



Groundworker Safety in Arboriculture Standard Operating Procedure



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1. Purpose

The primary aim of the Groundworker Safety in Arboriculture procedures is to establish and promote best practices that ensure safe working conditions for all personnel involved in groundworking tasks within the field of arboriculture. By providing clear guidelines and operational protocols, these procedures seek to minimise the risk of accidents and injuries, fostering a culture of safety awareness among groundworkers. Additionally, the purpose of these procedures is to ensure compliance with relevant health and safety legislation as well as industry standards, thereby protecting both workers and the environment from potential harm. Emphasising continuous improvement and adherence to safety protocols, this document serves as a cornerstone for achieving operational excellence and safeguarding the well-being of all individuals engaged in arboricultural activities.

2. Scope

The procedures detailed herein are applicable to all groundworking activities related to arboriculture, spanning various operational environments and focusing on multiple roles within the industry. These procedures are designed for adherence by professional arborists, safety officers, supervisors, and groundworkers who are directly involved in supporting tree care operations from the ground. Specifically, this document encompasses tasks such as brush clearing, chipping, site preparation, debris management, and assistance with rigging and lowering operations. It also applies to the usage of machinery and tools including chainsaws, wood chippers, ropes, harnesses, and protective equipment necessary for safe and efficient ground operations. These practices are vital for managing risks associated with falling objects, interaction with active machinery, proximity to drop zones, and site-specific environmental conditions. The scope excludes aerial operations and any activities conducted by climbers or those using elevated work platforms; however, it includes the communications and collaborative protocols required between ground-based workers and those conducting work at height. Furthermore, the procedures address coordination with other teams or contractors where shared worksites exist, ensuring comprehensive risk management and communication across disciplines. Overall, these guidelines aim to foster a culture of safety, clarity, and coordination, serving as a crucial component of overall arboricultural best practices.

3. Definitions

- **Arboriculture:** The practice and study of the care of trees, shrubs, and other perennial woody plants, primarily grown for landscape purposes.
- **Groundworker:** An individual engaged in tasks typically carried out at ground level during arboricultural operations, including supporting tree work activities, managing site safety, and handling equipment.
- **Standard Operating Procedure (SOP):** A set of prescribed practices aimed at operational efficiency and safety in specific workplace scenarios. In the context of this document, it ensures safe groundworking practices within arboriculture.
- **Personal Protective Equipment (PPE):** Gear designed to protect the wearer from potential hazards encountered during arboricultural tasks, such as helmets, gloves, boots, eye protection, and high-visibility clothing.



- **Risk Assessment:** A systematic process involving identifying potential hazards, evaluating associated risks, and implementing appropriate control measures to reduce or eliminate those risks.
- **Hazard:** Any source of potential damage, harm, or adverse health effects on individuals or groups within the work environment.
- **Control Measure:** Action implemented to mitigate or eliminate a risk associated with a hazard, ensuring the safety and well-being of workers.
- **Site Safety:** Procedures and protocols established to maintain a secure and risk-free working area for all personnel involved in arboricultural operations.
- **Tree Felling:** The process of cutting down trees strategically and safely, often requiring coordination between groundworkers and qualified arborists.
- **Chipper:** A machine used for reducing tree limbs or branches into wood chips, routinely operated by groundworkers under specified safety guidelines.
- **Hierarchy of Controls:** A framework used in risk management that prioritises methods of reducing risks, consisting of elimination, substitution, engineering controls, administrative controls, and personal protective equipment.
- **Manual Handling:** The movement or support of a load by hand or bodily force; in arboriculture, this may include lifting, lowering, pushing, pulling, or carrying items related to arboricultural operations.
- **Tool Maintenance:** Regular inspection and upkeep of tools and equipment to ensure they remain in safe and effective working condition, preventing accidents and malfunctions.
- **Emergency Procedures:** Pre-established plans and actions developed to respond to unexpected events swiftly, safeguarding the health and safety of all groundworkers and onsite personnel.

4. Responsibilities

Personnel involved in arboriculture groundworks play a critical role in maintaining safety standards. The responsibilities of these individuals are outlined as follows:

Groundworkers

1. **Adherence to Safety Procedures:** Strictly follow the standard operating procedures and safety guidelines provided.
2. **Use of Personal Protective Equipment (PPE):** Wear the required PPE at all times while on site and ensure it is properly maintained.
3. **Reporting Hazards:** Immediately report any hazards, unsafe conditions, or incidents to the supervisor.
4. **Site Preparation:** Ensure the work site is clear of non-essential personnel and obstacles before commencing work.
5. **Collaboration:** Work collaboratively with other team members and communicate effectively to ensure safety is prioritised.



Supervisors

1. **Safety Oversight:** Oversee all arboriculture groundwork activities to ensure compliance with safety standards.
2. **Training and Induction:** Provide appropriate training and site-specific induction for all groundworkers.
3. **Risk Assessments:** Conduct and document risk assessments before initiating any groundworking tasks.
4. **Monitoring Compliance:** Regularly monitor operations to ensure adherence to safety protocols and rectify any deviations promptly.
5. **Incident Management:** Lead incident investigations to identify root causes and implement corrective actions.

Health and Safety Officers

1. **Policy Development:** Develop, review, and update safety policies to reflect current legislative requirements and industry best practices.
2. **Auditing and Review:** Conduct regular audits and inspections of the work site and procedures to ensure ongoing compliance.
3. **Risk Management:** Assist in the identification, evaluation, and mitigation of risks associated with arboricultural groundworks.
4. **Emergency Preparedness:** Ensure emergency procedures are well-established and communicated to all relevant personnel.
5. **Safety Promotions:** Facilitate continuous improvement in safety culture through training programmes and awareness campaigns.

Contractors/Subcontractors

1. **Compliance with Standards:** Ensure that all work carried out aligns with the recognised safety standards and operational procedures.
2. **Provision of PPE and Training:** Supply appropriate PPE and necessary training to their workers in accordance with project requirements.
3. **Coordination with Main Contractor:** Coordinate closely with the main contractor to integrate safety practices and ensure seamless operation.

Through effective assignment and execution of these responsibilities, safety standards can be upheld, reducing the likelihood of accidents and injuries in arboriculture groundworks.

5. Pre-Operational Procedures

Before commencing any groundworking operations in arboriculture, a series of pre-operational procedures must be conducted to ensure the safety of all personnel and the effective execution of tasks. These procedures encompass risk assessment, equipment inspection, site evaluation, communication planning, and verification of personal protective equipment (PPE). Each component is critical in preventing accidents and facilitating a safe working environment.



5.1 Risk Assessment - Conduct a thorough risk assessment of the planned activities. - Identify potential hazards such as unstable trees, powerlines, or adverse weather conditions. - Document identified risks and implement control measures to mitigate them. - Ensure that all personnel are briefed on the risk assessment outcomes and control measures.

5.2 Equipment Inspection - Inspect all tools and machinery prior to operation. This includes chainsaws, pruning tools, chippers, and other specialised equipment. - Check for defects or wear and tear that could compromise safety or functionality. - Ensure all safety features such as guards and emergency stop mechanisms are functioning correctly. - Record inspections in an equipment logbook, noting any action taken to address issues.

5.3 Site Evaluation - Evaluate the worksite to determine the correct positioning of personnel and equipment. - Identify and demarcate exclusion zones where only authorised workers may enter. - Assess environmental factors such as slope grade, ground stability, and vegetation density. - Plan for safe vehicle access and egress points, ensuring clear lines of movement.

5.4 Communication Planning - Establish clear communication protocols among all team members. - Confirm that all members are aware of signal gestures and radio call procedures. - Designate a person responsible for coordinating communication during operations. - Pre-determine meeting points and muster areas in case of emergencies.

5.5 Verification of Personal Protective Equipment (PPE) - Verify that all groundworkers have the necessary PPE for the tasks they will perform. - PPE should include, but not be limited to, helmets, gloves, eye protection, high visibility clothing, and safety boots. - Check PPE for integrity and proper fit before use. - Educate staff on the limitations of PPE and the importance of maintaining it according to manufacturer guidelines.

These pre-operational procedures form the foundation for a structured and systematic approach to safety in arboriculture groundworks. Diligence and adherence to these steps significantly contribute to reducing workplace injuries and enhancing operational efficiency.

6. Operating Procedures

All personnel performing groundworker tasks in arboriculture must adhere to the following standard operating procedures to ensure safety and efficiency:

1. Site Assessment

- Conduct a thorough site assessment before commencing work. Identify potential hazards, including unstable trees or branches, power lines, uneven terrain, and wildlife presence.
- Ensure all workers are informed of the specific risks identified during the site assessment.

2. Communication



- Establish clear communication protocols among team members. Use two-way radios or established hand signals when verbal communication may be hindered by noise.
- Confirm all workers are aware of emergency communication methods and contact numbers.

3. Tool Usage and Handling

- Inspect all tools and equipment before use. Ensure they are in good condition and suitable for the task.
- Train workers on the proper handling and operation of all tools and equipment, including chainsaws, pruners, and chippers.
- Always maintain a safe distance from co-workers while operating equipment to avoid accidental injury.

4. Work Positioning

- Adopt correct manual handling practices to prevent strain injuries, such as bending the knees and keeping loads close to the body when lifting.
- Maintain stable footing and balance, especially when working on uneven or slippery surfaces.
- Avoid working directly under elevated loads or suspended branches.

5. Use of Protective Zones

- Define and mark protective zones around work areas where falling debris or equipment movement is expected.
- Ensure barriers or warning signs are placed to restrict unauthorised access to these zones.

6. Debris Management

- Organise work areas to minimise trip hazards caused by branches, tools, and other materials.
- Regularly clear debris to maintain a safe and tidy workspace.

7. Environmental Considerations

- Be mindful of environmental impacts and adhere to any local guidelines regarding habitat protection and waste disposal.
- Limit noise and disturbances, particularly in residential or ecologically sensitive areas.

8. Monitoring and Supervision

- Assign a competent person to supervise groundworking activities. This supervisor should ensure compliance with all safety procedures and intervene when unsafe practices are observed.



- Perform regular safety audits and toolbox talks to reinforce safety protocols and address any emerging concerns.

9. Fatigue and Rest Breaks

- Plan for adequate rest breaks to prevent fatigue, which can impair judgement and increase accident risk.
- Encourage hydration and healthy eating habits to maintain worker alertness and well-being throughout operations.

10. Reporting and Documentation

- Promptly report any safety incidents or near-misses to supervisors, and document them according to organisational policies.
- Maintain accurate records of site assessments, tool inspections, and any corrective actions taken during operations.

7. Post-Operational Procedures

The post-operational procedures aim to ensure that the site is left in a safe condition and prepared for future operations. These steps are fundamental for maintaining an optimal working environment and operational readiness:

Site Inspection

- Conduct a thorough inspection of the work area to identify potential hazards or unsafe conditions resulting from the previous operations.
- Confirm all equipment has been returned to its designated storage areas and is secured appropriately.

Debris Management

- Clear all organic and inorganic debris generated during the operation, ensuring that it does not pose tripping or other hazards on-site.
- Dispose of all waste materials according to environmental regulations and company policies.

Equipment Check and Maintenance

- Examine all tools and machinery utilised during the groundworking process for any damage or wear that occurred during operations.
- Clean and perform necessary maintenance on equipment, completing these tasks before storing them.
- Record any issues identified with equipment in the maintenance log and report them to the supervisor for timely attention.

Personnel Debriefing

- Conduct a debriefing session with all team members to review the day's activities and discuss any safety concerns encountered.
- Provide feedback and suggestions to continually improve safety practices and operational efficiency.



Documentation and Reporting

- Complete all required documentation related to the operations carried out, including risk assessments, incident reports, and activity logs.
- Ensure all records are accurate and stored as per the company's data management protocols.

Closeout Procedures

- Secure the site by locking gates, if applicable, and ensuring no unauthorised individuals can access potentially hazardous areas.
- Update the next shift or operational team about the status of the site and any ongoing concerns or considerations.

Implementing these post-operational procedures is crucial for maintaining a high standard of safety and enhancing the operational continuity within arboriculture groundwork environments.

8. Emergency Procedures

In the event of an emergency during arboriculture groundworks, adherence to the following procedures is crucial to ensure swift action and minimise risk:

1. Raise the Alarm:

- Immediately alert all personnel on-site using verbal warnings or agreed-upon signals.
- Contact emergency services by dialling *Triple Zero (000)* in Australia for fire, ambulance, or police assistance.

2. Assess the Situation:

- Evaluate the nature and extent of the emergency without putting oneself at further risk.
- Determine if immediate evacuation is necessary or if the situation can be managed with available resources.

3. Evacuation Procedures:

- Follow the pre-determined evacuation routes to reach a designated assembly point located at a safe distance from potential hazards.
- Ensure that all personnel are accounted for at the assembly area and report any missing persons to emergency responders immediately.

4. Provide First Aid:

- If it is safe to do so, administer first aid to affected individuals using the onsite first aid kit until professional medical help arrives.
- Record details of the injury and treatment provided for reporting purposes.

5. Incident Containment:



- If possible and without risk, apply measures to contain and control the emergency, such as using a fire extinguisher on small fires or cordoning off hazardous areas.

6. Communication:

- Maintain open communication channels among all groundworking team members and exchange information regarding the emergency scenario.
- Designate an individual to liaison with emergency services upon arrival to provide detailed information about the incident and site conditions.

7. Follow-Up Actions:

- Conduct a debrief after the emergency has been handled to assess the response effectiveness.
- Review and revise emergency procedures based on the lessons learned to improve future preparedness.

8. Documentation and Reporting:

- Complete all necessary incident reports and submit them to relevant authorities within required timeframes.
- Maintain accurate records of the emergency event, including timings, actions taken, and communications made during the incident.

Adherence to these emergency procedures aims to safeguard lives, mitigate damage, and facilitate a coordinated response to emergencies occurring in arboriculture activities.

9. Hazard Management

Groundworker safety in arboriculture requires a comprehensive hazard management approach to minimise risks associated with groundworking operations. The guidelines outlined here are integral for maintaining a safe working environment and protecting personnel from potential harm.

9.1 Identification of Hazards

- Conduct a thorough site assessment before commencing any work to identify potential hazards.
- Typical hazards may include, but are not limited to:
 - Falling branches or debris
 - Uneven or unstable ground conditions
 - Proximity to power lines
 - Hazardous flora and fauna
 - Exposure to noise, dust, and chemicals



9.2 Risk Assessment

- Once hazards are identified, conduct a risk assessment to evaluate the likelihood and severity of each hazard.
- Use a risk matrix to determine which hazards require immediate attention and mitigation measures.
- Ensure that all team members are informed of the risks present on site.

9.3 Control Measures

Implement control measures following the hierarchy of controls to manage identified hazards effectively:

Elimination

- Remove the hazard where possible, such as cutting down dangerous branches before beginning work near them.

Substitution

- Substitute dangerous equipment or materials with safer alternatives that provide similar functional outcomes.

Engineering Controls

- Implement barriers or guardrails to protect workers from falling debris or machinery.
- Use equipment fitted with noise dampening features or exhaust systems to minimise exposure to hazardous emissions.

Administrative Controls

- Develop and enforce standard operating procedures (SOPs) to guide safe work practices.
- Schedule regular training sessions to ensure all workers are familiar with the SOPs and emergency procedures.
- Establish clear communication channels to report hazards swiftly and efficiently.

Personal Protective Equipment (PPE)

- Provide appropriate PPE such as helmets, gloves, eyewear, and footwear, and ensure it is worn correctly by all personnel.
- Regularly inspect and maintain PPE to ensure its effectiveness and compliance with safety standards.

9.4 Monitoring and Review

- Continuously monitor the work area and operations to ensure control measures remain effective.
- Conduct regular safety audits and reviews of hazard management processes to identify areas for improvement.



- Invite feedback from groundworkers to capture practical insights on the effectiveness of current hazard management strategies.

Effective hazard management requires commitment and vigilance. By following these guidelines, groundworkers can help create a safer work environment in arboriculture operations.

10. Maintenance and Record-Keeping

Regular maintenance and diligent record-keeping are essential components in ensuring groundworker safety within arboriculture operations. This section delineates the procedures and requirements for both maintenance activities and comprehensive documentation to uphold safety standards.

Equipment Maintenance

1. Scheduled Inspections:

- Conduct routine inspections on all equipment used in arboriculture groundworks. Adhere to manufacturer guidelines and company policies for inspection frequency.
- Inspect tools and machinery for obvious defects, wear, and damage before each use. Pay special attention to chainsaws, pruning tools, and mechanical lifters.
- Maintain a checklist for daily, weekly, and monthly inspections to ensure no aspect of equipment maintenance is neglected.

2. Preventative Maintenance:

- Implement a preventive maintenance schedule based on equipment usage rates and manufacturer recommendations.
- Replace worn-out parts promptly to prevent potential equipment failure or accidents.
- Lubricate moving parts, check fluid levels, and calibrate machines regularly to enhance performance and longevity.

3. Repairs and Servicing:

- Immediately withdraw defective equipment from operation and tag it appropriately until repairs are carried out.
- Only qualified personnel should undertake repairs, ensuring all work adheres to safety regulations and manufacturer's specifications.
- Document all repair actions, including parts replaced, services performed, and dates of completion.

Record-Keeping

1. Maintenance Logs:

- Maintain detailed logs for each piece of equipment, noting all inspection results, maintenance activities, repairs done, and servicing schedules.



- Ensure records are updated immediately post-maintenance and are accessible for review by relevant safety officers.

2. Safety Drills and Training Records:

- Document training sessions undertaken by groundworkers, including dates, participants, topics covered, and trainers' credentials.
- Keep records of safety drills conducted, recording the nature of drills, participants involved, and any corrective actions required.

3. Incident and Hazard Reports:

- Complete incident reports following any accidents or near-misses. Include details such as time, location, individuals involved, equipment used, and a description of the event.
- File hazard assessments that identify potential risks in the workplace, control measures implemented, and follow-up evaluations to reassess risk levels.

Data Management

- Employ a digital system for managing maintenance and safety records where practical, ensuring data backup and secure access controls.
- Periodically audit records to verify completeness and accuracy, taking corrective action when discrepancies are identified.
- Use compiled data to analyse trends in equipment failures and incidents, fostering continuous improvement in safety protocols and procedures.

Adhering to these outlined maintenance and record-keeping practices is vital in mitigating risks and promoting a safe and efficient working environment for all groundworkers engaged in arboriculture tasks.

11. Personal Protective Equipment (PPE)

Groundworkers involved in arboriculture activities must adhere to strict guidelines regarding the use of Personal Protective Equipment (PPE) to ensure personal safety and compliance with occupational safety regulations. All PPE must meet Australian Standards and be suitable for the type of work being conducted. It is essential that groundworkers are trained on the correct use, care, and maintenance of all PPE.

11.1 Mandatory PPE

- **Helmet with Ear and Eye Protection:** Class E helmet compliant with AS/NZS 1801 standards, equipped with a face shield or safety goggles as per AS/NZS 1337 standards, and hearing protection consistent with AS/NZS 1270 standards.
- **High Visibility Clothing:** Vest or jacket meeting AS/NZS 4602.1 standards, ensuring groundworkers are visible to machinery operators and other workers at all times.
- **Cut-resistant Gloves:** Compliant with AS/NZS 2161 standards, providing flexibility while protecting hands from saw cuts, thorny plants, and splinters.



- **Safety Footwear:** Steel-capped boots, adhering to AS/NZS 2210 standards, designed to protect feet from falling objects and uneven terrain associated with arboricultural worksites.
- **Chainsaw Chaps/Trousers:** When working adjacent to chainsaw operations, wear protective clothing verified by AS/NZS 4453 standards to mitigate the risk of injury.

11.2 Optional/Additional PPE

- **Respiratory Protective Equipment:** Dust masks or respirators following AS/NZS 1716 standards should be worn when dealing with wood dust, pesticides, or other airborne particles.
- **Sun Protection:** Use sunscreen SPF 30+ in accordance with AS/NZS 2604, wide-brimmed hats, and UV-rated sunglasses as per AS/NZS 1067 to guard against sun exposure during outdoor operations.

11.3 PPE Maintenance and Inspection

- Inspect all PPE prior to each use to ensure they are free from damage and functioning correctly.
- Replace any compromised equipment immediately. Damaged or defective PPE can result in severe workplace injuries.
- Perform regular scheduled maintenance checks on all PPE, documented according to workplace protocols, to ensure ongoing reliability and safety compliance.
- Store PPE correctly, away from direct sunlight, moisture, or chemicals that could compromise its integrity, in line with manufacturer recommendations.

11.4 Training and Compliance

- Conduct training sessions for all personnel regarding proper use and limitations of PPE, ensuring comprehension and competence.
- Maintain records of training attendance and PPE issuance for auditing purposes and regulatory compliance.
- Monitor adherence to PPE usage policies through regular safety audits and observations, addressing non-compliance promptly to uphold stringent safety standards within the work environment.

12. Revision History

Version: 1.0

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Changes: Initial release of the document.