ACTIVITY: Safety Harness System for Fall Arrest	SWMS No.: QSW10025

SAFE WORK METHOD STATEMENTS (SWMS)

Company Name: (SPP PTY LTD) T/A Ecoplant Australia & Seeddown Professional Planting	Address: 81-83 Campbell Street, Surry Hills. NSW 2010 16 Kings Place, Burnside. QLD 4560	ACN: *638 321 847*
Company Contact: Claudia Harms	Position: Secretary	Phone No.: 0472 635 551

Project Details

Project Name:		Job Address:	
Principal Contractor (PC):	[Name, contact details]	Date SMWS provided to PC:	
Projected Start and End Dates:			
Job Description:			
High Risk Activity:	yes (if working with or around mobile plant)		
Name of person responsible for ensuring compliance with SWMS:	Supervisor	Date SWMS received:	
What measures are in place to ensure compliance with SWMS?	Pre job safety inspections, Induction training, Toolbox Talk/ JSAs		
Person responsible for reviewing SWMS control measures:	Supervisor/ Team Leader	Date SWMS received by reviewer:	
How will the SWMS control measures be reviewed?	Control measures reviewed during Toolbox Talk/ JSA completion prior to job commencement and each time a new hazard is identified.		
Training required:	WH&S General Induction for Construction (White Card)	Competencies Required:	SPP PTY LTD Employment Induction and WH&S Handbook

Relevant workers must be consulted in the development, approval and communication of this SWMS:

Name:	Signature:	Job Title:	Date:	SWMS Approved by Managing Director's	JOSHUA SANSOM PAUL HARMS
Claudia Harms		Secretary	25/11/2022	Date prepared: 12/08/2015	Review date: 25/11/2022

ACTIVITY: Safety Harness System for Fall Arrest		SWMS No.:
SAFE WORK METHOD STATEMENT (SWMS) - Part 1		
Company Name: (SPP PTY LTD) T/A Ecoplant Australia & Seeddown Professional Planting	Address: 81-83 Campbell Street, Surry Hills. NSW 2010 16 Kings Place, Burnside. QLD 4560	ACN: 638 321 847
Company Contact: Claudia Harms	Position: Secretary	Phone No.: 0472 635 551

Project Details

Project:				Insert Photo
Job Address:				
Job Description:				
Relevant workers must be consulted in the development, approval and communication of this SWMS:				SWMS Approved by *Employer/PCBU/Director/Owner*: Print Name
Name:	Signature:	Job Title:	Date:	Signature:
				Date:
Name of Principal Contractor:		Principal Contractor Company Name:		
Date SWMS provided to Principal Contractor:		Principal Contractor Signature:		Date:
Name of person responsible for ensuring compliance with SWMS:		Signature:		Date:

SWMS Scope

This Safe Work Method Statement (SWMS) covers the selection, inspection, fitting and use of a safety harness system for fall arrest. This does not cover the use of safety harness systems for Travel Restraint, positioning or rock climbing/recreational harnesses. It does not cover work at heights; a task-specific SMWS for working at heights should be used.

Ensure an emergency response plan is developed, implemented and rehearsed for each site where persons are using a harness. The Plan should ensure rescue of any fallen person wearing a harness is done within 5 minutes of fall. A person left for 15 minutes or more can die from suspension trauma.

Personal Protective Equipment (PPE)

Ensure all PPE meets relevant Australian Standards. Inspect, and replace PPE as needed.

Foot Protection	Hearing Protection	High Visibility	Head Protection	Eye Protection	Hand Protection	Protective Clothing	Sun Protection
							Broad brimmed hat, UV rated clothing, SPF 30+ sunscreen, tinted safety glasses with adequate UV protection)

Dangerous Works – Main Hazards

- Suspension trauma
    - Falls
    - Musculoskeletal injury
    - Striking object during fall / Impalement
    - Equipment failure

Hazards - What can cause harm?	Risks - What can happen?	Control Measures to Reduce Risk
Job Step: Planning		
Hazards include: Personal Injury: - Falls - Exposure to hazardous atmosphere - Striking object - Impalement - Electric shock - Musculoskeletal injury - Suspension trauma -	Risks include: - Injury, fatality or impalement sustained by striking an object, due to falling from height - Injury, burns, fatality caused by electric shock from coming into contact with power lines, exposed electric cables - Musculoskeletal injury caused from falls, incorrect fitment of harness - Blood poisoning, illness, fatality from being suspended for more than 10 minutes in harness	Use higher order risk controls where possible (perimeter guard rails, scaffolds). Use harness system as last resort. Assess worksite. Check: - No hazardous works in close proximity (demolition, asbestos removal, plant and machinery) - No overhead power-lines in close proximity (do not work within “No-Go Zones”) - No obstructions in potential fall zones - No sharp edges that could damage lines Plan fall arrest system before set-up to eliminate danger areas such as: - Crossing or tangling of connecting sub-systems - More than 1 worker - Pendulum effect - Swing down - Swing back (if there is a risk of swing back – swinging back into building/structure – do not use fall arrest system). Note: Pendulum effect and swing down effect occur when the line is able to slide back along the edge of the roof until vertical from anchor point to ground, so in a fall, person can hit the ground or the line can break. To eliminate pendulum/swing down: - Install guard rails - Place anchor point at a right angle to the position of the line at the perimeter edge (mobile anchor) - Install second anchor point and relay devices (intermediate anchor). Ensure harness system does not introduce new hazards (e.g. trip hazards, or restrict movement making work unsafe) Ensure suitable harness type used. Use only full-body harness – no waist-type belts. Ensure top dorsal position for harness connection point to fall arrest line. Front

		attachment only if line and rope grab device used on steel slope. Use as per manufacturer. Ensure all parts of the safety harness system (ropes, belts, clips, hooks, karabiners, lanyards, and shock-absorbing packs) are compatible. Check with manufacturer. Note: Parts with the same brand name may not be compatible and could fail due to roll-out of hook/ karabiners. Ensure all work surfaces are able to support weight and allow suitable attachment for anchors. Engineer to assess. Anchor points. Ensure: - Anchors meet design standards (AS 1891 series) - Single point anchors to hold 1 person designed for loads of 15kN - Not more than 1 person using same anchor at same time (unless manufacturer permitted horizontal life line). For 2 persons, increase by 6kN. - Permanent anchors checked by competent person no less than 6 monthly if used regularly. If not used regularly, check before each use. - Thorough visual check conducted before each use. **RB: 4A** **Person responsible to implement control measures:** **RA: 2M**
Job Step: Preparation		
Hazards include: Personal Injury: - Falls - Striking object - Impalement - Musculoskeletal injury - Suspension trauma	Risks include: - Injury, fatality or impalement sustained by striking an object, due to falling from height - Injury, burns, fatality caused by electric shock from coming into contact with power lines, exposed electric cables	Set-up of fall arrest system: - Maximum distance free fall before arrest must not exceed 2m - Ensure sufficient distance between work surface and any surface below to enable shock absorber to fully deploy - Do not use shock absorber on single story - Do not use lanyard in combination with inertia reel – leads to increased free fall distance Note: To calculate suitable distance, take into account: - Distance between work surface and any surface below

	- Musculoskeletal injury caused from falls, incorrect fitment of harness - Blood poisoning, illness, fatality from being suspended for more than 10 minutes in harness	- Original length of lanyard - Maximum energy absorber extension - Height of person - Clearance allowance for dynamic stretch. Ensure anchor point is as high as possible above work area. Never work above anchor point. Inertia reels: - Can only be used where there are no obstructions (unless manufacturer can demonstrate contact will not impair function) - Do not use on steep pitched roof (does not lock during fall down pitched roof) - Do not lock in place – not designed for continual support - Vertical /self-retracting lines can be used when on a ladder – only 1 person attached to line. Operator. Ensure: - Physically fit and able to withstand possible fall - Within weight limit (including clothing and equipment) of harness. No loose clothing (could become tangled in hooks / prevent hooks from closing properly) **RB: 4A** **Person responsible to implement control measures:** **RA: 2M**
Job Step: Pre – Operational Inspection		
Hazards include: Personal Injury: - Falls - Striking object - Impalement - Musculoskeletal injury - Suspension trauma -	Risks include: - Injury, fatality or impalement sustained by striking an object, due to falling from height - Injury, burns, fatality caused by electric shock from coming into contact with power lines, exposed electric cables - Musculoskeletal injury	Formal inspection by competent person as per manufacturer specifications. (6 monthly or more if exposed to hazardous environment). Replace every 5 years, or as per manufacturer specifications. Conduct visual inspection before each use. **Belts**: Begin at one end and inspect entire length – both sides. Hold belts with hands approx. 20cm apart – draw hands together to make an upside down “U” shape with belt. Look for frayed edges, broken fibres, tufting, pulled stitching, cuts or chemical damage. **D-rings**: Look for distortion, cracks, deep scratches, breaks, rough or sharp edges. D-ring bar is at 90 degree angle with long axis of belt. Can pivot freely. **Rivets**: Tight and unable to be removed with fingers. Lay flat against material – not bent.

	caused from falls, incorrect fitment of harness f Blood poisoning, illness, fatality from being suspended for more than 10 minutes in harness	**Tongue buckle**: No grommets missing. Free of distortion overlap buckle frames – move freely in sockets. Rollers move freely on the frame. **Friction buckle**: Check for distortion. Outer or centre bars are straight. Ensure attachment points of bars are in good condition, not loose or cracked / weakened. **Lanyard:** Inspect entire length – slowly rotate to ensure circumference checked. - Steel: Check for cuts, fraying, unusual wear patterns - Web: Bend over pipe, check both sides for cuts, breaks - Rope: Rotate – check for frayed, worn or broken fibres, changes in diameter in sections. ○ Use shock absorbers with these lanyards **Shock absorbing packs**: Check for burn holes, rips, deterioration, and loose strands – especially around stitching on D-rings, belt or lanyard. All labels are present, legible and securely attached. **Hooks**: - Ensure hooks are double-action type. - Do not connect snap hooks to each other. - Use screw gate karabiners or hex nut connectors If any defects are found on ANY component of the safety harness system – DO NOT USE. Take out of service and render it unusable. Apply lock-out/tag out procedures and ensure no persons will inadvertently use it. **RB: 4A** **Person responsible to implement control measures:** **RA: 2M**

Job Step: Operation		
Hazards include: Personal Injury: - Falls - Striking object - Impalement - Musculoskeletal injury - Suspension trauma -	Risks include: - Injury, fatality or impalement sustained by striking an object, due to falling from height - Injury, burns, fatality caused by electric shock from coming into contact with power lines, exposed electric cables - Musculoskeletal injury caused from falls, incorrect fitment of harness - Blood poisoning, illness, fatality from being suspended for more than 10 minutes in harness	Donning harness: - Ensure correct size for weight and height of operator (use manufacturer sizing chart). It is possible to slide out of a harness that is too big. - Do not rush. - Follow manufacturer's instructions for particular brand/design of harness. Example: - Grab harness by dorsal D-ring. - Shake it out and make sure it is not tangled. Adjust any straps that may be twisted. - Put on shoulder straps (like a jacket) with arms through the shoulder straps - Lower harness until shoulder straps rest on the shoulders and thigh straps hang down in front of thighs - Reach between legs, grasp a thigh strap and bring it forward – ensure it does not become twisted - Pass through buckle – according to type of buckle (example: pass quick fit buckle through the retaining buckle by holding it at an angle and passing completely through the opening. Ensure quick fit buckle is correctly seated in receiving buckle) - Repeat for other thigh - Ensure thigh straps encircle thigh from back to front and are not twisted in the opposite direction – may cause injury in the event of a fall - Lengthen or shorten shoulder straps to get correct torso fit. Take up or let out slack in torso straps by feeding webbing through adjuster slots on each side. Ensure snug fit. - Ensure all straps are lying flat – no twisting - Ensure D-ring is centered between shoulder blades. Front strap pad centered at chest over sternum. Hip rings (if present) should be at hip height and facing forward. - Check all latches are closed properly ○ Springs are not weak ○ Corrosion does not prevent movement ○ Adequate clearance inside snap hook enclosure so D-ring is not jammed ○ No clothing caught ○ No pressure loads on latch (such as a twisted lanyard). Pressure on a latch can force it open and release connector.

		Conduct work as required. Follow all safety precautions for task (follow task-specific SWMS for working at heights) Ensure harness is not exposed to chemicals or burn damage whilst conducting work. Check line / lanyard regularly and ensure it does not make contact with sharp edges. Do not make adjustments to harness at heights. Never work alone. Maintain visual / verbal contact with harness operator at all times. On completion: - Remove harness (unbuckle thigh straps, place arms under shoulder straps and lift harness overhead. Inspect for any wear / tear or damage. **RB: 4A** **Person responsible to implement control measures:** **RA: 2M**
Job Step: Maintenance		
Hazards include: Personal Injury: - Falls - Musculoskeletal injury - Suspension trauma -	Risks include: - Injury, fatality or impalement sustained by striking an object, due to falling from height - Injury, burns, fatality caused by electric shock from coming into contact with power lines, exposed electric cables - Musculoskeletal injury caused from falls, incorrect fitment of harness - Blood poisoning, illness, fatality from being suspended for more than 10 minutes in harness	Follow maintenance requirements as per manufacturer's instructions. Cleaning: - Clean with water and mild laundry detergent. Dry hardware with a clean cloth and hang harness to air dry. Do not use heat to shorten drying time. Storage: - Store in cool, dry area, off ground, no direct sunlight. - Avoid areas that may be corrosive or contain chemical fumes - Store only clean harnesses Do not store damaged harness in same area **RB: 3H** **Person responsible to implement control measures:** **RA: 2M**

Emergency Procedures / Emergency Response

Document and rehearse post-fall rescue. Ensure:

- Specific to site. All equipment required present.
- Suitable for effective rescue with 5 minutes (take into account the type of work being conducted and lanyard attachment point)
- If suspension is likely to exceed 5 minutes, use harness with foothold straps etc.
- Self-rescue options are realistic
- Use of pre-rigged retrieval system wherever possible

After a fall:

- Ensure worker moves legs in the harness – push against foothold.
- If unconscious: Take at least 30-40 minutes to slowly move victim from kneeling to sitting to a supine position – sudden rush of blood can cause fatality.

Take harness out of service until it is deemed safe to use again by a competent person.

Review

To ensure controls are implemented and monitored effectively:

- Toolbox /pre-work meetings will be undertaken
- Relevant persons will be consulted on hazards and contents of SWMS, work plans and other applicable information
- Control measures will be monitored throughout works:
  - Spot checks
  - Consultation
  - Scheduled audits
- Corrective actions will be recorded and rectified in a timely manner SWMS will be reviewed and updated accordingly (in consultation with relevant persons)

Ensure all controls are reviewed as per the following:

- If controls fail to reduce risk adequately
- When changes to the workplace or work activity occur that create new / different risks where controls may no longer be effective
- New hazards identified
- After an incident involving work activities relevant to this SWMS
- During consultation with relevant persons indicate review is needed
- A Health and Safety Representative (HSR) requests a review in line with the requirements of the legislation.

Person/s responsible to implement and follow monitoring and review procedures and control measures:

SAFE WORK METHOD STATEMENT - Part 2

Formal Training, Licences required for workers undertaking this task:	Duties of workers undertaking this task:	Details of Supervisory Arrangements for workers undertaking this task:
- License to Perform High Risk Work (operating certain plant, equipment) - TAFE or other recognized training organization Formal training for use of harness (TAFE or equivalent)	- Operator - Supervisor	- Suitably qualified supervisors for job - Direct on-site supervision - Remote site – communication systems/ schedule - Audits - Spot Checks, etc. - Reporting systems - JSA

Details of: regulatory permits/licenses Engineering Details/Certificates/WorkCover Approvals:

- Local council permits
- Building Approvals
- EPA approvals/permits
- Certain plant to be registered with State Authority

PPE to comply with relevant Australian Standards

Plant/Tools/Equipment: (List plant and equipment to be used on the job.)

Full Fall Arrest Harness
Ropes
Approved Anchor Points

Relevant Legislation, Codes of Practice:
Note: Retain only the legislation references applicable to your state of operation for this SWMS

- **Commonwealth, NSW, QLD, ACT**
  - Work Health and Safety Act 2011
  - Work Health and Safety Regulations 2011
- **Northern Territory**
  - Work Health and Safety (National Uniform Legislation) Act 2011
  - Work Health and Safety (National Uniform Legislation) Regulations
- **SA, Tasmania**
  - Work Health and Safety Act 2012
  - Work Health and Safety Regulations 2012
- **Codes of Practice:** Safe Work Australia (2011):
  - *First Aid in the Workplace*
  - *Managing the Risk of Falls at Workplaces*
  - *Managing the Risk of Plant in the Workplace*
  - *Managing Noise and Preventing Hearing Loss in the Workplace*
  - *How to Manage Work Health and Safety Risks*
  - *Hazardous Manual Tasks*
  - *Managing Risks of Hazardous Chemicals*
  - *WHS Consultation, Cooperation & Coordination*
- **Victoria**
  - Occupational Health & Safety Act 2004
  - Occupational Health & Safety Regulations 2007
  - **Codes of Practice:**
- **Western Australia**
  - Occupational Safety & Health Act 1984
  - Occupational Safety & Health Regulations 1996
  - **Codes of Practice:**
- **Australian Standards:**
  - AS/NZS 1269:2005 Occupational *noise management*
  - AS/NZS 4501:2008 *(set) Occupational Protective Clothing*
  - AS 4024.1:1996 *Safeguarding of machinery - General principles*
  - AS 4024.1: 2006 *Safety of machinery*
  - AS 1319:1994 Safety *Signs for Occupational Environment*

Reference Documents

Work Health and Safety Act 2011 and Work Health and Safety Regulations 2017 Safe Work Australia (2011) Code of Practice - How to Manage Work Health and Safety Risks Safe Work Australia (2011) Code of Practice - Managing the Risk of Falls at Workplaces Safe Work Australia (2012) Code of Practice - First Aid in the Workplace Australian Standard AS 1891 - Industrial fall arrest systems and devices Australian Standard AS 1891.1 - Safety belts and Harnesses Australian Standard AS 1891.2 - Horizontal life line and rail systems Australian Standard AS 1891 - Horizontal life line and rail systems - Prescribed configurations (Supplement 1)	Australian Standard AS 1891.3 - Fall arrest devices Australian Standard AS 1891.4 - Selection, use and maintenance Australian Standard AS/NZ 4488 - Parts 1 & 2 - Industrial Rope Access Rose Manufacturing Company (2001) FT Pro Harnesses – User Instructions QLD DEIR (2009) Orange book (Building and Construction Industry: Workplace health and safety guide WorkSafe Victoria (2008) Compliance Code: Prevention of falls in general construction Workcover NSW (2006) Guide: Safe Working at heights

SAFE WORK METHOD STATEMENT - Part 3

This SWMS has been developed in consultation and cooperation with *employee/workers* and relevant *Employer/Persons Conducting Business or Undertaking (PCBU).* I have read the above SWMS and I understand its contents. I confirm that I have the skills and training, including relevant certification to conduct the task as described. I agree to comply with safety requirements within this SWMS including risk control measures, safe work instructions and Personal Protective Equipment described.

Overall Risk Rating after Controls	1 Low	2 Moderate	3 High		4 Acute
Employee/Worker Name	Job Role / Position	Signature	Date	Time	Employer/PCBU/ Supervisor

Review No.	1	2	3	4	5	6	7	8
Name								
Initial								
Date								

HIERARCHY OF CONTROLS

Elimination - Risk will be eliminated where possible

Substitution Isolation Engineering - Where risk remains, one/combination of controls will be used

Administrative - Where risk remains, administrative controls will be used.

Personal Protective Equipment (PPE) - Where risk still remains, it will be reduced as far as reasonably practicable with use of PPE.

RISK ASSESSMENT MATRIX

HB 436:2004 Risk Management Guidelines Tables 6.3 – 6.8 reproduced with permission from SAI Global under licence 1210-c062. Standards may be purchased at http://www.saiglobal.com
References: Safe Work Australia (2011) - Code of Practice: How to Manage Work Health and Safety Risks, AS/NZS 31000 -2009 Risk Management Principles and Guidelines.

Step 1: Determine Likelihood

What is the possibility that the effect will occur?

	Criteria	Description
Almost certain	Expected in most circumstances.	Effect is a common result.
Likely	Will probably occur in most circumstances.	Effect is known to have occurred at this site or it has happened.
Possible	Might occur at some time.	Effect could occur at the site or I've heard of it happening.
Unlikely	Could occur at some time.	Effect is not likely to occur at the site or I have not heard of it happening.
Rare	May occur only in exceptional circumstances.	Effect is practically impossible.

Step 2: Determine Consequence

What will be the expected effect?

Level of Effect:	Example of each level:
Insignificant/Acceptable	No effect – or so minor that effect is acceptable.
Minor	First Aid treatment only; no lost time injury.
Moderate	Medical treatment; serious injuries, temporary partial disability; lost time injury < 7 days.
Major	Hospital admittance; extensive injuries; lost time injury > 7 days; Permanent Total Disability injury; death.
Catastrophic	Multiple Permanent Total Disability injuries; multiple deaths.

Step 3 Determine the risk score

	Consequence				
Likelihood	**Insignificant**	**Minor**	**Moderate**	**Major**	**Catastrophic**
Almost certain	**3 High**	**3 High**	**4 Acute**	**4 Acute**	**4 Acute**
Likely	**2 Moderate**	**3 High**	**3 High**	**4 Acute**	**4 Acute**
Possible	**1 Low**	**2 Moderate**	**3 High**	**4 Acute**	**4 Acute**
Unlikely	**1 Low**	**1 Low**	**2 Moderate**	**3 High**	**4 Acute**
Rare	**1 Low**	**1 Low**	**2 Moderate**	**3 High**	**3 High**

Step 4 Record risk score on worksheet (Note – Risk scores have no absolute value and should only be used for comparison and to engender discussion.)

Score	Action
4 A: Acute	**DO NOT PROCCED.** Requires immediate attention. Introduce further high level controls to lower the risk level. Re-assess before proceeding.
3 H: High	**Review before commencing work**. Introduce new controls and/or maintain high level controls to lower the risk level. Monitor frequently to ensure control measures are working.
2 M: Moderate	**Maintain control measures.** Proceed with work. Monitor and review regularly, and if any equipment/people/materials/work processes or procedures change.
1 L: Low	**Record and monitor**. Proceed with work. Review regularly, and if any equipment/people/materials/work processes or procedures change.