


Group/Section:	Shoalhaven Water			
Division / Area:	Operations - Communications			
Task Description:	Communications Technician operations and maintenance			
Purpose:	The purpose of this risk assessment is to identify the hazards and associated risks affecting workers performing the nominated task and to determine the appropriate controls.			
Scope : This document details Communications Technician operations:		Level	Use the hierarchy of controls to manage hazards:	
Working at Heights	Using powered and non-powered hand tools	1	Elimination	Remove hazard from the workplace completely
Cable installation in cavities, ceiling spaces & underground	Plant & small plant operation and maintenance	2	Isolation	Use barriers to shield or isolate the hazard form the person or person
Working from boats	Accessing Reservoirs and Reservoir roofs		Substitution	Replace the hazard with one that presents a lower and more manageable risk.
Working on communication towers	Optical fibre installation		Engineering	Change the design of the workplace, equipment or work process
		3	Administration	Minimise exposure to a risk through the use of procedures, instructions or training
			PPE	Wearing of protective equipment and clothing while near the hazard.

HAZARDS						High Risk Work		
	Yes	No		Yes	No		Yes	No
Electrical energies hazards	✓		Thermal (heat sources)	✓		Confined space entry		✓
Mechanical energies	✓		Biomechanical (manual handling)	✓		Work at Heights above 2 metres	✓	
Chemicals and Dust	✓		Noise / Vibration	✓		Hot Work	✓	
Pressure (fluids, gases)	✓		Biological (bacteria)	✓		Work near overhead powerlines	✓	
Radiation energies	✓		Gravitational (falling objects)	✓		Work with bonded asbestos	✓	
Weather occurrence	✓					Working near Traffic	✓	

Reference documents	<u>P01 Responsibility and Supervision</u> <u>P03 Safety Legislation</u> <u>P06 Contractor and Volunteer Management</u> <u>P08 Consultation and Communication</u> <u>P09 Safety Training</u> <u>P10 Risk Management</u> <u>P11 Hazardous Chemicals</u> <u>P12 Managing Plant</u> <u>P13 Working at Height</u> <u>P14 Noise Management</u> <u>P15 Hazardous Manual Tasks</u>	<u>P16 Confined Spaces</u> <u>P17 Construction and Demolition</u> <u>P18 Electrical Safety</u> <u>P19 Asbestos Management</u> <u>P20 Inspection, Testing and Monitoring</u> <u>P21 Incident Investigation and Corrective Action</u> <u>P23 Emergency Preparedness and First Aid</u> <u>P24 Materials Handling</u> <u>P25 Hot Work</u> <u>P28 Energy Isolation & Barricading</u> <u>P30 Working Remotely or in Isolation</u>
SWI, SWMS, SOP: (all available on the SCC Intranet)	SWI: 150kg Material Lifter Operation Accessing High Level Reservoirs/Reservoir Roofs Accidental Disturbance of Asbestos by Workers Air Compressor Ceiling Spaces – Access & Working In Demolition Hammer – Electric Drill-Battery Drill-Bench Drill-Electric Elevated Work Platform Forklift Gas Cylinders – Storage, Transport & Handling Gas Detector-Use & Maintenance Generator Grinder-Angle Grinder-Bench Fault Finding on Low Voltage Electrical Equipment Heat Gun Heat Stress Hydraulic Crimper Hypodermic needle and syringe-handling and disposal Inspection Removal of Asbestos Dust & Labelling of Electrical Switchboards	SWI: Self-Contained Breathing Apparatus Site Inspection Soldering Iron Tag Out Trailers-towing Working Around Open Wastewater Pumping Station Wells and Pits Working from Boats Working Over and Around Open Liquid Filled Pits/Ponds SWMS: Working at Heights Working in an area with Movement of Powered Mobile Plant Working on or near Energised Electrical Installations or Services Working on Towers SOP: Working Near Water Working with Non-friable asbestos Completion of a Site-Specific Risk Assessment/Induction Risk Assessment and Traffic Control Risk Assessment



	SWI: Ladders Use and Maintenance Load restraint Loading and unloading small plant from trailer Maintaining – Servicing Small Plant Measuring Clearance to Overhead Power Lines Overhead Gantry Crane Saw-Circular Saw-Pole Saw-Power Hack Saw	SOP: Connection & Disconnection of Generators to Pump Stations & Treatment Plants General Electrical Installations Intruder Alarms Installation Maintenance and Repairs to Electrical Equipment from a Portable Ladder Shoaltech-Install of Comms Equipment into Vehicle
Training and Competencies	General construction induction card (white card), First Aid Training, Traffic Control, Manual Handling, Height Safety Training, Load Restraint, Fire Awareness, Class C Licence, Tower Rescue	
Safety Data Sheets: Only bulk quantities listed (Refer to site/vehicle register for all product's SDSs)	Unleaded Petrol, Diesel, Two Stroke Fuel, Jointing Cement	
Personal Protective Equipment	As determined by risk assessment and may include: Hearing protection, Face shield/eye protection, Safety footwear, High visibility vest, Wide brimmed hat, Sunscreen, Protective gloves, Hard hat, Respiratory protective equipment, SCBA gear, Working at Heights equipment, Disposable overalls and dust masks, Chaps.	
Plant and Equipment	Air Compressor, Forklift, Generator, Vehicle Mounted Crane, Welding - Oxy Gas, Welding Arc – Electric, Chainsaw, Quikcut Saw, Battery drill, Bench drill, Electric drill, Gas cylinders, Gas detector, Angle grinder, Bench Grinder, Oxy acetylene, Circular Saw, Pole Saw, Valve Actuator, Flex Drive Pump, Chain Hoist, Pressure Washer Electric/Petrol, Blower, Boat, Trailer, SCBA, Reciprocating Saw, Power Hacksaw, Fusion Splicer, Ladders, Platform Ladder	
Inspection and Testing	Pre start checks on all plant and equipment, Inspection as per manufacturers requirements, ITM plan, Electrical Tool testing/tagging, COITS, Workplace Inspections, SCBA Inspection/Testing, Fire Extinguishers, CO2 Fire Systems/Pressure Cylinders, Gas Detector, First Aid Kits, Oxy Sets, Air Compressor, Chains/Slings, Ground/Roof Anchorage Points	
Hazardous Chemicals and Dangerous Goods: Only bulk quantities listed (Refer to site/vehicle register for all chemicals)	Unleaded Petrol, Diesel, Two Stroke Fuel, Jointing Cement	
High Risk Work	Mobile powered plant, Working with asbestos, Energised electrical installations or services, Adjacent to road or railway, Near water risk of drowning, Risk of falling more than 2 meters, Working at Heights	



Risk Assessment conducted by	Name: Shane Kimber	Signed: 
Approved by	Name: Andrew McVey	Signed: <i>Andrew McVey</i>



LIKELIHOOD How likely is it to happen? ↓	E=EXTREME H=HIGH M=MEDIUM L=LOW				
	← CONSEQUENCES – How severely could it affect health and safety? →				
	CATASTROPHIC Kill or cause Permanent Disability	MAJOR Serious Illness or Injury	MODERATE Medical Attention, Time off Work	MINOR First Aid Required	INSIGNIFICANT No Injuries
ALMOST CERTAIN Is expected to occur	E	E	H	H	M
LIKELY Will probably occur	E	H	H	M	M
POSSIBLE Might occur	H	H	H	M	L
UNLIKELY Could occur	H	M	M	L	L
RARE May occur only in exceptional circumstances	H	M	M	L	L



Risk Level	Required Action
Extreme	Act immediately: The proposed task or process activity must not proceed. Steps must be taken to lower the risk level to as low as reasonably practicable using the hierarchy of controls.
High	Act today: The proposed activity can only proceed, provided that: The risk level has been reduced to as low as reasonably practicable using the hierarchy of controls. The risk controls must include those identified in legislation, Australian Standards, Codes of Practice etc. The document has been reviewed and approved by the supervisor and A Safe Working Procedure or Safe Work Method has been prepared and The supervisor must review and document the effectiveness of the implemented risk controls
Medium	Act this week: The proposed task or process can proceed, provided that (i) The risk level has been reduced to as low as reasonably practicable using the hierarchy of controls and The document has been reviewed and approved by the supervisor and A Safe Working Procedure or Safe Work Method has been prepared.
Low	Act this month: Managed by local documented routine procedures which must include application of the hierarchy of controls.



Operational WHS Hazard and Risk Assessment



Task / Activity	Hazard/ Source of Hazard / Risk	Initial Risk Rating E,H,M,L	Control Measures	Residual Risk Rating E,H,M,L
<p>Working at Heights</p> 	<p>Fall from heights</p> <p>Struck by falling object</p>	H	<p>Refer to P13 Working at Heights</p> <p>Ensure an appropriate harness/ restraint/ fall arrest system has been implemented and workers are trained in its use prior to commencing work at heights</p> <p>Workers must be trained in emergency rescue procedures.</p> <p>All equipment must be inspected and maintained as per SCC and manufacturers requirements</p> <p>If required implement an exclusion zone around the work site to exclude unauthorised persons.</p>	M
<p>Working from ladders</p> 	<p>Fall from heights</p>	H	<p>Only use ladders in good condition and that have an appropriate load rating</p> <p>Ensure ladders are installed on a stable surface to prevent slipping, single or extension ladders must be placed at a slope of 4:1 and secured at the top and/or bottom if necessary.</p> <p>Only light duty work is to be conducted from a ladder which allows three points of contact at all times.</p>	L



Task / Activity	Hazard/ Source of Hazard / Risk	Initial Risk Rating E,H,M,L	Control Measures	Residual Risk Rating E,H,M,L
<p>Working outside</p> 	<p>Exposure to extremes of temperature and weather conditions (high winds/heavy rain)</p> <p>Exposure to ultraviolet radiation</p> <p>Contact with animals and insects</p> <p>Dehydration / Heat exhaustion</p> <p>Slips trips and falls</p>	M	<p>Review weather conditions prior to commencing work and adjust schedule where necessary</p> <p>Wear appropriate PPE, wide brimmed hat, sunscreen, high visibility vest, raincoat etc and dress according to the weather conditions</p> <p>Apply insect repellent if required, do not disturb bees or wasps, leave the area if the risk of bee/wasp sting exists, workers trained in snake awareness, Adequate first aid available.</p> <p>Provide access to fresh drinking water, seek shade whenever possible, take regular breaks and task rotation</p> <p>Remain vigilant when walking on uneven surfaces/broken ground. Wear ankle supporting safety footwear.</p>	L
<p>Working in isolation</p> 	<p>Injured worker requiring first aid</p> <p>Interaction with aggressive members of the public</p>	M	<p>Refer to P30 Working Remotely or in Isolation</p> <p>Ensure regular contact is maintained with workers, where necessary provide appropriate communication devices (two-way radio, mobile phone etc.),</p> <p>Ensure all workers are aware of emergency procedures and the location of first aid kits, use the buddy system where possible.</p> <p>Avoid altercations at all times, relocate to a safe area.</p>	L

Task / Activity	Hazard/ Source of Hazard / Risk	Initial Risk Rating E,H,M,L	Control Measures	Residual Risk Rating E,H,M,L
Hazardous manual tasks – Could include but not limited to: <ul style="list-style-type: none"> Lifting pit covers/lids Pulling cables Comms installs Working on towers 	Muscular strain Soft tissue injury	M	Refer to P15 Hazardous Manual Tasks Always stretch and warm up prior to performing physically demanding manual tasks. Workers are to be trained in manual handling techniques, use mechanical aides and employ team lifts where necessary. Never lift more than is personally comfortable. If unsure seek advice from the supervisor.	L
	Biological Hazard -hepatitis A & B -lack of personal hygiene -uncontrolled debris	M	Maintain a high level of personal hygiene, hand washing, hand sanitizer Current hepatitis A & B vaccination Wear appropriate PPE Wash down plant prior to use	L
Operation of plant/mobile plant 	Accident involving other vehicles and/or persons Electric shock or explosion due to contact with underground or overhead services Unauthorised access to worksite	H	Refer to P12 Managing Plant Only appropriately licensed, trained and competent workers are to operate plant Use service locator and or dial before you dig prior to commencing underground work Use safety features such as flashing amber lights and audible reversing warnings at all times Workers must obey all RMS regulations and road laws at all times and operate plant within design parameters. Ensure the plant is serviced and maintained as per the inspection and testing program and manufacturers requirements.	L

Task / Activity	Hazard/ Source of Hazard / Risk	Initial Risk Rating E,H,M,L	Control Measures	Residual Risk Rating E,H,M,L
<p>Using powered hand tools</p> 	<p>Electric shock/electrocution</p> <p>Injury from moving parts</p> <p>Entanglement</p>	M	<p>Refer to P18 Electrical Safety</p> <p>Inspect equipment for any signs of damage to casing, power leads and switches, and tag is in date, isolate from use if damaged.</p> <p>Ensure that PPE is available and worn at all times, PPE must be well maintained and fit for purpose</p> <p>Only fully trained workers are to operate powered hand tools, young and inexperienced workers are to be supervised at all times</p>	L
<p>Working adjacent to traffic and roadways</p> 	<p>Being struck by traffic</p>	H	<p>Workers to remain vigilant to traffic hazards at all times, workers to wear high visibility clothing</p> <p>Traffic management plans to be implemented when required</p> <p>Ensure warning devices are activated on work vehicles</p>	L

Task / Activity	Hazard/ Source of Hazard / Risk	Initial Risk Rating E,H,M,L	Control Measures	Residual Risk Rating E,H,M,L
<p>Working over or adjacent to water</p> 	<p>Risk of drowning</p> <p>Exposure to water-borne biological hazards</p>	H	<p>Never work alone, always work in pairs or as part of a work crew.</p> <p>Ensure all equipment is serviceable and fit for task.</p> <p>All RMS requirements must be met when operating boats/watercraft including competencies and PPE.</p> <p>All workers are to receive the designated vaccinations when working around biologically hazardous material.</p>	L
<p>Working from Boats</p> 	<p>Risk of falling overboard/drowning</p> <p>Slip, trip, fall due to slippery surfaces</p> <p>Capsizing</p> <p>Injury whilst embarking/disembarking</p>	H	<p>Refer to SWI107 Working from Boats.</p> <p>PFD (Lifejacket) must be worn by all boat occupants.</p> <p>Never work alone, always work in pairs or as part of a work crew.</p> <p>Ensure all safety equipment and PPE is supplied and serviceable.</p> <p>Boat driver must be licensed</p> <p>EPIRB to be carried for remote area work.</p>	L

Task / Activity	Hazard/ Source of Hazard / Risk	Initial Risk Rating E,H,M,L	Control Measures	Residual Risk Rating E,H,M,L
<p>Loading and unloading items of plant</p> 	Crush injury due to run away plant or plant rollover	H	<p>Refer to P12 Managing Plant</p> <p>Apply park brakes when plant is stationary at all times</p> <p>Ensure workers maintain a safe distance during loading and unloading procedures, all non-essential personnel are to stand clear.</p> <p>Only competent workers are to load and unload plant.</p>	L
<p>Handling/decanting/storing hazardous chemicals & dangerous goods</p> 	<p>Exposure to hazardous chemicals</p> <p>Respiratory, skin and eye irritation</p> <p>Environmental impact from spills</p>	M	<p>Refer to P11 Hazardous Chemicals</p> <p>Only workers who have been trained in the correct storage and handling techniques are to work with chemicals</p> <p>Ensure PPE and RPE is available, is in good condition and complies with the requirements of the SDS</p> <p>All chemicals must be handled as per the SDS and Manufacturer's instructions, eyewash station and deluge shower installed where required.</p> <p>Adequate bunding and spill mitigation must be in place when decanting chemicals</p>	L

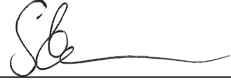
Task / Activity	Hazard/ Source of Hazard / Risk	Initial Risk Rating E,H,M,L	Control Measures	Residual Risk Rating E,H,M,L
<p>Working around powered mobile plant</p> 	<p>Struck by powered mobile plant</p> <p>Exposure to dust and excessive noise</p>	M	<p>Refer to P12 Managing Plant</p> <p>Only trained workers are to operate mobile plant</p> <p>Workers to remain vigilant when working around mobile plant, if required appoint an observer</p> <p>Workers to wear high visibility clothing and appropriate PPE, hearing protection, safety footwear, protective gloves, hard hat</p> <p>Use safety features such as flashing amber lights and audible reversing warnings at all times</p>	L
<p>Energy Isolation</p> 	<p>All hazardous energy sources likely to re-activate the plant and put workers at risk of injury must be identified, those energy sources include;</p> <ul style="list-style-type: none"> a) Electricity (mains, solar and by generator) b) Fuels c) Heat d) Steam / Compressed air e) Fluids under pressure (such as water, hydraulic oil) f) Stored energy – e.g. Spring g) Gravity h) Radiation 	H	<p>Refer to P28 Energy Isolation & Barricading</p> <p>Process to `positively isolate` hazardous energy;</p> <p>Develop and implement an Isolation plan.</p> <p>Ensure `protected persons` have access to the Isolation Plan.</p> <p>Identify and isolate the isolation points in the `safe position` with an Isolation Lock on each isolator.</p> <p>With `Stored Energies`, control or de-energise e.g. Install ground wires, relieve trapped pressure, block or brace parts that could fall because of gravity etc.</p> <p>Lockout / tag –out.</p> <p>Verify the isolation (proven de-energised).</p>	L
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Acknowledgement register

All workers are to sign this register to indicate they have read and understood this document prior to commencing work.

Name	Pay No	Signature	Date	Name	Pay No	Signature	Date

Work must be performed in accordance with this Operational Risk Assessment and any other Site-Specific Risk Assessment. **The following personnel are responsible for the worksite, plant and review and implementation of this Operational Risk Assessment.**

Name	Position	Sign	Date
Shane Kimber	Quality Officer Safety Operations (Review/Implement ORA)		01.11.2021
Craig Ellis	Unit Manager Communications, Electrical & Fitters	Craig Ellis	01.11.2021
Andrew McVey	Water Operations and Maintenance Manager	Andrew McVey	01.11.2021