Borumba Project
Emergency Response Plan

1. Purpose

The purpose of this Emergency Response Plan (ERP) is to provide guidance to effectively respond to and manage foreseeable emergency situations on the Borumba Pumped Hydro Project site (s).

The key priorities in any emergency or crisis are to:

- Protect life and ensure well-being through a strong focus on the ability to account for people.
- Minimise damage to the environment.
- Protect Queensland Hydro and third-party assets and information from further damage.
- Minimise business interruptions.
- Protect and, where possible, enhance reputation

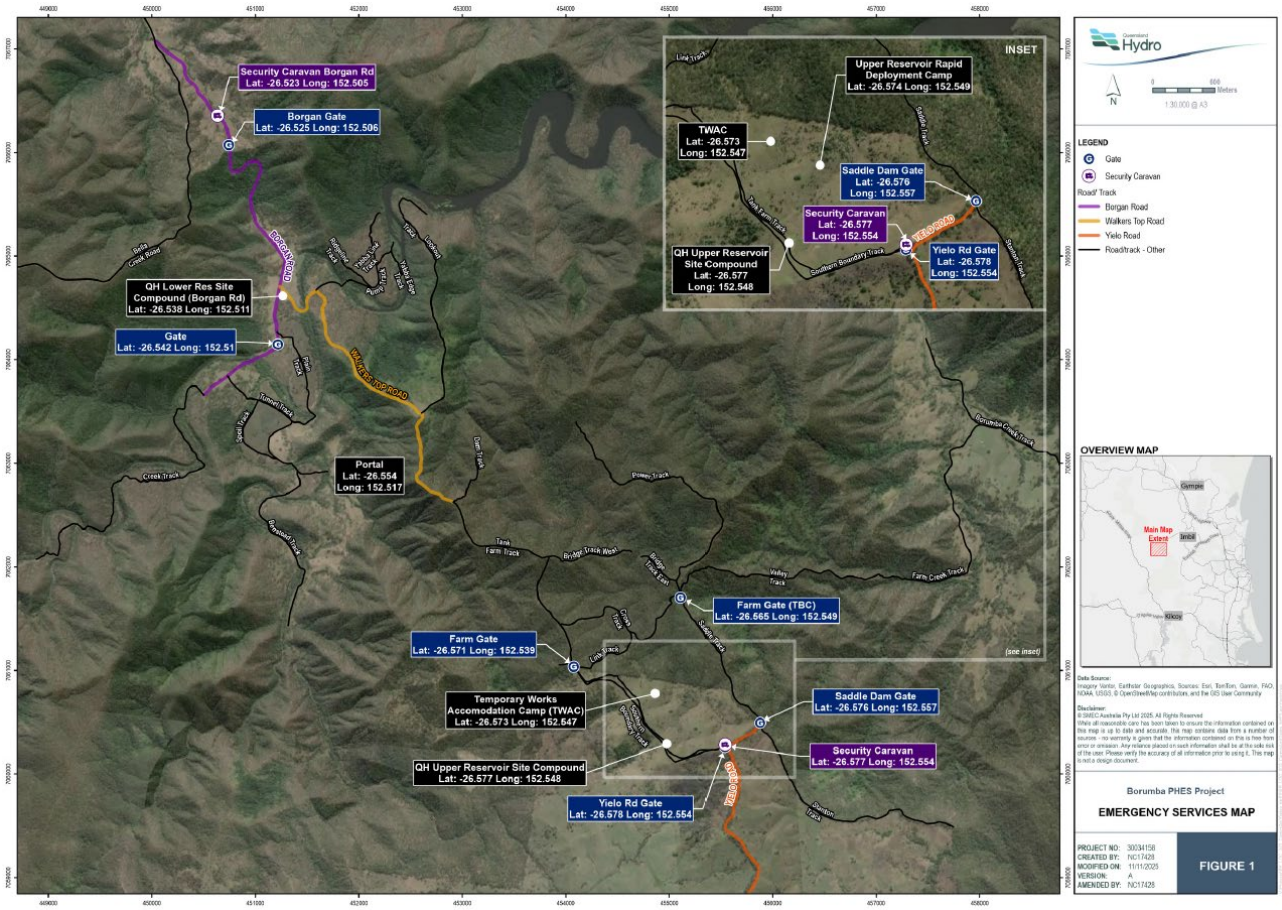
2. Scope

This Emergency Response Plan (ERP) relates to reasonably foreseeable emergencies that could occur on the Borumba Pumped Hydro Project site (s).

This plan applies to the early and exploratory works phases of the Project for works under the management and control of Queensland Hydro.

Where other Principal Contractors working on the Project have their own ERP, they are responsible for ensuring alignment with the requirements of this document. All Contractor's ERPs are to be submitted to Queensland Hydro for consultation, review and approval prior to works commencing on site.

3. Site Map



4. Emergency Management

4.1. Emergency Action Response Plans

Queensland Hydro has identified, through a risk assessment process, foreseeable potential emergencies that may occur at the Project site (s) and adjacent or related activities. For each of these scenarios a specific Emergency Action Response Plan (EARP) has been developed, refer Appendix B. The EARPs include:

- **EARP 1.01 Serious Injury/ Medical Emergency**
- **EARP 1.02 Snake bite/ sting**
- **EARP 1.03 Bushfire**
- **EARP 1.04 Plant/ Equipment/ Structural fire**
- **EARP 1.05 Hydrocarbon/Chemical spill on land/water**
- **EARP 1.06 Breach of Site Security/ Deliberate Unauthorised Access**
- **EARP 1.07 An Overdue or Missing Person, requiring Search & Rescue**
- **EARP 1.08 Severe Weather Events**
- **EARP 1.09 Vehicle accident**

4.2. Project Emergency Management Team (PEMT)

Queensland Hydro will have a Project Emergency Management Team (PEMT) based on the Project site.

4.3.1 PEMT Roles and Responsibilities

Roles	Emergency Responsibilities
First Responder	▪ Summon emergency assistance ▪ Take any required immediate actions, where within the bounds of safety, competency and available equipment. ▪ Follow directions of PEMT Leader
PEMT Leader **Queensland Hydro Person in Charge (PIC) Delegate**	▪ Manage the QH Project response to an emergency and lead EMT ▪ Identify, initiate and monitor response support and resources ▪ Initiate Emergency Control Centre ▪ Contribute to post emergency or exercise reviews
PEMT Coordinator **nominally the site H&S lead, or delegate.** **Supported by log keeper as required.**	▪ Collate and analyse situation information ▪ Provide operational, planning and logistic support to the PEMT Leader ▪ Provide regular situation reports to QH Crisis Management Team as required ▪ Liaise with emergency services ▪ Ensure log of events is maintained ▪ Contribute to post emergency or exercise reviews
PEMT Medical Support **Project paramedic, assisted by trained first aiders**	▪ Lead initial medical response in event of injury to person (s) ▪ Provide local support for external emergency response agencies once they arrive on scene ▪ If requested by Qld Ambulance Service, and approved by PEMT Leader, can provide support for medical emergencies adjacent to Project site ▪ Contribute to post emergency or exercise reviews

Other members of the Queensland Hydro site-based project team will assist the PEMT Leader and may be required to undertake multiple roles depending on the nature of the emergency, its duration and complexity.

If for some reason the PEMT leader is unable / unavailable to perform their duties, an alternate person must be identified. Should for some reason PEMT members be unable to perform their duties, the PEMT Leader will allocate other suitably trained persons.

Duty cards have been developed for each role within the PEMT. Duty cards act as prompts and are used as an aid in the event of an emergency. Refer Appendix A.

4.3. Emergency Response Process

Step 1: Identification

When an event (actual or imminent) endangers or threatens to endanger life, property or the environment, the first responder must, if safe to do so, take action aligned with the first responder duty card. It's important everyone in the Queensland Hydro site team is familiar with the responsibilities and initial actions of the first responder.

Step 2: Notification

Once immediate action is taken, the first responder must raise the alarm and advise their supervisor as to the nature of the emergency and any assistance required. An alarm can be raised:

- in person
- by radio (using prefix 'Emergency, Emergency, Emergency)
- by mobile phone (where mobile reception available)
- by satellite communication device (e.g. Garmin Inreach)

Step 3: Assessment

Once notified and briefed, the supervisor will notify the Queensland Hydro Person in Charge (PIC). The PIC will call on their experience to assess the situation using the Emergency Incident Classification and Response Matrix shown below.

Potential emergency and crisis events at Queensland Hydro sites are classified as either a **Local Incident**, an **Emergency,** or a **Crisis**. Each classification's response reflects its level of risk and resource requirements.

NOTE: classification may escalate at any stage and as such the response must escalate accordingly.

NOTE: The Queensland Hydro **Crisis Management Manual (HS-MAN-0002)** details the processes to be followed in a crisis/ potential crisis event.

NOTE: If in doubt regarding the classification of an incident, **ESCALATE** the incident rather than downgrade it.

DETERMINE IF THE SITUATION IS:		
Local incident	**Emergency**	**Crisis**
Event has clearly defined circumstances. Includes both incidents which occur within the Project site boundaries or incidents which involve Project workers that occur on public roads/ in public spaces.	Event is emerging and not clearly defined. Includes both incidents which occur within the Project site boundaries or incidents which involve Project workers that occur on public roads/ in public spaces.	Event requires strategic management. Includes both incidents which occur within the Project site boundaries or incidents which involve Project workers that occur on public roads/ in public spaces.
Incident response may be required. Incident controllable by Project EMT	External emergency response agencies involved or likely to be so	Major emergency response agency involvement
Minor threat or injury to people, environment, assets	Medium threat or injury to people, environment, assets	Significant threat or injury to people, environment, assets
Adverse reputational impact not likely	There is a possibility of adverse reputational impact	There is serious adverse business and reputational impact
Disruptions affect part of the business/ Project only	Medium disruption/ significant material risks affecting the business or Project operations	Extensive shutdowns or extended disruptions with business-wide effects. Multiple material risks impacted
DETERMINE THE RESPONSE BASED ON TYPE OF INCIDENT		
Activate relevant Emergency Action Response Plan	Activate Project Emergency Response Plan	Activate the Crisis Management Plan
Government Relations and Communications Team (GRCT) Lead must be informed to manage stakeholder engagement, notifications and communications response. **GRCT Leader to determine if GRCT is activated.**	Government Relations and Communications Team (GRCT) Lead must be informed to manage stakeholder engagement, notifications and communications response. GRCT Leader to determine if GRCT is activated.	Government Relations and Communications Team (GRCT) activated to manage stakeholder engagement, notifications and communications response.
Crisis Management Team (CMT) may be informed if required	Notify Crisis Management Chair Chair to notify CMT team to be on **Alert** Chair to determine if/ when team needs to convene	Convene and **Stand Up** Crisis Management Team immediately
Manage through normal operations through the Project Emergency Response Team	Manage event at a Project EMT level with Crisis Management Team updated as required	Manage the event at the Crisis Management Team level

The PIC must continually monitor and reassess the situation regularly with consideration based on:

- Severity of the incident.
- Actual consequence.
- Duration of incident.

Where a situation is evolving and additional support or escalation is required, the Queensland Hydro PIC must notify relevant parties in accordance with the above.

Step 4: Activation

The decision to activate the PEMT in an emergency is the responsibility of the PIC and, once activated, they will assume the role of PEMT Leader and will engage the appropriate personnel to fulfil the PEMT roles. If activated, the PEMT Leader must notify and brief the CMT as soon as practical.

Step 5: Response

Initial briefing

The PEMT Leader will provide an initial briefing to the PEMT (see duty card for guidance) covering:

- incident details (where, what, when and how)
- PEMT priorities (what's the focus of response activity)
- confirm PEMT roles
- answering any questions from the team.

Develop response actions

Once briefed, the PEMT will commence activities aligned with their duty cards and using the EARP guides to:

- identify priorities and tasks e.g. immediate actions
- assign resources/accountability to execute (timing)
- agree communication protocols (next meeting time).

Once actions have been developed, the PEMT leader will if necessary, schedule the next meeting and PEMT members will commence delivery of their allocated tasks.

Step 6: Termination of event

Emergency events will be terminated once the response objectives have been achieved and there is no likelihood that the emergency (or crisis) will re-occur.

While an emergency may have been terminated, it is highly likely that actions and or repairs as identified will still be continuing when the immediate incident response has been terminated.

The EGM Delivery is responsible in consultation with the PEMT Leader and where required the Crisis Management Team for declaring the crisis or emergency incident over and giving the 'all clear' and that all affected employees, subcontractors, and visitors are informed of the change in emergency status.

All emergency events will be reported and documented, and investigations conducted, and action plans (if required) established to prevent or reduce a reoccurrence of the event, in accordance with the Queensland Hydro Safety Management System.

Review of events deemed to be a "local incident" can be completed during normal 'hot' debrief of operations and outcomes completed by the Queensland Hydro Person in Charge. More significant emergency events will require formal review to identify lessons learned to improve emergency preparedness and response. Support organisations involved in the emergency response should be invited to contribute to the review.

Preservation Of Scene Following an Emergency

Following a major emergency, regulators and other agencies with statutory responsibilities may also undertake an investigation. This may include regulators travelling to the Project and requiring escorted access. In this event the Head of HSE shall liaise with the relevant authorities to determine whether the scene needs to be preserved. In this event once the regulator investigation is completed the scene will be released back to the control of Queensland Hydro.

Clean Up

Clean-up of emergency areas should commence when it is safe to do so. An assessment of the materials being removed will be completed to verify that the arrangements are in accordance with Project waste management practices. The potential for remediation of the incident area may need to be considered following specialist environmental advice.

Step 7: Resumption of Work

Re-entry to a worksite area is a process that occurs after the immediate effects of an emergency and emergency response have passed. One of the aims associated with the re-entry is to return the area to a normal operating environment. Re-entry occurs after the life safety issues have been resolved; if these have not been resolved then work will not restart.

After any investigations and recovery operations are finished, the area is to be inspected to ensure no further hazards exist and that all equipment is serviceable. Upon establishing there are no further hazards/risks, and that all equipment is serviceable, the Queensland Hydro Person in Charge shall give the all clear to resume work. A prestart discussion will be held with all workers prior to works recommencing.

5. Communications

5.1. Emergency Communication Systems

Project work areas are characterised by steep and remote terrain, significant variations in elevation and incomplete coverage for most forms of electronic communication. There is no single form of communication that is effective across all work areas. Effective communications can only be achieved by the provision of multiple communication systems with the choice of system determined by operational capability.

Communication System	Location/User	Coverage	Comments
Mobile phones	No project specific allocation.	Good coverage via WiFi near offices, accommodation camp. Patchy to non-existent in other areas on site.	Primary emergency communications device if network coverage available. Typically, Telstra 4G has best coverage.
Queensland Hydro Digital radios	In all Queensland Hydro vehicles and offices; allocated to Contractor Supervisors.	Generally available but in areas with heavy tree coverage or in valleys may not be reliable.	Secondary internal communication device.
UHF radios	Numerous, allocated to all persons driving on Project roads/ tracks and on site.	Generally available, however transmission limited to within line-of-sight.	Primary internal communication device for routine work activities. Transmissions may be received by members of the public.
Personal Locator Beacon (PLB)/EPIRB	Allocated to Queensland Hydro personnel if working remotely.	Universal assuming clear view of sky.	Last line of emergency communications. Used to summon external emergency assistance where no other external communications are available.
Garmin Inreach (or alternative satellite communication device)	Allocated to Queensland Hydro personnel if working remotely.	Universal assuming clear view of sky.	Allows for satellite tracking of workers as well as 2-way text conversation.

All emergency communications are to be kept brief. Communication must be factual – no speculation or rumours.

It is important that once an Emergency Response event has been activated, communications on site should be limited to emergency response related communication only.

5.2. Project Emergency Contacts

NAME	ROLE	NORMALLY AT	MOBILE
Geoff Scott	EGM Delivery	Brisbane	0427 531 710
Shannon Green	Construction Director	Nambour	0408 590 247
Mark Cope	Senior Project Manager – Exploratory Works	Brisbane	0427 267 686
Paul Cummins	Senior Construction Manager	Brisbane	0401 592 229
Ian Davies/ Josh Ewer/ Shane Monk	Queensland Hydro Person in Charge	Site	0428 984 567
Phil Kellow	Health and Safety Lead	Site	0407 395 772
Ian Eastman	Health and Safety Lead	Site	0498 618 490
Sam Thomas	Project Environmental Manager	Nambour	0400 218 747
Kelly Palmer	Head of Health, Safety and Environment	Brisbane	0497 530 254
Project Paramedic	Project Paramedic	Site	0428 068 263 or 0428 906 927 SAT: 0414 729 210
Project ERT Captain	Project ERT Captain	Site	0429 200 210 SAT: 0414 734 006
Security	Borgan Gatehouse	Site	0408 408 002
Security	Yielo Gatehouse	Site	0407 407 108
Security	Team Lead	Site	0409 409 662

OTHER AUTHORITIES / CONTACTS [note – the contact details below are only to be used in NON-EMERGENCY situations]			
Local Medical Centres	Cooroy Family Medical Centre Kilcoy Medical Centre Imbil Medical Centre		07 5442 6833 07 5497 1076 07 5308 4200
Local Hospitals	Gympie Hospital Kilcoy Hospital Sunshine Coast University Hospital		07 5489 8444 07 5422 4411 07 5202 0000
Poisons Information	131 126	**Electricity Supply**	131 253
Gas Supply	131 962	**Telstra**	132 203
Worksafe QLD (WHS & ESO)	1300 362 128	**EPA Pollution Hotline**	1300 130 372
QLD Ambulance Service Kenilworth, Officer in Charge	0448 414 861	**QLD Ambulance Service Kilcoy, Officer in Charge**	0407 166 094
QLD Fire and Emergency Service, Imbil Captain	0481 134 096		
Imbil Police Station	07 5480 1717	**Kilcoy Police Station**	07 5495 0400

5.3. External Emergency Responses Agencies

The Head of HSE or delegate shall engage with relevant local emergency response agencies, as identified via risk assessment, to ensure coordinated arrangements are in place in preparation for an emergency. This will include an invitation to participate in site familiarisation visits and emergency drills. A copy of this emergency response plan will be provided to all relevant local emergency response agencies.

6. Emergency Preparedness

6.1. Emergency Equipment

The following equipment and resources will be maintained for the duration of the exploratory works for the Borumba Project:

Purpose	Resources
First aid (Located within Queensland Hydro site vehicles)	▪ Class C First aid kit ▪ Snake bite kit ▪ AED ▪ **At least one person from each work crew must hold current first aid qualifications**
Medical	▪ The medical centre located in the accommodation camp (s) will be stocked with emergency medical supplies, including medications, which can be administered by the Project paramedic. ▪ An emergency shower is located at the medical centre. ▪ A 4WD ambulance will be located on site at all times.
Fire	▪ Each worksite, whilst operational, must be equipped with at least three portable fire extinguishers of at least 9kg capacity and be of a type most compatible with the most likely fire risk. ▪ Vehicles travelling on unsealed tracks/ roads during high risk bushfire periods are to carry either a 9L liquid fire extinguisher, a 9kg dry powder extinguisher or a 16L knapsack filled with water.
Spill Response	▪ Each site will have a full manifest of all dangerous goods/ hazardous substances as well as the current version of the relevant Safety Data Sheets (SDS). ▪ Each worksite, whilst operational, must be equipped with suitable spill response equipment capable of managing spills on land and be of a type that is compatible with the volume of material being held at the site.

The Queensland Hydro Person in Charge is responsible for ensuring the following equipment is available and ready for use at all times.

6.2. Site Emergency Response Room

A room has been established in the Upper Reservoir area for use if the PEMT is activated. This room will be the coordination center and communications hub. All PEMT members are to meet there to manage and support operations in the event of an emergency.

The room is equipped with:

Plans	▪ Queensland Hydro Project Emergency Response Plan ▪ Queensland Hydro Crisis Management Plan ▪ Sirrom Emergency Response Plan
Communication	▪ Digital site Radios ▪ Video/conference calling facilities ▪ Access to Wi-Fi/internet
General	▪ Basic stationery – pens, note pads ▪ Whiteboard and markers ▪ Site maps indicate location of emergency equipment and muster points ▪ Laminated copies of duty cards, event logs

The on-site emergency response room will be maintained in a 'ready-for-use' state. The room will be regularly inspected, and equipment tested every time an emergency exercise is undertaken.

6.3. Testing of Emergency Response Plan

This ERP will be periodically tested to ensure emergency response is timely and effective. As a minimum the following exercises and drills will be undertaken:

Exercise/Drill	Frequency	Description
Communications Check	Daily	At the commencement of each shift and after work crews have arrived at their respective work areas, each work crew supervisor is required to make radio/ phone contact with a suitable call-in person to ensure that communication devices are operational.
Evacuation Drill	Within 1 month of the commencement of work at a new Work front and then 6 monthly	Evacuation drill involving all personnel on site

6.4. Revision of Plan

This ERP will be tested during exercises and actual emergencies and any improvements identified in the debrief process will be included in an updated plan. This ERP will be reviewed every six months or when any of the following occur:

- Major modifications or alterations occur at the Project site.
- The type and quantities of hazardous materials on the project change significantly.
- A significant workplace health and safety incident.
- When any major contractor or subcontractor establishes on site.

7. Emergency Evacuation Process

7.1. Assembly Areas

Egress/ access routes to all work site areas must always be kept passable.

Due to the dynamic nature of the worksites in the exploratory phase of the Project, emergency assembly areas may change as work fronts move. Egress routes and assembly/ muster points shall be planned, clearly marked, and communicated to all workers during the Project induction and when the location changes as part of the daily work briefing. As the Project progresses any changes in egress routes shall be communicated to all workers through any means necessary including safety meetings and pre-start meetings.

At each new work front the following site information will be contained within the prestart briefing. These details will be used in the event that a 000 call needs to be made:

- Escort meeting point
- Street address (either Borgan or Yielo gates) and Lat/long coordinates

Assembly Areas	
Assembly Area – Borgan Site Office	
Nearest Street Address	131 Borgan Road, Lake Borumba, QLD, 4570
Lat Long Coordinates	-26.537778 and 152.510833

Assembly Area – Borgan Gate	
Nearest Street Address	131 Borgan Road, Lake Borumba, QLD, 4570
Lat Long Coordinates	-26.52258 and 152.50451

Assembly Areas	
Assembly Area – Upper Res Site Office	
Nearest Street Address	1737 Yielo Road Jimna
Lat Long Coordinates	-26.577222 and 152.548056

Assembly Area – Yielo Gate	
Nearest Street Address	1737 Yielo Road Jimna
Lat Long Coordinates	-26.57764 and 152.55368

7.2. Site Evacuation Process

Evacuation of a single worksite, or the whole Project area, should be undertaken in circumstances where actual or perceived hazards are present and failure to remove personnel from the hazard increases the risk to those personnel.

The Project involves widely spaced work crews geographically separated by (in places) difficult terrain. Evacuation of the entire Project area will most likely be in response to a bushfire threat.

The PEMT Leader (or their delegate) will manage or control evacuation arrangements under this plan and will coordinate as needed with other Principal Contractors in the event of an emergency necessitating evacuation.

The means of alerting the work zone of an evacuation shall be determined during the site familiarisation and risk assessment, documented in the SWMS, and communicated to all who enter the work zone. The direction to evacuate will be communicated via different communication streams simultaneously (e.g. text alert via Queensland Hydro Alert media app; mobile phone call to key personnel, broadcast over UHF and digital radio etc).

- When evacuating an area all persons shall:
- Make safe their work zone (where practicable and / or appropriate).
- Advise other personnel of the emergency on way to designated emergency assembly area.
- Proceed to the designated emergency assembly area.
- Await further instruction from the Queensland Hydro Person in Charge.

The PEMT Leader, or their delegate, will ensure a roll call of all persons is conducted at the assembly area, using the site security records as evidence of who was on site.

7.3. Evacuation Triggers

Should any of the below occur or is likely to occur, the PEMT Leader (or delegate) shall activate a worksite evacuation:

- Fire which is unable to be contained.
- Total inoperable emergency systems and equipment including but not limited to, communication equipment, emergency lighting (if working at night).
- Major water inrush or imminent weather event which could impact any excavations.
- Imminent weather event which may impact internal or adjacent tracks/ roads (e.g. flooding).
- Potentially damaging seismic event/ fall of ground.
- Failure of ground support.
- Security incident or threat of including unauthorized persons entering site or area.
- Uncontained release of hazardous substance.
- At any other time deemed necessary to protect workers from harm.

7.4. Medical Evacuation

7.4.1 Transporting Casualties in Queensland Hydro Vehicles

Transfer of a casualty to a receiving medical facility should be undertaken by professional responders using specialist transport (e.g., ambulance or rescue helicopter) wherever possible.

The use of Queensland Hydro vehicles, or private vehicles, for the transfer of the casualty may be used in circumstances where the use of specialist casualty transport operated by professional responders is impractical. The use of non-specialist transport should only be undertaken with consideration to the following:

- The primary reason for the decision to use non-specialist transport must be based on maximising the best outcome for the casualty, and;
- The likely benefits of using non-specialist transport must outweigh any potentially harmful risks, and;
- So far as practicable, transfer of a critically injured or ill casualty by non-specialist transport must be undertaken following receipt of specialist advice obtained by means of a 000 telephone call and in consultation with the Project Paramedic.

Examples of circumstances where the use of non-specialist transport is appropriate include:

- Transport of a time-critical snakebite victim to a hospital in circumstances where it is known that the arrival of a road ambulance will be delayed;
- Transport of the casualty from a location where landing a helicopter is difficult to a better landing area following advice from professional responders;
- Arranging to meet a road ambulance at a predetermined location in order to minimise transport time following advice from professional responders.

NOTE: In all cases, approval should be obtained from 000 prior to transporting a casualty.

Examples of circumstances where the use of non-specialist transport should not be used include:

- Suspected spinal injuries.
- Multi-trauma injuries (particularly those injuries that involve suspected major fractures of the pelvis, femur, sternum and ribs)
- Any injuries which require the person to be transported whilst lying down.

7.4.2 Preparing for a Helicopter Medical Evacuation

In the event that 000 have dispatched a helicopter to medically evacuate the casualty, the following should occur:

- Personnel at the scene to remain clear of the helicopter landing area.
- The PEMT Leader (or their delegate) is to ensure:
    - Landing area is checked to be free of loose objects and elevated hazards for radius of 30-50 metres.
    - Access to landing area is controlled and restricted only to those personnel involved directly.
- Personnel on scene only approach the helicopter:
    - at the request of the pilot or crew.
    - whilst maintaining visual contact with the pilot or crew. Do not approach the helicopter during start-up or shutdown.

7.4.3 Emergency Helicopter Evacuation Zones

There are several areas which *may* be suitable for landing a helicopter (shown in the table below) as they:

- Are suitable for touch down and lift off with a level ground surface.
- Are clear from overhead obstruction.
- Have suitable approach and departure characteristics.

NB: these areas have no designated windsock, lighting or markings on site. The Pilot in Command is ultimately responsible for ensuring that the helicopter can be operated to/from a remote landing area. Where possible Queensland Hydro will endeavour to keep these areas free from obstructions and maintain the vegetation.

Lower/ Borgan area

Input (DD)

-26.536875S +152.510953E

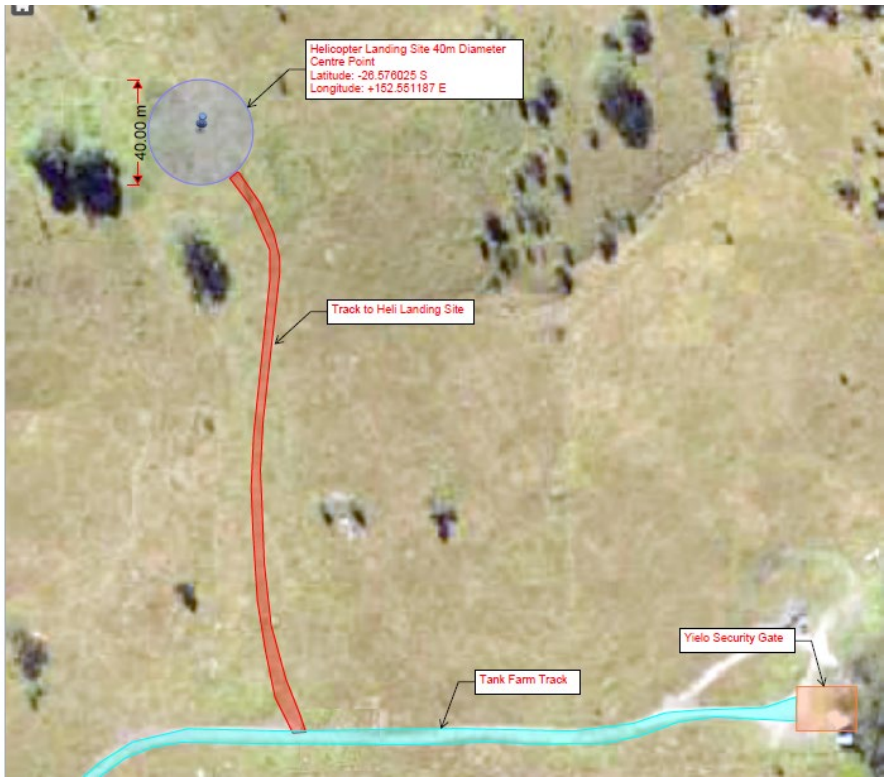
Heli Landing Site - Borgan Area

Upper/ Yielo Area

Input (DD)

-26.576025S +152.551187E

Heli Landing Site - Upper Res Area



Appendix A – Duty Cards

Duty Card – First Responder

In the event of an incident, please remain calm and be prepared to assist where possible (depending on you experience and competency). Please provide as much information as possible to the supervisor.

Initial Actions		**Complete?**
	Check for DANGER - do not put yourself at risk.	
	Raise the alarm – on radio state the following: **"Emergency – Emergency – Emergency", then your name, location, and type of emergency.** If there is no response after 30 seconds, repeat the emergency call Provide as much detail as possible: • Location • Incident details • Number of injured persons and their condition	
	Implement appropriate actions to prevent or contain the situation, if possible	
	Provide assistance e.g. assess for life threatening injuries: Are they responsive? Are they breathing? Are they bleeding?	
	If safe and appropriate to do so, shut down any equipment	
	Evacuate or leave the scene, if warranted	
Ongoing Actions	Follow all instructions of the PEMT Leader/ PEMT team members	
Stand-Down Actions	Participate in the post-emergency review	
	Propose changes to the Project Emergency Response plan and any procedures, as a result of the incident	

Duty Card – PEMT Leader

The PEMT leader is responsible for:

- **activation and stand-down of the PEMT**
- **ensuring the CMT have been notified upon activation**
- **overall management of the emergency response including recovery.**

The PEMT leader is the final decision maker in relation to analysis, option development, selection and execution of the incident response

Initial Actions		Complete?
	Review the first responder's brief	
	Using your knowledge and experience and the **Emergency Incident Classification and Response Matrix** (Section 4), determine if the PEMT should be activated.	
	If determine that it is a local incident and PEMT not to be activated, continue to monitor situation.	
	If PEMT activated:	
	Ensure Emergency Radio Silence has been activated. NB: once initiated, Emergency Radio Silence will remain active until the PEMT Leader confirms that the emergency is no longer "active" and the requirement for "radio silence" may be removed.	
	Instruct personnel to cease all works if safe to do so. Use **Alert Media "Site Stop Work" Notification**	
	Make contact with ERT (Ph 0429 200 210/ SAT Ph 0414 734 006) and Project Paramedic (Ph 0428 068 263/ 0428 906 927/SAT Ph 0414 729 210)	
	Ensure emergency services are contacted - nominate someone to call 000. If the situation stablises and emergency assistance is not needed, 000 are to be called and advised to stand down	
	Nominate someone to provide an escort for incoming emergency services.	
	Determine which PEMT members are required	
	Engage PEMT Coordinator to contact PEMT members	
	Notify the CMT leader of activation and provide a situation update	
	Proceed to the designated Project emergency response room	
	Designate someone in PEMT to head to scene and collate intel	
	Conduct an initial team brief. Complete Common Operating Picture (below)	

	Confirm the PEMT member roles and activities	
	Ensure adjacent activities that may be impacted (e.g. other Principal Contractor worksites) are notified – consider use of Alert Media	
	Consider whether non-essential personnel are to be directed to a muster area to wait for directions. Direct personnel to remain at muster area until an evacuation order is given.	
	Ensure any visitors on site are managed by their host.	
Ongoing Actions	Authorise any immediate assistance and specialist support (internal or external)	
	Ensure Stakeholder Team aware and notify OCG as needed	
	Consolidate assumptions and identify the worst case and most likely impacts - use Impact Assessment tool below	
	Decide on the priority objectives (Mission and Objectives tool)	
	Manage and lead the PEMT to ensure the efficient and effective resolution of the emergency, ensuring the impact on people, assets, environment, value and reputation is minimised	
	Facilitate open communication and ensure regular updates are provided – update Common Operating Picture	
	Ensure the CMT is regularly updated on the incident	
	Facilitate and support the implementation of any business continuity plans by the respective teams	
	Ensure an accurate record is kept of all PEMT actions and decisions	
	Declare the emergency is over and stand-down teams	
Stand-Down Actions	Coordinate transition to recovery stage	
	Decide on the team structure to manage the recovery process	
	Direct any clean up/ remediation actions	
	Make determination regarding resumption of work	
	Lead post-emergency review together with Head of HSE	
	Propose changes to the Project Emergency Response plan and any procedures, as a result of the incident	

Common Operating Picture			
Date:		**Time:**	
Facts:		**Unknowns:**	

Impact Assessment

What is/ could be affected, in what way and how severe?

	Now	In future
People		
Environment		
Business/ Project continuity		
Reputation		
Assets		
Legal		

Mission and Objectives for this Event

Mission:	
Objectives:	
Next meeting time:	

Duty Card – PEMT Coordinator

Primary role is to support the PEMT Leader. The function of the coordinator is to:

- **manage and coordinate staff; and coordination of the PEMT's planning process**
- **ensure staff have the information, guidance and facilities required to fulfil their roles**
- **manage the PEMT's time, coordinate briefings, and manage the Project emergency response room**
- **align the planning of the functional areas with the direction and intent of the PEMT leader**
- **assume the role of PEMT leader should they be unavailable**

The PEMT Coordinator will be the primary contact for all communications with the CMT/ Brisbane office

		Complete?
Initial Actions	Respond to the activation	
	Contact PEMT members	
	Confirm the arrival of all PEMT members	
	Make initial contact with CMT/ Brisbane support office and ensure they have your contact details. Agree a schedule for updates (e.g. 15mins)	
	Appoint someone to be logkeeper and/or do this role yourself - documenting incoming/outgoing information and maintaining event log sheet	
	Set up sharepoint folder for all documents and share with PEMT, Head of HSE, Snr Construction Mgr, Snr Project Mgr and Construction Director	
Ongoing Actions	Follow all instructions of the PEMT Leader/ PEMT team members	
	Record and monitor all response actions	
	Provide regular situation updates to the PEMT leader	
	Provide regular situation updates to the CMT/ Brisbane support office at agreed intervals	
	Implement routines and procedures in the Project emergency response room	
	Coordinate and synchronise staff in the Project emergency response room	
	Ensure an accurate record is kept of all PEMT actions and decisions	
	Coordinate PEMT requests for assistance	
	Coordinate the regular update of the PEMT	
	Monitor and ensure that activities are in accordance with PEMT objectives	
	Supervise the completion of an accurate PEMT log	
Stand-Down Actions	Help coordinate and participate in the post-emergency review	
	Ensure PEMT members attend the debriefing	
	Propose changes to the Project Emergency Response plan and any procedures	
	Support recovery actions as required	

Event and Decision Log

Event Name:			
Date:	**Time:**	**Event/ Activity Taken**	**Decision**

Duty Card – Medical Support

Assess medical situation and determine response required; coordinate medical response and provide medical assistance to injured people

		Complete?
Initial Actions	Respond to the activation	
	Proceed to muster point and respond to the situation as directed by the PEMT leader	
	Attend the initial briefing and consider the incident	
Ongoing Actions	Perform triage on injured personnel	
	Determine if helicopter evacuation is likely to be required (considering terrain, road access, injury type) and if required, direct call to helicopter	
	Assess medical response	
	Direct/manage first aid personnel and supplies	
	Activate external resources, if needed	
	Consider any secondary impacts as a result of the incident	
	Assist in the development of the PEMT's response, objectives and priorities	
	Cooperate with emergency services and Project ERT	
	Prepare for stand-down and recovery of PEMT	
Stand-Down Actions	Participate in the post-emergency review	
	Provide ongoing advice to the recovery operations, as required	
	Propose changes to the Project Emergency Response plan and any procedures, as a result of the incident	
	Support recovery actions as required	

Duty Card – PEMT Member

Primary role is to support and assist the PEMT Leader as directed

		Complete?
Initial Actions	Respond to the activation	
	Proceed to muster point **and respond to the situation as directed by the PEMT leader**	
	Attend the initial brief	
Ongoing Actions	If instructed & safe to do so, participate in incident response, which could include: • rescuing personnel if there is no danger • extinguishing small fires around the plant using a range of extinguishers • using a fire blanket to extinguish small fires • provide basic first aid • containing minor spills	
	Consider any secondary impacts as a result of the incident	
	Assist in the development of the PEMT's responses, objectives and priorities	
	Cooperate with emergency services	
	Prepare for the stand-down of the PEMT and recovery of site	
Stand-Down Actions	Participate in the post-emergency review	
	Provide ongoing advice to the recovery operations, as required	
	Propose changes to the Project Emergency Response plan and any procedures, as a result of the incident	
	Support recovery actions as required	

Duty Card – Emergency Response Team Captain

Primary role is to coordinate the specialist emergency response skills of the ERT to contain and control an event

Pre event	Coordinate and attend all ERT training	
	Be familiar with site layout and location of work fronts	
	Conduct regular emergency drills with different work fronts	
	Attend daily prestarts/ SIMOPs meeting to be aware what activities are underway across the site	
	Participate in risk assessments when remote/ isolated work is being planned, to provide specialist advice on extraction methods	
		Complete?
Initial Actions	Respond to the activation	
	Proceed to muster point **and respond to the situation as directed by the PEMT leader**	
	Attend the initial brief	
	Coordinate the deployment of the ERT	
	Once on scene, triage and conduct dynamic risk assessment to determine severity of the event and response needed	
Ongoing Actions	Brief the ERT and establish a response plan	
	Commence actions to contain and resolve the event	
	Coordinate with Medical Support/Paramedics	
	Provide regular situation reports and specialist advice to the PEMT Lead – e.g. on additional resources and equipment needed	
Stand-Down Actions	Ensure the incident scene is secured and safe	
	Participate in the post-emergency review	
	Provide ongoing advice to the recovery operations, as required	
	Propose changes to the Project Emergency Response plan and any procedures, as a result of the incident	
	Support recovery actions as required	

Appendix B – Information for 000 call

For Borgan/ Lower access		For Upper/ Yielo access	
Street Address:	131 Borgan Road, Lake Borumba	**Street Address:**	1737 Yielo Road, Jimna
Nearest Cross Street:	Bella Creek Road	**Nearest Cross Street:**	Sunday Creek Road
Lat/ Long Coordinates:	-26.52258 and 152.50451	**Lat/Long Coordinates:**	-26.57764 and 152.55368
What3Words:	birthday.thus.attending	**What3Words:**	surfboard.royal.superego

Tell the 000 operator:

- Access is 4WD only.
- Type of Emergency.
- Type of Assistance Required (Police, Fire, Ambulance).
- Number of persons injured (if applicable).

Ensure the message is clearly understood (you may need to repeat the message). Listen for any instructions.

Arrange to send an escort vehicle out to Yabba Creek/ Bella Creek Rd intersection to meet the incoming emergency vehicles. Notify the Borgan security gate.	Arrange to send an escort vehicle out to Sunday Creek Road/ Kilcoy Murgon Road intersection to meet incoming emergency vehicles. Notify the Yielo security gate.

Appendix C: Emergency Action Response Plans

A-1 EARP 1.01 - Serious Injury/ Medical Emergency

Scenario Description	Any medical emergency affecting an individual or serious injury.
General Outline of emergency response	Generally, the initial response will be by the designated first aider and Project Paramedic. If the event is determined by the Paramedic to be serious and requiring further medical assistance, 000 will be called.
Who	**Action**
Bystander/ witness	"Emergency, emergency, emergency" called
PEMT Leader	Emergency call acknowledged. Ensure Paramedic enroute to casualty.
Project Paramedic	Stay with the casualty until further assistance arrives (if safe and possible).
	Provide medical treatment.
	Ensure 000 made with a request for ambulance assistance. Follow 000 protocol detailed in this ERP. Provide medical information to be passed on to 000.
	With PIC, consider whether non-specialist transport needs to be used, using medical evacuation guidelines in this ERP.
	Maintain a record of the treatment provided.
Nominated First Aider	Provide first aid within bounds of competency and assist Project Paramedic as directed.
	Stay with the casualty until further assistance arrives (if safe and possible).
PEMT Leader	Appoint an escort driver to meet and guide incoming ambulance.
	Arrange for safe area to be maintained in the event of the use of rescue helicopter, using guidelines for helicopter evacuation in this ERP.
QLD Ambulance	Casualty stabilised and evacuated offsite
PEMT Leader	Site assessed
PEMT Leader	Scene made safe
H&S Team, Project Team	Investigation commenced and debrief conducted

A-2 EARP 1.02 – Snake Bite/ Sting

Scenario Description	An individual has been bitten by a snake or stung by an insect such as a wasp/ bee (leading to suspected anaphylactic reaction).
General Outline of emergency response	**For all snake bites 000 to be called immediately. Project Paramedic to make determination on whether direct helicopter support to be requested.** For wasp/ bee stings the initial response will be by the designated first aider and Project Paramedic.
Who	**Action**
Bystander/ witness	"Emergency, emergency, emergency" called on radio.
	Try to identify what caused the bite/sting. **Do not try and catch the snake**.
PEMT Leader	Emergency call acknowledged. Ensure Paramedic enroute to casualty.
Project Paramedic	Stay with casualty until further assistance arrives (if safe and possible). Provide medical treatment.
	For snake bite: Apply a pressure bandage firmly starting just above the fingers or toes and moving up the limb as far as possible. **Do not wash venom off the skin as this will assist identification. Do not use a tourniquet.** Immobilise casualty: • Apply a splint to immobilise the limb • Check circulation of fingers or toes • Ensure casualty doesn't move
	For sting with suspected anaphylactic reaction: • Lie casualty down • Administer EpiPen if deemed appropriate • Apply ice/ cold compresses to assist with swelling
	Ensure 000 call made. Follow 000 protocol detailed in this ERP. Provide medical information to be passed on to 000.
	With PIC, consider whether non-specialist transport needs to be used, using medical evacuation guidelines in this ERP.
	Maintain a record of the treatment provided.
First Aider	Provide first aid within bounds of competency and assist Project Paramedic as directed.
	Stay with the casualty until further assistance arrives (if safe and possible).
PEMT Leader	Appoint an escort driver to meet and guide incoming ambulance.
	Arrange for safe area to be maintained in the event of the use of rescue helicopter
QLD Ambulance Service	Casualty stabilised and evacuated offsite
H&S Team, Project Team	Investigation commenced and debrief conducted

A-3 EARP 1.03 Bushfire/ Grassfire

NB: At all times the preservation of life takes precedence over protection of property.

Scenario Description	Any bushfire/ grassfire event that threatens any work site.
General Outline of emergency response	PEMT Leader to maintain seasonal vigilance with Rural Fire Service. Site preparedness will align Alert Levels and monitor social media such as RFS Facebook. If a credible threat exists according to bush fire alert levels, assessment of early evacuation is to be conducted. If the assessment concludes people should shelter in place, the PEMT Leader is to initiate site muster in refuges. PEMT Leader is to account for personnel and inform external emergency agencies of the situation and firefighting capability.
Who	**Action**
Bystander/ witness	"Emergency, emergency, emergency" called
PEMT Leader	Emergency call acknowledged
PEMT Leader	**Possible Bushfire/ Grassfire Risk:** Monitor RFS web page for current fire status: • Where is the fire front? • How fast is it moving and in what direction? • What personnel are at risk? Contact 000 and ask for permission to call FireComm to obtain advice
PEMT Leader	**Likely Bushfire/Grassfire Threat – Delayed:** • Initiate contact with local RFS fire commander – ascertain situation and options. • Initiate contact with Crisis Management Team – Advise current status. • Situational assessment for evacuation -confirm with emergency 000/ RFS whether evacuation (or shelter in place) remains the safest and best option. Evacuation will only be an option if able to evacuate early. • Determine what plant/ equipment needs to be isolated/ shut down.
PEMT Leader	**Bushfire/ Grassfire Threat – Imminent:** • Coordinate evacuation as directed by emergency agencies. • Ensure record is maintained of departing personnel and vehicles.
PEMT Leader	Site assessed
PEMT Leader	Scene made safe.
H&S Team, Project Team	Investigation commenced and debrief conducted

A-4 EARP 1.04 - Plant/ Equipment/ Structural Fire

NB: The preservation of life takes precedence over protection of property.

Scenario Description	Any event of a fire in equipment or plant or involving fire in a site shed
General Outline of emergency response	Initial response using equipment on hand, e.g., fire extinguishers by trained personnel on scene/ plant operator if safe to do so. Personnel will not expose themselves to smoke or fumes. Supplementary firefighting to be up wind and remote from source of fire. Operator attempts to extinguish fire if safe to do so. First aiders/ paramedic provide first aid if required. Involve external agencies if required.
Who	**Action**
Bystander/ witness	"Emergency, emergency, emergency" called
PEMT Leader	Emergency call acknowledged
Trained Personnel at the Scene	Immediately attempt to extinguish the fire **if safe to do so**. • Approach the fire from upwind (avoid exposure to smoke and fumes). • Quickly assess the type of fire and choose the appropriate extinguisher.
Project Paramedic	Attend scene and assess whether medical support required.
	Provide medical treatment to casualty as required.
All personnel	Evacuate to assembly area if the fire cannot be immediately extinguished.
PEMT Leader	Summon emergency assistance – call 000.
	Site assessed
	Scene made safe
H&S Team, Project Team	Investigation commenced and debrief conducted

A-5 EARP 1.05 – Hydrocarbon / Chemical Spill

Scenario Description	Any land and/or water-based spill and/or fire involving hazardous and/or biological materials such as hydrocarbons (diesel, oil), chemicals and wastewater at the construction area of operations
General Outline of emergency response	The initial response is to be by personnel at the scene of the spill, using spill kits or earth bunds to contain the spill, if it is safe to do so. If the safety data sheet (SDS) calls for additional personal protection equipment (PPE) or evacuation, then all personnel are to remove themselves upwind from the scene and await the arrival of the Emergency services. Generally, no material that has a requirement for additional PPE or evacuation in the event of a spill will be permitted on to site without first having the necessary equipment and controls in place. In this case, specific procedures will be developed. In all hazardous materials spills the Queensland Hydro Environment Team will be immediately contacted.
Who	**Action**
Bystander/ witness	"Emergency, emergency, emergency" called
PEMT Leader	Emergency call acknowledged
PEMT Leader	Assess severity of spill: • Where is it? • What is it? (Refer SDS) • How much has been released? • Is the release still happening? • Is the release controlled? • What additional equipment is needed?
Suitably trained personnel	Where safe to do so locate source and shut off if possible. This includes isolating pumps to ensure they are not discharging the spill.
	Attempt to contain the spill/ leak by any means possible – put down pads, e.g., deploy booms if in water.
PEMT Leader	Ensure Qld Fire Department called on 000
	Queensland Hydro Lands and Environment team notified. This team to undertake any external notifications required
	Site assessed
	Scene made safe. Once spill contained, clean up spilled material: • Use absorbent material, brooms, or pumps to clean up spillage • Contain liquids/ soiled absorbent materials in appropriate container and label same • Ensure contaminated material is disposed of appropriately
HSE Team, Project Team	Investigation commenced and debriefed

A-6 EARP 1.06 - Breach of Site Security / Deliberate Unauthorised Access

Scenario Description	Unauthorised persons enter site
General Outline of emergency response	Bystander and/or witness will report site incursion immediately to a supervisor. Supervisor will advise PEMT Leader. The PEMT Leader in consultation with other personnel on site and Construction Director will carry out an assessment of the situation and determine the appropriate course of action. In cases of a major site incursion, all site personnel will be evacuated to safe refuge sites and/or facilities. Site incursion will be contained as much as possible, and the Police and relevant authorities will be notified. Once the site has been made safe and the PEMT Leader and Construction Director have given the all clear, the site can resume operation. The incident investigation will then begin, and the lessons learned will be distributed.
Who	**Action**
Bystander/ witness	"Emergency, emergency, emergency" called
PEMT Leader	Emergency call acknowledged
Bystander/ witness	Alert any unauthorised persons immediately to Supervisor.
Supervisor	Report situation to Queensland Hydro Person in Charge
PEMT Leader	Undertake assessment of the level of threat
	Approach person(s) if safe to do so
	Continue to monitor person's whereabouts
PEMT Leader	Dependent on assessment in major site incursion cases, evacuation to safe refuge facility and lock down of site
PEMT Leader	QLD Police to be informed immediately
PEMT Leader	Scene made safe, site declared safe in consultation with Construction Director
PEMT Leader	Site Personnel return to work
H&S Team, Project Team	Investigation commenced and de-brief

A-7 EARP 1.07 - Missing Person

Scenario Description	An individual or individuals being reported missing or reporting in as stranded
General Outline of emergency response	The PEMT Leader will initiate a local search or rescue mission for the missing or stranded persons. If the missing persons cannot be found the Police will be notified, and a wider search will be initiated utilising external agencies
Who	**Action**
Bystander/ witness	"Emergency, emergency, emergency" called
PEMT Leader	Emergency call acknowledged
PEMT Leader	Initiate a local search
	Establish last known time, and location, intentions or route taken, vehicle type registration, fleet number if any previous medical history, tasks being performed.
	Designate teams and search areas, allocate resources, implement communication procedures and/or guidelines
PEMT Leader	QLD Police Force to be immediately notified of any missing person
PEMT Leader	Search completed, missing person found.
H&S Team, Project Team	Investigation commenced and de-brief

A-8 EARP 1.08 - Severe Weather Event

Scenario Description	Flooding from rivers and or rain deluge; impending storm where lightning is expected; high winds.
General Outline of Emergency response	Monitor and issue alerts. Respond to any emergency incidents only if safe to do so. Actions as per Borumba Project Weather Severe Weather Protocol.

Comment

Queensland Hydro has contracted Early Warning Network (EWN) to provide weather forecasting services for the project. Weather reports for the region will be transmitted to Project Team members. Where weather has formed or where there is a risk of flooding, bushfire and/or extreme weather that could develop and impact the Project, reports from EWN will increase in frequency to allow accurate calculations concerning when the Project could be affected by these environmental conditions. The EWN Alerts are configured to provide 2 notifications based on proximity to the site at ~30km and at ~15km.

For works planned outside the 15km boundary, please see the relevant Queensland Hydro representative for further advice / direction.

Note: due to the topography of the site storm fronts may activate with lightning before EWN are able to issue an alert.

EWN Alert	Trigger	Action/ Response	Who
N/A	• No observed lightning • No adverse weather conditions visible	• Work continues • Continue to monitor weather conditions	QLD Hydro Site Representative
30 km from location of work front	**Initial Storm alert** • Distant storm or no storm activity • Potentially some visible lightning	• Monitor storm direction • Based on the proximity to the centre of the project • Once the EWN alert has been received, the user must follow the EWN link to determine the actual distance from the work front to lighting alert.	QLD Hydro Site Representative
15 km from location of work front	**Second Storm alert** • Approaching storm • Time delay between thunder and lightning is less than 40 seconds	• Monitor storm front. • If storm front is heading towards work front, then shutdown works. • Commence coordination and shutdown of activities. • Equipment to be parked-up and isolated with isolation key turned to the off position • Workers to proceed to a safe muster place (in remote worksites vehicle cabin likely to be safest place) • Review site access registers and account for all personnel in field • Notify work parties work may resume once the storm has passed ~ nominally 30 minutes	QLD Hydro Site Representative Work group QLD Hydro Site Representative QLD Hydro Site Representative
N/A	• Time delay between thunder and lightning is less than 15 seconds	• Immediate shutdown of activities • Equipment to be parked-up and isolated with isolation key turned to the off position • Workers to proceed to a safe place (in remote worksites vehicle cabin likely to be safest place) • Review site access registers and account for all personnel in field • Notify work parties work may resume once the storm has passed ~ nominally 30 minutes	Work group QLD Hydro Site Representative QLD Hydro Site Representative

A-9 EARP 1.09 – Vehicle Accident

Scenario Description	Collision involving light or heavy vehicle
General Outline of emergency response	Generally, the initial response will be by the designated first aider and Project Paramedic. If the event is determined by the Paramedic to be serious and requiring further medical assistance, 000 will be called.
Who	**Action**
Bystander/ witness	"Emergency, emergency, emergency" called.
PEMT Leader	Emergency call acknowledged.
PEMT Leader	Assess and ensure the scene is safe – withdraw personnel from danger (if required).
Project Paramedic	Attend scene and assess whether medical support required. Provide medical treatment to casualty as required.
PEMT Leader	Consider the following, to **minimise danger:** **Other traffic**: •use hazard lights on vehicles to warn oncoming traffic •switch headlights on if at night •ask bystander/s to extend the warning perimeter to at least 100mts away to warn & control oncoming traffic **Fire:** •switch off the vehicle's motor and, for diesel vehicles, shut off any emergency fuel switches •stop people from smoking nearby •if there is a fire under the bonnet, and you have a fire extinguisher and it safe to do so, release the bonnet catch (but don't open fully) and aim the extinguisher through the gap **Fumes**: •stay clear of fumes if petrol/diesel is leaking and ensure there are no naked flames or people smoking nearby **Damaged vehicles:** •if airbags have not been activated, stay clear of the steering wheel and front dashboard •if not in gear, apply the handbrake or put the vehicle in gear (if safe to do so) **Spilt fuel or chemicals:** •if the accident involves a vehicle carrying hazardous material, stay clear. Take note of the signs indicating what is being carried e.g. type of sign and code number and call 000 for advice •if there are clouds of vapour, spilt liquids, bottles, gas cylinders or unusual odors, avoid contact with these substances and have everyone stay upwind if possible, to avoid fumes **Fallen or damaged powerlines** •remain at least 6m from any fallen power lines and don't attempt to move the cables

	• do not go near a vehicle if it is being touched by electrical cables advise the patient not to move and wait for emergency services to arrive
PEMT Leader	Clean up any oil/fuel spills, as per Project environmental procedures and monitor for possible fire.
	Secure the scene for incident investigation - do not move anything unless a person's life depends upon it.
	Photograph & preserve the scene.
H&S Team, Project Team	Investigation commenced and de-brief