



# Risk Management

## (Including Design, Construction & Commissioning)

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### HSEQ Management System Procedure

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#### What this procedure describes

How to manage Health, Safety, Environment, Quality (HSEQ) and operational risks associated with activities performed by TasNetworks and how to control them.



#### Why it is required

- TasNetworks is required to manage the risks associated with our HSEQ activities in accordance with legislation such as the *Work Health and Safety Act 2012*, its Regulations and Codes of Practice and the requirements of certification standards.
- This procedure supports TasNetworks goal of Zero Harm.

#### Who it applies to and when

This procedure applies to everyone working for or on behalf of TasNetworks.

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## Authorisations

<b>Issue date</b>	Aug 2017
<b>Authorised by</b>	HSE and Tech Competence Group Leader
<b>Review Cycle</b>	2 Years

## Revision history

Date	Revision Details
<b>July 2014</b>	New Document
<b>April 2015</b>	Metadata Changes in the Zone
<b>August 2017</b>	Addition of operational risks to meet the requirements of ISO9001:2015 Standard.

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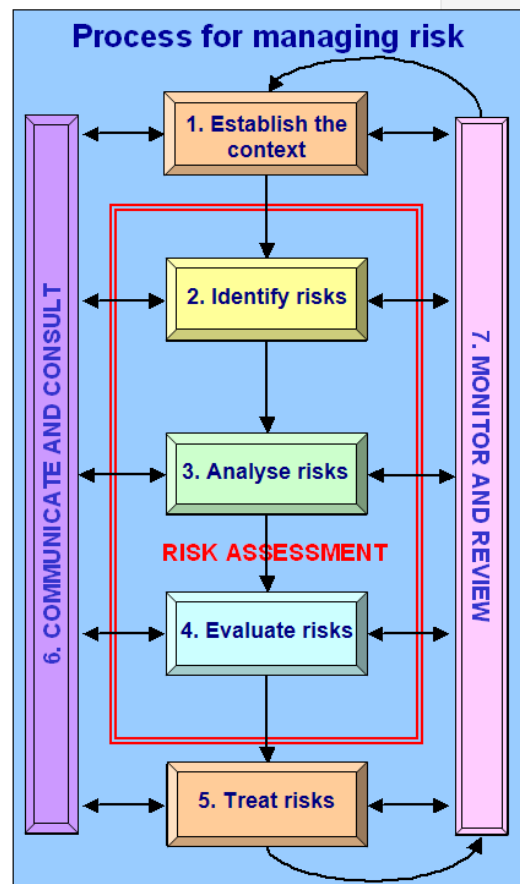
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# 1. What is Risk Management?

## 1.1 Management of HSE Risk

HSE Risk Management (See Figure 1 to the right) involves several key steps including:

- **Identifying hazards** to the environment or people;
- **Analysing and evaluating risks** if necessary – understand the nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening;
- **Treating risks** by implementing the most effective control measure that is reasonably practicable in the circumstances; and
- **Reviewing control measures** to ensure they are working as planned.

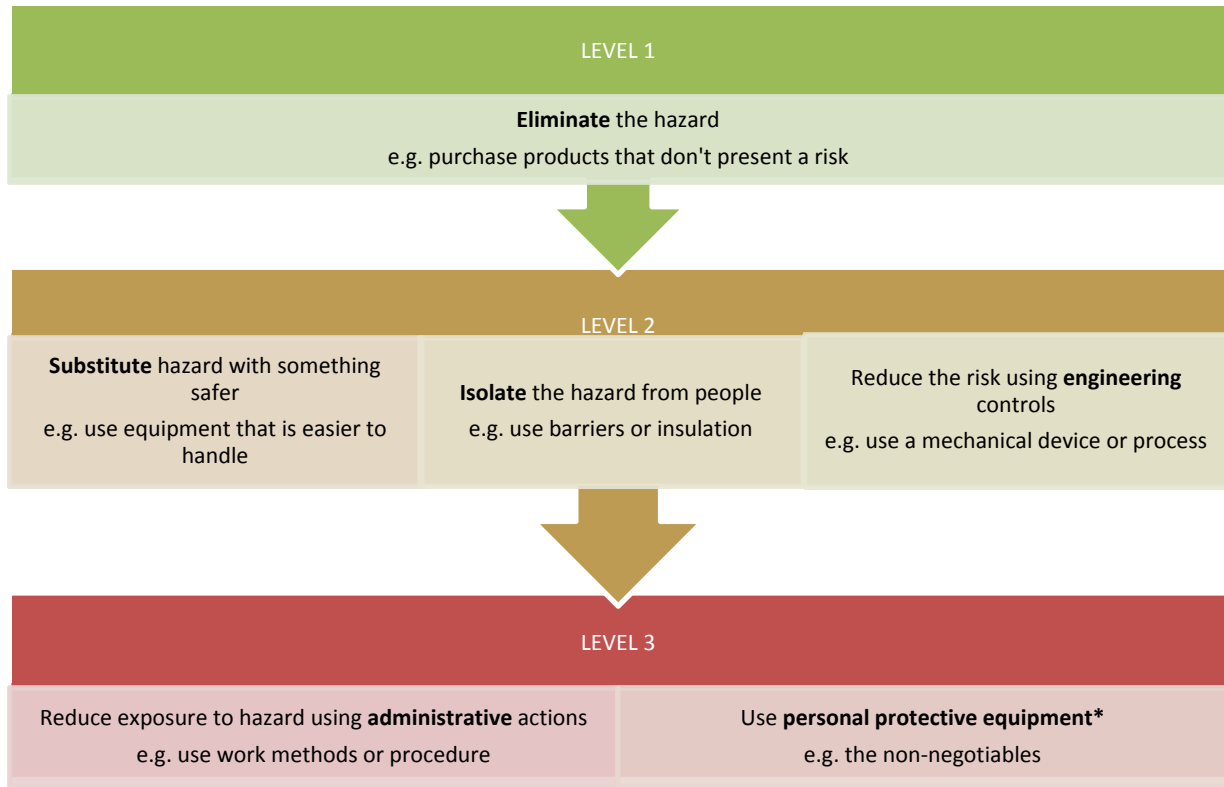


Risks need to be controlled using the hierarchy of controls (see Figure 2) which involves selecting the highest level of protection and reliability to the lowest. The process involves working through each of the hierarchy levels and considering the costs involved with using that level – with consideration to the extent of the risk and the ways of controlling it – before considering the next level. For example, it is better if unsafe equipment is never introduced to TasNetworks (elimination of a risk) rather than having to alter that equipment or purchase additional equipment to manage risk (engineering controls).

Sometimes a combination of controls will be needed to control a risk. Any remaining risk must be controlled in level 3.

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Figure 2: Hierarchy of Control



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## 1.2 Management of operational risk

Management of operational risk through risk-based thinking in order to:

- Ensure risks that can affect TasNetworks’ ability to meet its operational objectives are identified from the beginning and throughout the processes;
- Make proactive action part of strategic planning to mitigate risks;
- Help to identify opportunities as part of risk treatment.

This process is summarised in the figure below:



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## 2. When to apply HSEQ Risk Management?

Risk management is an ongoing process that is triggered when any changes affect our activities. The following table shows when risk management should be applied and the process to use.

Table 1: Risk management process and examples

Process to use	Examples of when the process should be used
<b>Significant HSEQ Risks are rated as <i>Major or Severe</i> (section 3.1)</b>	Those HSE risks that permanently exist in TasNetworks that have potential for fatality or life-altering injury. These risks present a particular threat to the distribution business.
<b>Managing Specific HSEQ Risks (section 3.2)</b>	<ul style="list-style-type: none"> <li>• Planning work processes</li> <li>• Managing workplace bullying</li> <li>• Designing plant or structures</li> <li>• Responding to concerns raised by Team Members</li> <li>• When new information regarding work processes becomes available</li> <li>• Reviewing control measures</li> </ul>
<b>Managing HSEQ Change (section 3.3)</b>	<ul style="list-style-type: none"> <li>• Changing work practices, procedures or work environment</li> <li>• Purchasing new or used equipment or using new substances / chemicals</li> <li>• Restructuring a group / department</li> </ul>
<b>Job Risk Analysis (JRA) (Section 3.4)</b>	<ul style="list-style-type: none"> <li>• Before commencing construction, operating, maintenance, inspection, testing and emergency work</li> <li>• During construction, operating, maintenance, inspection, testing and emergency work if conditions change</li> </ul>
<b>Additional Requirements for Design and Construction Work (Section 4 &amp; 5)</b>	<ul style="list-style-type: none"> <li>• When commissioning a design</li> <li>• For construction work and construction projects over \$250 000</li> </ul>

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### 3. How to apply Risk Management

Depending on the nature of the activity, a range of tools can be used to manage the risks. All the tools are based on the [TasNetworks Risk Management Framework](#).

The framework defines the risk matrix and associated consequence and likelihood definitions. All HSEQ risk assessments must follow the approved matrix.

#### 3.1 Significant HSEQ Risks

The significant safety risks TasNetworks faces are considered unavoidable and have the potential for fatality or life-altering injury in the business. These were identified using the TasNetworks Integrated Risk Management Model and are contained in: [CO-#10525659-WHS Significant risk Bow Ties](#).

Significant environmental aspects have been identified and listed in HSEQ Risk Register under the *Environmental Master* tab.

Significant HSE risks are audited annually by the HSEQ team in line with the annual audit schedule and plan.

#### 3.2 Managing specific HSEQ Risks

The HSEQ integrated management system contains procedures that need to be used to manage specific hazards such as isolation, lock out and tag out, manual tasks, traffic management, plant management, noise management and working with asbestos and in confined spaces.

TasNetworks Workplace Behaviour Policy, Code of Conduct and Workplace Behaviour Resolution and Investigation Procedure are used to manage the risk of psychological health at work. TasNetworks also offers practical guidance at Zero Harm events and professional counselling through the Employee Assistance Program.

Much of TasNetworks work is covered by distribution standards, procedures and guidelines. These distribution standards, procedures and work practices are available on the Zero Harm page of the ZoNe (Figure 3). And cover:

- Designing plant or structures;
- Constructing plant and structures;
- Commissioning plant and structures; and
- Reviewing control measures








For example, the distribution standards governing design should consider, for each design, the types of activities and tasks likely or intended to be carried out in the structure, including the tasks of maintenance, repair, servicing or cleaning of the structure as an integral part of its use.

Furthermore, much of the equipment that is installed within the distribution network is governed by equipment specifications and purchased on period contracts.

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Figure 3: TasNetworks Zero Harm page



 Procedures & Standards	 Training Videos	 RMSS	 ChemWatch
 Operating Standards	 Work Practices	 LifeSafe	 SafeTrack

Alerts		
Name	Level	Release Date
Silica Gel Green Lesson Template	Green	21/07/2017
Amber Lesson RMSS 17858- Redundant equipment and vegetation worker risk	Amber	19/07/2017
Green Lesson Safe Parking	Green	12/07/2017
Amber Lesson RMSS 17720- Copper Push-Pull Connectors	Amber	27/06/2017
Amber Lesson-NECF Type 1 07-06-2017 Removing or altering metering	Amber	22/06/2017
Blue Lesson RMSS17761 - Live Low Voltage Flash Over on Stobie pole	Blue	14/06/2017

Key Links
<a href="#">Leading Zero Harm</a>
<a href="#">Environmental Handbook</a>
<a href="#">Health &amp; Safety Representatives</a>
<a href="#">Manual Handling Videos</a>
<a href="#">Templates</a>
<a href="#">Office &amp; Depot Plans</a>
<a href="#">Clothing Order Forms</a>
<a href="#">Online Training &amp; Inductions</a>

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### 3.3 HSEQ Change Management (Including the introduction of new technology)

For all changes that can have a significant impact on HSE, the Managing HSE Change procedure should be used. Examples where this procedure would be applied include:

- Equipment Modification that requires a change to an engineering drawing, engineering specification, or operating parameter. It does not include replacement in kind.
- Process Modification that results in a change to the process description or process logic. (That is, a change to the action steps, or methods).
- Material Modification that results in a change to the material/item specification or safety data sheets.
- Control System Modification that is outside the defined limits as specified in appropriate documentation (for example, the Design Manual does not include routine calibrations and changes to bring control systems back in line with documented parameters).
- Safety System Modification that modifies or removes the operation of limits, alarms, trips, detectors, or other devices used to monitor the safe operation of plant and equipment.
- Software Modification to the software programs of PLC's instrumentation systems, or computers that control processes or equipment.
- People Modifications to manning levels, rosters, competency levels that may have an impact on the process outcomes.

Use the Managing HSE Change Procedure and forms to manage these risks. Managing Risk on Field Worksites

Before commencing construction, operating, maintenance, inspection, testing or emergency work, the TasNetworks Job Risk Analysis tool must be applied. If conditions change, the risks must be reviewed including:

- JRA Template
- JRA Live Line Template
- First Pass Template
- JRA User Guide
- JRA Process Flowchart

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### 3.4 Managing Operational Risks and Opportunities

Operational risks and opportunities have been identified, assessed and are managed via *Risk Management and Opportunity Management* portal and have been categorised as follows:

- Regulatory, legal and compliance;
- Public safety;
- Worker health and safety;
- Employee engagement and change management;
- People and talent ;
- Shareholder return/ financial stability;
- Pricing;
- Program delivery;
- Loss of major load customer;
- Customer engagement;
- Business continuity.

The above risks are managed by various Organisational Units as outlined in *Management and Opportunity Management* portal.

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## 4. Additional Risk Management Requirements for the Design Process

Risk management must always be part of the design process and is covered in the TasNetworks Distribution Business Manual and Standards.

The client, for example Asset Management Investment and Performance Team, should make the safety requirements and objectives for the project available to the designer. If this information is not covered in existing standards, it may involve preparing a brief that specifies:

- The design and its intended purpose;
- Materials to be used;
- Possible methods of construction, maintenance, operation, demolition or dismantling and disposal; and
- Any legislative requirements and standards need to be complied with.

Designers should ask the clients about the types of activities and tasks likely or intended to be carried out in the structure, including the tasks of those who maintain, repair, service or clean the structure as an integral part of its use.

In some situations, procedures, distribution standards and work instructions may not exist, such as:

- Planning new work processes, for example, set up of a warehouse layout;
- Responding to concerns raised by Team Members; and
- When new information regarding work processes becomes available.

Key information about identified hazards and actions that have taken or are required to control risks in the distribution business should be recorded and transferred from the design phase to those involved in later stages of the lifecycle via the use of:

- Worksite Safety Consideration form - Design/Scope;
- Environmental Consideration form; and
- TasNetworks Designer's Field Book.

The above information will also form part of the construction work pack and be located in the works management system [Work Asset Scheduling Program \(WASP\)](#). These tools can be referred to as the Safety Report and can be referenced if required for future designs.

## 5. Additional Risk Management Requirements for Construction Work

For construction work, which constitutes most TasNetworks fieldwork, there are additional specific risk management requirements prior to commencement. These include:

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- For construction projects >**\$250,000 a written HSE Management Plan** must be prepared – see hyperlink below;
- Appropriate work practices in combination with JRA or SWMS must be in place;
- Team Members must have completed general construction induction training (white card); and
- Ensuring there are appropriate facilities on-site.

TasNetworks [construction project templates](#) and forms can be accessed via the Volt.

## 5.1 Visitor

TasNetworks structures will be built and maintained in compliance with the Building Code of Australia 2011. Ongoing maintenance of TasNetworks structures will be managed as scheduled by the responsible parties identified in Table 1.

*Table 2: Maintenance of TasNetworks Structures*

Responsibility	Structure type
<b>Facilities Team</b>	Structures occupied by Team Members full time e.g. Rocherlea Depot
<b>Asset Management Team</b>	Restricted area structures e.g. Zone Substations as defined by the Power System Safety Rules
<b>Field Operations</b>	Green field and field sites e.g. Distribution pole worksite

Daily management of TasNetworks occupied facilities will be done via [facilities requests](#), including security and access control for all TasNetworks sites.

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## 6. Safe Work Method Statements (SWMS)

Generally, the TasNetworks work practice, training and competency assessment and JRA process constitute the Safe Work Method Statements (SWMS). However, in some circumstances, a dedicated SWMS may be developed (for example, for unique tasks where no work practice exists). Where required, SWMS must be available at the field worksite and kept for 2 years if there is a notifiable incident.

## 7. Monitoring and Review of Risks

Risk assessments (for example, Significant Risks, work practices or SWMS) must be reviewed (and revised if necessary) if relevant control measures are revised. The review process should be carried out in consultation with Team Members (including contractors and subcontractors) who may be affected by the operation and their HSRs who represent that work group. Any associated procedures affected by the change must also be amended.

## 8. Records

Risk assessments must be electronically stored so they are retrievable in the future. Storage locations may be:

- Incident and Risk Management System (IRMS also known as RMSS);
- Document Management System (DM); and
- Work Asset Scheduling Program (WASP)

Where a notifiable incident occurs, the risk assessment and work practice or SWMS must be kept for at least two years.

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## 9. Responsibilities

We all have responsibilities to ensure that TasNetworks is a Zero Harm workplace. How everyone contributes to managing health safety and environmental matters in general is provided in the TasNetworks HSEQ Responsibilities procedure.

Some roles have other specific responsibilities detailed below.

### 9.1 TasNetworks

- Have duties to manage HSE risk to Team Members, other people (arising from the conduct of the business) and the environment.

### 9.2 Officers (including the Board)

- Must gain an understanding of the general hazards and risks associated with the TasNetworks HSE operations.
- Must ensure there are appropriate resources and processes available to eliminate or minimise risks.
- Must ensure that there are appropriate processes for HSE incident, hazard and risk management.

### 9.3 Leaders and Principal Contractors

- Must ensure HSE Risk Management is applied when required.
- Must consult with Team Members and their Health and Safety Representatives (HSRs) when applying HSE Risk Management.
- Must consult with Designers when you are leading the construction.
- Must take reasonable steps to obtain the Safety Report for designs that introduce unique risks.
- Must ensure that they and their teams apply safe work procedures and the Job Risk Analysis tool on Field Worksites.
- Must ensure safe work procedures and the Job Risk Analysis tool are available at the worksite to all Team Members.
- Must ensure all Job Risk Analyses are filed electronically for future retrieval.
- Need to regularly check control measures that are being used by their team are suitable and being used correctly.

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## 9.4 Team Members (including staff at all levels, contractors and subcontractors)

- Use work practices and the Job Risk Analysis (JRA) to manage the risks associated with work activities on Field Worksites.
- Team Members must ensure their general construction induction training card (white card or general induction training certification if awaiting receipt of the white card) is available for inspection.
- The duty of a worker also applies to officers, General Manager and leaders.

## 9.5 Health, Safety, Environment and Technical Competency (HSE & TC) Team

- Support Leaders, Team Members and managers with advice, training and resources to manage the HSEQ risks.
- Develop or assist with developing any necessary safe work procedures.
- Participate in reviewing, and revising (as necessary), control measures and training arrangements when:
  - introducing a change to work processes, plant or equipment;
  - introducing new control measures; or
  - if there is a change in relevant legislation or other issues that may impact on the way tasks are performed.

## 9.6 Designers of Structures

- Must ensure that the structure is designed to eliminate or minimise risks to the health and safety of persons who use, construct, maintain, demolish, or dispose of the structure (see Code of Practice on the Safe Design of Structures).
- Must provide a safety report to the person constructing the structure that specifies the hazards relating to the design of the structure if the risks are unique to that design.

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## 10. References

The following documents were reviewed as part of developing this procedure:

Legislation	
Work Health and Safety Act 2012 (TAS)	
Work Health and Safety Regulations 2012	
Occupational Licensing Act 2005	
Codes of practice, Industry codes, etc	
WorkSafe Tasmania's How to Manage Work Health and Safety Risks Code of Practice	
Standards WorkSafe Safe Tasmania's Construction Work Code of Practice	
WorkSafe Safe Tasmania's Safe Design of Structures Code of Practice	
Building Code of Australia/ National Construction Code	
AS/NZS 4801 Occupational Health and Safety Management Systems	
ISO9001:2015 Quality Management Systems	
ISO14001:2015 Environmental Management Systems	
ISO 31000:2009 Risk management – Principles and guidelines	
TasNetworks documents	Record Number
Environmental Handbook 2010	
HSEQ Change Management Procedure	R0000027751
Distribution Manuals and Standards	
HSEQ Responsibilities Procedure	R0000027753
<a href="#">TasNetworks Integrated Risk Management Framework</a>	
Forms	
Other documents/ resources	

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## 11. Glossary

**Construction Work** – Any work carried out in connection with the construction, alteration, conversion, fitting-out, commissioning, renovation, repair, maintenance, refurbishment, demolition, decommissioning or dismantling of a structure. It includes installing, testing, maintaining essential services, such as electricity, in relation to a structure. It also includes installing prefabricated power poles and roughing-in telephone, television and internet cables. It excludes manufacturing plant and performing minor testing, maintenance or repair work.

**Designer** – A person that designs a structure that is to be used as, or could reasonably be expected to be used as or at, a workplace.

**Environmental Aspect** – Activity, product or service that can interact with the environment.

**Environmental Impact** – Any change to environment, whether adverse or beneficial resulting from an environment aspect. Environmental impact is considered significant where the risk has legal implications.

**Field Worksite** – A worksite where construction, operating, maintenance, inspection, testing or emergency work is taking place. The following are not ‘Field Worksites’:

- Inside domestic, office and retail premises where only a visual inspection is occurring and/or a plug-in testing devices are being used for testing
- A field site or future field site being scoped for future development, modification, upgrade or maintenance (for example, vegetation clearing)
- Locations where a meter is being read, unless there are site-specific PPE requirements

**HSE** – Health, Safety and Environment.

**HSEQ** – Health, Safety, Environment and Quality.

**HSR** – A person elected in accordance with the WHS Act 2012 to represent Team Members in a workgroup on work health and safety matters. This person also represents Team Members on environmental and sustainability matters.

**JRA** – Job Risk Analysis.

**Officer** – A senior executive who makes, or participates in making, decisions that affect the whole, or a substantial part, of the business or undertaking. It can include a director or secretary of the corporation, an officer of the Crown or an officer of a public authority.

**PPE** – Personal Protective Equipment.

**PSSR** – Power System Safety Rules.

**Safe Design** – the integration of control measures early in the design process to eliminate or, if this is not reasonable practicable, minimise risks to health and safety throughout the life of the structure being designed.

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**Safety Report** – this is a written report that a designer must provide to businesses who have commissioned a design from them. It specifies the hazards relating to the particular design of structure that is a risk to people performing the construction work. How TasNetworks addresses the requirements of a safety report is provided in section 5.

**Structure** – Anything that is constructed, whether fixed or moveable, temporary or permanent. A structure includes buildings, masts, towers, framework, pipelines, transport infrastructure and underground works (shafts or tunnels), for example noise reduction barriers on a freeway, communications masts or towers, electricity transmission towers and associated cables, any component of a structure and part of a structure.

**SWMS** – Safe Work Method Statement.

**Team member** – is a worker who carries out work in any capacity for TasNetworks (WHS Act 2012 s.7). It includes leaders, Board Members, employees, people on individual employment contracts, apprentices, trainees, students gaining work experience, outworkers, volunteers, employees of a labour hire company, contractors or subcontractors, and their employees.

**WASP** – Work Asset Scheduling Program.

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