



# JOB SAFETY ANALYSIS

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## COMPANY DETAILS

Company Name	
Date	
JSA No	
Site Name	
Permit to Work	
Approved by	
Workers on site	

## DESCRIPTION OF WORK ACTIVITIES

1	High Pressure Water Jetting Drain clearing (HPWJ)
2	
3	
4	
5	
6	



SECTION 2

RISK














INCREASE SEVERITY OF CONSEQUENCES ----->						
	1.INSIGNIFICANT No external First Aid required	2. MINOR Some First Aid required	3.MODERATE Significant personal injury and medical treatment	4. MAJOR Extensive permanent injury. Loss of sense	5.CATASTROPHIC Death or permanent disability	
↑ INCREASE LIKELIHOOD OF EVENT	<b>A. ALMOST CERTAIN</b> Expected in normal circumstances	HIGH 11	HIGH 16	EXTREME 20	EXTREME 23	EXTREME 25
	<b>B. LIKELY</b> Probably occur in most circumstances	MODERATE 7	HIGH 12	HIGH 17	EXTREME 21	EXTREME 24
	<b>C. POSSIBLE</b> Might occur at some time	LOW 4	MODERATE 8	HIGH 13	EXTREME 18	EXTREME 22
	<b>D. UNLIKELY</b> Could occur at some time but no expected	LOW 2	LOW 5	MODERATE 9	HIGH 14	EXTREME 19
	<b>E. RARE</b> Only in exceptional circumstances	LOW 1	LOW 3	MODERATE 6	HIGH 10	HIGH 15

ACTION TIMEFRAME	RISK	ACTION
	EXTREME	Immediate action required to mitigate risk and implement treatments
	HIGH	Immediate action required to mitigate risk and implement treatments
	MODERATE	Reasonable action to monitor and mitigate risk
	LOW	Reasonable action to monitor and mitigate risk

APPROPRIATE RISK TREATMENTS BALANCING THE RISKS AND THE SUITABLE MITIGATING ACTION AS FAR AS REASONABLY PRACTICABLE	
HEIRARCHY OF CONTROLS	<b>ELIMINATE</b> Seeks to eliminate the risk source
	<b>SUBSTITUTE</b> Institute a control measure that provides a safer alternative
	<b>ENGINEERING</b> Engineered options that separate the risk from the user and environment
	<b>ADMINISTRATION</b> Procedures and practices that are instituted to reduce risk, of equal or higher standard that WHS obligations
	<b>PERSONAL PROTECTIVE</b> Protection from risk source


**SECTION 3**


**EQUIPMENT, HAZARDOUS SUBSTANCES EXPOSURE, PPE**


EQUIPMENT AND TOOLS TO BE USED	TICK	LIST PPE TO BE USED	TICK
JETTER		 Hard Hat	
JETTER MAIN REEL		 Safety Footwear	
JETTER MINI REEL		 Eye Protection	
JETTER LANCE		 Safety Harness	
NOZZLE SET		 Respiration Equipment	
HOSE RESTRAINT		 Hand Protection	
HOSE SHROUD		 Ear Protection	
SAFETY PLATE		 Overalls	
MEDICAL ALERT CARD		 Illuminating Safety Vest	
SAFETY SIGNAGE		 Wet Weather Gear	
FIRE EXTINGUISHER		 Sun Glasses	
BARRICADES		 Hat	
		 Sun Screen	
LIST POTENTIAL HAZARDOUS SUBSTANCES EXPOSURE	DO YOU HAVE THE MSDS YES / NO		

**SECTION 4**

**KNOWN HPWJ RISKS AND SAFETY RISK TREATMENTS**

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
<b>OPERATION</b>		<b>OPERATOR COMPETANCY- INJURY / DEATH</b>	<b>21</b>	<b>13</b>
	<p><b>Risk Control Treatments to be Observed</b>                      Only persons who are trained, experienced and hold all relevant certification and licences including being deemed competent to operate a Class B HPWJ if required.</p> <p>CONDUCT SITE SPECIFIC RISK ASSESSMENT                      DO NOT OPERATE PRESSURE WASHER UNLESS QUALIFIED AND AUTHORISED TO DO SO                      READ MANUFACTURERS INSTRUCTIONS                      WEAR ALL REQUIRED PPE                      BARRICADE WORK AREA - RESTRICT ACCESS                      ERECT HAZARD WANING SIGNS                      DO NOT USE LANCE WITHOUT PROTECTIVE SHEATH ON OPERATORS END OF HIGH-PRESSURE HOSE                      ENSURE HOSE RESTRAINS ARE USED                      DO NOT USE IF EVIDENCE OF WATER LEAKS                      IN THE EVENT OF A WATER JET INJURY - SEEK IMMEDIATE MEDICAL ATTENTION</p>			
	<b>HEIRARCHY CONTROL</b>	Administration, PPE		

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
<b>OPERATION</b>		<b>ENTANGLEMENT IN EQUIPMENT- INJURY</b>	<b>17</b>	<b>9</b>
	<p><b>Risk Control Treatments to be Observed</b>                      Use hose main and mini reels to limit exposure to hose                      Ensure firm footing during operation                      Barricade work zone                      Utilise signage</p> <p>Operate in line with Safe Jetting Manual                      Operate in line with Guide to Managing Risks from High Pressure Water Jetting</p>			
	<b>HEIRARCHY CONTROL</b>	Engineering, Administration		

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
<b>OPERATION</b>		<b>HIGH PRESSURE WATER JETTING- INJURY</b>	<b>21</b>	<b>14</b>
	<p><b>Risk Control Treatments to be Observed</b>                      Jetting in progress signage                      Barricade work zone from by standers                      SWMS to stop jetting if people enter work zone                      Never leave jetter unattended                      Stop jetting if malfunction                      Never point jetter stream at person or animal                      Always carry Medical Alert Card</p> <p>Never put hand over jetter stream                      Use appropriate PPE                      Never leave jetter unattended                      Operate in line with Safe Jetting Manual                      Seek medical treatment immediately                      Operate in line with Guide to Managing Risks from High Pressure Water Jetting</p>			
	<b>HEIRARCHY CONTROL</b>	Engineering, Administrative, PPE		

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
OPERATION	+	<b>HOSE WHIPPING - INJURY</b>	<b>21</b>	<b>10</b>
	<b>Risk Control Treatments to be Observed</b> Observe machine start up procedures Point jetting stream to ground Observe markings on hose indicating distance to end of hose Utilise hose restraints and shrouds Always carry Medical Alert Card			
	HEIRARCHY CONTROL		Engineering, Administrative, PPE	

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
OPERATION	+	<b>SUFFOCATION - INJURY</b>	<b>20</b>	<b>14</b>
	<b>Risk Control Treatments to be Observed</b> Never operate fuel driven equipment in confined spaces Ensure adequate ventilation Undertake confined spaces training			
	HEIRARCHY CONTROL		Administrative, PPE	

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
OPERATION	+	<b>MANUAL HANDLING - INJURY</b>	<b>20</b>	<b>10</b>
	<b>Risk Control Treatments to be Observed</b> Undertake training in manual handling			
	HEIRARCHY CONTROL		Administration	

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
OPERATION	+	<b>BURNS - INJURY</b>	<b>17</b>	<b>6</b>
	<b>Risk Control Treatments to be Observed</b> Follow engine manufacturers instruction Warning on fuel tank			
	HEIRARCHY CONTROL		Engineering, Administration, PPE	

		RISK ITEM	RISK RATING BEFORE CONTROLS	RISK RATING AFTER CONTROLS
OPERATION	+	EXPLOSION & FIRE - INJURY	18	10
	Risk Control Treatments to be Observed Follow manufacturer's instructions Cool engine prior to refuelling Charge battery with correct equipment Access to fire extinguisher		Do not operate in explosive environment Utilise appropriate PPE when working with battery and fuel Access to fire blanket	
	HEIRARCHY CONTROL	Administration, PPE		

		RISK ITEM	RISK RATING BEFORE CONTROLS	RISK RATING AFTER CONTROLS
OPERATION	+	CRUSH - INJURY	14	10
	Risk Control Treatments to be Observed Secure machine, trailer, vehicle with brake or wheel chocks			
	HEIRARCHY CONTROL	Engineering, Administration		

		RISK ITEM	RISK RATING BEFORE CONTROLS	RISK RATING AFTER CONTROLS
OPERATION	+	ENGINE AND JETTING NOISE - INJURY	17	6
	Risk Control Treatments to be Observed Avoid operating equipment in confined spaces		Use hearing protection PPE	
	HEIRARCHY CONTROL	Administrative, PPE		

		RISK ITEM	RISK RATING BEFORE CONTROLS	RISK RATING AFTER CONTROLS
OPERATION	+	AIR BORNE CONTAMINANTS -INJURY	22	15
	Risk Control Treatments to be Observed Do not use HPWJ near asbestos as particles may become airborne Wear safety goggles Operate in line with Guide to Managing Risks from High Pressure Water Jetting		Be aware of airborne bio hazards from drain jetting Wear appropriate respirator Operate in line with Safe Jetting Manual	
	HEIRARCHY CONTROL	Administrative, PPE		

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
OPERATION	+	<b>ELECTROCUTION - INJURY</b>	<b>18</b>	<b>10</b>
		Risk Control Treatments to be Observed Do not air HPWJ stream at electrical equipment		Wear appropriate PPE
		HEIRARCHY CONTROL	Administrative, PPE	

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
OPERATION	+	<b>SLIPPING - INJURY</b>	<b>17</b>	<b>9</b>
		Risk Control Treatments to be Observed Use correct footwear on slippery surfaces Utilise Spills Kit when required		Clean up prior to leaving site
		HEIRARCHY CONTROL	Engineering, PPE	

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
OPERATION	+	<b>BIOHAZARD - INJURY</b>	<b>18</b>	<b>10</b>
		Risk Control Treatments to be Observed Utilise appropriate levels of hygiene		Employ appropriate PPE
		HEIRARCHY CONTROL	Administrative, PPE	

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
OPERATION	+	<b>CHEMICAL EXPOSURE - INJURY</b>	<b>18</b>	<b>10</b>
		Risk Control Treatments to be Observed Confined spaces training Keep workspace well ventilated		Follow chemical suppliers' instructions Utilize respirator and additional PPE
		HEIRARCHY CONTROL	Administrative, PPE	

		<b>RISK ITEM</b>	<b>RISK RATING BEFORE CONTROLS</b>	<b>RISK RATING AFTER CONTROLS</b>
OPERATION	❄️	<b>FREEZING LIQUIDS - INJURY</b>	<b>18</b>	<b>10</b>
		Risk Control Treatments to be Observed Do not operate equipment if there is a risk of freezing. Follow start up and shut down procedures Do not leave equipment pressurised Shut down equipment and depressurise prior to maintenance		Operate in line with Safe Jetting Manual Operate in line with Guide to Managing Risks from High Pressure Water Jetting Wear correct PPE
		HEIRARCHY CONTROL	Administrative, PPE	

		RISK ITEM	RISK RATING BEFORE CONTROLS	RISK RATING AFTER CONTROLS
OPERATION	⊕	INCORRECT JETTER, HOSE , NOZZLE COMPATABILITY - INJURY	18	10
	Risk Control Treatments to be Observed Operator training to AS 4233.1 2013 requirements Ensure jetter, hoses and nozzles are compatible Use hose restraints Use appropriate PPE		Operate in line with Safe Jetting Manual Operate in line with Guide to Managing Risks from High Pressure Water Jetting	
	HEIRARCHY CONTROL	Administrative, PPE		

## SECTION 5

### OTHER RISKS AND SAFETY RISK TREATMENTS

		RISK ITEM	RISK RATING BEFORE CONTROLS	RISK RATING AFTER CONTROLS
		Risk Treatments to be Observed:		
		HEIRARCHY CONTROL		

		RISK ITEM	RISK RATING BEFORE CONTROLS	RISK RATING AFTER CONTROLS
		Risk Treatments to be Observed:		
		HEIRARCHY CONTROL		

		RISK ITEM	RISK RATING BEFORE CONTROLS	RISK RATING AFTER CONTROLS
		Risk Treatments to be Observed:		
		HEIRARCHY CONTROL		



	RISK ITEM	RISK RATING BEFORE CONTROLS	RISK RATING AFTER CONTROLS
	Risk Treatments to be Observed:		
	HEIRARCHY CONTROL:		

## SECTION 7

## DECLARATION

DECLARATION BY PCBU AND WORKERS	Yes	No
I have been consulted and have assisted in the development of this JSA.		
I have been given the opportunity to comment on the content of this JSA.		
I have been supplied with the Personal Protective Equipment identified on this JSA and I have been given training in the safe use of this equipment.		
I have read and understand how I am to carry out the activities listed in this JSA.		
I have read and understand the requirements set out in the Material Safety Data Sheets for the Hazardous Substances identified in this JSA.		
<b>I understand that a Class B HPWJ must only be used by operators who have been deemed competent by a Registered Training Organisation in line with AS 4233.1</b>		
NOTE: Work must be performed in accordance with this JSA. This JSA must be kept and be available for inspection until the work to which this JSA relates is completed. If the JSA is revised, all versions should be kept. If a notifiable incident occurs in relation to the work in this JSA, the JSA must be kept for at least 2 years from the date of the notifiable incident		
Name		
Signature		
Date		

Name	
Signature	
Date	