# Purpose

The purpose of this standard is to provide a Wannon Water framework and guidance for the management of cranes and lifting operations to reduce the risks to human health, the environment and the community, as far as reasonably practicable, and to ensure compliance with legislative obligations.

We use a variety of cranes and lifting devices (e.g. jibs, davits, bridge cranes, crane trucks, trailer mounted cranes, monorails, gantries etc.) and utilising these items present different levels of risks, that we must manage effectively to prevent an adverse impact on our Strategic Direction and support our **Zero Harm** ambition.

# Scope

This standard applies to:

* Any employee or contractor engaged in our activities involving the use of cranes and lifting operations.
* All cranes and lifting equipment that are owned, hired, or leased by us, and:
* The lifecycle of cranes and lifting equipment from selection through to the disposal of an item.

**Out of scope:**

* When a principal contractor has been granted formal possession of a site whilst carrying out contracted work, it is the responsibility of the principal contractor to comply with the relevant regulations and consult with our Engaging Officer to determine if their activities pose a risk to us. (e.g., our employees working near contractors plant and equipment).
* Equipment used to lift people must be referred to the **Working at Heights (Falls Prevention) Standard**.
* Lift at Gateway Road, Warrnambool
* Powered mobile plant e.g. Front end loaders and forklifts

# Standard requirements

**Note:** Cranes and lifting devices are also considered types of plant and equipment. As a result, they are also subject to the principles defined within the **Plant and Equipment Standard** (e.g., allocation of budgets for ongoing maintenance and renewal).

| **Requirements** | **Responsibility[[1]](#footnote-2)** | **Accountability[[2]](#footnote-3)** |
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| Cranes and lifting equipment purchased, built and installed must be completed in accordance with the **Plant and Equipment Standard and Procedure.** | **Executive People & Resilience**  All BMs | GM People & Business Services |
| Assets, plant, and equipment, including safety equipment, used for cranes and lifting operations must:   * Comply with Australian Standards**[[3]](#footnote-4)** * Be installed and used as per the manufacturer’s instructions. * Be inspected and maintained. * Be fit for purpose, and; * Be appropriate for the full duration of the task. | **Executive People & Resilience**  BM Asset Creation  BM Maintenance  BM Operations | GM People & Business Services |
| Risks associated with working with cranes and lifting equipment must be identified and assessed**[[4]](#footnote-5)** by a qualified**[[5]](#footnote-6)** person and the hierarchy of control must be used where reasonably practicable to control the risks to our accepted levels as follows:   * Eliminate (e.g., use lightweight materials that can be handled manually or with minimal mechanical assistance, reducing the reliance on heavy-duty lifting equipment like cranes) * Substitute (e.g., use a mechanical lifting device such as a hoist instead of manual lifting) * Isolate (e.g., use permanent railings) * Engineering (e.g., install limit switches to prevent overloading of cranes) * Administrative (e.g., use of lifting plans) * Use of PPE (e.g., wearing a hard hat) | **Executive People & Resilience**  BM Maintenance  BM Operations  BM Asset Creation  BM Asset Systems | GM People & Business Services |
| Equipment used for cranes and lifting operations must be used and maintained (e.g., inspected, certified, serviced, and repaired) in line with manufacturer’s recommendations as a minimum. | **Executive People & Resilience**  BM Asset Creation  BM Maintenance  BM Operations | GM People & Business Services |
| All maintenance and inspections on cranes and/or lifting equipment must be completed by a suitably competent/qualified person – with records kept. | **BM Asset Systems**  All BM | GM Assets & Service Delivery |
| A Certificate of Compliance for the rated capacity when installed and/or recertified must be maintained against the asset in the asset register as per the **Cranes and Lifting Operations Procedure[[6]](#footnote-7)**. | **Executive People & Resilience**  BM Maintenance  BM Operations  BM Asset Creation  BM Asset Systems | GM People & Business Services |
| Tasks involving cranes and/or lifting equipment must be completed in accordance with our procedures (e.g., **Cranes and Lifting Operations Procedure6**,Safe Work Instructions, Task Risk Assessment (JSA) or equivalent system**[[7]](#footnote-8)**). | **Executive People & Resilience**  BM Maintenance  BM Operations  BM Asset Creation  BM Asset Systems | GM People & Business Services |
| A **Pre-Start Checklist** must be completed prior to using cranes and lifting equipment (i.e., Crane trucks, cranes/lifting devices (e.g. bridge, monorail and jibs)) every day that the equipment is used. | **Executive People & Resilience**  BM Maintenance | GM People & Business Services |
| Cranes and/or lifting equipment are not to be used in hazardous environments e.g. high wind, storms or explosive atmospheres (e.g., digestor at Hamilton WRP) except in emergencies and where the hazards have been assessed and the risks controlled. | **Executive People & Resilience**  BM Maintenance  BM Operations  BM Asset Creation  BM Asset Systems | GM People & Business Services |
| PPE must be identified, provided, used correctly (e.g., fitted), and maintained (e.g., cleaned and stored) – in accordance with the standards described in the **PPE Procedure[[8]](#footnote-9)**. | **Executive People & Resilience**  All BM | GM People & Business Services |
| Hard hats and high visibility clothing must be worn whilst conducting crane and lifting operations. | **Executive People & Resilience**  All BM | GM People & Business Services |
| Cranes and lifting equipment must only be used/worked on by persons who are trained, competent and hold the appropriate qualifications and licences where required by legislation (e.g., a current dogman’s licence must be used for complex lifts where applicable i.e. where multiple attachments are used, where judgement is required and where the load is out of line of sight, etc.) – with licence records kept. | **Executive People & Resilience**  BM Maintenance  BM Operations  BM Asset Creation | GM People & Business Services |
| Vehicles and trailers mounted with cranes/hoists must be licenced/registered to be on the road and employees must be licenced to operate the vehicles on the road. | **Executive People & Resilience**  BM Maintenance  BM Operations | GM People & Business Services |
| Any works that requires a rigger’s licence must be conducted by trained and competent contractors. | **Executive People & Resilience**  BM Maintenance  BM Operations  BM Asset Creation | GM People & Business Services |
| Planned lifts must be discussed and agreed upon prior to works commencing including safe lifting practices, weight limits, communication methods and emergency arrangements as per the **Cranes and Lifting Operations Procedure6** and applicable Safe Work Instructions. | **Executive People & Resilience**  BM Maintenance  BM Operations  BM Asset Creation  BM Asset Systems | GM People & Business Services |
| Cranes and Lifting Equipment must always be used within their appropriate safe operating limits and load rating capacity e.g. MRC, WLL or SWL. | **Executive People & Resilience**  BM Maintenance  BM Operations  BM Asset Creation | GM People & Business Services |
| There must be a process to identify all Cranes and Lifting Equipment e.g. labelled with a Wannon Water Asset tag, a manufacturers name plate and inspection/certification identification that is within date and is clearly legible. | **Executive People & Resilience**  BM Maintenance  BM Operations  BM Asset Creation | GM People & Business Services |
| To protect the public and other workers from present risks around cranes and/or lifting equipment, signage and barricades must be appropriately placed to create a safe exclusion zone, where required.  Consider the use of observers where there is a risk of public entry. | BM Asset Creation  BM Maintenance  BM Operations | GM Assets & Service Delivery |
| Where cranes and/or lifting equipment is used to assist personnel working in a confined space (e.g., Clear Water Storage) the **Confined Space Management Standard and Procedure** must be followed. | **Executive People & Resilience**  BM Asset Creation  BM Maintenance  BM Operations | GM People & Business Services |
| A system must be in place to control the movement of  mobile plant where persons are at risk of being:   * Run over by plant (e.g., a crane reversing or tracking) * Struck by slewing plant (e.g., by the boom of a crane) * Electrocuted by working near powerlines (e.g., operating in a “No Go Zone”) | BM Asset Creation  BM Maintenance  BM Operations | GM Assets & Service Delivery |
| Emergency protection systems required by legislation or to manage risks to our accepted levels must be installed/present where relevant (e.g., process control/shutdown, Estops). | **Executive People & Resilience**  BM Asset Creation  BM Maintenance  BM Operations | GM People & Business Services |
| Where the current assets cannot reach (not fit for purpose), or the task is outside our licencing restrictions, a Contractor must be engaged to perform the task with the appropriate equipment and qualifications as per the **Contractor Management Standard**. | **BM Corporate Services**  BM Maintenance  BM Operations  BM Asset Creation  BM Asset Systems | GM Community & Corporate Services |
| A plan must be in place for the management of an emergency (e.g., rescue and first aid). | **Executive People & Resilience** | GM People & Business Services |
| Faults or hazards identified on plant and equipment must  be reported and then assessed by a suitably qualified**7**person and if required locked out to prevent use as per the **Lockout Tagout Standard and Procedure**. | **Executive People & Resilience**  All BM | GM People & Business Services |
| Raise a **Hazard Report** where there is a concern that we faulty or damaged assets, plant and/or equipment (e.g. crane out of alignment, degradation of wire ropes) or are not effectively controlling risks associated with cranes and/or lifting equipment which could result in potential harm to health or may impact the surrounding environment or community. | **Executive People & Resilience**  All BM | GM People & Business Services |
| Raise an **Incident Report** for any event involving cranes and/or lifting equipment. | **Executive People & Resilience**  All BM | GM People & Business Services |
| Confirmed or suspected notifiable incidents involving cranes and/or lifting operations must be investigated, reported, and managed in accordance with the **Incident Response and Reporting Procedure** to ensure legislative requirements are met (e.g., falling of a suspended load causing injury - a WorkSafe notifiable event). | **Executive People & Resilience** | GM People & Business Services |

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# Training, Competence, and Awareness

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| **Standards** | **Responsibility1** | **Accountability2** |
| All managers with Responsibilities & Accountabilities within this document must be made aware of this standard. | Executive People & Resilience | GM People & Business Services |

# Monitoring

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| **Standards** | **Responsibility1** | **Accountability2** |
| Compliance with and effectiveness of this standard  must be verified at least every four years by including periodic audits in the **Audit Program**. | Executive People & Resilience | GM People & Business Services |
| All records required by this standard must be maintained in our records management systems - (e.g., Maximo, CM, Riskware, etc.). | Information Services Manager | Chief Information Officer |

# Definitions

| **Term** | **Means** |
| --- | --- |
| BM | Branch Manager(s) |
| Bridge Crane | A crane comprising a bridge beam or beams mounted to end carriageways at each end, capable of travelling along elevated runways and having one or more hoisting mechanism arranged across the bridge. |
| CM | Content Manager |
| Contractor | A person or company engaged to provide materials or work (construction, maintenance, service, supply, or operation) on a particular project or activity. This includes:   * Consultant - A person or company that provides professional expert advice. * Supplier   Labour Hire Company Performs outsourced work on a temporary basis, under the direction and control of Wannon Water. |
| Crane | An appliance intended for raising or lowering a load and moving it horizontally, but does not include an industrial lift truck, earthmoving machinery, a tractor, or a lift. |
| Crane Truck | A crane mounted on a vehicle. |
| Davit arms (portable, static, floor or wall mounted) | A davit arm is a Jib like crane utilised for fall protection suspension systems used to safely lower and raise workers and/or equipment from heights or in confined spaces, or other small equipment lifting devices mounted to structures such as tanks. |
| Dogging Work | Dogging work is the application of slinging techniques including the selection and inspection of lifting gear to safely sling a load or the directing of a plant operator in the movement of a load when the load is out of the operator's view. |
| Engaging Officer | The employee who has engaged the contractor to undertake the works. |
| Equipment | Machinery, devices, instruments, tools, that we use to perform various activities or tasks. |
| eStop | Emergency stop buttons, also known as E-Stops or kill switches, are used to reduce the risk of injury by stopping machinery quickly. Emergency stop buttons are fitted for easy access in any emergency. E-Stops are red and must feature a yellow background, bezel, or housing for attention. |
| Gantry (or A Frame) | An elevated structure in the crane that supports the boom or jib suspension ropes. |
| Gantry Crane | A Crane comprising a bridge beam or beams, which are supported at *one or both ends by legs mounted to end carriages*, capable of travelling along runways, and has one or more hoisting mechanisms. |
| GM | General Manager |
| Hoist | A hoist is an appliance intended for lifting or lowering a load or people, vertically and without slewing. |
| Hoist Winch | A winch is a device operated manually or by power and comprised of a rope and winding drum or load chain wheel for the purpose of providing a haulage or pulling force. |
| HSR | Health & Safety Representative |
| Jib Cranes | A crane having a horizontal jib (or boom) with a hoisting unit arranged to operate at a fixed or variable distance along the jib.  A jib may be mounted on a freestanding column or a wall, or other crane structures. |
| Maximo | Maximo is enterprise asset management software for asset monitoring, management, predictive maintenance and reliability planning. |
| Monorail (beam) | A beam designed to support hoists or other devices rolling directly on its bottom flange. |
| Monorail Crane | A crane comprising a monorail beam fixed in location, from which is supported a serial hoist and trolley to enable travelling beneath the monorail beam. |
| MRC | Maximum Rated Capacity |
| PPE | Personal Protective Equipment |
| Rigging Work | Rigging is the act of moving, securing or putting down a load, while using the appropriate mechanical shifting equipment. It also involves erecting and dismantling cranes and hoists. |
| RiskWare | Riskware is enterprise risk management software for the management of risks, hazards, incidents, audits and actions. |
| SWMS | Safe Work Method Statements - A SWMS is a document that sets out the high-risk construction work (HRCW) to be carried out at a workplace, the hazards arising from these activities, and the measures to be put in place to control the risks. SWMS must be prepared before HRCW commences. |
| SWL | Safe Working Load |
| Task Risk Assessment (JSA) | Job Safety Analysis Procedure and eForm |
| WLL | Working Load Limit |

# Governance

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| **Parent policy/standard** | Zero Harm Policy |
| Associated procedures/standards | * Plant and Equipment Standard * Cranes and Lifting Operations Procedure**6** * PPE Procedure**8** * Task Risk Assessment (JSA) Procedure/eForm * Lockout Tagout Standard & Procedure * Confined Space Management Standard & Procedure * Contractor Management Standard * Hazard Reporting Procedure * Incident Reporting and Response Procedure |
| **Legislation mandating compliance** | * Victorian Occupational Health & Safety Act 2004 * Victorian Occupational Health & Regulations 2017 * WorkSafe Compliance Code – Plant, Edition 2, December 2019 * Environment Protection Act (2017), General Environmental Duty (GED) |
| **Approval** | Executive Committee |
| **Owner** | GM People & Business Services |
| **Content enquiries** | * Safety Field Officer * Environmental Risk Compliance Officer |

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# Document version history

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| --- | --- |
| Version | Changes made to document |
| 1 | New document created as part of the new IMS Standard Framework |

1. The nominated person who is responsible for ensuring there is the system in place to meet a requirement or delivering a task to an acceptable level of performance. [↑](#footnote-ref-2)
2. The Executive are collectively accountable for the standard. The individual GM is the nominated person who will approve any capital/operating expense requests (within the Instrument of Delegation) and any material changes to current work practices to meet requirements of the standard. [↑](#footnote-ref-3)
3. If equipment is manufactured internationally – the manufacturer or supplier must be consulted for assurance that the item complies with relevant Australian Standards [↑](#footnote-ref-4)
4. Reassessment can be requested by a [HSR](https://m.enviroessentials.com.au/safetylaw/victoria/requirement/81414/)if they believe the employer has failed to assess the risks appropriately, after either an incident, alteration to an asset or a task, or where there is concern that the measures do not adequately control the risks or for any other reason. [↑](#footnote-ref-5)
5. Could be a Wannon Water employee, with the required training/experience, a manufacturer, a supplier, or a qualified technical expert, where we don’t have the required knowledge to assess suitability or regulatory implications. [↑](#footnote-ref-6)
6. The **Cranes and Lifting Operations Procedure** is still under development. Please liaise with the Safety Field Officer in the interim. [↑](#footnote-ref-7)
7. For contractors, an equivalent system (e.g., **Safe Work Procedure**, **JSA**, **SWMS**) must be of equivalent or higher standard. [↑](#footnote-ref-8)
8. The **PPE Procedure** is still under development. Please liaise with the Safety Field Officer in the interim. [↑](#footnote-ref-9)