

Handbook for Contractors

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Document Controls

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1 Introduction

1.1 Purpose

The information in this handbook provides a summary of contractor WHS requirements while undertaking activities in SA Water.

It is your responsibility to comply with legislation relevant to the work activities.

Any person providing a service for SA Water should familiarise themselves with the content.

Where conflict arises between the handbook information and any contractual documents, the formal contractual documents take precedence.

1.2 Definitions and abbreviations

Term	Description
SA Water	South Australian Water Corporation
ADWG	Australian Drinking Water Guidelines
Audit	A systematic examination against defined criteria to determine whether activities and related results comply with planned arrangements and whether these arrangements are implemented effectively.
Construction Project	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.
Contractor	An individual or organisation that is engaged by SA Water to carry out work or provide a service under a contract for service, including the contractor, the contractor's employees and any sub-contractors managed by that contractor.
Contractor Management System	SA Water's on-line contractor induction and management process
Control of Site	Persons who have responsibility for day to day operation and maintenance of SA Water's infrastructure have a shared responsibility with other parties that are engaged to undertake work activities to maintain a safe working environment for a designated area.
Designer	A person whose profession, trade or business involves them in: <ul style="list-style-type: none"> • Preparing sketches, plans or drawings for a structure, including variations to a plan or changes to a structure. • Making decisions for incorporation into a design that may affect the health or safety of persons who construct, use or carry out other activities in relation to the structure.
Hazard	A source or situation with a potential for harm in terms of human injury or ill-health, damage to property, damage to the environment, or a combination of these.
High Risk work	Work with high impact consequences. The Work Health and Safety Act 2012 (SA) states that high risk work is any work that: <ul style="list-style-type: none"> • Involves a risk of a person falling more than 3 metres (heights) • Is carried out on a telecommunications tower • Involves demolition of any element of a structure that is load bearing • Involves or is likely to involve the disturbance of asbestos • Involves structural alterations or repairs that require temporary support to prevent collapse • Is carried out in or near a confined space • Is carried out in or near a shaft or trench with an excavation deeper than 1.5 metres

Term	Description
	<ul style="list-style-type: none"> • Involves the use of explosives • Is carried out on or near pressurised gas distribution 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 contain a contaminated or flammable atmosphere • Involves tilt up or precast concrete structures • Is carried out on, in or adjacent to roads, railways or other traffic corridors (other than pedestrian) • Is carried out in an area where there is any movement of powered mobile plant • Is carried out in or near water or other liquids with a risk of drowning • Involves diving work <p>For the purposes of safety within project management at SA Water, high risk work also includes specific work at sites identified as high risk by SA Water or the contractor through their risk registers or other risk assessment processes.</p>
Inspection	A planned systematic appraisal of the workplace to evaluate how hazard controls are being implemented.
Job Safety Environment Analysis (JSEA)/ Job Hazard Analysis (JHA)	A documented risk assessment which breaks down the job into work steps with the identified hazards and required control measures formally recorded for each step.
Nominated Person / Contract Manager	The person who is assigned the authority to manage the project and is accountable for the project deliverables on behalf of the project sponsor.
Person Conducting a Business or Undertaking (PCBU)	<p>A person conducting a business or undertaking to the extent that the business or undertaking involves the management or control, in whole or in part, of the workplace but does not include:</p> <ul style="list-style-type: none"> • The occupier of a residence, unless the residence is occupied for the purposes of, or as part of, the conduct of a business or undertaking • A prescribed person.
Project Sponsor	The person who has ultimate authority over the project and is usually the initiator of the project.
Safe Operating Procedure (SOP)	A documented procedure required for the safe performance of work tasks.
Safe Work Method Statement (SWMS)	<p>A statement that:</p> <ul style="list-style-type: none"> • Identifies a work activity assessed as having a safety risk or risks • States the safety risk or risks • Describes the control measures that will be applied to the work activity • Describes how safety measures will be implemented to do the work safely, and <p>includes a description of the equipment used in the work, the qualification of the personnel doing the work and the training required to do the work safely.</p>
Site Management	Persons who have control for the operational activities and associated infrastructure.
Site Steward	The SA Water representative responsible for the day-to-day operation of the site or asset.

Term	Description
Structure	Anything that is constructed, whether fixed or moveable, temporary or permanent.
Work Health & Safety Management Plan (WHSMP)	A high level management plan prepared by the Principal Contractor that describes how health and safety specific to the project / contract will be managed.
Work Initiator	The SA Water representative responsible for arranging for work to be performed by a contractor.
WHS Resource	A suitably qualified / competent person who can provide specialised advice or support on WHS issues (This may be internal WHS Advisors or external individuals / organisations)

1.3 Scope

This handbook applies to all contractors who are engaged by SA Water to perform activities on SA Water assets.

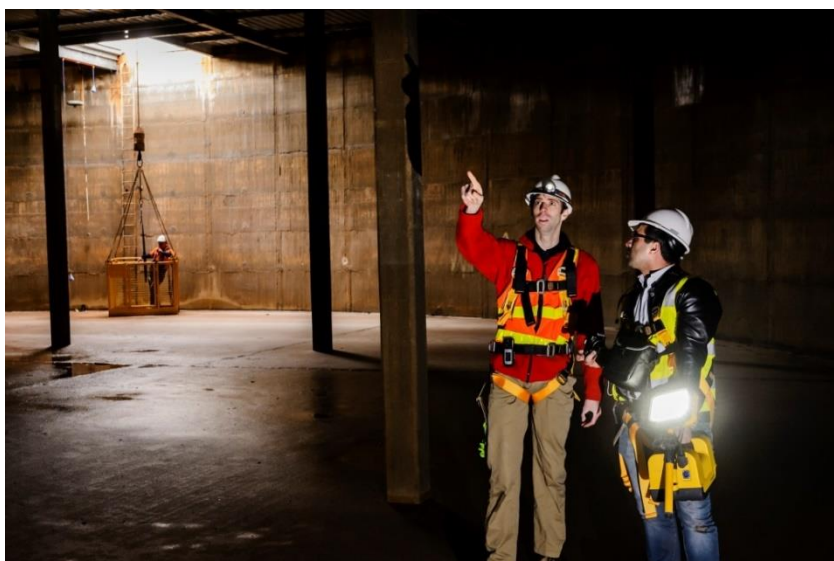
2 Objectives

2.1 WHS objectives

SA Water provides essential water and wastewater services to the people of South Australia. Our commitment is to build the health and safety capability and culture of the business so that everybody is safe on every job, every day.

We expect workers to:

1. **Demonstrate leadership:** Provide leadership by making sure that all work is undertaken with safety and health as the first priority.
2. **Empower our people:** We are all empowered to make decisions that will create a safe workplace, even if it means stopping work to make a situation safe.
3. **Take personal responsibility:** We are all responsible for our own safety and will not cause harm to others. We can control workplace risks by following safe work processes and reporting hazards, incidents and near misses.
4. **Maintain effective safety systems:** We provide and use safe systems so that we can work without harm. We consult in the development, implementation and review of our systems, and measure objectives and targets to continually improve.



2.2 Water quality objectives

SA Water has an obligation to provide to our customers safe, clean drinking water that is fit for purpose, cost effective and complies with regulatory requirements.

Contractors are engaged in many activities that Australian Drinking Water Guideline lists as hazardous:

- Inadequate repair and maintenance, inadequate system flushing and reservoir cleaning
- Commissioning new mains
- Inadequate disinfection after construction, repairs.

We expect workers to:

1. Be aware of how their activities may impact water quality supplied to customers.
2. Take measures to mitigate water quality risks when undertaking work especially when working in contact with water directly supplying customers in the distribution system.
3. Notify managers when water quality has been (or potentially has been) compromised and there is a risk of unsafe water being supplied to customers.

2.3 Environment and heritage objectives

SA Water seeks world class environmental and heritage outcomes in the delivery of water, wastewater and recycled water services.

SA Water is committed to complying with all environmental and heritage legislation and conditions of associated approvals.

We expect workers to:

1. Be aware of how their activities may impact the environment and any Aboriginal or European heritage.
2. Be aware of the relevant legislation and approval conditions for the works.
3. Undertake work in accordance with relevant environment and heritage management plans.
4. Notify management when there has been or potentially has been an adverse impact on environment or heritage or there is an increased risk of an adverse impact.

3 Contractor Management

3.1 WHS management system

You are required to register your organisation in SA Water's Contractor Management System (CMS). Contact CMS Support at CMSSupport@sawater.com.au.

We reserve the right to undertake inspections and audits of your WHS Management System at any time for the duration of the engagement.

Failure to implement or comply with your WHS Management System we may require work to stop or insist on further actions or sanctions at no cost to SA Water.

3.2 Inductions

SA Water Corporate Induction

To perform work on an SA Water site you must ensure that any employees and subcontractors have completed the online corporate induction and have a current "SA Water Contractor Card" before presenting to site.

SA Water Site Induction

When you are working on an SA Water site, all your employees and sub-contractors are to undertake the site specific induction. When you take full legal possession of an SA Water site you may incorporate the site specific induction as part of your own induction process. You are then responsible for ensuring visitors receive the site specific induction for the duration you have full legal possession.

Allwater Site Induction

When you are working on an Allwater site, all your employees and sub-contractors are to undertake the site specific induction provided by Allwater. This is a two part induction, the first a general online induction followed by an on-site specific induction.

Other Inductions

Where you work on a Trility, Adelaide Aqua or Allwater operated site, all your employees and sub-contractors are to undertake the site specific induction as provided by site personnel.

Contractor Safety Rules

You are responsible for making sure that all workers, visitors or others who work on site are inducted into WHS documentation. This includes site safety rules, Safe Work Method Statements, directives or any other documentation in line with your WHS Management plan.

3.3 Levels of engagement

There are 3 types of engagement of contractors in SA Water.

3.3.1 Contractors engaged to work with SA Water

This is where you work directly under supervision and instruction from SA Water (i.e. engagement of a contractor to undertake specialist work as a component of operational activity, e.g. excavator). You are required to sign onto SA Water's documented risk assessment (JHA).

3.3.2 Contractor has been engaged to conduct work for SA Water.

This is where you provide specialised skills or services performed on SA Water assets or infrastructure but are not under SA Water's direct supervision or instruction (e.g. kangaroo shooter, Jim's Antenna, Telstra). You work under your own safe system of work and documented risk assessment.

3.3.3 A contractor engaged to undertake a major project where they have contractually been given possession of the worksite

This is where you have your own safe system of work which SA Water and other parties entering site must abide by.

3.4 Authorisation to enter site

A Work Initiator will liaise with Site Management/Site Steward to make sure that all authorities and permissions are granted before work commences.

3.5 Contractor authority to work

The Work Initiator should arrange a pre-commencement meeting to confirm that all requirements for site handover have been completed and are in place.

The meeting is to be documented and include:

- Confirmation that any relevant WHS Plans have been reviewed and accepted by Site Management/Site Steward and other stakeholders that may be affected by the activities.
- Appropriate authorities to enter sites have been completed and are available.
- Contractors have registered on the Contractor Management System and that all contractor employees have undertaken the applicable inductions.
- Confirmation of site inductions for all future workers and visitors to site.
- Relevant licences from external sources are in place.
- Relevant permits are in place.
- You are aware of the requirement to:
 - Provide an end of month WHS Report (where nominated).
 - Provide Safe Work Method Statements for high risk work prior to commencing work.
 - Conduct risk assessments of the job to be undertaken to identify hazards and implement required controls to complete the task safely.
 - Immediately notify Work Initiator/ nominated persons of any:
 - Actual or potential lost time or medical treatment injury
 - SafeWork SA notification or visit
 - Incident involving high risk work.
- The Work Initiators requirement to undertake monthly workplace inspections.
- Potential for SA Water WHS Advisor to undertake audits.
- Communication, consultation, coordination and cooperation, including but not limited to:
 - Security and access to site
 - Site Delineation
 - Details of any "Third Parties" likely to be on site circulated
 - Inductions:
 - SA Water / Allwater Site induction
 - Contractor controlled site induction.
 - Communication between Site Management and Contractor
 - Consultation with workers across the site
 - Lock out / tag out / isolation procedures
 - Traffic Management on site
 - Contact details for:
 - SA Water
 - Site Management
 - Principal Contractor
 - Sub-contractors.

3.6 Safety in Design (SiD)

When design is undertaken as part of a contract with SA Water (a design only or design and construct contract), the designer will be responsible for the SiD process. Infrastructure and assets that are delivered will meet relevant WHS legislation, WHS regulations, codes of practice and relevant standards.

The designer may use processes, procedures and systems they have established to comply with the SiD legislative requirements and SA Water Technical Standards.

3.7 Water quality hazards

A water quality hazard is a specific source or situation with a potential for harm to public health. The hazards may be biological, chemical, odours or anything that may introduce contamination for example:

- Stock accessing a water course
- Tank roofing not properly sealed
- The potential for backflow into water supply due to a standpipe without an air gap to a tanker.

Any observed hazards must be reported to Site Manager/Project Manager.

3.8 Environment and heritage management

Environment and heritage hazards and hazardous events are to be managed according to an environmental and heritage management plan approved by SA Water.

In the design of works, the contractor will minimise environmental heritage impacts and risks.

Prior to starting works, the contractor shall ensure that all relevant approvals and licences have been obtained.

All personnel involved in the works will be made aware of environmental and heritage risks and controls and approval and licence conditions through site inductions and meetings.

4 Contractor reporting

4.1 Regulatory reporting

You will notify the Contract Manager of any Improvement or Prohibition Notices issued for the contract by SafeWork SA or relevant Regulator, verbally within two hours and written within two days.

4.2 WHS incident reporting

You are required to report incidents that have or may have resulted in:

- A lost time injury (being one full shift where the worker cannot attend work because of the injury).
- A medical treatment injury (where the worker attends at a medical practitioner for treatment - this does not include attendance for review or evaluation purposes only).
- A notifiable incident where SafeWork SA may attend site (regardless if they attend site or issue any notices).
- Any incident that involves high risk work and that did or may have exposed any person to any level of risk.
- You must report (verbally) all incidents to your nominated person immediately.
- Nominated persons will respond to the incident notifications immediately.
- You must consider whether the incident should be reported to SafeWork SA and make a report if necessary.

Note - You are responsible for reporting to SafeWork SA and/or relevant Regulator dealing with any issues arising from that report.

4.3 Water quality incident reporting

Safe Drinking Water Act 2011 - supply of safe drinking water

- Implementing good practice (as defined in the Australian Drinking Water Guidelines).
- Includes monitoring, incident management protocol, risk management, Department of Health Authority reporting.
- All potential activities that impact or could impact water quality must be reported and classified.

4.4 Environment and heritage incident reporting

The contractor shall report immediately to SA Water any incident or event where:

- There was, or could reasonably have been a negative environmental or heritage impact
- Breach of conditions or consent
- Any complaint with regards to the works and actual or potential environmental or heritage impact
- The EPA or other legislative body / external agency are required to be notified.

5 Pre-start requirements

5.1 Water industry fatal risks

The following risks are inherent in water industry activities:

- Energy Isolation (LOTO)
- Fatigue
- Hazardous building materials, chemicals and substances
- Mobile Plant and Equipment
- Confined Space
- Crane Lifting and Operation
- Driving
- Excavations and Trenching
- Lone Worker
- Traffic Management
- Underground and Overhead Services
- Working at Heights
- Working with Electricity
- Workplace Violence
- Bites and Stings
- Working in or around Water.

Other potential hazards may exist, e.g. gases, fumes, demolition, blasting and biological which need to be identified, assessed and controlled.

You will be informed of the hazards at each worksite location on induction.

Safety Data Sheet Folders or Asbestos Registers are to be available upon request. You are responsible for clarifying queries in relation to these documents.

You will inform us of any hazards that you may introduce to the site before attending the work site.

5.2 Water quality risk

There are several possible risks that can impact water quality and should be reported.

- Contamination of raw or treated water
- Infrastructure damage
- Leaks and spills and overdoses
- Unhygienic practices
- Poor disinfection practices
- Fire.

SA Water must be notified immediately if any water quality risks are suspected.

5.3 Environment and heritage risk

Environment and heritage impacts may occur when there is:

- Release of any liquid or gas from the works
- Pollution of water bodies
- Exposure of contaminated soil or acid sulfate soils
- Excessive noise or vibration
- Inadequate management of waste materials
- Inadequate management of dangerous goods
- Unauthorised removal of or damage to flora or injury or death to fauna
- Discovery of Aboriginal remains or artefacts
- Unauthorised damage to Aboriginal or European heritage sites.

5.4 Certificates of competency

Qualifications, licences, permits and certificates of competency are required for certain work. Evidence of certification must be presented when requested.

5.5 Warning signs

Personnel must abide by signage.

Signage is a type of administrative control and is not designed to replace other accident or hazardous prevention measures.



5.6 Alcohol and other drugs

You must not place yourself or others at risk because you have consumed alcohol or drugs.

SA Water's Drug and Alcohol Procedure applies to all SA Water employees, including temporary and casual employees, as well as contractors and visitors to SA Water sites.

Drug and alcohol testing will be performed across our sites in the form of:

Post serious incident testing - in the event a person is involved (directly or indirectly) in a serious incident or near miss.

Unannounced – for smaller sites, everyone onsite at the time will be subject to testing.

Random - for larger sites, areas are split into pockets and the workers participate in a marble draw to determine who is tested and who is not.

For cause - when there is reasonable suspicion that someone may be in breach of the Drug and Alcohol Procedure a for cause test may be arranged.

For workers undertaking **high risk licence work, e.g. divers, drivers of heavy fleet and operators of hazardous mobile plant**, there is a legislative requirement for a blood alcohol concentration of 0.00g/100ml (**0.00%**). For **all other workers** the limit is 0.02g/100ml (**0.02%**) and anything above this will be considered a prohibited level.

Those working under or attending sites at which formal possession has been granted will abide by the principal contractor's drug and alcohol procedures.

5.7 Personal hygiene

To minimise the risk of transfer of bacteria, virus and other pathogens from hand to mouth, personnel should not eat in the working areas. They should wash hands thoroughly before touching food and before leaving the site.

All personnel working in areas who have the possibility of exposure to wastewater should consider being vaccinated against Hepatitis A, Hepatitis B and Q Fever.

5.8 Smoking

Smoking, including e-cigarettes, is not permitted at any SA Water site or building, near doorways or open windows of those buildings, in government vehicles or near any flammable liquid or gases.

5.9 Failure to comply with safety instructions

If you, your employees or sub-contractors fail to follow the instructions which form part of the contract or undertake work in a hazardous manner, the work may be stopped until a satisfactory resolution can be reached.

5.10 Personal Protective Equipment

You should seek to minimise a reliance on Personal Protective Equipment (PPE) and only be used as a last resort to controlling hazards.

- All activities to be risk assessed and where required specific PPE identified
- Workers need know when and how to use specific PPE
- Signage will identify areas where PPE and clothing are required to be worn.
- Site employees must be observed correctly wearing the required PPE
- PPE must meet the relevant Australian Standard
- PPE must be in good condition
- Spare PPE items must be readily available.

The minimum requirement for field based work is long sleeve shirts, long trousers, reflective strips, steel capped footwear.



6 Work specific requirements

For each of the following risks, you are required to:

- Conduct risk assessments to identify and control all reasonably foreseeable hazards.
- Use appropriate safe systems of work in line with legislative requirements.
- Where you cannot eliminate risks, you are to implement, maintain, monitor and review effective and appropriate measures in line with the hierarchy of control.
- People authorising or supervising works are competent and trained in the right work procedures.
- Workers are to be trained for the risks associated with the works.
- Before work starts, make sure that risk controls are validated via appropriate permission and approval processes.
- Plan and regularly test emergency and rescue arrangements for incidents and potential scenarios.

6.1 Energy isolation – lock out, tag out (LOTO)

- Identify isolation points on plant and equipment.
- Physical lock out devices are to be used to control stored energy risk in existing assets, plant and equipment.

6.1.1 Isolation of SA Water assets

- You are not to disconnect any operational cables, power supply, pipelines or plant without approval from SA Water.
- Only SA Water can arrange for the system to be taken out of service or reconnected.
- You are responsible for correctly isolating and tagging equipment with your own isolation tags before work commences.

6.2 Fatigue

- A fatigue management process is to be functional.
- Plan and organise work to reduce the frequency and likelihood of fatigue.
- Communicate clear roles and responsibilities for fatigue prevention and management.
- Report, investigate and implement controls to prevent recurrence of fatigue related incidents.

6.3 Hazardous building materials, chemicals and substances

- Maintain and review a Hazardous Building Materials (HBM) register and management plan in line with legislation.

- HBM register is to be readily available to affected stakeholders.
- Implement an HBM verification process if suspected HBM is discovered through work.
- Key hazard information about chemicals is to be readily available to all workers and affected stakeholders.
- Dispose all hazardous waste according to the Safety Data Sheet (SDS) information.
- Provide health surveillance to workers at risk of exposure to hazardous substances above established exposure standards.
- Persons involved in the chain of responsibility of hazardous chemicals are to be competent and trained in relevant work procedures and relevant legislation.

6.3.1 Chlorine stations

We store large quantities of chlorine, a gaseous water disinfectant chemical, in dedicated chlorine dosing stations.

If you smell or see gas when approaching a chlorine dosing station, **do not** enter the station and immediately leave the vicinity. Contact the Operations Control Centre on (08) 7424 3500 or appropriate local contact person.

Besides chlorine gas, there are other potential hazards in and around a chlorine dosing station, including high pressure water, ammonia, sodium hypochlorite, snakes and spiders.

You must:

- **NEVER** enter a chlorine station if you are unsure about personal safety
- **NEVER** re-enter a chlorine station after a leak
- **NEVER** operate equipment unless directed
- **NEVER** become complacent around chlorine
- **ALWAYS** consult with operators and others on site
- **ALWAYS** ask questions if you are unsure.

6.4 Mobile plant and equipment



- Use mobile plant for its designed purpose with consideration to environmental conditions and manufacturer requirements.

- Plan works to separate people and plant and comply with all road and site rules.
- Implement an inspection, maintenance and servicing regime in accordance with manufacturer requirements to verify that the item of plant is in good condition and safe to operate.
- Never modify mobile plant and equipment outside the manufacturer's requirements unless it is approved, engineered and certified by a competent person.
- Site or task specific requirements and manufacturer's instructions are to be readily available and communicated to operators, including the provision of any plant specific safety features and hazard information.
- Establish controls to ensure equipment is only operated by authorised persons.
- Report and respond to all mobile plant and equipment defects and remove from service as required.

6.5 Confined space

- When planning new facilities, procuring new plant or modifying existing assets, design spaces where possible so that they are not confined spaces.
- This includes entry for maintenance, cleaning or other purposes.
- Identify and document all confined spaces in the workplace.
- Prevent unauthorised access to confined space at all times.
- Inspect, test, maintain, calibrate and store all confined space equipment in accordance with manufacturer requirements.
- Identify the fitness requirement for confined space work and maintain a record of personnel authorised to undertake confined space work.
- All workers that enter or work in confined spaces are to be competent. This includes the supervisor and the designated stand-by person.

6.6 Crane and lifting operations

- Design, install, commission and maintain cranes and associated equipment in line with legislative requirements.
- Identify, assess and plan crane and lifting operations, including significant and complex lifts in line with relevant legislation.
- Only use fit for purpose crane and lifting devices specifically designed and certified for lifting.
- Use crane and lifting devices within their safe operating limits and environmental conditions.
- Make sure all crane and lifting devices are certified, inspected, tested and maintained in accordance with manufacturer requirements.
- Ensure manufacturer's specifications, instructions and manuals are available and communicated to relevant workers.
- Ensure defective equipment is immediately removed from service and reported.
- Manage all lifting operations and never enter any established exclusion zones.



6.7 Driving

- Consider vehicle conditions, environment factors, resource planning and fitness for work when planning work involving driving.
- Monitor compliance to the road rules and site specific requirements.
- Make sure all vehicles are suitable and designed for the intended purpose.
- Regularly inspect and maintain our vehicles in accordance with manufacturer requirements, acting upon all identified issues or defects that may impact on the safety of the vehicle.
- Ensure that site or task specific vehicle requirements, manufacturers specifications, instructions and manuals are available and communicated.

6.8 Excavation and trenching



- To prevent any contact or collision by mobile plant you must obtain, verify, identify and communicate current underground and overhead services information of the work area, including adjacent areas to workers and stakeholders.
- Implement controls that address the risks of airborne contaminant exposure, the presence of, or possible inrush of water or other liquid, and the accumulation of fumes and gases.
- Implement controls to validate stable ground conditions.
- Before and after excavation and trenching identify and manage any risk of soil contamination.
- Prevent trench water from contaminating main during repairs.
- Isolate services before any work commences.
- Provide and maintain a safe access and egress to all excavations and trenches.
- Liaise with supply authorities regarding proposed work as defined by the supplier and legislation.
- Provide and maintain physical barriers, signage and lighting to prevent unauthorised access, persons or material falling into the excavation.

6.8.1 Tunnelling pit safety (including access/egress)

Tunnelling is used where conventional excavating or trenching is not practicable. Because of vibration or depth, pit walls are supported by steel sheeting, timber sets or other shoring to prevent collapse.

You must ensure:

- Guards/shields, emergency stops, and well labelled controls are fitted to the boring equipment used
- The bore pit has edge protection or fall restraint
- There is a safe ladder system
- Personnel are positioned safely.

6.9 Lone worker

- Plan and organise work to manage the risks of working alone, including scenarios where lone work is not permitted.
- When work is assigned, identify environmental and individual factors that contribute to lone worker risks and control these risks.

6.10 Traffic management

- Manage the risks to people through appropriate planning, communication, monitoring and review in accordance with approved traffic management plans.
- Manage the risk of the interaction between people, mobile plant and vehicles.
- Provide and maintain traffic management equipment and materials.
- Provide information and instructions on designated safe routes, parking areas, pedestrian exclusion zones and speed limits for workers and visitors.

6.11 Underground and overhead services

- Obtain and verify current underground and overhead services information of the work area, including adjacent areas. A process is established to positively identify and expose underground and overhead services. Communicate this information to all relevant workers and stakeholders involved in the activity.
- Establish safe working distances and exclusion zones for people, plant and equipment to carry out work safely, in line with relevant legislative requirements.
- Liaise with the electricity supply authority regarding proposed work as defined by the supplier or legislation.
- When required, competent safety observers are to be available to assist the work activity around underground and overhead services.

6.12 Working at height

- Plan, design, procure and modify our assets to eliminate the need for working at heights where possible.
- Plan and organise work so that enclosed working platforms such as scaffold and scissor lifts are used in favour of ladders or fall arrest equipment.
- Manage the risks of falling objects.
- Ensure only authorised competent persons identify, test and approve anchor points and anchorage systems.

- Inspect, maintain and certify working at height equipment in accordance with manufacturer requirements.

6.13 Working with electricity

Positively identify all services prior to any penetration into structures.

- Establish safe working distances and exclusion zones to control risks when working with or near electricity.
- Manage the risk of all exposed electrical parts and components as energised until proven otherwise.
- Use electrical protective devices suitable for the application on all electrical circuits.
- Access to electrical sources that pose a risk to persons are to be appropriately secured, labelled and signposted to prevent unauthorised access.
- Ensure live low voltage electrical work is not undertaken unless deemed necessary by a competent and authorised person for the purpose of fault finding, testing and commissioning. No work is permitted on live high voltage under any circumstances.

6.13.1 High voltage switching

Only an authorised SA Water representative may undertake switching on high voltage (HV) assets.

6.14 Workplace violence

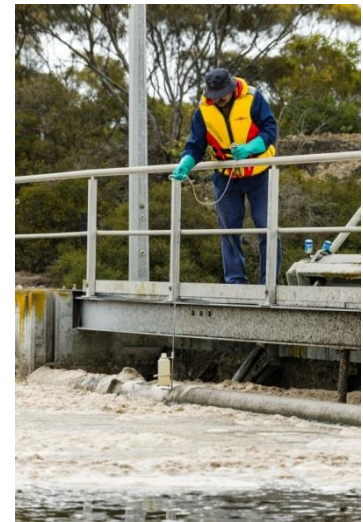
- Plan and organise work to reduce the frequency and duration where workers may be exposed to the risk of workplace violence.
- Provide appropriate supervision of workers to ensure workplace violence controls and staff code of conduct are understood and followed.
- Report all workplace violence related hazards, near misses and incidents. Establish a process for workers to raise any concerns about workplace violence and to report any violent incidents or threats immediately.
- Investigate and deal with all incidents and complaints of workplace violence in a fair and timely manner and where required report to appropriate authorities.
- Implement controls to prevent reoccurrence in response to incidents and complaint.

6.15 Bites and stings

- Identify specific locations, times, situations, and tasks where there is an increased risk of interaction with harmful fauna and flora.
- Plan and organise work to reduce the need, frequency and duration of working near harmful fauna and flora.
- Have appropriate housekeeping programs to reduce the likelihood of bites and stings.

6.16 Working in or around water

- Where specified through a risk assessment, ensure exclusion zones and barriers are established to prevent falls into, or unauthorised access to water hazards under our control.
- Isolate and de-energise relevant systems when working in, on or around water where there is a risk of engulfment or drowning.
- Inspect, test, maintain and store all water safety and emergency equipment in line with manufacturer's requirements.
- Verify workers who undertake diving are medically fit and qualified in line with legislative requirements.



6.17 Additional SA Water requirements

6.17.1 Explosive hazards

There are some areas within our sites where potential explosion hazards exist, such as chlorine, herbicide store, fuel stores, oxygen, acetylene.

No cutting, welding, grinding, drilling or naked flames are permitted in these areas without authorisation from SA Water. Work procedures must be followed.

6.17.2 Blasting work

Blasting is hazardous and specialist work. Explosives are highly sensitive to heat and shock and must be handled very carefully.

Explosives generally used in industry are either High Explosives (TNT, gelignite, dynamite, water gel, ANFO and detonating cord) or Low Explosives or Propellant (gunpowder, cordite). Initiators (detonators or percussion caps) are high explosives in small amounts used to set off a charge.

6.17.3 Hot work

Hot work is welding, thermal or oxygen cutting, heating and other fire producing or spark producing operations.

Any Hot Work in the open must not occur on days of total fire ban except in an emergency and then only with the prior approval of the Regional Manager or a delegated officer who will contact the relevant Country Fires Act Permit.

A Hot Work Permit must be authorised by a responsible person before the commencement of any work.

You must also:

- Wear suitable PPE
- Ensure all guards are secure
- Remove all combustibles from the fall zone and use fire spotters
- Ensure that appropriate firefighting equipment is readily available.



6.17.4 Total fire ban

Everyone must abide by fire bans. Evidence from the local fire authority is to be supplied for an exemption. A permit number must be issued by the fire authority and applying conditions followed.

6.17.5 Housekeeping

You will keep designated work areas clean and tidy at all times.

6.17.6 Manual handling

Each year over 10,000 South Australians suffer injuries caused through manual handling techniques including strains, sprains, ligament and joint injuries and back injuries.

You will not lift, lower, push, pull carry or otherwise move an object that is likely to cause risk of injury.

When lifting refrain from:

- Lifting too far out from the body
- Performing jerk lifts
- Performing heavy lifts
- Twisting
- Frequent lifting
- Over stretching.

Do not try and lift heavy or awkward loads on your own. Ask someone else to help or use a mechanical aid instead.

6.17.7 Demolition work

Inherent hazards in demolition work vary greatly from job to job, and many other sections of this handbook are relevant to those hazards.

In all cases, however, you must:

- Restrict access to authorised persons only
- Provide skips or other facilities for debris
- Maintain housekeeping standards
- Wear safety helmets, footwear, glasses, high visibility vest and other PPE as required on the site
- Manage work at heights appropriately
- Have arrangements for protection to pedestrians and public
- Maintain structural stability during demolition and temporary propping/stabilisation including adjacent structures
- Control dust and noise emissions.

6.17.8 Lasers in construction work

Lasers must remain in the control of a competent person and not be deliberately aimed at others. The laser beam path should not be directed at the height of normal eye level of others. Appropriate signage should be set up to warn that lasers are in operation. Lasers should be terminated by a solid structure that does not produce a reflection.

6.17.9 Angle grinder safety

Angle grinders produce significant torque and have a grinding disc that spins at very high speed. They are renowned for causing serious injuries from contact with the spinning wheel from kick-back, or from the wheel fracturing and exploding. Angle grinders should not be used where a safer alternative cutting tool is available or can be obtained (such as a drop saw).

When using angle grinders, you must:

- Wear correct PPE: eye protection and face shield, safety boots, well-fitted gloves and hearing protection.
- Only use grinding discs for grinding and cutting disks for cutting.
- Ensure the rated speed of the disc matches the speed rating of the power tool.
- The grinding disc is secure and not cracked or excessively worn.

6.17.10 Concrete and masonry handheld saws

People who use concrete and masonry saws face a wide range of hazards including exposure to silica dust and exhaust fumes, saw kick-back, blade fracture, falling walls, electrocution, vibration, noise, falls and manual handling.

When using concrete and masonry handheld saws you must:

- Wear correct PPE: eye protection and face shield, safety boots, well-fitted gloves, suitable clothing and hearing protection.
- Ensure the saw is operated from a clear and stable area/platform that allows the cutting to be done below shoulder height.
- Allow the cut to be done with the lower quadrant of the blade.
- Ensure the object or surface being cut is stable and precautions are taken to prevent blade pinch.

6.17.11 High pressure water jetting systems

You must ensure when carrying out high pressure cleaning that:

- Operators and others in near vicinity are wearing the required PPE.
- Where required, shields have been positioned to protect nearby personnel or surfaces.
- Ensure the object or surface being cut is stable and precautions are taken to prevent blade pinch.
- The possible toxic nature of the surface being cleaned has been considered.
- Operators are working from a stable and safe surface or platform.

6.17.12 Contamination from hands, materials and equipment

When working in an area that is in contact with treated water in the distribution system, all surfaces that come into contact with the water must be disinfected prior to contact. Surfaces include any tools, equipment, boots, hands and gloves. Spray disinfection solution applied immediately before work commences is advisable.

7 Site incidents and emergencies

7.1 Evacuation procedures

The site induction should contain details of designated safe areas and the evacuation alarm system.

If there is an evacuation, fire alarm or any other alarm is sounded all personnel must evacuate the work area and report to the site safe area designated for that location.

Following an emergency evacuation, no re-entry to the site is allowed until the emergency services clearance is given (Police, Fire Brigade and Ambulance).

7.2 Contact details

SA Water

WHS Services	(08) 7424 1416
Service Problems - Metro	1300 883 121
Service Problems – Country	1300 880 337
Water Quality & Environment	SA Water Project Representative

Emergency Services

000

Police Assistance

131 444

SafeWork SA

<http://www.safework.sa.gov.au/>

Emergency (Report serious workplace injuries and incidents)

1800 777 209

Help Centre (Ask a question, report an injury or incident, notify a right of entry, access information)

1300 365 255

Dial Before You Dig

1100

(Emergency Contacts via Homepage)

www.1100.com.au

APA, SA

1800 427 532

NBN Co, SA

1800 032 532

Optus

1800 505 777

SA Power Networks

131 366

Telstra

Use 1100 Webform

Fire Ban Information

http://www.cfs.sa.gov.au/site/fire_bans_and_ratings.jsp

NULCA (National Utility Locating Contractors Association)

1300 883 863

<https://www.nulca.com.au/>

8 Construction requirements

8.1 WHS management plan

Contract Managers must ensure that the Principal Contractor for all construction projects with a value of greater than \$450,000 has a WHS Management Plan in place before work starts. The provision of the plan is a deliverable under conditions of the contract.

Contract Managers should ensure that the WHS Management Plan sets out the arrangements to manage work health and safety on a construction project. As a minimum requirement for SA Water, the plan should include:

- A comprehensive description of the planned works, including information, including but not limited to:
 - The site location including description and maps where possible
 - The scope and nature of planned works
 - Duration including planned start and completion dates.
- Details of the Contractor Company. This should include contacts within the company including but not limited to:
 - Senior Company Personnel
 - Contract Manager
 - Personnel responsible for safety on site, per shift.
- The arrangements in place between PCBUs at the work site for consultation, cooperation and coordination of activities. These include, but are not limited to:
 - Consultation between contractors and site management
 - Communication between contractors on site at the same time
 - Inductions for other contractors, site management, visitors and employees
 - Pre-start meetings
 - Toolbox meetings.
- The arrangements in place for managing WHS incidents that occur including not only the investigation and reporting methodology, but also emergency response and first aid / medical facilities.
- The arrangements in place for the management of change around WHS issues.
- Details of site-specific health and safety rules and the arrangements in place for ensuring that all persons at the workplace are informed of these rules.
- Guidelines on how generic hazard management is managed onsite, including but not limited to:
 - Ongoing identification of hazards including work place inspections, hazard reporting and consultation
 - Assessment of risk
 - Development of corrective or preventative actions
 - Monitoring of actions to close out.
- The arrangements to develop, collect, assess, monitor and review Safe Work Method Statements (SWMS).

Contract Managers should not allow work to commence until they are confident the contractor has demonstrated competence at managing high risk hazards associated with the work.

8.2 Safe work method statements

Where a WHS Management Plan has been provided it must include information on how the Principal Contractor will ensure there are Safe Work Method Statements (SWMS) across all facets of the project, including sub-contractors.

Where there is no WHS Management Plan (i.e. for projects with a value of less than \$450,000) the Contract Manager must ensure that contractors either have SWMS prepared for all identified high risk work or have a process in place that will ensure that SWMS are prepared prior to commencing any high risk construction work.

Where planned work activities may impact on operational activities, the Contract Manager must ensure that copies of SWMS are made available to site management. Where necessary the Contract Manager should liaise with the Contractor and Site Management to ensure there is a method that will ensure compliance with the SWMS.

A Safe Work Method Statement must provide clear direction on the control measures to be implemented to minimise risk associated with high risk work. There should be no statements that require a decision to be made by supervisors or workers, for example, the statement "use appropriate PPE" should not be used; specific direction as to what PPE should be used must be provided.

SWMS must include:

- The name of the PCBU, their address and ABN (where they have one).
- The name and address of the principal contractor.
- The address where the high risk work will be carried out.
- The date the SWMS was prepared and the date it was provided to the Principal contractor.
- The review date (if any).
- The name of the person(s) responsible for ensuring implementation, monitoring and compliance of the SWMS.
- The names of the workers that have been consulted on the content of the SWMS.
- Identification of the high risk work being addressed.
- Details of specific hazards relating to the high risk work and risks to health and safety associated with those hazards.
- Descriptions of the measures to be implemented to control the risks.
- Descriptions of how the control measures are to be implemented, monitored and reviewed.

Generic SWMS may be used where regular work activities are undertaken but must be reviewed prior to each new activity with due regard to site specific hazards and risks.