Borumba Pumped Hydro Project
Safety Management Plan

Document Control

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Introduction

Queensland Hydro is a publicly owned entity established by the Queensland Government to design, deliver, operate and maintain long duration pumped hydro energy storage assets that will be the cornerstone for the transformation of the state's energy system.

The Borumba Pumped Hydro Project ("the Project") is a pumped hydro energy storage project located at Lake Borumba, near Imbil, west of the Sunshine Coast.

The Project proposes to expand the existing lower reservoir (Lake Borumba) with a new dam downstream from the current Borumba Dam. A second reservoir, known as the upper reservoir, will be constructed at a higher altitude. An underground power station and underground waterway tunnels will be constructed to link the two reservoirs together.

The Project will provide reliable renewable energy that can power homes and businesses across Queensland, while at the same time providing crucial stability for our future electricity grid, enabling Queensland to transition to clean energy with confidence.

Purpose and Scope

This Borumba Project Safety Management Plan ("SMP") applies to work where Queensland Hydro is the Principal Contractor during the early and exploratory works phases of the Project.

The SMP must be provided to Contractors undertaking work for Queensland Hydro on the Project prior to the works commencing. The SMP defines the minimum safety standards to be applied during the works. The SMP must be read and understood by all personnel associated with the works and a copy of the SMP is to be held at each work site.

The purpose of the Borumba Project Safety Management Plan ('**the SMP'**) is to:

- provide a framework for activities to be undertaken in accordance with the requirements of Queensland Hydro's Health and Safety Management System, Policies and Procedures, and the Queensland Work Health and Safety Act (2011), Work Health and Safety Regulations (2011), Heavy Vehicle National Law (2012) and associated Codes of Practices.
- define the policies, management standards, systems, authorities and responsibilities to be applied by works under the management and control of Queensland Hydro, to support the health and safety of all workers, visitors and members of the public impacted by the works.
- ensure clear project, site and contractor management requirements are established, maintained and developed during all project activities.
- ensure that hazards and risks associated with Project activities are identified, evaluated and controlled so far as is reasonably practicable.
- ensure all External Partners (Contractors, Suppliers, Vendors, Stakeholders, etc) understand the Project's requirements relating to managing Health and Safety.

The SMP is based on the principle that all incidents are preventable through leadership commitment and accountability, effective risk management, performance monitoring and comprehensive assurance and governance.

This SMP will be reviewed, and updated as required, subject to the following:

- A significant workplace health and safety incident.
- A significant change in site conditions.
- A change in the applicable health and safety laws.
- A major contractor engagement for site works.

NOTE: During early and Exploratory Works for the Project there will be several different Principal Contractors in

addition to Queensland Hydro appointed for different packages of work. Where it occurs the appointment of Principal Contractors will be captured in a Project Interface Management Plan, to ensure management and control of work areas is transitioned with minimal simultaneous operations (SIMOPS) risk.

Interface with Queensland Hydro Health Safety Management System

The **Queensland Hydro Health and Safety Management System Manual (HS-MAN-0001)** ('the manual') provides an overview of the Queensland Hydro Health and Safety Management System (the "HSMS").

The manual provides context to the safe systems of work contained within the HSMS and how Queensland Hydro generally intends to facilitate its WHS duties.

The HSMS is comprised of Policies, Standards, Procedures, Plans, Specifications, Guidelines, Checklists, Work Instructions, Standard Operating Procedures and Forms.

The Borumba SMP is intended to be used and read in conjunction with the HSMS and manual, building on detail relevant more specifically to the Project and Project Site(s).

Contractors can access the relevant documents from Queensland Hydro's HSMS via the Queensland Hydro Contractor Portal.

1 Project Overview

1.1 Key Queensland Hydro Personnel

NAME	ROLE	MOBILE NUMBER
Michael Owen	Project Director (Acting)	0400 002 830
Duncan Ritchie	Deputy Project Director – Enabling Works (Acting)	0409 056 310
Mark Cope	Senior Project Manager – Logistics, Geo, Main Support Works	0427 267 686
Paul Cummins	Senior Construction Manager	0401 592 229
Hasan Ahmed	Senior Project Manager - Roads and Surface Works	0475 793 128
Sam Thomas	Project Environment Manager	0400 218 747
Kelly Palmer	Project HSE Director/ Head of H&S	0497 530 254
Ian Davies/ Josh Ewer/James Benstead	Construction Manager / Site Person in Charge	0428 984 567

1.2 Project Location

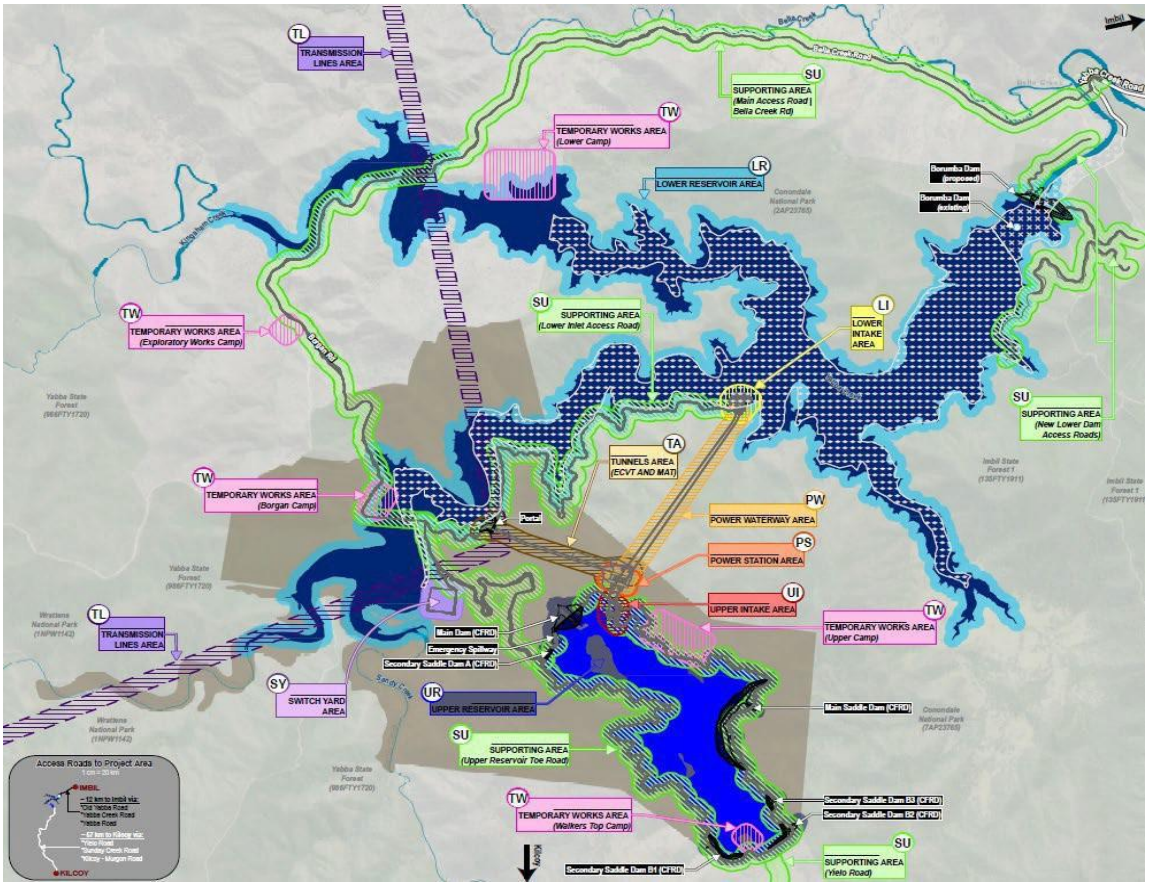
The Borumba Project is in Southeast Queensland and at a regional level borders the Gympie, Somerset and Sunshine Coast Regions.

The Borumba Site is defined in general by the areas shown in the Figure below. Work for the Project may be undertaken on the Borumba Site or on other sites under the management and control of Queensland Hydro, such as Queensland Hydro owned and managed property.

The requirements of this SMP apply to all works on both the Borumba site and all other sites under the

management and control of Queensland Hydro.

Borumba Site Overview



1.3 Public Safety

A key objective for the Project is to ensure construction activities do not adversely affect the health and safety of members of the public, while maintaining access to agreed recreational areas that the public enjoy. Where potential public interaction with transport, fabrication or construction activities are identified, the risks will be assessed, managed and captured as part of the Project risk register.

1.4 Remote and Isolated Locations

Some sites for the Borumba project will be classified as either remote or isolated, in accordance with the **Remote, Isolated or Lone Work Procedure (HS-PRO-0017)**.

Depending on the remoteness of the site and potential limitations in mobile phone reception, work crews may need to have alternative communication devices, to ensure suitable emergency communications are maintained at all times. Work crews may also be required to implement formal check-in protocols when travelling to/from or working in remote/ isolated locations. Further details on controls to be implemented for remote or isolated sites can be found in the **Remote, Isolated or Lone Work Procedure**.

1.5 Travel and Access to Site

Considering the location of the Project and the local road network, travel to and from site is one of the Project's highest risks.

When driving compliance with Queensland Hydro's fitness for work requirements, including those related to fatigue

and alcohol and other drugs, is mandatory. Further information can be found in the **Fatigue Management Procedure (HS-PRO-0006)** and **Managing Alcohol and Other Drugs Procedure (HS-PRO-0021).** Journey management plans will need to be completed in line with the requirements in the **Fatigue Management Procedure.**

The Borumba site is divided into the Lower (Borgan) and Upper (Yielo). Access information is shown below:

Area	Access Road	Access Point	Gate Street address	Coordinates (Lat/ Long)
Upper/ Yielo access	Via Yielo Road Nearest town is Kilcoy	Yielo Road gate	1737 Yielo Road, Jimna	- 26.577222/ 152.54805
Lower/ Borgan Access	Via Bella Creek Road Nearest town is Imbil	Borgan Road gate	131 Borgan Road, Lake Borumba	-26.537778 /152.51083

Key safety considerations for travelling to the Borumba site are summarised in the table below:

Trip	Approximate travel time and distance	Conditions / Considerations
Brisbane to Imbil	2 hours/ 165 km	N/A
Brisbane to Kilcoy	1 hour 35 mins/ 110km	N/A
Imbil to Borumba Dam wall	15 minutes / 15 km	• Numerous one-way bridges. Ensure right of way rules followed at all times • Logging trucks • Members of public towing boats/ caravans
Imbil to the Borgan Road gate	40 minutes/ 30 km	• Numerous one-way bridges. Ensure right of way rules followed at all times • Unsealed for part of journey • Water crossings • Livestock on the road • Project traffic limited to 60km/hr • 30km/hr zone between B2-B4 • Radio call-up procedure to be followed
Kilcoy to Yielo Road Gate	1 hour 10 minutes/ 60km	• Unsealed for part of journey • Water crossings • Livestock on the road • Logging trucks on Kilcoy Murgon Rd • Project traffic limited to 60km/hr • Radio call-up procedure to be followed, including on Kilcoy Murgon Rd

1.5.1 Access to non-Queensland Hydro land

Where there is a requirement to access or work on land that is **not** Queensland Hydro owned or managed, workers must follow the **Permit to Access Procedure (EL-PRO-0001).** Contractors will be advised by their Queensland Hydro Contract Manager where this applies.

1.6 Accommodation

Accommodation for workers is provided onsite at the temporary worker accommodation camps. To minimise the fatigue risks associated with driving, and to reduce the number of light vehicles interacting with members of the public on the surrounding road network, workers who live more than a 1-hour drive from site are required to stay overnight in the camp or other local accommodation.

1.7 Amenities

Queensland Hydro has two established site compounds, at the lower (Borgan) and upper (Yielo). These compounds provide access to Wi-Fi, toilets, first aid, drinking water and crib room facilities. Workers performing works in remote locations must ensure they consider access to amenities in their work planning, such as ensuring the work crew has sufficient drinking water with them. In addition some Queensland Hydro site vehicles are fitted with mobile Starlink units, to provide roving access to Wi-Fi.

1.8 Security

Security personnel are in place during working hours at both the lower and upper access gates. All persons entering the site during working hours will be subjected to alcohol breath testing.

Security personnel have the right to search vehicles entering and leaving the site.

Outside of normal working hours (nominally 06:00 – 18:00) the upper and lower access gates will be locked. Persons requiring access out of normal work hours must seek permission and coordinate in advance with the Queensland Hydro Construction Manager.

The Borumba site has CCTV cameras in situ across the site.

Approval to access other Queensland Hydro owned/ managed properties must be sought in advance of works occurring by coordinating with the Queensland Hydro Construction Manager. Different security arrangements are in place at each of these properties

Workers must ensure work areas are made secure from unauthorised or unintended interactions. At the end of each workday tools/ equipment must be secured to prevent theft or damage.

The **Borumba Security Management Plan (BR-PLN-0004)** details further requirements related to site security and the processes to be followed in the event of unauthorized persons accessing worksites.

2. Project Key Roles and Responsibilities

The Borumba Project has identified key roles within Queensland Hydro responsible for management of teams, contractors, the works and health and safety functions, as shown below:

Role	Responsibilities
Project Director Michael Owen **Deputy Project Director, Enabling Works** Duncan Ritchie **Senior Project Manager, Roads and Surface** Hasan Ahmed **Senior Project Manager, Logistics, Geotech and Main Support Works** Mark Cope	• Provide oversight on all project-related HS matters. • Maintain knowledge of project HS risks and ensure risk management processes are properly resourced. • Provide HS leadership and organisational structure for the project to ensure the requirements of the SMP can be met. • Ensure effective consultation, coordination and cooperation arrangements are in place. • Exercise proper diligence in the selection of Contractors including consideration of their HS capabilities and ability to perform work and manage risk associated with the works. • Monitor Contractor governance and management arrangements to ensure they are effective. • Monitor the effectiveness of HS management arrangements on the Project. • Provide resources to ensure that HS Systems and compliance strategies are in place and are adequate.
Senior Construction Manager Paul Cummins **Construction Manager and Person in Charge** Ian Davies Josh Ewer James Benstead	• Review and comment on the selection of Contractors including their HS capabilities and ability to perform work or manage risk associated with the work. • Monitor and ensure processes are in place to manage compliance of workers with organisational and project requirements. • Participate in risk assessments to identify risks and controls. • Plan work and ensure supervision is adequate and effective and that effective HS management is properly resourced. • Ensure provision of adequate site assurance and site supervision. • Contribute to the development of and regularly review SMP and Emergency Response Plan for effectiveness and relevance. • Monitor contractor performance and alignment with terms and conditions of their contract for service. • Ensure workers are made aware of site hazards, emergency arrangements, site organisational structure and their health and safety responsibilities. • Ensure work is properly resourced to apply safe systems of work. • Ensure the conditions at the workplace are monitored for the purpose of preventing illness or injury.

Project HSE Director/ Head of H&S Kelly Palmer	• Develop HS systems and processes required to establish a safe work environment and ensure compliance with regulatory requirements. • Provide advice on HS issues. • Support the construction teams in implementing Queensland Hydro HS systems and processes. • Establish processes to monitor and verify Project HS systems are effective, including, but not limited to, the engagement of Contractors, onboarding of staff, worker compliance, and monitoring the performance of work. • Review and approve Contractor H&S documentation to ensure it meets or exceeds Queensland Hydro and statutory requirements. • Review, approval and compliance monitoring of Contractor and Queensland Hydro SWMS. • Facilitate risk assessments and engage workers when identifying, assessing and applying controls to hazards. • Ensure consultation and participation arrangements are in place.
Workers	• Comply with the requirements set out within the SMP. • Take reasonable care of their own and others health and safety in the workplace. • Follow any reasonable direction/instruction/policy issued for their health and safety. • Actively participate in consultation on WHS matters. • Adopt safe work practices including compliance with critical controls. • Contribute to planning safe works. • Actively participate in identification, communication, and control of hazards. • Stop work and seek advice if they have any concern about risk to their or others health and safety.

2.1 Stop Work Authority

Queensland Hydro values a safe and healthy workplace above all else. Every worker on the Project is empowered with the responsibility and authority to stop work immediately, without fear of reprisal, when the worker believes:

- Conditions exist that pose a danger to the health and safety of workers or members of the public; or
- Conditions exist that if allowed to continue, could adversely affect the safe operation of, or could cause serious damage to, an asset or facility; or
- Conditions exist that if allowed to continue could result in harm to the environment.

All workers are expected to report any unsafe activity, condition, or stop work requirement by notifying their immediate supervisor or Queensland Hydro representative. Where a Stop Work Authority has been enacted the worker will be entitled to have the concern addressed in a professional and transparent manner.

3. Contractor Management

Contractor health and safety requirements will be specified within each Contract and subject to:

- whether the Contractor will work under the Queensland Hydro Health and Safety Management System.
- whether the Contractor will be appointed as a Principal Contractor.
- duration and complexity of the work.

For further details on the engagement and management of contractors refer to the **Contractor and Supplier Health Safety and Environment Management Procedure (HS-PRO-0028).**

3.1 Contractor Health and Safety Reporting Requirements

Contractors must submit the total number of hours worked by employees and subcontractors each month via the Queensland Hydro Contractor Portal. Total number of hours worked means all hours performed in Australia which are recoverable within/under the Contract with Queensland Hydro. This includes all hours worked for Queensland Hydro:

- at a Queensland Hydro worksite.
- at a location other than a Queensland Hydro worksite e.g. work performed at the Contractor's office/ site.
- travel to/from a Queensland Hydro worksite, where these hours are recoverable.

This information **shall be submitted no later than the 7th day of the following month**.

Other Contractor health and safety reporting requirements will be detailed in the contract.

4. Risk Management

4.1 Borumba Project Life Saving Rules

The Project has a set of Life Saving Rules which are adopted by all Principal Contractors, including Queensland Hydro, who are performing work on the Project. The Life Saving Rules describe the key safety critical controls that must be in place to prevent serious injury or fatality. **The Life Saving rules apply at all sites at all times and apply to all workers and visitors**.

All actual or suspected breaches of a Life Saving Rule (LSR) will be investigated as per a Level 3 incident (refer **Incident Management Procedure HS-PRO-0026**). Any person(s) found in breach of a LSR will face disciplinary action consistent with that defined in the **Incident Management Procedure,** which includes termination/ removal from Project.

Refer to **Life Saving Rules (HS-PRO-0004)** for further supporting detail on each rule. Life Saving Rule posters will be displayed throughout site and the rules will be covered during project inductions.

4.2 Critical Risks

The Queensland Hydro **Health and Safety Risk Register** identifies major risks across the organisation, including those present on the Project.

Queensland Hydro has identified several Critical Risks associated with the early and exploratory phase of works. These can be grouped into the following categories:

- Transporting People and Equipment - vehicles and driving, pedestrian/ vehicle/ mobile plant interaction, light vehicle/ heavy vehicle/ mobile plant interaction, use of watercraft.
- Human Performance and Behaviour – Fitness for work, fatigue, medical events, use of alcohol or other drugs, mental health.
- Interactions with Others – unauthorised entry, project opponents, interactions between different workgroups, interactions with members of the public.
- Work Environment – Weather conditions, flooding, bushfire, working on or near water, flora, fauna, and

emergency response (including to remote location).

- Workplace Exposures – exposure to electrical and mechanical energy sources, hazardous chemicals, respirable dust, respirable crystalline silica, naturally occurring asbestos, noise.

Critical controls are in place for each of these risks and are detailed in the relevant Queensland Hydro procedures – refer to **Key References** at the end of this document**.**

4.3 Risk Management

HS Risk Management procedure (HS-PRO-0007) details the requirements for the identification, assessment, control, communication and ongoing monitoring of safety risks.

Queensland Hydro will ensure that all hazards associated with each work activity are identified, the associated risks assessed and measures for eliminating/ minimising and monitoring the risk are developed, documented and implemented. Control measures must always consider the hierarchy of controls.

All work must have standard controls in place to manage hazards which have the potential to cause harm to people. These standard controls may include one or more of the following:

- Queensland Hydro HS procedures.
- Approved Contractor work procedures.
- Competencies (e.g. trade qualifications, licences, tickets).

Where hazards are identified, all personnel are required to:

- Take remedial action to secure the work area.
- Report the hazard to their immediate supervisor.
- Supervisors are responsible for identifying further preventative actions and assigning resources.

4.3.1 Pre-Work Risk Assessment

The Construction Manager is to ensure a **Pre-Work Risk Assessment (PRA) (HS-FRM-0003)** is undertaken jointly between Queensland Hydro and the Contractor prior to the commencement of works. A copy of the PRA shall be attached to the **Authority to Work form (HS-FRM-0015)** – refer Section 7.2.

A PRA must be completed for all new work, or where the scope of the work changes significantly. The Take 5 and JSA processes detailed below are designed to supplement the PRA as a means of monitoring performance and fine tuning the controls included in the PRA. Significant identified gaps in risk controls should prompt a review and update of the PRA.

4.3.2 Safe Work Method Statements (SWMS)

Contractors shall develop and implement detailed SWMS for any high-risk construction work. SWMS should be developed during the work planning stage and address the following:

- Outline the job scope and details including resources, duration, extent of work etc;
- Clearly outline each of the job steps of the work activity/ task;
- Identify the potential hazards associated with each job step;
- Outline what controls will be put in place to manage the hazards identified.

SWMS will be developed in consultation with the personnel who will be involved with the work. All SWMS will be available at all times at the worksite. All persons performing the work will be taken through the SWMS, be able to demonstrate an understanding of the same and will be required to sign on to the SWMS to confirm the same.

SWMS must be submitted to the Queensland Hydro Construction Manager for review and approval before works

commence.

The same risk management process and documentation will be conducted during the works if the nature of any work significantly changes, if the conditions in which any work is being carried out change or if special works are undertaken.

Where work is not defined high-risk construction work, contractors are required to provide the Queensland Hydro Construction Manager with a documented safe system of work for review and approval. This could be a SWMS, JSA, risk assessment, or similar outlining the potential hazards and risks associated with their work, the controls they will have in place to manage the identified hazards and risks, and how they will ensure that the controls are implemented, and adequate to reduce the risk so far as is reasonably practicable (SFAIRP).

It is the responsibility of those undertaking the works to inform their supervisor if suggested controls are inappropriate and the responsibility of those supervising the works to monitor the implementation of control measures.

The Queensland Hydro Construction Manager will ensure that the control measures adopted are monitored in both their implementation and for their continuing adequacy for the activity.

4.3.3 Job Safety Analysis (JSA)

A JSA sets the scope of works, the context in which it will be conducted, task elements, skills required as well as the risk controls to be used at each step of a task.

A Take 5 may trigger the need to undertake a JSA if the risks are not adequately managed and further risk analysis is required.

A JSA should:

- describe how work is to be carried out;
- be completed using the **Job Safety Analysis Template (HS-FRM-0005)** or the Contractor's own equivalent document; and
- be developed in consultation with people involved in the work.

The supervisor must ensure that:

- there is a JSA for all work activities for which an adequate SOP or SWMS does not exist.
- JSA's are only authorised for use until the specific activity they are developed for has been completed.
- they are reissued when they are updated.
- work is carried out in accordance with the JSA.
- if a change occurs, all related JSAs are reviewed and amended as necessary to ensure they remain valid and suitable for use.

Records of JSAs shall be maintained.

4.3.4 Take 5

A prestart assessment must be completed by all members of the work party at the start of every shift immediately before commencing work, to confirm the adequacy of controls identified in the SWMS/JSA and identify any new hazards and controls associated with the work task. The prestart assessment should consider the following:

- What activities are to be undertaken.
- Have all the hazards been identified that could affect the work?
- Have all the risks been controlled so that the work can be done without harm to people or the environment?

Contractors can use their own prestart risk assessment tool or use the Queensland Hydro Take 5 document, which are available on site.

Completed Take 5's should be retained on site for two (2) months before being destroyed. Take 5's associated with an activity where an incident has occurred should be considered as part of the investigation and be attached to the Incident Report.

5. PPE Requirements

The selection, use, maintenance, training and storage of personal protective equipment (PPE) must comply with the **Personal Protective Equipment Management Procedure (HS-PRO-0001).**

The following list of PPE is the minimum requirement for all workers when conducting site activities:

- Long pants.
- High visibility long sleeved shirt or long-sleeved shirt with high visibility vest.
- Lace-up style safety capped boots (no elastic sided boots).
- Hard hat.
- Safety glasses.

Other items of PPE may be required as detailed in the SWMS/ risk assessment for the specific task (e.g. hearing protection, respiratory protection, snake gaitors, gloves, waders etc). Where task-specific PPE has been identified it must be provided to workers and worn at all times.

All PPE must fit the individual, be worn properly, maintained and in clean and serviceable condition. The individual must also be appropriately instructed or trained in its correct use.

6. Induction and Training

Inductions and underpinning skills and experience are required by Queensland Hydro to ensure workers are competent to perform works safely.

6.1 Minimum Training and Induction Requirements

All persons working on site must have completed the following mandatory training:

1. Current and valid General Construction Induction (white card) and have provided a copy of the same to Queensland Hydro.
2. Queensland Hydro online environmental and overarching safety inductions.
3. Queensland Hydro online Borumba Project Induction. This induction will cover:
    - Scope of the project.
    - Fitness for work requirements, including drug and alcohol testing procedures.
    - Incident management procedures.
    - General hazards present at the work site and controls.
    - Bushfire awareness.
    - Personal Protective Equipment (PPE) requirements.
    - Emergency procedures including emergency evacuation.

NOTE: All online training is to be undertaken via the Queensland Hydro Training Portal QH

Academy.

4. Face to face site familiarisation run by a member of the Queensland Hydro Construction Team.

Where there is a requirement to access the Queensland Hydro worksite via a site under the management and control of another Principal Contractor, all workers will be required to undertake the relevant Principal Contractor's site induction.

Delivery Drivers will be required to complete a Delivery Driver induction face to face when they arrive at the access gate.

6.2 Specific Competencies

All workers will be required to provide evidence of competency where specialised training is required - e.g. mobile plant tickets. Copies of tickets, licences etc will need to be recorded in QH Academy. Only operators with appropriate licenses or certificates will be allowed to operate plant and equipment.

6.3 Safety training records

Records of all training conducted as well as evidence of specific competencies will be maintained in QH Academy.

6.4 Visitor Requirements

Prior to any visitor attending the Borumba Site, the Queensland Hydro host must submit a visitor request to the Queensland Hydro Project Coordinator at least one full week in advance of the visit with details relating to the duration and purpose of the visit. The request will be considered and either approved, approved with conditions, or rejected within 48 hours of the request being made.

Visitors must always be escorted by a fully inducted worker. Visitors must be provided a site familiarisation by their escort that includes:

- instruction on emergency procedures, including designated assembly areas;
- instruction that the visitor cannot perform any work, including driving or the use of any tools; and
- discussion on hazards and fitness-for-work, including but not limited to heat, sun, alcohol and other drugs and fatigue.

6.5 Seqwater Training Requirements

Parts of the Borumba project site are overlapping with Seqwater infrastructure. These work areas will be shown in maps for Contractors within Contract scopes of work. Seqwater require that their PASS process be completed if accessing these areas. Details of the PASS process can be found at: https://www.seqwater.com.au/contractor-information

7. Planning and Notification of Works

The Borumba Project utilises a multi-step process to clearly plan, approve and manage works on Site.

7.1 Contract Kick-off Meetings

The complexity, duration and nature of the works and interfaces will determine the requirement for a Contract Kick-off Meeting.

Where required Contract Kick-off Meetings must be held prior to any site mobilisation. The agenda for the meeting will be agreed between the Contractor and Queensland Hydro. These meetings will be facilitated by the relevant Queensland Hydro Contract Manager.

7.2 Authority to Work

Mobilisation to site and the commencement of site work can only be undertaken when Queensland Hydro has issued an **Authority to Work (HS-FRM-0015)** detailing conditions under which work may be conducted. The Queensland Hydro Construction Manager is responsible to issue the Authority to Work Form and will only do so once they are satisfied that the Contractor's documentation has been reviewed and approved and the Contractor's personnel have completed all required inductions. No mobilisation is to occur before the Authority to Work has been issued.

The Authority to Work will also identify any associated:

- Access permissions/approvals (i.e. a Permit to Access (EL-FRM-0001) as detailed in the **Permit to Access Procedure (EL-PRO-0001);**
- Approvals pertaining to land disturbance and cultural heritage.

7.3 Interface meetings

A daily interface meeting is held on site each afternoon, led by the Queensland Hydro Construction Manager. At this meeting work for the following day (s) is discussed and any interface issues identified and managed. Contractors are to ensure they have provided their work lookahead to the Construction Manager.

7.4 Consultation, Coordination and Cooperation

Queensland Hydro is committed to maintaining sound WHS consultative arrangements with its workers and visitors to the work sites. If a safety issue arises in delivering the works, workers are required to notify the Construction Manager or Site Supervisor.

A Prestart meeting is to be held at the start of each shift before the commencement of work activities to review the planned work activities; discuss known hazards and controls and to understand the potential for interactions with others working in and around the work area. The Prestart meeting will be facilitated by a member of the Queensland Hydro site team.

The following safety communications will be distributed to contractors during the works:

- Safety Change notification in the event of a change to a Queensland Hydro policy or procedure.
- Safety Alert in response to significant incidents.
- Incident Learning following the completion of an incident investigation into significant incidents, detailing the key findings of the investigation and the corrective actions to be taken.

Refer to Queensland Hydro's **Communication and Consultation Procedure (HS-PRO-0002)** for consultation, cooperation, and coordination arrangements, including:

- Agreement on the establishment of consultation arrangements with workers on site;
- Consultation with workers or their representatives when WHS issues arise through site management and toolbox talks;
- Where a WHS committee has been established, there will be a program to ensure regular meetings with minutes of the meetings available to all workers; and
- Where a WHS committee has been established and/or a health and safety representative has been elected, there will be training for health and safety representatives/WHS committee members.

Health and safety issues reporting, and resolution processes will be implemented in accordance with Queensland Hydro's **Issues Resolution Procedure (HS-PRO-0003).**

7.5 Interface Management

Where Queensland Hydro work sites or activities are required to operate near other activities, Queensland Hydro

will review the interface risks and ensure controls are implemented to manage these risks.

The Queensland Hydro Construction Manager is responsible for ensuring the scheduling of work is coordinated and planned as agreed from the coordination meetings; and that all potential interface and / or SIMOPs conflicts and risks have been assessed and controls implemented prior to authorising access to the work area.

8. Fitness for Work

Queensland Hydro recognise that factors such as substance abuse, fatigue, mental ill health and illness/injury may impair worker performance and pose a risk to the health and safety of Project personnel. All personnel are responsible for ensuring they are fit to perform their work in a safe manner. This includes a requirement that personnel must report any condition, such as illness/injury, fatigue or use of medications, that may affect their capacity or judgement at work.

8.1 Alcohol and Other Drugs (AOD)

In accordance with the Project's **life saving rules**, all workers are required to report fit for work and be able to perform assigned duties safely and without risks to themselves or others. All workers must maintain a **zero blood alcohol concentration** whilst at work and must not exceed the target concentrations for drugs as detailed in *AS4760 Procedures for the collection detection and quantification of drugs in oral fluid* or *AS4308 Procedures for specimen collection and the detection and quantitation of drugs of abuse in urine* (dependent on the testing methodology undertaken).

Workers must not be in possession of any illicit drugs whilst on the worksite or in a work vehicle. Workers using prescribed and over-the-counter medications must advise their supervisor/ manager where use of the medication may impact their ability to perform their work duties safely.

The following actions will be considered breaches of the Project's life saving rules and **Managing Alcohol and Other Drugs Procedure (HS-PRO-0021):**

- Attending work with the presence of drugs and/or alcohol in their system at or above the cutoff levels specified in **Managing Alcohol and Other Drugs Procedure**.
- Failing to advise their responsible manager of drug and/or alcohol convictions, where that offence impacts their ability to carry out their work duties (such as loss of driving licence by those required to drive vehicles).
- Use, manufacture, possession, sale, trading, distribution, dispensing, and/or offering for sale any drugs at the worksite, social events or work-related functions.
- Refusing or failing to give a sample for drug and/or alcohol testing without reasonable cause, including giving substituted or adulterated specimens.
- Engaging in conduct that obstructs or tampers with the drug and/or alcohol testing process.
- Abuse of prescription or over-the-counter drugs that may affect an individual's safety and the safety of others.

All workers will be required to undertake daily alcohol testing. Unannounced random drug testing may be conducted on behalf of Queensland Hydro periodically at site.

Any worker returning a confirmed positive reading for alcohol and/or drugs will be considered in breach of the life saving rule, will be refused entry to the worksite and will be managed in accordance with **Managing Alcohol and Other Drugs Procedure**.

For further details refer to the **Managing Alcohol and Other Drugs Procedure (HS-PRO-0021)**.

8.2 Fatigue Management

The Project will ensure management of fatigue is compliant with the minimum standard and requirements set out by the *Working Hours Code of Practice* and in line with the **Fatigue Management Procedure (HS-PRO-0006).**

Contractors may submit a roster proposal for their respective workers. Approval for rosters is at the discretion of the Queensland Hydro Construction Manager or their nominated representative. Approval for rosters will be provided based on risk management principles demonstrating consideration of the following criteria:

- The length of shifts and non-worked time.
- Length and timing of breaks.
- Maximum hours worked (including rostered and non-rostered overtime hours) in a cycle.
- Number of consecutive days of work and subsequent days of rest.
- The tasks performed during the shift or roster cycle (physical and mental demands).
- Workplace conditions (e.g. heat, humidity, noise, vibration, chemicals, dust, etc.).
- Other rosters being operated for similar tasks or activities.
- Commuting or travel time/arrangements.
- Social and lifestyle factors.

The Contractor is required to demonstrate that they have used risk management principles to identify and manage fatigue related issues with consideration of the above.

8.3 Smoking

Smoking and/or use of e-cigarettes on site is prohibited unless within designated smoking areas. Designated smoking areas must have a hard stand area and appropriate waste receptacles for cigarette butts, and “Designated Smoking Area” signage. Smoking outside of designated areas significantly increases the risk of bushfire. All designated smoking areas, or request to change a designated smoking area, require approval by Queensland Hydro Construction Manager.

9. Traffic Management

Queensland Hydro will consult with local and regional stakeholders to ensure that the impact and disruption caused by construction traffic is minimised and that communication with those stakeholders is appropriate on all occasions.

Queensland Hydro will conduct a risk assessment and implement appropriate protocols, processes and procedures for the control of traffic and pedestrians at all applicable work sites.

9.1 Site Traffic Management Requirements

Queensland Hydro has and will continue to develop Traffic Management requirements and site-specific Traffic Management Plans so that the risks associated around people, plant and vehicle interactions on site are minimised. Site traffic management requirements will be included in the Project induction.

9.2 Roads and Tracks across the Borumba Site

Access tracks within the Borumba site are unsealed and must only be driven using 4WD vehicles. The only exemption to this requirement is to permit 2WD vehicles to drive from the Lower access gate to the lower (Borgan) compound. 2WD vehicles cannot be driven beyond this point.

Hazards anticipated to be encountered on access tracks across the site include:

- steep grades;
- tight bends;
- water over road at times;
- stream crossings;
- boggy conditions;
- dust;
- loose and slippery surfaces;
- rutting and washouts;
- over-grown vegetation.

All roads and unsealed tracks must be driven to the conditions and following all requirements of the traffic management plan. The Queensland Hydro Construction Manager will be responsible to undertake regular track inspections, including after rainfall events, and may at times restrict access or close tracks. All directions regarding track/ road closures must be adhered to at all times.

9.3 Mobile Plant and Traffic Management

Light vehicles must maintain a 30m distance from mobile plant at all times unless positive communications have been received.

When load/unloading plant from floats this must be done on level ground using an observer and the surface conditions to be driven on must be checked before load/ unloading.

9.4 Deliveries to Site

A procedure to safely manage deliveries to site must be established by Contractors. Management of deliveries needs to consider unloading and loading, security of loads, and Chain of Responsibility laws. All heavy vehicle operation shall be in accordance with the Queensland Hydro **Transport Operations Procedure (HS-PRO-0015).**

Deliveries must be notified in advance and approved by the Queensland Hydro Construction Manager, to enable the management of any SIMOPs risks.

Delivery drivers must undertake a face to face delivery driver induction when arriving at site.

9.5 Heavy Vehicle Driver Code of Conduct

Queensland Hydro have implemented a **Heavy Vehicle Driver Code of Conduct for the Project**. It is the responsibility of the Contractor to ensure all heavy vehicle drivers contracted to work on the Project review and sign off on this code. Signed Codes of Conduct are to be sent to Queensland Hydro for record keeping. The Heavy Vehicle Code of Conduct can be obtained on the Contractor and supplier portal - Queensland Hydro.

10. Driving

10.1 Light Vehicles

Workers must have a valid and relevant class of driver license.

Workers driving on unsealed access tracks, both onsite and offsite must have completed **RIIVEH305F – Operate and maintain a four wheel drive.**

10.2 Vehicle Selection and Vehicle Specifications

All light and heavy vehicles used to transport equipment, plant, materials and people to and from the Project site(s) and within the Project site(s) must comply with the relevant Australian Design Rules and Vehicle Standards.

The following requirements apply to light vehicles, as detailed in the **Borumba Project Transport and Logistics Specification (BR-NA-NON-HHS-SPC-00002 Rev A):**

Item	Comments
Three-point seatbelt for all occupants	
All terrain tyres	Tyres to have a minimum tread depth of 1.6mm across 75% of the width of the tyre
ABS	
Airbags front for driver and front seat passenger	Desirable to have side curtain airbags
Cargo barrier	Not required in utility vehicles
Air conditioning	
First aid kit	Type to be determined based on risk assessment
Spare wheel and changing equipment, including high visibility vest	Unless the vehicle is not provided with a spare as per the OEM
Reflective triangles / cones	NB: Vehicles signed and used as pilot escort vehicles must have 6 cones
Torch / worklight	
Four-wheel drive	Mandatory for unsealed roads
Fire extinguisher (type ABE)	
Permanent headlights on	
Vehicle decals	Including company name and / or logo, vehicle ID and high visibility reflective stripe
Electronic stability control	
UHF radio	Or digital equivalent

Reverse alarm/ beeper	To be linked to beacon; only operational when beacon is on
Revolving beacon	Beacon must be turned off at all times when driving on public roads (unless required for a pilot vehicle)
Autonomous Emergency Braking	
Reversing camera	
Rollover protection (ROPS)	
Wheel chocks	
Wheel nut indicators	
Bullbar (OEM certified or ADR approved)	Not mandatory. Consideration based on risk assessment
Battery isolator	

10.3 Towing (Trailers)

Trailers used on site must be roadworthy, attached to a properly rated tow point (ball or DN35 hitch) and secured using properly rated chains and shackles. Gross Combination Mass (GCM), Ball Weight, and Gross Trailer Mass (GTM) must not exceed the original equipment manufacturer (OEM) specification for the towing vehicle. Trailers with a GTM of >750 kg must be fitted with electric brakes. Only persons authorised by the Queensland Hydro Construction Manager shall be permitted to tow trailers on site.

10.4 Vehicle Recovery

Where a vehicle is bogged, stuck, or inoperable and requires recovery, permission must be sought from the Queensland Hydro Construction Manager (or delegate) before the recovery can occur (except where the recovery is to be undertaken by a competent vehicle recovery specialist – in this instance the Construction Manager is to be notified). A documented risk assessment must be undertaken and the following applies:

- Only vehicles fitted with recovery equipment may be used in vehicle recovery.
- Vehicle recovery is only to be undertaken by suitably competent persons.

Queensland Hydro personnel are not permitted to attempt any recovery of vehicles owned or operated by members of the public that may have become bogged etc within or adjacent to project worksites.

10.5 Water Crossings

Access to and within the Project site involves driving through both temporary and permanent water crossings.

The Queensland Hydro Construction Manager will advise if access tracks/ roads are closed due to water levels. Any instructions regarding road closures must be adhered to at all times.

Where a vehicle operator comes to a permanent water crossing, the depth of water and speed of water flow is to be established and determined to be within the limitations of the vehicle before attempting to cross. Recent weather conditions for up to the previous 7 days must be considered in the decision to cross.

Where a vehicle operator comes to a temporary water crossing, the vehicle operator has to determine if there is a practical alternative to avoid using the crossing – convenience is not the primary consideration. If no practical

alternative exists, then the vehicle operator should contact the Queensland Hydro Construction Manager (or delegate) to confirm if the crossing has been recently inspected and confirmed as safe to cross.

Refer to **Working On, In or Near Water (HS-PRO-0022)** for more information on controls related to water crossings.

11. Inclement Weather

The Borumba site is susceptible to inclement weather and weather-related risks including but not limited to:

- Heavy rainfall.
- Flooded roads.
- Hail.
- Lightning.
- High UV index.
- High humidity.
- High winds.
- Extreme temperatures; and
- Bushfire.

Workers are to consider weather related risks in the performance of the works, plan to minimise exposure to such conditions, monitor for change, and apply all reasonable controls to prevent impacts associated with extreme weather.

11.1 Early Warning Network

Queensland Hydro have engaged Early Warning Network (EWN) to provide a weather advisory service based on a central location at the Borumba site to a number of key project contacts via text message and e-mail notification. The EWN Alerts are configured to provide weather notifications based on proximity to the site, at ~30km, and at ~15km.

11.2 Severe Weather Event Stop Work Protocol

The **Borumba Severe Weather Event Stop Work Protocol** applies to all works on site and details when work must be suspended in response to lightning in the nearby area. The Queensland Hydro Construction Manager will issue the instruction to suspend or cease work when required.

11.3 Bushfire

The **Borumba Bushfire Management Plan (BR-PLN-0003)** details the actions to be taken to minimise the risk of Project works starting a bushfire and the response to a bushfire that is either initiated onsite or is approaching site.

12. Flora and Fauna

Areas of the Borumba Site are in sub-tropical rainforest habitat. The habitat itself has numerous flora and fauna risks to workers that should be considered. Every effort to minimise worker exposure to the risk associated with flora and fauna should be made. Some of these risks include:

- Domesticated animals, such as dogs, cattle, horses (in particular when travelling to or from site).
- Feral animals, such as wild dogs, pigs, and deer.

- Snakes.
- Leeches and ticks.
- Spiders, mosquitos, wasps and other insects.
- Kangaroos; and
- Poisonous plants (Gympie Gympie Tree). Where Gympie Gympie trees have been identified on site they will be clearly signposted.

The Project induction will address flora and fauna risks in further detail.

The Borumba Site previously was used for cattle farming and as such airborne dust from earthworks, excavation and digging activities can potentially expose people to the risk of Q fever. Contractors must identify construction activities that are likely to generate dust and plan how to prevent or suppress the dust.

In addition an area of site in the lower was previously used as a cattle dip. This area is clearly marked as a restricted area and must not be accessed by any workers at any time.

13. Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) has been identified in some areas within the lower Project site. The Queensland Hydro GIS provides detail on the exact locations for where NOA has been positively identified. The Queensland Hydro Construction Manager will advise if works are to occur in areas which are adjacent to the known NOA zones.

The **Borumba Fibrous Minerals Management Plan (BR-PLN-0005)** details the process to be followed if suspected NOA is encountered and the controls to be in place to manage work activities.

14. Respirable Crystalline Silica

Works must be assessed to determine the risk of activities generating respirable dust which could expose workers to respirable crystalline silica (RCS). Activities on the Project which may generate respirable dust include (but are not limited to) rock breaking, grading, excavating, cutting/ grinding of concrete or concrete products and crushing. Control measures to minimise exposure to RCS must be documented in the SWMS/ JHA etc, must apply the hierarchy of controls, and must include:

- In all cases, except as otherwise approved in writing by the Queensland Hydro Construction Manager, engineering controls must be used to reduce exposure to RCS.
- Where administrative or lower order controls are used, it must be demonstrated that the planned control measure does not result in a new exposure scenario (e.g. spotters must not be used for dust control where the task results in a significant risk to health).
- Dust suppression must be placed at sources of dust emission so far as is reasonably practicable (SFAIRP) and be designed to specifically control emissions and minimise water use (e.g. be an OEM installed feature of plant determined through the Plant Hazard Identification and Control process).
- Every effort must be made to eliminate SFAIRP the need for persons to manually apply water sprays. If this method of control is required, a documented risk assessment must be completed and approved by the Queensland Hydro Construction Manager.
- Prohibition of dry brush sweeping in all work areas.

Workers must be considerate of dried mud on shoes and clothing and where possible avoid tracking dried mud into office/ crib facilities.

15. Site Communications

The Project site has very limited mobile phone reception outside of the site compounds and mobile phone reception should not be assumed available or reliable. Queensland Hydro provide Wi-Fi via Starlink at both the lower and upper compounds.

15.1 Satellite Phones

Where identified in a risk assessment, Contractors are required to supply their own satellite phones. Note that in some areas on site satellite phone coverage is not reliable due to heavy tree cover.

15.2 UHF Radio

Contractors are required to supply their own vehicle-mounted and handheld UHF radios. UHF radio is for use when travelling on site, calling an emergency, and for working on a separate channel within defined work areas.

Radio procedures, including mandatory call-ups, must be adhered to at all times.

Radio channels will be defined in Site Inductions, or under change management instruction such as via coordinated meetings or prestart meetings during the works.

Music from car radios must remain at such a level as to allow workers to hear calls on UHF radios and converse with fellow workers at normal conversational levels on the worksite.

15.3 Personal Location Beacons

Personal Location Beacons (PLBs) will be allocated to Queensland Hydro personnel where risk assessment determines the requirement. **Lone, Remote or Isolated Work Procedure (HS-PRO-0017)** details where PLBs will be required.

15.4 Remote Travel Communications

Where travel is undertaken in areas defined as remote, or travel in areas with limited mobile phone coverage, positive communication should be made between worker and Supervisor before travel and after arrival. Call in protocols will be established as well as processes to follow in the event that the work group fails to call in during the timeframe expected. These requirements are detailed in **Remote, Isolated or Lone Work Procedure (HS-PRO-0017).**

16. High Risk Construction Work Requirements

16.1 Permit to Work and Lock Out Tag Out (LOTO)

Queensland Hydro has a permit to work (PTW) system for the performance of high-risk construction activities, including working at heights, hot works, excavation and confined space entry. High risk work permits must be issued to permit holders by the Queensland Hydro Construction Manager or delegate. Works can not commence until the permit has been issued.

For further details refer to Queensland Hydro's **Permit to Work Procedure (HS-PRO-0009).**

Queensland Hydro's requirements for LOTO are detailed in the **Lock Out Tag Out Procedure (HS-PRO-0035).**

16.2 Hazardous Materials and Dangerous Goods

The Queensland Hydro **Hazardous Substances Procedure (HS-PRO-0014)** provided details on the minimum requirements for the handling, storage, use and disposal of hazardous materials and dangerous goods.

Hazardous substances must not be used without reference to the Safety Data Sheet (SDS) to ensure that use is in accordance with the manufacturer's instructions. The current SDS is to be available on site.

PPE relevant to the nature of the hazardous material is to be worn.

16.3 Confined Spaces

All works involving confined space entry will meet the requirements of *AS2865 Confined Space* and the **Confined Space Procedure (HS-PRO-0023).** A Confined Space Entry permit is required for all work in confined spaces.

16.4 Excavation and Trenching

An excavation includes any and all forms of ground disturbance, penetration, tunnelling and shafts. An Excavation Permit is required in the following situations:

- Any excavation at Site regardless of the depth when using a method **other** than the following:
  - Potholing by hand (excludes the use of tools such as crowbars and shovels but can include water jetting)
  - Cable avoidance tools; and
  - Vacuum.
- Before a Worker can enter any excavation with a depth of 1.5 metres or more; and
- Where there is a known or potential risk of engulfment due to poor ground conditions, regardless of the depth of the excavation.

Any process not covered by the definition of excavation above will be considered a penetration if it breaks a surface such as a wall, ceiling, electrical panel or any service or similar by:

- Drilling.
- Coring.
- Sawing.
- Cutting.
- Screwing.
- Nailing.
- Jack hammering.

Refer to the **Excavation Procedure (HS-PRO-0013).**

16.5 Ground Conditions

Risks associated with ground conditions – including uneven and unstable ground, slumping, waterlogged ground, and flooding – will be managed taking into consideration the following as a minimum:

- Control of plant and equipment movements over uneven terrain;
- Monitoring of terrain slumping and subsidence in and around roadways and work areas;
- Stability of cranes and other plant during lifting and rigging operations;
- Use of barricading and signage to warn personnel of ground condition hazards;
- Reporting of poor ground conditions as per Queensland Hydro hazard reporting process.

A risk assessment of the affected area will be conducted, and controls will be implemented where ground control hazards have been identified prior to any works beginning.

16.6 Electrical Safety

All electrical work will be carried out in accordance with *AS/NZS 3012:2010 Electrical installations construction and demolition sites AS/NZS 3000:2018 Australian / New Zealand Wiring Rules*. Electrical works must be conducted in line with the requirements in **Lock Out Tag Out Procedure (HS-PRO-0035).**

All portable electrical equipment and portable residual current devices (RCD's) are to be inspected, tested and tagged on a 3 monthly basis.

16.7 Hot Work

All hot works conducted on the Project must be completed as per the Queensland Hydro **Hot Work Procedure (HS-PRO-0016),** which details the minimum mandatory controls which must be in place. Note that hot works may be restricted or banned under certain fire danger conditions. The **Project Bushfire Management Plan (BR-PLN-0003)** provides further detail.

16.8 Guarding

All equipment will be operated in accordance with the manufacturer's recommendations and guarding requirements. If guards are damaged or missing, the equipment will be tagged out of service and not used until guarding requirements are rectified.

16.9 Barricading and Signage

Contractors will be responsible for erecting barricading and signage around their work areas to warn and protect persons in that area from hazards. All signage used on site, including warning, information and directional signage, will comply with *AS 1319: Safety signs*, except for exit signs which are of the type specified in *AS 2293.1: Emergency lighting and exit signs*. Queensland Hydro will ensure all signs erected around the work areas conform to these standards.

16.10 Mobile Plant and Equipment

Inappropriate, defective, and substandard equipment or materials have the potential to impact the health, safety and welfare of all site personnel, including subcontractors. As a minimum standard on the project, all worksite-based equipment will be inspected and approved prior to use in accordance with Queensland Hydro's **Plant and Work Equipment Procedure (HS-PRO-0019**).

The **Project Prohibited and Restricted Items Register** must be consulted and complied with at all times.

Work must not be carried out within 3 metres of mobile plant without controls such as an observer. Consideration must be given to the area around the mobile plant that may be affected by flying debris or other unintended impacts from the operation of the plant.

Plant operators are to complete a daily pre-start inspection checklist for all mobile plant and equipment.

Plant is to be parked on level ground and separated by a minimum of 3 metres.

16.11 Working At Heights

Working at Height activities will be controlled via the Queensland Hydro PTW requirements and the Queensland Hydro **Work at Height Procedure (HS-PRO-0020).**

16.11.1 Scaffolds and Platforms

Scaffolding and platforms must comply with the requirements of the Queensland Hydro **Work at Height Procedure (HS-PRO-0020) and Scaffold Guideline (HS-GUI-0008).**

Where activities require that a person move outside of a platform or a safety handrailed area, a formal risk assessment must be completed and appropriate additional measures implemented.

16.11.2 Elevated Work Platforms

Contractors must ensure that all EWPs to be used on the project have completed a pre- mobilisation inspection prior to their arrival and conform to *AS 2550.10: Cranes, Hoists and Winches – Safe Use Mobile Elevating Work Platforms and AS1418.10 (Int) – Cranes, Hoists and Winches – Elevating Work Platforms* or equivalent international standard.

All works involving elevated work platforms including the loading and unloading will be conducted in accordance with the requirements of the **Work at Height Procedure (HS-PRO-0020).**

16.11.3 Ladders

Use of ladders must comply with the requirements of the Queensland Hydro **Work at Height Procedure (HS-PRO-0020).**

16.12 Cranes and Lifting

All works involving cranes and lifting equipment must comply with the requirements of the **Lifting Procedure (HS-PRO-0018)**.

16.12.1 Personnel Cages on Cranes and Forklifts

Personnel cages, such as a workbox or person cage, will not be used on the site without a completed **Work at Height Permit (HS-FRM-0012)**.

16.13 Electronic Devices

The following restrictions apply to the use of electronic devices on site:

- Unless required for work related activities, general mobile phone and electronic device use is restricted to use during personal times and in a location that is not distracting to others. Where personnel are expecting or needing to make urgent phone calls of a personal nature, they will make arrangements and / or notify their supervisor;
- Hand held mobile phones will not be used while driving or operating mobile equipment and / or plant. When using a mobile phone workers on foot must ensure they are in a safe location at all times.
- The **Project Life Saving Rules** detail the requirements related to mobile phone use on site.
- Portable music appliances with headphones/earbuds will not be permitted on any worksite.

16.14 Working In, On or near Water

The Queensland Hydro **Working In, On or Near Water Procedure (HS-PRO-0022)** outlines the requirements for working on, over, in or near a body of water.

17. Incident Response

17.1 First Aid

First aid kits, snake bite kits and defibrillators will be present in the site vehicles and at the lower and upper compounds.

The Queensland Hydro Site Supervision team will have the following minimum first aid training:

- HLTAID013 - Provide First Aid in Remote and Isolated Sites (3-yearly refresher)
- HLTAID011 – Provide First Aid (3-yearly refresher)

- HLTAID010 – Provide Basic Life Support (3-yearly refresher)
- HLTAID090 – Provide Cardiopulmonary Resuscitation (annual refresher)

Due to remoteness of the site, Contractors must consider the type of First Aid training required and ensure appropriate levels of trained first aiders are available at all times.

As per First Aid in the Workplace Code of Practice 2021 and Queensland Hydro's **First Aid Procedure (HS-PRO-0005)** , the following first aider requirements apply:

- low risk workplaces—one first aider for every 50 workers
- high risk workplaces—one first aider for every 25 worker
- remote high-risk workplaces—one first aider for every 10 workers

Queensland Hydro will provide a paramedic who can provide emergency medical assistance across the Project site. The process for raising the Paramedic in an emergency will be covered in site inductions. The provision of the paramedic does not remove any obligations a contractor has to provide adequate first aid resources for their work activities.

17.2 Emergency Response

Personnel on site must be inducted into the **Borumba Project Emergency Response Plan (BR-PLN-0002)** and any other Contractor, work-specific or area-specific Emergency Response Plan.

The **Project Emergency Response Plan** documents the strategy to effectively respond to and manage all foreseeable major events and emergencies which may, or have affected the safety of Queensland Hydro workers and members of the public, the environment, Queensland Hydro's operations and assets. The plan details emergency contact details for support, nearest emergency facilities (e.g., hospital, clinics, private medical services), and muster/ refuge points.

If a Contractor wishes to develop an Emergency Response Plan for its own scope of work it must ensure it is aligned to the Borumba Emergency Response Plan.

The Project Induction and all site familiarisations are to provide an overview of the relevant Emergency Response Plans. Emergency Response Plans are to be kept up-to-date and accessible at work sites.

17.3 Incident Notification and Investigations

The **Incident Management Procedure (HS-PRO-0026)** and **Event and Impact Classification Matrix (HS-STD-0003)** define the process Queensland Hydro shall use to classify, notify, investigate, and report incidents.

All incidents (safety, quality and environmental) shall be reported to the Queensland Hydro Construction Manager (or delegate) as soon as practical.

The Queensland Hydro Construction Manager will be accountable for ensuring the Incident Management Procedure is implemented effectively, including notification to internal stakeholders and generation of an incident report into the Queensland Hydro HSEQ management system (Bluestream).

In the event of an incident occurring, Contractors will be required to undertake an appropriate incident investigation (commensurate with the severity of the incident) which identifies root causes and corrective actions. Contractors will be required to provide a copy of all incident investigations to Queensland Hydro. Queensland Hydro may participate in the Contractor's investigation or require the contractor to participate in an investigation conducted by Queensland Hydro, depending on the severity of the incident.

18. Monitoring and Review

18.1 Audits

Audits and site inspections will be carried out during the project scope to ensure that the project is complying with the relevant legislation, this SMP, the Queensland Hydro HSMS, the project Audit schedule and project plans.

The Project H&S Manager in conjunction with the Project Director will ensure that a robust internal assessment program is in place, including:

- Workplace inspections;
- H&S management elements;
- Contractor reviews.

19. Health and Safety Performance

19.1 Key Performance Indicators

Key Performance Indicator		Target	Data Source	Calculation Method and Frequency
Leading	Actions (Closed)	100%	Close out of actions by due date. Actions sourced from hazard reports, incident investigations, audits and observations	Collated weekly; Annual Target
	Safety Leadership Walks (Queensland Hydro leadership team)	4 per month	Completed safety leadership walk forms	Collated monthly
Lagging	Total Recordable Injury Frequency Rate (TRIFR)	2	Incident Notifications Exposure hours collated from both Contractor data and Queensland Hydro workers	Collated monthly; rolling 12 month target Recordable injuries/1,000,000 worked hours

Key References

Document Reference	Document Title
HS-MAN-0001	Queensland Hydro Health and Safety System Manual
BR-PLN-0004	Borumba Security Management Plan
BR-PLN-0003	Borumba Bushfire Management Plan
BR-PLN-0002	Borumba Emergency Management Plan
BR-PLN-0005	Borumba Fibrous Minerals Management Plan
	Borumba Project Severe Weather Event Protocol
HS-PRO-0004	Life Saving Rules
	Borumba Project Prohibited and Restricted Items Register
	Borumba Project Heavy Vehicle Driver Code of Conduct
HS-PRO-0028	Queensland Hydro Contractor and Supplier H&S Management Procedure
HS-PRO-0026	Queensland Hydro HS Risk Management Procedure
HS-PRO-0021	Queensland Hydro Managing Alcohol and Other Drugs Procedure
HS-PRO-0006	Queensland Hydro Fatigue Management Procedure
HS-PRO-0026	Queensland Hydro Incident Management Procedure
HS-PRO-0022	Queensland Hydro Working In, On or Near Water Procedure
HS-PRO-0009	Queensland Hydro Permit to Work Procedure
HS-PRO-0001	Queensland Hydro Personal Protective Equipment Management Procedure
HS-PRO-0002	Queensland Hydro Communication and Consultation Procedure
HS-PRO-0003	Queensland Hydro Issues Resolution Procedure
HS-PRO-0016	Queensland Hydro Hot Work Procedure
HS-PRO-0020	Queensland Hydro Work at Height Procedure
HS-PRO-0013	Queensland Hydro Excavation Procedure
HS-PRO-0015	Queensland Hydro Transport Operations Procedure
HS-PRO-0005	Queensland Hydro First Aid Procedure
HS-PRO-0018	Queensland Hydro Lifting Procedure
HS-PRO-0017	Queensland Hydro Remote, Isolated or Lone Work Procedure
HS-PRO-0014	Queensland Hydro Hazardous Substances Procedure
HS-PRO-0019	Queensland Hydro Plant and Work Equipment Procedure
EL-PRO-0001	Permit to Access Procedure

Glossary

This glossary is taken from the Queensland Hydro Health and Safety Management System Manual and is included in this plan for ease of reference.

Term	Definition
Authorised	means approved for access or to conduct an activity by a license, permit, registration or other authority as required by the WHS Regulation and or Queensland Hydro management.
Critical Control Management (CCM)	An approach to monitoring and reporting of the controls identified as being key to preventing a serious incident occurring.
Code of Practice (CoP)	Codes of Practice set out industry standards of conduct. They are guidelines for managing exposure to risk and provide practice directions for a safe working environment. Under section 26A of the WHS Act duty holders must comply with an approved code of practice or follow a technical or industry standard, if it provides an equivalent or higher standard of work health and safety than the standard required in the code.
Competent Person	A person possessing the necessary skills, training, experience and knowledge or combination of these traits, such that a skill can be performed in a safe manner, to the quality expected in the workplace.
Confined Space	An enclosed or partially enclosed space which is not intended or designed primarily as a workplace, is at atmospheric pressure during occupancy and has restricted means for entry and exit.
Contract Manager	The term “Contract Manager” may be replaced with Program Manager, Project Manager, Company Representative, Contract Supervisor, Contract Administrator, Site Coordinator or other terms depending on the business location requirements and particulars of the works and/or contract.
Contractor	Means a contracted PCBU to Queensland Hydro.
Critical Control	A control that is crucial to preventing a serious event or mitigating the consequences of the serious event. The absence or failure of a critical control would significantly increase the risk despite the existence of the other controls.

Dangerous Incident	Means an incident in a workplace that exposes a worker or any other person to a serious risk to health and safety from an immediate or imminent exposure to: • an uncontrolled escape, spillage or leakage of a substance an uncontrolled implosion, explosion or fire • an uncontrolled escape of gas or steam • an uncontrolled escape of a pressurised substance electric shock • the fall or release from a height of any plant, substance or thing • the collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be authorised for use under a regulation • the collapse or partial collapse of a structure • the collapse or failure of an excavation or of any shoring supporting an excavation • the inrush of water, mud or gas in workings, in an underground excavation or tunnel • the interruption of the main system of ventilation in an underground excavation or tunnel • any other event prescribed under a regulation • but does not include an incident of a prescribed kind.
Duty of Care	Duty of Care is a statutory obligation. To ensure (so far as is reasonably practicable) the health and safety of workers and all other persons; while the workers are at work in the business.
Duty Holder	Refers to any person who owes a work health and safety duty under the WHS Act or ES Act including a person conducting a business or undertaking (PCBU), designer, manufacturer, importer, supplier, installer of products or plant used at work (upstream duty holders), an officer and workers.
Emergency Response Plan (ERP)	An emergency response plan (ERP) outlines procedures including: • evacuation procedures • notifying emergency service organisations at the earliest opportunity medical treatment and assistance • effective communication between the authorised person coordinating the emergency response and all persons at your place of work • testing of the emergency procedures, including the frequency of testing • information, training and instruction to relevant workers in relation to implementing the emergency procedures.
Emergency Work	Emergency work is required when a significant event, or series of events, has occurred or is likely to occur that may threaten life, property, or the environment. Emergency work is limited to doing only what is necessary to address the significant risk.

Hazard	Something with the potential to cause harm to a person, the environment or property.
HS / HSE / HSMS	Health and Safety / Health, Safety and Environment / Health and Safety Management System
Health and safety committee	A group including workers, HSRs and management (see definitions below) that facilitates cooperation between a PCBU and workers to assist with providing a safe place of work. The committee must have at least 50 per cent of members who have not been nominated by the PCBU, that is workers or HSRs.
Health and safety representative (HSR)	A worker who has been elected by a work group to represent them on health and safety issues.
Health and Safety Risk Register	This is the risk register capturing HS risk associated with the broader organisation. This register is used to inform senior management of the risk profile of Queensland Hydro's operation and ensure risks are being managed.
Hierarchy of Controls	The hierarchy of control is a system for controlling risks in the workplace. The hierarchy of control is a step-by-step approach to eliminating or reducing risks and it ranks risk controls from the highest level of protection and reliability through to the lowest and least reliable protection. The hierarchy ranks control type by one of the following six categories: 1. Elimination 2. Substitution 3. Isolation 4. Engineering control 5. Administration control 6. Personal protective equipment
High Risk Construction Work	In the construction industry, a PCBU that carries out high risk construction has additional workplace health and safety duties. These include requirements to prepare, keep, comply with, and review a safe work method statement (SWMS) for the work and provide the safe work method statement to the Principal Contractor. High risk construction work includes work which: • involves a risk of a person falling more than 2m • is carried out on a telecommunication tower • involves demolition of an element of a structure that is load-bearing • involves demolition of an element of a structure that is related to the physical integrity of the structure • involves, or is likely to involve, disturbing asbestos • involves structural alteration or repair that requires temporary support to prevent collapse • is carried out in or near a confined space • is carried out in or near a shaft or trench deeper than 1.5m or a tunnel

High Risk Construction Work (cont.)	• involves the use of explosives • is carried out on or near pressurised gas mains or piping • is carried out on or near chemical, fuel or refrigerant lines • is carried out on or near energised electrical installations or services • is carried out in an area that may have a contaminated or flammable atmosphere • involves tilt-up or precast concrete • is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor in use by traffic other than pedestrians • is carried out in an area of a workplace where there is any movement of powered mobile plant • is carried out in areas with artificial extremes of temperature • is carried out in or near water or other liquid that involves a risk of drowning • involves diving work
Incident	Means an unplanned event that results in actual, or potential (near-miss) for, physical harm to a person or damage to the environment or property.
Interested Party	A person or organisation that can affect, be affected by, or perceive itself to be affected by a decision or activity. Formally considered as a stakeholder, the interested party extends to a client, consultant, subcontractor, worker, member of the public
Management Plan (MP)	A type of plan that supports the organisation, or project in the explanation of how a particular function, system or process within the organisation, or project, is to be managed
Near-miss	An unplanned event which, although not resulting in any injury or disease, had the potential to do so.
Notifiable Incident	An incident involving the death, serious injury or illness of a person, or a dangerous incident that is notifiable to the regulator.
Officer	Broadly, an officer is a person who makes, or participates in making, decisions that affect the whole, or a substantial part, of the organisation's activities. An officer under the WHS Act includes: • an officer under section 9 of the Corporations Act 2001 (Cth) • an officer of the Crown within the meaning of section 247 of the WHS Act, and • an officer of a public authority within the meaning of section 252 of the WHS Act.
'Person conducting a business or undertaking' (PCBU)	A legal term under harmonised WHS laws for individuals, businesses or organisations that are conducting business. A person who performs work for a PCBU is considered a worker.

Plant	Any machinery, equipment, appliance, container, implement or tool and anything fitted or connected to them.
Reasonably Practicable	The term 'reasonably practicable' means that which is or was reasonably able to be done at a particular time to ensure health and safety measures are in place, taking into account relevant matters including: • the likelihood of the hazard or risk occurring • the degree of harm that might result from the hazard or risk • knowledge about the hazard or risk, and ways of minimising or eliminating the risk • the availability and suitability of ways to eliminate or minimise the risk, and • after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk. Ordinarily, cost will not be the key factor in determining what it is reasonable for a duty holder to do unless it can be shown to be 'grossly disproportionate' to the risk. If the risk is particularly severe, a PCBU will need to demonstrate that costly safety measures are not reasonably practicable due to their expense and that other less costly measures could also effectively minimise the risk.
Regulatory Requirements	Government acts and regulations which prescribe legal obligations of employers, workers, Contractors and Subcontractors and amongst other things, registration of projects and plant, licenses to operate prescribed machinery and undertake certain trades and notifications or injuries.
Remote or isolated work	Means work that is isolated from the assistance of other people because of the location, time or nature of the work being done and limitations in communications.
Safe Work Method Statement (SWMS)	A study carried out and then documented to ensure that hazards are identified, analysed and properly controlled to minimise, or, if practicable, eliminate risks. High-risk construction work SWMS and work on energised electrical equipment SWMS must be available at the point of use in hard copy and approved before high-risk works commence.
Safety Data Sheet (SDS)	Safety Data Sheets provide information identifying risk of hazardous substances to health and safety and state the precautions to be taken for their safe storage, use and disposal. SDS records must be available at the point of use and no older than 5 years.
Safety in Design (SiD)	Means the integration of control measures early in the design process to eliminate or, if this is not reasonably practicable, minimise risk to health and safety through the life of a structure.

Serious Injury or Illness	Injury or illness requiring the person to have:
	• immediate treatment as an in-patient in a hospital; or
	• immediate treatment for:
	  ○ the amputation of any part of his or her body
	  ○ a serious head injury
	  ○ a serious eye injury
	  ○ a serious burn
	• the separation of his or her skin from an underlying tissue (for example, degloving or scalping)
	• a spinal injury
	• the loss of a bodily function
	• serious lacerations
	• medical treatment within 48 hours of exposure to a substance
	• and includes any other injury or illness prescribed under a regulation but does not include an illness or injury of a prescribed kind.

SFAIRP	'So Far as Is Reasonably Practicable'. Refer term 'Reasonably Practicable'. NOTE: it is implied that this concept is applied to all Queensland Hydro commitments contained in this document and other relevant HS documents.
Simultaneous Operations (SIMOPS)	Simultaneous operations and refers to situations where multiple PCBUs are engaged and conducting activities within a shared area.
Site	An area (property or place) that is managed by Queensland Hydro, or of interest to Queensland Hydro's operations. The area will typically be defined by a project or induction or in a Queensland Hydro document.
Safety Management Plan (SMP)	This document, the Borumba Project Safety Management Plan
Special Purpose Vehicle (SPV)	Special Purpose Vehicle (Company) is a separate legal entity created by an organization.
Subcontractor	Means any third-party engaged by the Contractor to undertake works.
Supplier	Means any third-party providing goods, raw materials, construction materials, construction plant and equipment (dry hire), freight services and casual labour (labour hire) etc. and accesses Queensland Hydro sites/facilities for delivery and or visitor purposes only.
Supply	Supply and re-supply of a thing provided by way of sale, exchange, lease, hire or hire purchase arrangement.

Vendor	Any entity engaged by Queensland Hydro to perform work or supply services or goods in return for monetary compensation including but not limited to Contractors, Fabricators, Manufacturers, Suppliers, Installers, Designers, Advisors, and Consultants.
WHS	Workplace Health and Safety (including electrical safety).
Worker	A person who carries out work in any capacity for a PCBU and includes employees, outworkers, apprentices, trainees, students gaining work experience, volunteers, Contractors or Subcontractors and their employees.
Work Area	A defined area within a project area by which activities can be managed. Work areas may be split by function, geography, or area ownership.
Work Group	A group of workers who share similar work conditions (e.g., all the electricians in a factory; all people on night shift; all people who work in the loading bay of a retail storage facility).
Work pack	This is the term given to a documents package produced by PCBUs to ensure their workers have coordinated, comprehensive and adequately risk-assessed plans and provisions prior to performing works on site
Workplace	Any place where work is carried out for a business or undertaking. This may include offices, factories, shops, construction sites, vehicles, ships, aircraft or other mobile structures on land or water such as offshore units and platforms.