmental impact.

Adopting a heightened level of operations provides a structure to support the Watch Desk by providing resources which can be drawn upon to meet operational requirements. The additional staff assists the Watch Desk to source and collate available information about a specific issue or event for reporting and briefing purposes concurrently with business-as-usual operations.

State Natural Hazard Risk Assessment Process

It is a National and State undertaking that all jurisdictions develop and maintain a State Natural Hazard Risk Register. A body of work has collaboratively been undertaken between the QFES, QPS and the Queensland Reconstruction Authority (QRA) to facilitate this state level work. A limited scope, proof of concept State Natural Hazard Risk assessment process using geospatial information in conjunction with applied risk management methodology has been developed.

To establish the State Natural Hazard Risk Register, Disaster Districts will assess likelihood,

vulnerability (as a result of hazard exposure) and consequence to analyse the residual risk that may exist between local government and the District or State level.

The benefits of this approach include the ability to more appropriately plan for the support of local governments if required and the allocation of funding and resources to priority areas and issues. Collaboration and the sharing of information are key to this approach.

A workshop involving more than 40 participants from across the three respective agencies/departments is planned for July 2016. These teams will then venture out into the districts and undertake the natural hazard risk assessments during August and then a State wide assessment will be developed from these in September. This State assessment will be used to brief the proof of concept to the Department of Premier and Cabinet.

SDCC Training and Exercises

SDCC staff maintains currency in disaster management capability through participation in training and exercises.

The evaluation of the SDCC response to TC Marcia (18-24 February 2015) and TC Nathan (19-21 March 2015) determined an examination of the interoperability and interdependences of the SDCC Capabilities would be beneficial to the functioning of the SDCC. These recommendations are currently being worked through.

Emergency Alert

Watch Desk staff are authorised Emergency Alert (EA) users; the only officers in Queensland trained to create and disseminate approved EA campaigns. In accordance with the Queensland Disaster Management Training Framework, disaster management stakeholders are required to undertake training in EA, relevant to their role. Watch Desk staff supported the Executive Manager, SOCB with the delivery of EA awareness training and EA Authorising Officer training throughout Queensland during this period.

Capability Training

During the 12 month period from July 2015 to June 2016, SOCB and QPS staff delivered Capability Training to more than 400 PSBA, Whole of Government and QFES staff, in preparation for the cyclone season. The training covered processes for working within the SDCC during activation. General human resource, rostering and safety aspects were covered for all participants who then received targeted capability training for one or more of the Command, Operations, Planning, Logistics, Intelligence, Public Information or Aviation Cells.

Exercise Stan - 7 October 2015

On 7 October 2015, staff participated in Exercise Stan, a facilitated discussion exercise conducted to support the continued implementation of the SDCC Improvement Plan. This exercise explored the SDCC command, control and coordination arrangements within a Queensland Disaster Management Arrangement context.

This exercise involved more than 80 disaster management stakeholders from a range of government agencies, providing them with exposure to issues they may encounter during SDCC activation. Capability representatives discussed and demonstrated their roles and activities in response to the exercise scenario.

Recommendations from the exercise evaluation form an important part of the continuous improvement cycle for the SDCC and the operational capabilities.

Exercise Bart - 26 October 2015

On 26 October 2015, Exercise Bart, an Executive Leadership Team, group discussion exercise was held. The exercise explored the interoperability and interdependencies between government agencies, with the purpose of identifying any knowledge gaps and enhancing each participants understanding of the operation of the SDCC.

Fire Weather Training

The Bureau of Meteorology (BoM) meteorologist embedded in the SDCC conducts fire weather training to QFES representatives and other government agencies such as Queensland Parks and Wildlife Service. The training is designed to promote a better understanding of the impact that weather has on fire behaviour and interpretation of the weather forecasts provided by the BoM.

Watch Desk

The Watch Desk is staffed 24/7 by a State Duty Supervisor and two State Duty Officers who source and analyse information used to conduct threat assessments, manage forward planning and brief key decision makers. Staff support the Queensland Disaster Management Arrangements (QDMA) by ensuring the SDCC is maintained in a state of operational readiness, and through the provision of timely and accurate warnings and reports which are disseminated to relevant local, district, regional, state and interstate stakeholders.

Contact with stakeholders is managed through the Event Management System (EMS), which ensures accountability and an auditing ability. The system is able to be configured to meet the specific needs of users and is utilised primarily to action tasks, send and receive emails and SMS messages and log information, as well as create and disseminate a range of reports. Table 1 in this document, highlights the volume of communications and tasks that were processed by watch desk staff during the 12 month period.

		Emails received	Emails sent	SMS Messages sent	Logged Entries	Reports lodged	Tasks actioned
	July	2,654	22,180	1,985	993	323	946
2	August	2,796	26,694	3,977	944	343	851
0	September	2,819	18,097	3,444	1,130	356	758
1	October	3,883	29,553	9,315	1,543	429	978
5	November	15,798	49,732	22,011	1,670	583	1,308
	December	4,055	43,497	11,978	1,812	555	1,273
	January	3,679	46,763	12,938	1,660	629	1,285
2	February	4,092	50,197	13,133	1,876	723	1,715
0	March	3,198	35,021	6,389	1,678	504	1,155
1	April	2,458	18,482	859	1,476	312	739
6	May	2,466	21,829	1,040	1,280	314	863
	June	4,916	33,869	7,451	1,592	570	1,097
TOTAL		52,814	395,914	94,520	17,654	5,641	12,968

Table 1: EMS Figures – July 2015 to June 2016

Reporting

Watch Desk staff monitor events and work collaboratively with emergency management stakeholders to produce a number of reports that are disseminated on a regular or as required basis. These reports include:

Queensland Emergency Management Report (QEMR) (0500hrs Daily)

The 0500hrs QEMR provides key ministerial and departmental stakeholders with an early daily summary of recent and emerging, significant emergency management activities. It also briefly identifies weather and other local, national and international emergency management related risks which have the potential to impact the Queensland Government and its resources.

Queensland Emergency Management Report (QEMR) (1000hrs Daily)

The 1000hrs QEMR is a more general report distributed to a wider emergency management audience. This daily report summarises Queensland emergency management activity from the previous 24 hours as well as significant local, national and international, emergency events which may impact on Queensland Government resources. The report also provides an overview of Queensland weather observations and forecasts, significant Queensland Fire and Emergency Services operational activity and the status of all Queensland Disaster Management Groups.

Weather Outlook (1000hrs Tuesday and Fridays October to April)

The Weather outlook accompanies the 1000hrs QEMR twice per week between October and April. Additional outlooks can be issued outside this period for predicted, severe weather events. This report indicates the likelihood and severity of forecasted Queensland weather activity by forecast districts. The Weather Outlook is compiled by the Bureau of Meteorology meteorologist working within the SDCC to provide additional weather intelligence to emergency management stakeholders.

Department of Premier and Cabinet Weather Forecast Brief (1000hrs Daily)

This report is a copy of the weather information published in the 1000hrs QEMR, developed specifically for the Queensland Department of the Premier and Cabinet (DPC).

QFES Daily Operational Brief (0600hrs Daily)

This daily report informs the QFES Executive of significant events, issues and incidents from the previous 24 hours and provides early indication of events scheduled within the next 72 hours. The report also summarises regional operational activity from all streams of QFES.

SES Weekly Report (1000hrs Monday)

This report summarises the operational activity for the Queensland SES, including briefly describing significant tasks undertaken, for the preceding seven day period. It also notes reported operational issues, volunteer injuries and referrals to the Fire and Emergency Services Support Network (FESSN).

Incident Briefs including "Critical" (As required)

The primary function of the brief is to quickly inform relevant stakeholders of a significant event, generally in one of the following categories:

- disaster or emergency event (natural and man-made)
- other events significantly impacting QFES operations and resources (e.g. staff/volunteer injury, deployments)

Subsequent briefs relating to the event or incident are created and disseminated as required.

Response and Recovery Dashboard (As required)

The Response and Recovery Dashboard is a tool used to provide senior emergency management and ministerial stakeholders with a summary of Whole-of-Government response and recovery activities for a particular significant event.

Bureau of Meteorology

During the period July 2015 to June 2016, 2667 weather advices were received from the BoM. After analysis of these advices by Watch Desk staff, 1121 weather warnings were disseminated to stakeholders in affected areas. These warnings were for events such as severe weather, severe thunderstorms and flooding. Table 2 below, shows the number and type of warnings received by Watch Desk staff during the 12 month period.

		Fire Weather	Flood	High Seas / Ocean Wind	Marine Wind	Severe Thunderstorm	Severe Weather	Storm Tide	Tropical Cyclone	Tsunami No Threat	Tsunami (Excluding No Threat)	тотац
	July	0	1	13	52	0	0	0	16	5	0	87
	August	0	0	0	73	33	0	0	0	6	0	112
2 0	September	10	0	0	100	46	0	0	0	12	0	168
1 5	October	13	0	0	48	116	0	0	0	4	0	181
	November	7	11	0	33	265	0	0	0	13	0	329
	December	1	38	0	94	121	22	0	0	5	0	281
	January	0	141	0	50	171	10	0	0	5	0	377
	February	0	157	12	108	107	28	0	13	3	0	428
2 0	March	0	128	4	44	46	8	1	5	7	0	243
1 6	April	3	18	0	60	2	0	0	0	13	0	96
	May	0	27	0	56	12	0	0	0	7	0	102
	June	0	102	0	104	33	16	0	0	8	0	263
TOTAL		34	623	29	822	952	84	1	34	88	0	2,667

Table 2: BoM Warnings Received - July 2015 to June 2016

BoM Meteorologist

The BoM meteorologist embedded in the SDCC provides SDCC and SOC staff with up-to-date information on current and emerging weather-related events. This is achieved through the issuing of routine weather outlook products and event-specific weather intelligence briefs, attendance and input at key tele/video conferences, and the facilitation of weather-related training for State and Regional staff.

SES RFA Online and TAMS

Between 1 July 2015 and 30 June 2016, the Watch Desk received more than 4,000 SES task requests via RFA Online and TAMS. This figure does not include the majority of task requests for the Brisbane City SES Unit. These requests are diverted to the Brisbane City Council call centre operators who deal directly with the relevant SES groups.

Requests for SES assistance from the public are generally received as a result of flood and storm emergencies, with residents requesting assistance with leaking roofs, downed trees and water inundation.

Agency Support Requests, normally require the activation of SES volunteers for functions such as Air Observer, Rural, Urban and Forensic Searches and Vertical, Flood and Road Crash Rescue. Watch Desk staff are contacted directly by agencies including staff from QFES Firecom, QPS Communication Centres, and the Australian Maritime Safety Authority (AMSA). Agency Support Requests are often time critical, time intensive and are actioned as a priority by Watch Desk staff. Table 3 below, shows the number of tasks received and actioned during the 12 month period.

		Storm / Flood	Agency Support	TOTAL
	July	31	83	114
2 0	August	41	87	128
	September	50	63	113
1 5	October	305	65	370
	November	582	60	642
	December	339	65	404
	January	304	62	366
	February	192	64	256
2 0 March		148	60	208
1 6	April	26	56	82
	May	31	62	93
June		1,453	53	1,506
тот	AL	3,502	780	4,282

Table 3: Number of SES Task Requests – July 2015 to June 2016

SDCC Tours and Visits

Staff hosted official tours of the SDCC and gave presentations to representatives from a number of local, national and international agencies. Visitors included personnel from government and non-government agencies, emergency management units, universities and colleges and volunteer organisations. The Brisbane Open House Event held in October 2015 was a notable example. Table 4 below highlights the number of tours and visits hosted by Watch Desk staff during the 12 month period.

SDCC Tours - July 2015 to June 2016											
July Aug Sept Oct Nov Dec Jan Feb Mar A								April	May	June	
12	7	13	10	10	5	1	4	6	1	8	7

Table 4: Number of SDCC Tours – July 2015 to June 2016

Brisbane Open House Event

On Sunday, 11 October 2015, the SDCC hosted hundreds of public visitors who took advantage of the opportunity to visit the centre as part of the Brisbane Open House initiative. Brisbane Open House is an annual event held in conjunction with World Architecture Day, where members of the public have the opportunity to discover the hidden wealth of architecture, engineering and history in buildings and places around Brisbane City.

Watch Desk staff provided the public with guided tours of the centre, explaining the relevance of the SDCC during general business and activations.

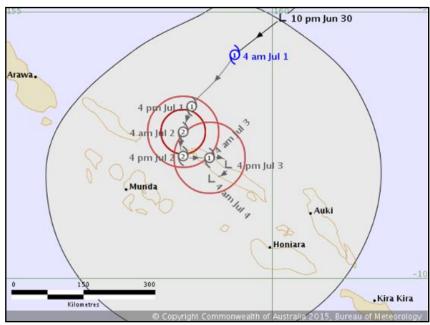
Severe Weather Events

Due to its size and location, Queensland experiences significant climate variations and is impacted by a number of weather phenomena including tropical cyclones, thunderstorms and flooding. During severe weather events, staff on the Watch Desk staff monitors the QFES Computer Aided Despatch (ESCAD) system, infrastructure websites as well as social and print media, to determine the impact of the event and monitor response activity. Events of significance for the 12 month period July 2015 to June 2016 are listed on the following pages.

Tropical Cyclone (TC) Raquel - July 2015

At approximately 0440hrs Wednesday, 1 July 2015, the BoM advised that Tropical Cyclone Raquel (Cat 1) had formed to the north of the Solomon Islands, approximately 2,000km northeast of Cairns. The cyclone was moving in a southwesterly direction and was expected to gradually intensify as it approached the Solomon Islands. TC Raquel was downgraded to a tropical low on 2 July 2015 and had dissipated by 5 July 2015.

During the development of the cyclone, Watch Desk staff closely monitored the situation; however at no time did TC Raquel pose a threat to the Queensland coast.



TC Raquel Track Map as at 1 July 2015. *Source: Bureau of Meteorology

Severe Thunderstorms Southeast Coast, Wide Bay, Burnett, Darling Downs and Granite Belt – 12 August 2015

A broken line of thunderstorms developed over the far eastern Darling Downs and western parts of the Southeast Coast district and moved rapidly eastwards towards the southeast Queensland coast, bringing damaging wind gusts. The Severe Thunderstorm Warning was cancelled approximately two hours later; however a further warning was issued for Southeast Queensland less than 45 minutes later when a fast moving severe thunderstorm was located by radar near Dayboro.

Little rainfall was recorded. However damaging winds resulted in widespread power outages, with more than 15,000 customers impacted in the Brisbane, Sunshine Coast, Gold Coast and Scenic Rim local government areas.

Ten requests for SES assistance were actioned by Watch Desk staff.

Severe Thunderstorms Southeast Queensland – 29 August 2015

Severe thunderstorms produced heavy rainfall and localised flash flooding, however no significant disruptions were reported. 47mm of rain was recorded at Wappa Dam (near Yandina) in 30 minutes whilst rainfall of 29mm in 10 minutes was observed at nearby rain gauges.

Ten requests for SES assistance were actioned by the Watch Desk, with the majority being for leaking roofs in the North Coast area.

Severe Thunderstorms Southeast Coast, Central Highlands and Coalfields, Wide Bay Burnett, Darling Downs and Granite Belt – 29 September 2015

Severe thunderstorms impacted Southeast Queensland in the early afternoon on Tuesday, 29 September. 61mm of rain was recorded at Morayfield and 50mm at Ferris Knob Alert near Landsborough. More than 4,000 customers from the Sunshine Coast to the Gold Coast suffered power outages as a result of the storms.

19 requests for SES assistance were actioned by the Watch Desk, mainly for leaking roofs in the Moreton Bay local government area.

Supercell Thunderstorm Fernvale - 27 October 2015

Severe thunderstorms impacted areas of Southeast Queensland, with a line of supercell storms causing significant damage to residential properties and infrastructure in Fernvale, where four to five centimetre hail, heavy rainfall and destructive winds were observed. Power interruptions also impacted the area, with almost 2,000 customers affected.

150 requests for SES assistance were received, with seven Fernvale premises classified as severely damaged and deemed structurally unsafe by Rapid Damage Assessment teams. An incident control centre was established in the town and multiple resources deployed to the area to conduct clean up and recovery operations.

Watch Desk staff developed incident briefs, ensuring stakeholders were kept updated on the progress of operations and the welfare of the residents.



Fallen trees caused structural damage to homes in Fernvale. *Source: Twitter - penny copter

Severe Thunderstorm Chinchilla – 28 October 2015

Severe thunderstorms were forecast for large areas of Queensland on Wednesday, 28 October 2015, however the brunt of the storm was experienced in Chinchilla, where golf ball sized hail and destructive winds were reported. The town suffered power and telecommunication disruptions, but these were resolved promptly by the respective organisations.

More than 200 storm related tasks were received, with damage reported at both an aged care facility where a number of skylights were smashed, and the local hospital which operated on generators and accepted only emergency cases until power was restored and repairs completed.

Watch Desk staff consulted with regional staff, and consolidated information to develop incident briefs for dissemination to stakeholders.



Hail in Chinchilla 28 October 2015. *Source: Facebook - Timothy Pitt

Severe Thunderstorms Northwest and parts of the Gulf Country, Northern Goldfields and Upper Flinders, Central West and Channel Country Forecast Districts – 31 October 2015

Severe thunderstorms were forecast for large areas of Northern and Western Queensland on Saturday 31 October 2015. The storms with damaging winds and heavy rainfall impacted areas from Mount Isa to Richmond to Longreach, with the main impact reported at Julia Creek, where wind gusts of 80km/h bought power lines down and caused minor damage to some homes. Ergon Energy reported power outages to more than 1,600 customers as a direct result of the storm activity.

The storms, whilst severe, only generated one request for SES assistance. Fire crews responded to assist Ergon Energy with downed power lines.

Severe Thunderstorms Southeast Queensland – 7 November 2015

Severe thunderstorms were forecast for large areas of central and southeast Queensland from mid-morning Saturday, 7 November 2015. Significant storm activity began to impact areas within the Southeast Coast forecast district in the early afternoon, with the BoM issuing warnings relating to very dangerous thunderstorms that were detected on weather radar in the Logan City area. Golf ball to tennis ball sized hail was observed at Browns Plains, Regents Park, Parkinson, Greenbank, Hillcrest, Boronia Heights and Forestdale.

Approximately 120 requests for SES assistance were received as a result of the storm activity, with the majority of requests being for damaged properties in Logan City and Brisbane City.

Severe Thunderstorms Southeast, Central and Southwest Queensland – 14 November 2015

Severe thunderstorms impacted large areas of Queensland on Saturday, 14 November 2015. Damaging winds and heavy rainfall that may lead to flash flooding were forecast. A wind gust of 101km/h was recorded at the Wellcamp (Toowoomba) Airport; a 94km/h wind gust and 2cm hail was recorded at St George and 61mm of rainfall in 30 minutes reported in the Cooloola Coast area. At the height of the storms, Energex reported that more than 6,000 customers were without power, with the bulk of the outages affecting people in the Gold Coast, Sunshine Coast and Moreton Bay areas.

More than 40 storm related SES task requests were received by Watch Desk staff for actioning.

Severe Thunderstorms Central and Southwest Queensland – 16 November 2015

Severe thunderstorms developed over the Central Highlands and Coalfields region of Queensland, as well as the northern Darling Downs on Monday, 16 November 2015. Moranbah recorded a maximum wind gust of 156km/h, and small aircraft were flipped over at the aerodrome. At Blackwater, wind gusts of 93km/h and hail up to 4cm in diameter were reported.

The Watch Desk received 13 requests for SES assistance, some for leaking roofs, but most were as a result of damage caused by strong winds.

Tropical Low Solomon Islands – 18 November 2015

Watch Desk staff began monitoring a tropical low situated near the Solomon Islands and moving in a general west to southwest direction towards the Queensland coast. The low, which had the potential to develop into a tropical cyclone, was expected to remain well off the Queensland coast; however some modelling showed the system crossing the coast as a tropical low or trough between Cairns and Rockhampton by 22 November 2015.

The system weakened as it moved into a less favourable environment and did not develop into a cyclone or have any impact on the Queensland coast.

Severe Thunderstorms Southeast and Southwest Queensland – 29 November 2015

Multiple storm warnings were issued by the BoM for storms that moved through southeast and southwest Queensland throughout the afternoon of Sunday, 29 November 2015. Golf ball sized hail was reported at Tara, tennis ball sized hail was reported at Oakey, 72mm of rain fell in 30 minutes at Harrisville and a wind gust of 120km/h was reported at Dinmore. More than 19,000 Energex customers lost power as a result of the storm activity.

More than 230 SES task requests were received by the Watch Desk, with the most received from residents of Ipswich and Warwick. The majority of jobs related to flash flooding and damaged and leaking roofs as a result of strong winds, fallen trees and hail.

Severe Thunderstorm Capricornia – 3 December 2015

A severe thunderstorm warning for damaging winds and large hail was issued for the Capricornia forecast district in the mid-afternoon Thursday, 3 December 2015. A wind gust of 94km/h was recorded at the Rockhampton airport and small hail was reported around the Rockhampton area. Ergon Energy reported the loss of power to 8,000 customers in Rockhampton as a result of the storm.

The Watch Desk received more than 20 requests for SES assistance from the Rockhampton area. Jobs were primarily for structural damage caused by hail and strong winds.

Severe Thunderstorms Southeast and Southwest Queensland – 10 December 2015

The BoM issued multiple storm warnings for a dangerous storm cell that impacted the Gold Coast, Logan and Scenic Rim council areas on Thursday, 10 December 2015. Verbal advice from the BoM stated that Upper Quinzeh in Logan recorded 51mm of rainfall in 30 minutes. Almost 25,000 Energex customers lost power as a result of the storm activity.

The Watch Desk received more than 50 SES task requests for storm damaged properties, with the majority of tasks originating from the Logan area.

Severe Thunderstorms Southeast and Southwest Queensland – 11 December 2015

Severe thunderstorms were forecast for large areas of southeast and southwest Queensland from early afternoon on Friday, 11 December 2015. Marble sized hail was reported at Warwick and a 102km/h wind gust recorded at Kingaroy. More than 8,000 Ergon Energy customers on the Sunshine Coast lost power as a result of the storm activity.

The Watch Desk received 35 requests for SES assistance, with the majority of requests being for fallen trees and damage to structures as a result of strong winds in the North Coast, Moreton Bay, Redland and Logan areas.

Severe Thunderstorms Southeast and Southwest Queensland – 23 December 2015

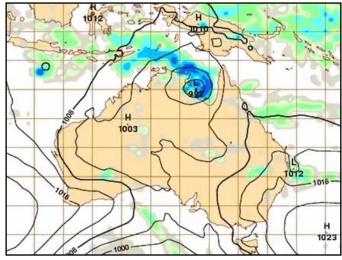
Severe thunderstorms impacted the Southern and Western Downs resulting in widespread power outages and multiple road closures Wednesday, 23 December 2015. The worst affected locations were Stanthorpe and Bowenville where hail, heavy rainfall and strong winds caused damage to structures and caused trees and branches to dislodge, resulting in damage and access issues to residences. 35mm of rain was recorded in five minutes over the Southern Darling Downs, where 2cm hail was also reported.

More than 50 SES requests for assistance were received by the Watch Desk as a result of the storm activity.

Gulf of Carpentaria Monsoon Trough – 20 December 2015 to 3 January 2016

Significant rainfall over areas of the Top End between 24 and 27 December 2015 was associated with a tropical low embedded in an active monsoon trough extending into the southern Gulf of Carpentaria, and across into the northwest Coral Sea. Numerous locations recorded cumulative rainfall totals of 400mm to 500mm, exceeding 600mm in isolated areas. The tropical low tracked east before heading south along the Northern Territory and Queensland border, bringing significant rainfall over parts of the Gulf of Carpentaria in the last days of December. This resulted in flooding, damage to the Mornington Island airstrip, road closures and the isolation of towns including McKinley, Julia Creek, Burketown, Doomadgee, Kynuna and Urandangi.

Watch Desk staff maintained contact with disaster management groups and regional staff to ensure consistent reporting to stakeholders and to manage preparations for the possible resupply of isolated communities.



Gulf of Carpentaria Monsoon Trough as at 23 December 2. *Source: Bureau of Meteorology

Severe Weather Warning Channel Country, Maranoa and Warrego – 1 to 3 January 2016

A Severe Weather Warning was issued for the Channel Country and Maranoa and Warrego Forecast Districts on January, 1 2016 as a tropical low moved through the Northern Territory into Queensland. The low tracked eastward through western and central Queensland to the central coast causing extensive flooding in river catchments in the Gulf Country, Central West, Channel Country and parts of the Maranoa and Warrego districts. Windorah recorded 99mm of rain in the 24 hours to 9am Saturday, 2 January 2016.

Moderate to major floods were recorded in the Flinders River, Paroo River, Bulloo River, and Cooper Creek. Transport infrastructure was impacted, with one runway at the Mornington Island Airport closed and one reduced in length, as well as multiple roads, particularly in southwestern, northern and central Queensland closed due to the flooding.

Watch Desk staff disseminated warnings and briefed key stakeholders on the event. There were a small number of SES task requests received as a result of the flooding, however no major issues were identified.

Severe Thunderstorms Capricornia, Wide Bay and Burnett - 4 January 2016

A Severe Thunderstorm Warning forecasting heavy rainfall and possible flash flooding was issued late in the evening Monday, 4 January 2016, for people in parts of the Capricornia and Wide Bay and Burnett forecast districts. Significant rainfall totals were recorded in the warning area, with Moore Park Beach north of Bundaberg receiving 109mm of rain in a six hour period and in the 24 hour period to 0500 hours Tuesday, 5 January 2016 had recorded a total of 166mm.

More than 40 SES tasks were received by the Watch Desk, with most residents requesting tarps for leaking roofs.

Severe Thunderstorms Central, Southeast and Southwest Queensland – 29 January 2016

Severe thunderstorms were forecast for large areas of central, southwest and southeast Queensland on Friday, 29 January 2016. The initial warning was issued just before midnight on Thursday, 28 January 2016, with the BoM advising that heavy rainfall, flash flooding and large hailstones were likely to affect people in the warning areas. Mapleton recorded 81mm of rain in one hour, Toowoomba recorded 27mm of rain in ten minutes, Rathdowney recorded 66mm of rain in 30 minutes and wind speeds of 111km/h were recorded at Oakey. The warning cancellation was issued by the BoM in the early hours of Saturday, 30 January 2016. Fallen power lines and damage to power lines by trees branches and debris resulted in power outages to more than 35 000 Ergon Energy customers in the Wide Bay and Burnett district, and nearly 9 000 Energex customers in the Southeast.

More than 150 SES task requests were received by the Watch Desk, mainly for structural damage and leaking roofs caused by fallen trees.

Severe Thunderstorms Central, Southeast and Southwest Queensland – 30 to 31 January 2016

Severe thunderstorms impacted large areas of Queensland on Saturday and Sunday, 30 - 31 January 2016 with the Wide Bay and Burnett forecast area significantly affected. Heavy rainfall caused flash flooding and as a result, three water rescues were conducted in the Bundaberg area.

One person was located deceased in their vehicle after it was washed off a flooded road in St Kilda, one person managed to cling to a tree after their vehicle was washed off a flooded causeway at Wallaville and was successfully rescued by swift water rescue technicians and four people stranded in a vehicle towing a horse float were taken to safety by the SES.

More than 100 SES tasks were received by the Watch Desk for storm related jobs including debris clean up, structural damage and chainsaw operations.

Severe Weather and Severe Thunderstorms Queensland – 1 to 9 February 2016

A series of troughs and a warm, moist, unstable tropical air mass contributed to a weather pattern that produced widespread thunderstorms and heavy rainfall across much of Queensland in early February.

Significant daily rainfall figures from 1 to 9 February 2016 include:

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Flooding resulted in the isolation of some homes and towns in north western Queensland, however no requests for resupply were received. A swift water rescue was conducted at Apple Tree Creek, west of Childers when a person became trapped in floodwaters.

A number of Local and District Disaster Management Groups moved to various levels of activation to support local communities. Watch Desk staff liaised with key stakeholders in the regions to ensure current and relevant information was sourced and reported.

Approximately 200 SES tasks were received at the Watch Desk during the period 1 to 9 February 2016, mainly from residents in Central and North Coast Regions requesting tarps for leaking roofs and sandbags to stem water inundation.

Severe Thunderstorms Southeast and Southwest Queensland – 19 February 2016

The Standard Emergency Warning Signal (SEWS) was used for dangerous and slow moving thunderstorms that impacted southeast and southwest Queensland on Friday, 19 February 2016. 130mm of rain was recorded within one hour at West Woodbine, near Gatton and 107mm of rain recorded in one hour at Townson, west of Kalbar. A 117km/h wind gust was recorded at Dalby Airport, with 40mm of rainfall falling within 30 minutes.

Approximately 20 SES task requests were received, with residents requesting assistance with leaking roofs, and flash flooding as a result of the heavy rain and strong winds.

Severe Weather Capricornia, Central Coast and Whitsundays – 5 to 7 March 2016

The remnants of Tropical Cyclone Winston bought consistent heavy rainfall along the coast between Gladstone and Mackay on 5 and 6 March 2016, resulting in flash flooding and numerous road closures, including the Bruce Highway, north of Mackay. Areas around Mackay received more than 200mm of rain over the two days.

More than 70 SES tasks were received by the Watch Desk, with the SES requested to assist with tarping leaking roofs and supplying sand bags to homes inundated by water.

SES volunteers were also called to rescue 33 people stranded in bushland at Byfield, after Waterpark Creek rose more than a metre above the causeway entry.



Waterpark Creek Byfield. *Source: ABC News - Audience submitted, Tony Lever

Gulf of Carpentaria Tropical Low – March 2016

A tropical low tracked across the Gulf of Carpentaria and the Cape York Peninsula in the middle of the month, bringing heavy rainfall to the Gulf catchments. An initial Tropical Cyclone Advice issued on Wednesday, 16 March 2016 at 0118 hours, advised the possibility of the tropical low developing into a tropical cyclone by Thursday, 17 March 2016. The threat was revised down in Tropical Cyclone Advice Number 5 issued at 1623 hours on the Wednesday, with the tropical low no longer expected to reach tropical cyclone intensity.

The heavy rainfall associated with the tropical low resulted in a number of communities in the far northwest of the State, including Burketown, Doomadgee and Lawn Hill becoming isolated.

Southeast Queensland Rain Event-3 and 4 June 2016

Widespread heavy rainfall caused flash flooding throughout Southeast Queensland on Friday and Saturday, 3 and 4 June 2016. The heaviest falls were recorded from Caboolture, south to the NSW border. Areas of the southern Gold Coast and Gold Coast hinterland recorded rainfall totals of more than 200mm.

Abnormally high tides, combined with dangerous surf conditions caused substantial erosion and damage to Gold Coast beaches and waterfront businesses. A significant number of roads were closed due to flash flooding, and a number of vehicles submerged in streets and car parks. More than 1000 requests for SES assistance were received as a result of the severe weather, mostly for leaking roofs, water inundation and fallen trees.

The SDCC did not activate as a result of the event, however the Watch Desk operated at a heightened level of operations, with the support of QPS and SOCB staff.

Queensland Trough - 18 and 19 June 2016

A trough system and severe thunderstorms impacted central, southern and coastal Queensland across the weekend 18 and 19 June 2016. The resulting heavy rainfall and strong winds caused road closures, power outages, damage to property and widespread flash flooding. QFES swift water technicians responded to 27 swift water rescues across southeast Queensland. A small pocket of Mooloolaba was significantly impacted by destructive winds.

The roof was blown off a social housing residence and a number of vehicles were severely damaged as a result.

More than 300 requests for SES assistance were received via the TAMS system, mainly for leaking roofs, water inundation and debris clean up.



Akeringa Place Mooloolaba. *Source: Sunshine Coast Daily - Warren Lynam

Supplementary Events

Resupply Operations January and March 2016

Heavy rain associated with the Gulf of Carpentaria Monsoon Trough resulted in flooding and the isolation of Doomadgee and Burketown in mid-December 2015. Aerial resupply of perishable food stuffs and essential items were required for both towns due to the inability to deliver supplies by road. Watch Desk staff assisted with the processing of resupply requests for Burketown on 4 January 2016 and Doomadgee on 5 January 2016.

The remnants of Tropical Cyclone Winston bought significant rainfall to northern and central Queensland in mid-March 2016, isolating Doomadgee. A road and air resupply was conducted on 19 March 2016.

The Watch Desk processes invoices and maintains a Resupply Register to ensure audibility and accountability of all resupply transactions.

Canadian Bushfires – July to August 2015

During July, Canada was impacted by significant bushfires. The majority of the fires occurred in British Columbia, Alberta, Saskatchewan and Northwest Territories.

On Thursday, 9 July 2015, the Watch Desk received a Task Request from Emergency Management Australia (EMA) for the deployment of an Emergency Management Assistance Team (EMAT) member to supplement the State Crisis Centre (SCC) in Victoria and assist with the deployment of Australian Firefighters to Canada.

The Watch Desk provided support and a reporting capability throughout the duration of the deployment of the EMAT member and the 102 strong Australian contingent, including three QFES personnel deployed to Canada to assist with activities at a local level.

Cape Upstart Oil Spill – 17 July to 10 August 2015

On Friday, 17 July 2015, Maritime Safety Queensland was alerted to a potential oil spill offshore from Cape Upstart, between Townsville and Abbot Point. It was confirmed late in the afternoon that sheen and oily patties up to one metre in diameter had been spotted. The spill area was identified approximately 15 miles off the coast and around eight miles off the nearest reefs.

A coordinated response involving multiple agencies from Commonwealth, State and Local levels was required to effectively manage the event, which involved aerial observations, clean-up operations and the management of affected wildlife. The final inspection and official end to clean-up operations occurred on 10 August 2015.

Watch Desk staff monitored the situation and coordinated incoming information to produce daily incident briefs that were disseminated to relevant stakeholders.



Clean Up Operations Cape Upstart Oil Spill

Hendra Virus - 24 July 2015

On Friday, 24 July 2015, a property on the Atherton Tablelands in North Queensland was quarantined after a horse on the property died as a result of Hendra virus. No sign of infection was detected in other animals tested on the property and the quarantine was lifted on 21 August 2015.

Watch Desk staff monitored the situation, keeping senior management and relevant stakeholders informed of developments.

Fatal Structure Fire, Mount Isa – 28 July 2015

On Tuesday, 28 July 2015, a gas explosion that occurred at a private residence in Mount Isa resulted in the deaths of three people and impacted access to more than 50 homes in the immediate vicinity. Multiple agencies activated to support the community and a recovery centre was opened to provide accommodation and psychological support to residents unable to access their properties.

Watch Desk staff were responsible for coordinating agency reports and creating a daily Response and Recovery Dashboard that was disseminated to a range of stakeholders. The Dashboard ran from 28 July 2015 until 7 August 2015 when all agencies involved in the event transitioned to normal business arrangements.



Emergency Services on Scene at Mount Isa Explosion. *Source: ABC News - Emma Cillekens

Southeast Queensland Earthquake – 30 July 2015

On Thursday, 30 July 2015, a magnitude 5.2 earthquake was detected off the Queensland coast, approximately 100 kilometres east of Fraser Island. The earthquake was reported to have been felt by people as far south as the north side of Brisbane. Watch Desk staff received a number of phone calls from people within North Coast Region who felt the earthquake, before official notification of the event was received from Geoscience Australia. A Tsunami No Threat Bulletin was issued by the Joint Australian Tsunami Warning Centre (JATWC) after it assessed that there was no Tsunami Threat to the Australian Mainland, Islands or Territories.

A number of businesses self-evacuated as a precaution, however no reports of damage or injury were received as a result of the earthquake.

Watch Desk staff monitored all forms of media and made contact with QFES colleagues to determine the impact of the quake on the surrounding areas, to ensure an accurate brief could be developed and disseminated.

Southeast Queensland Earthquakes – 1 August 2015

On Saturday, 1 August 2015, Geoscience Australia detected a magnitude 5.7 earthquake, approximately 236km northeast of Brisbane. A magnitude 5.1 aftershock was detected less than an hour later.

A Tsunami No Threat to the Queensland Coast Bulletin was issued for each of the two significant earthquakes.

A subsequent, magnitude 3.1 aftershock recorded approximately half an hour later, did not generate any form of notification from Geoscience Australia.

The Gympie Local Disaster Management Group (LDMG) and Gympie District Disaster Management Group (DDMG) as well as the Fraser Coast LDMG all moved to Alert status, however there were no reports of damage or injuries resulting from the earthquakes.

Watch Desk staff monitored the situation and reported to relevant stakeholders as necessary.

Coral Sea Earthquake - 14 August 2015

On Friday, 14 August 2015, Geoscience Australia detected a magnitude 4.0 earthquake, 218 kilometres northeast of Brisbane, and approximately 155km east, southeast of Hervey Bay. Geoscience Australia predicts that the earthquake could have been felt by people up to 62 kilometres away, but due to the distance off shore, no reports of damage or injury were expected or received.

The earthquake was non-tsunami genic and there were no tsunami warnings or tsunami no threats issued by the JATWC.

The Fraser Coast LDMG once again moved to Alert status and Watch Desk staff monitored the situation and carried out necessary reporting requirements.

Panama Disease – 20 August 2015

On 20 August 2015, the results of further tests on samples taken from an infested Tully banana farm confirmed a second detection of Panama disease tropical race 4 on the property. A further detection was confirmed in October 2015.

The Watch Desk continuously monitored the situation, ensuring updates were disseminated to relevant stakeholders and reports were updated in a timely fashion so that the current situation was reflected accurately.

Southeast Queensland Earthquake - 23 October 2015

On Friday, 23 October 2015, Geoscience Australia detected a magnitude 3.9 earthquake off the Queensland coast. Original reports indicated the earthquake occurred offshore, 76km northeast of Brisbane, however a revised report issued by Geoscience Australia placed the actual location of the earthquake offshore, east of Fraser Island.

Watch Desk staff contacted the seismic officer from Geoscience Australia who confirmed the revised location and finalised magnitude of 4.0. The officer also advised they had received one Felt Report from Maroom, 20km south of Maryborough; however no damage reports were received.

A No Tsunami Threat to the Queensland Coast was issued by JATWC and forwarded to stakeholders by Watch Desk staff. No further action was required.

Southeast Queensland Earthquake – 18 November 2015

On 18 November 2015 at 1738 (AEST) Geoscience Australia detected a magnitude 3.6 earthquake 54km northeast of Airlie Beach, 25km north of Hayman Island.

Three Felt Reports were received by Geoscience Australia from Hayman Island, with the effects being moderate earth movement, hanging objects slightly moving and moderate noises heard, however no reports of damage were received.

Watch Desk staff notified relevant stakeholders of the event and maintained situational awareness to ensure any necessary information was reported appropriately.

A No Tsunami Threat to the Australian Mainland, Islands or Territories was issued by JATWC and disseminated to stakeholders by Watch Desk staff. No further action was required.

Train Derailment Julia Creek – 27 December 2015

A train carrying sulphuric acid, which has the potential to react violently with water, derailed along a stretch of the Mt Isa rail line, 20km east of Julia Creek on Sunday, 27 December 2015. The diesel locomotive heading the train rolled on its side, becoming partially submerged in flood waters and derailing all of the train's 26 wagons, causing spillage of chemicals. Response and recovery operations were delayed due to access issues as a result of flooding along the Flinders Highway. The railway track remained closed for some time, with alternative arrangements for freight and passenger travel when the flood waters receded.

Watch Desk staff monitored the situation, consulting with regional staff to maintain situational awareness and have the ability to report relevant information to stakeholders as required.



Train Derailment Julia Creek. *Source: Channel 9 News

Queensland Nickel Refinery Dashboard – June 2016

On Thursday, 21 April 2016, Qld Nickel, Nickel and Cobalt refinery at Yabulu (25 km north of Townsville) went into liquidation and ceased operations. Specialists from key government agencies inspected the refinery, conducting operations including atmospheric testing, structural and chemical storage inspections and the monitoring of the dangerous, large tailing ponds containing ammonia.

Watch Desk staff coordinated the development and dissemination of the Queensland Nickel Refinery Dashboard which included input from key agencies involved in the operational response to the situation. The Queensland Nickel Refinery Dashboard ensured all relevant stakeholders were kept informed of the condition of the refinery and could be advised of potential issues or threats as they were identified.



Aerial view of Yabulu Nickel Refinery showing tailing ponds. *Source: Courier Mail - Morgan Evan

The End

ⁱ Source: <u>Queensland Reconstruction Authority</u>