

Irrigation Install & Maintenance

Risk Assessment

	CREW DETAILS
IN AN EMER	GENCY CALL:
Team Lead:	Task Phone Number:
Crew:	

TASK OVERVIEW						
Purpose of Task:		Date of Task:				

Task Benefit: Automates routines to free staff time for other tasks. | Ensures efficient water use to lower costs and waste. | Maintains compliance with watering restrictions via controls. | Prevents overwatering that can damage structures and paths. | Supports plant establishment and survival in dry periods.

HAZARDS					
HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Confined spaces in tanks/chambers	Asphyxiation, toxic exposure, fall	Enables essential tank and chamber works that improve system resilience.	Assess oxygen/toxic risks, ventilate and test the atmosphere. Use top-man, tripod and harness where needed. Control access, isolate inlets/outlets, and keep communications live. Work to a permit with rescue plan, trained team, and suitable retrieval and first-aid equipment ready. (ALL)		Before Measure: High After Measure: Med



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Cutting, drilling and grinding	Laceration, eye injury, dust inhalation	Produces accurate penetrations and neat finishes first time.	Use guarded, maintained tools with correct blades. Clamp work, cut away from body, and wear eye/face and hearing protection. Control dust by damp cutting or extraction and provide RPE where required. Keep sparks from fuels/chemicals and appoint a hot-work fire watch where necessary. (ALL)	Operatives	Before Measure: High After Measure: Med
Environmental spills and pollution	Soil contamination, water pollution, fines	Protects landscapes and reputation while meeting legal duties.	Store fuels and chemicals in bunded trays away from drains. Fit backflow devices, use drip trays during fueling, and keep spill kits accessible. Stop work on uncontrolled leaks, contain at source, and notify promptly. Dispose of rinse water and contaminated waste lawfully. (ALL)		Before Measure: High After Measure: Med
Excavation collapse	Entrapment, sprain, crush injury	Allows safe creation of pipe runs and valve boxes without unnecessary stoppages.	Keep trenches narrow; batter or shore unstable sides. Set spoil at least 600 mm from edges and use trench boards on weak ground. Barrier and light edges, avoid lone entry, and backfill/compact in layers promptly. Inspect after rain or plant movements and record findings. (ALL)	Operatives	Before Measure: High After Measure: Med
Fertigation and dosing chemicals	Corrosion, chemical burn, exposure	Supports plant health gains through precise nutrient delivery.	Segregate and label chemicals with secondary containment. Fit non-return valves, vent lines, and verify injector calibration. Wear face/eye protection and chemical-resistant gloves/aprons. Mix per SDS, never exceed strengths, flush safely, and log dosing changes in site records. (ALL)	Operatives, public	Before Measure: High After Measure: Med



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Lifting operations	Crush injury, dropped load, equipment damage	Enables safe positioning of tanks, kiosks and heavy components.	Plan lifts to LOLER with an appointed person. Inspect accessories, define load weights and radii, and set exclusion zones. Use certified lifting points on tanks/pumps, agree hand signals, and keep non-essential persons clear. Record lifts and stop on adverse weather triggers. (ALL)	Operatives, public	Before Measure: High After Measure: Med
Plant and vehicle interface	Collision, crush injury, struck-by	Keeps materials flowing so installs proceed without bottlenecks.	Establish one-way routes, banksman control, and marked exclusion zones around excavators/trenchers. Wear hi-vis and agree hand signals. Never enter the swing radius. Park plant on firm ground, chock if needed, and brief all trades on daily movements and blind-spot risks. (ALL)	Operatives, public	Before Measure: High After Measure: Med
Recycled and greywater systems	Cross- connection, infection, misuse	Enables sustainable water use without compromising safety.	Clearly identify non-potable lines and outlets; apply distinct pipe/valve labelling and signage. Maintain permanent separation from potable supplies with correct backflow devices. Train users, lock hose points where needed, and document flushing and maintenance routines. (ALL)	Public, operatives	Before Measure: High After Measure: Med
Traffic management near roads	Vehicle strike, public harm, delay	Enables roadside irrigation works with minimal disruption.	Plan with compliant signage, cones, and barriers. Maintain sight lines, provide off-carriageway parking, and supervise crossings for people and materials. Use high-vis with retro-reflective strips and task lighting at dusk. Review layouts in rain and adjust for visibility. (ALL)	Operatives, public	Before Measure: High After Measure: Med



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Working at height on tanks and overhead runs	_	Allows neat overhead routing and tank access without delays.	Use inspected podiums or towers on level bases; forbid makeshift steps. Maintain three points of contact, secure tools, and protect edges. Exclude the drop zone below. Avoid leaning from ladders; reposition instead. Wear fall protection where specified by the task risk. (ALL)	Operatives, public	Before Measure: High After Measure: Med
Working near open water	Drowning, leptospirosis, slip	Allows safe installation and maintenance around ponds and rills.	Plan access with barriers, rescue aids and throw-lines; brief a rescue plan and buddy system. Wear suitable footwear and, where risk dictates, buoyancy aids. Manage algae and slippery edges, control pumps to prevent sudden flows, and maintain good hygiene after contact. (ALL)	Operatives	Before Measure: High After Measure: Med
Chemical adhesives and primers	Skin irritation, eye injury, fire	Enables durable, leak- resistant joins that reduce rework and callbacks.	Use in ventilated areas away from ignition. Wear nitrile gloves and goggles; avoid skin contact. Decant minimal quantities, close lids promptly, and store upright in COSHH trays. Provide spill kit, dispose of rags safely, and wash hands before eating, drinking, or leaving site. (ALL)	Operatives	Before Measure: Med After Measure: Low
Electrical equipment and pumps	Electric shock, fire, equipment damage	Provides reliable power and control for irrigation with minimal downtime.	Use RCD-protected supplies and test before use. Route leads off wet ground, maintain IP-rated enclosures and glands, and ensure correct earthing. Lock-off and verify dead before wiring controllers or pumps. Only qualified persons terminate, fault-find, and re-energise circuits. (ALL)	Operatives	Before Measure: High After Measure: Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Lone working and welfare	Delayed assistance, stress, dehydration	Enables reactive call-outs and off-hour fixes for continuity.	Avoid lone high-risk tasks; where unavoidable, use check-in protocols and man-down alarms. Provide accessible welfare, drinking water, and first aid. Ensure signal coverage or radios, known location, and a clear escalation plan with agreed response times and contacts. (ALL)	Operatives	Before Measure: Med After Measure: Low
Low light and poor visibility	Misstep, vehicle strike, cutting error	Extends safe working windows to achieve programme targets.	Provide battery or generator task lighting positioned to reduce glare. Use high-vis with retro-reflective strips, mark edges and trenches with illuminated beacons, and light plant routes. Reassess lighting after plant moves and at dusk changeover; test emergency lighting. (ALL)	Operatives, public	Before Measure: Med After Measure: Low
Manual handling of pipe coils and equipment		Allows efficient installs with fewer injuries and less downtime.	Plan drops to minimise carry distance; use trolleys, coil dispensers, and team lifts. Warm/coax PE coils to reduce spring force. Keep loads close, avoid twisting, clear routes, and stage materials by work zones. Set weight limits and rotate tasks to limit cumulative strain. (ALL)	Operatives	Before Measure: Med After Measure: Low
Noise and hand- arm vibration	Hearing loss, HAVS, fatigue	Supports sustained productivity across long installation days.	Select low-vibration tools, record trigger times, and rotate tasks. Wear hearing protection near trenchers/compactors. Maintain sharp blades and damping handles. Plan quieter methods (e.g., hand dig near services) and schedule rest breaks to reduce cumulative exposure. (ALL)	Operatives	Before Measure: Med After Measure: Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Pressurised testing and stored energy	Rupture, projectile, laceration	Confirms system integrity quickly so client handover can proceed confidently.	Use water-filled hydro tests only; never air. Fit rated end caps and restraints, exclude personnel from line of fire, and raise pressure gradually using calibrated gauges. Isolate pumps, depressurise before adjustments, document test limits, and secure test area against entry. (ALL)	Operatives, public	Before Measure: High After Measure: Low
Public access and site security	Unauthorised entry, interference, theft	Allows work in parks, schools and estates without complaints.	Fence trenches and equipment, lock tanks/valve boxes, and remove keys from controllers. Use clear signage and maintain clean pedestrian routes. Secure chemicals and fuels. Brief crew on safeguarding expectations and polite public engagement on occupied sites. (ALL)		Before Measure: Med After Measure: Low
Slips, trips and unstable ground	Fall on same level, sprain, bruise	Maintains productivity by keeping safe, open access across site.	Edge and cover trenches left open; route cables/hoses overhead or mat them. Manage water, mud and spoil promptly. Keep lay-down areas tidy, maintain firm walkways, and grit in frost. Illuminate routes after dusk and remove offcuts and packaging as tasks complete. (ALL)	Operatives, public	Before Measure: Med After Measure: Low
Underground services	Electric shock, service strike, flooding	Enables trenching and head placement in service-dense areas while keeping the programme on track.	Review current utility plans, scan with	Operatives, public	Before Measure: High After Measure: Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Unintended startup of pumps/valves	Unexpected movement, impact, water release	Permits maintenance without service interruptions to clients' landscapes.	Apply lockout/tagout to mains, isolators, and controller outputs. Remove fuses, bypass auto schedules, and verify zero energy. Depressurise lines before work, tag controls with "men at work," keep keys under single control, and confirm restoration is staged and announced. (ALL)		Before Measure: High After Measure: Low
Water quality and biohazards	Infection, dermatitis, illness	, , , , , , , , , , , , , , , , , , , ,	Flush stagnant lines before work and avoid creating aerosols. Wear gloves, cover cuts, and use backflow prevention to protect potable supplies. Disinfect tools after contaminated tasks, use hand-wash facilities, and restrict eating/drinking in work zones to control ingestion risks. (ALL)	public	Before Measure: Med After Measure: Low
Weather and heat stress	Dehydration, cold stress, reduced alertness	Keeps crews operating reliably through seasonal conditions.	Stage heavy tasks in cooler periods, provide shade and regular water. Use sun protection, breathable PPE, and schedule micro-breaks. In cold or wet, issue thermal layers and waterproofs with warm shelters. Change out wet gloves/boots and monitor for fatigue or confusion. (ALL)	Operatives	Before Measure: Med After Measure: Low
Unpredicted risks	Illness, injury, death		Continuous risk monitoring conducted by all staff. Any unforeseen hazards must be reported promptly to supervisors or management, with immediate corrective action taken as necessary. (ALL)	All	N/A



	NC	TES	
Extra Notes & Activity Evalua	ation:		
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Completed by	Reviewed/Approved by	Risk Assessment Date	Review Required Date