



WORKPLACE/TASK BASED RISK ASSESSMENT FOR GENERAL RESTORATION WORK

LOCATION: ANY CANAL/RIVERSIDE LOCATION

NOTES

1. This Risk Assessment is for general Canal Restoration Work on a KESCRG or WRG controlled site for the purposes of canal restoration. This Risk Assessment is for general restoration work, there are specific risk assessments for some items of plant and machinery.
2. This Risk Assessment should be included in the documentation taken to site and retained by the site leader.
3. There must be a review of this Risk Assessment following any site feedback or every 2 years, whichever comes first. Revision and date are shown in the footer.

MANDATORY PPE

1. Normal Site PPE, Safety Boots, fastened High-Viz Jacket, Safety Helmet
2. Goggles or similar eye protection where the task requires it
3. Gloves.
4. "Overall" type long trousers.
5. Ear Protection (ear muffs or ear plugs for short term use) when using noisy machinery

Risk Scoring Matrix

Likelihood	Meaning	Severity	Meaning
1	Possible	1	Minor cut or bruise/injury
2	More than possible	2	Cut/Injury, needs First Aid
3	Fair chance	3	Injury needing First Aid
4	Likely	4	Broken Limb/ Serious injury
5	Certain	5	Severe injury/Death



Risk Assessment: HAZARDS RELATING TO THE CANAL ENVIRONMENT ITSELF

Ref no	HAZARD	LIK	SEV	RAT	EXISTING CONTROL MEASURES	ADDITIONAL CONTROL MEASURES REQUIRED	LIK	SEV	RAT
1.	Risk of Drowning in un-restored canal	3	5	15	1. Covered in site briefing. 2. Work is usually away from wet areas. 3. No lone working near water.	1. None 2. None 3. None Note: Un-restored canals tend to be either dry or only very shallow, below boot depth.	1	3	3
2.	Risk of drowning in restored canal/river.	5	5	25	1. Work on/about the water's edge will require a life jacket to be worn. 2. All boat operators will be competent. 3. Working on/about the waters edge will require site briefing before work starts. 4. Lifebuoy/throwing lines will be available adjacent to the work site.	1. None 2. Covered by local group risk assessment. 3. Site Leader to brief. 4. Site leader to check. Note. We do not work in "live" canals very often, mainly work on derelict canals.	2	3	6
3.	Slips, trips and falls from uneven or wet ground	4	3	12	1. Minimum PPE requires safety boots, i.e. ankle support and grip. 2. Site should have a safe walking route. Local group will advise Site Leader.	1. None 2. Site leader to brief before starting on site.	1	3	3
4.	Hypothermia from	2	4	8	1. Covered in Site Leader	1. None	1	3	3



	working outside in cold and windy conditions.				<p>training.</p> <p>2. No lone working, so safety in numbers.</p> <p>3. Gloves and hard hats are PPE requirements. Need for personal waterproofs covered in site briefing.</p> <p>4. The work itself generates warmth; tea breaks in winter are shorter to ensure people do not get cold. .</p>	<p>2. None.</p> <p>3. None.</p> <p>4. None</p>			
5	Heatstroke and sunburn from working in hot weather.	4	2	8	<p>1. Site kit always includes drinking water.</p> <p>2. Site kit includes sun protection cream.</p> <p>3. Site normally has a covered dining area to give shade.</p>	<p>1. None</p> <p>2. None</p> <p>3. None</p>	1	2	2
6.	Leptospirosis from contact with dirty water	2	5	10	<p>1. Leptospirosis covered in site briefing.</p> <p>2. Plasters (to cover open cuts) provided in First Aid Kit.</p> <p>3. Leptospirosis only fatal if left untreated, symptoms well briefed to all site personnel and on WRG/KESCRG websites.</p>	<p>1. None</p> <p>2. None.</p> <p>3. None.</p> <p>Note. Gloves are also provided as part of PPE.</p>	1	5	5
7.	Danger to members of the public in or near the work site	3	5	15	<p>1. Worksite demarked with “Danger” notices.</p> <p>2. Public escorted through site if tree work is ongoing.</p> <p>3. At end of working day, site</p>	<p>1. None</p> <p>2. None.</p> <p>3. None.</p> <p>4. None</p>	1	3	3



					made safe by site leader, fencing refitted to keep public out. 4. Ground openings covered over or barriered off.				
8.	Dangers from Overhead Live Cables, Buried Services, potential for death and costs from Utility Providers	3	5	15	1. Local Group will have specific knowledge of the area; the work content will be agreed with them before site work is planned. 2. Overhead and buried services covered by machinery training.	1. None 2. None, covered by training. Note. Residual severity stays at 5, always the possibility of unknown services.	1	5	5



CONTROL MEASURES - GENERAL CANAL ENVIRONMENT

Ref no	ADDITIONAL CONTROL MEASURE REQUIRED	BY WHOM	BY WHEN	STATUS (COMPLETED YES/NO)
1.	1 – 3 None			
2	1 & 3 None. 2-local group should provide a risk assessment for boat work. 4. Site leader to check before work starts.	2. Site leader 4. Site leader	Before work plan is agreed	
3	1 None, 2 Site leader to brief walking route before site work starts	2. Site leader	Pre-start on site	
4	1 – 4. None			
5	1 -3. None			
6	1 – 3. None 1 2 3			
7	1 – 4. None			
8	1 – 2. None			



Risk Assessment: -HAZARDS RELATING TO MACHINERY ON SITE

Ref no	HAZARD	LIK	SEV	RAT	EXISTING CONTROL MEASURES	ADDITIONAL CONTROL MEASURES REQUIRED	LIK	SEV	RAT
1.	Contact with moving machinery giving severe injury. Note. Machinery envisaged includes dumpers, diggers, tracked excavators, powered winches. If there is any doubt the site leader should consider making a separate RA.	3	5	15	1. All machinery operated by authorised (competent) operators, under the WRG authorisation scheme, or under training by authorised trainer. 2. Banksman used in all excavator operations. 3. All site persons wear high-viz clothing, PPE requirement when machinery on site. 4. All restricted clearance areas to be briefed by site leader before work starts.	1. None 2. None 3. None Note: Site leader trained to check all driver authorisations at start of the work on site.	1	4	4
2.	Unauthorised use of machinery giving rise to severe injury	3	5	15	1. Keys kept in Flight case under control of Site leader. 2. Keys only issued to authorised person, replaced in flight case after use. 3. The machine will be locked and covers (lockable) fitted after use, making access to controls more difficult for trespassers.	1. None 2. None 3. None	1	5	5
3.	Machinery breakdown, leading to potential	2	4	8	1. Pre-start checks are part of WRG driver competence training. This	1. None 2. None	1	4	4



	injury.				includes security of pivot pins, locking bars and “R” pins. 2. Most machinery is hydraulic driven, catastrophic failure is unlikely without prior leakage. 3. Pre-use check includes looking for oil leaks and general machine condition.	3. None			
4.	Machinery topples due to overbalance or lack of support. See also lifting operations (7 & 8 below)	2	5	10	1. Correct use of machine, including ensuring stability in operation, covered in training. 2. Banksman used to ensure machine is placed on solid ground, and to watch machinery. 3. All machines have safety belt and roll-over cage. 4. Site leader and machine operator will agree the method of operation beforehand.	1. None 2. None 3. None	1	4	4
5	Debris falls from bucket or rotating/slewing operation contacts bystander, potential for head or limb injury.	3	4	12	1. All persons on site wear correct PPE inc. hard hat, safety boots and gloves. 2. Operator and site leader agree method of operation beforehand to ensure no-one is under raised bucket. 3. When machinery is in use all persons wear High-Viz clothing.	1. None 2. Site leader, during use of excavator 3. None	1	4	4
6.	Dermatitis from lube/hydraulic oil, fuel, greases.	3	2	6	1. Funnels and gloves included in site kit to minimise contact with fluids.	1. None 2. None 3. None	1	2	2



					<p>2. Fuel provided in sealed cans with spout for pouring.</p> <p>3. Grease supplied in tins or cartridges to minimise handling.</p>				
7.	<p>Lifting operations.</p> <p>Load insecure, slipping off fixings, chains or strops.</p>	3	5	15	<p>1. Each lifting operation requires a specific lifting risk assessment. This must be completed before lift takes place, so a plan is made.</p> <p>2. Machinery driver and banksman carry out test lift with load just raised above ground to test lift process, check slewing and positioning of load.</p>	<p>1. None</p> <p>2. None</p> <p>Note. Load assessment is made as part of the specific lifting assessment, and would be done by measuring volumes etc.</p>	1	4	4
8.	<p>Lifting operations.</p> <p>Machine over-topples due to incorrect assessment of the load.</p>	3	5	15	<p>1. Mitigated by specific risk assessment and test lift as above.</p> <p>2. Banksman duties include watching the machine.</p>	<p>1. None</p> <p>2. None</p>	1	4	4



CONTROL MEASURES - MACHINERY ON SITE

Ref no	ADDITIONAL CONTROL MEASURE REQUIRED	BY WHOM	BY WHEN	STATUS (COMPLETED YES/NO)
1.	1 – 3. None			
2	1 – 3. None			
3	1 – 3. None			
4	1 – 3. None			
5	1. None. 2. Site leader to check slewing/operation of bucket	2. Site leader	2. Before and during site ops with digger	
6	1 – 3. None			
7	1 – 2. None			
8	1 – 2. None			



Risk Assessment: HAZARDS RELATING TO TREE FELLING AND BRASH CUTTING AND BURNING

Ref no	HAZARD	LIK	SEV	RAT	EXISTING CONTROL MEASURES	ADDITIONAL CONTROL MEASURES REQUIRED	LIK	SEV	RAT
1.	Injury from incorrect use of chainsaw. Note Specific chainsaw PPE includes gloves, helmet, ear defenders, visor and clothing to stall the chainsaw.	5	5	25	1. Only authorised person will be allowed to use chainsaws on WRG/KESCRG sites. 2. First aid kit available on site for prompt treatment of injuries.	1. None. 2. None Note. 1. Use of chainsaws needs notification to WRG/IWA HQ to ensure that insurance cover is in place. 2. WRG/IWA HQ needs to be notified beforehand if trees > 200mm are to be felled. Site leader / local Group to undertake.	1	5	5
2.	Injury from unauthorised use of chainsaw resulting in injury to operator	5	5	25	1. Site briefing includes chainsaw use by authorised persons only. 2. Chainsaws are kept secure when not in use. 3. Site kept secure to prevent access by unauthorised persons.	1. None 2. None 3. None See also note below regarding passers-by	1	5	5
3.	Injury to site persons from falling trees	3	5	15	1. Skilled chainsaw operator knows where tree will fall, and will ensure there is a watcher to prevent entry into the fall zone. 2. Site leader will ensure that no-	1. None 2. Site leader to plan work locations before work on site starts, and as work proceeds.	1	4	4



					one works in the fall zone.				
4.	Injury to passers-by from falling tree. Note. Some work sites are public footpaths	3	5	15	1. Site leader will appoint a watcher to ensure passers by keep clear of fall zone.	1. None	1	1	1
5	Incorrect use of axe or bladed tools, severe limb injuries or deep cuts.	3	4	12	1. Correct use of hand tools covered in site briefing. 2. Site leader to assess competence before issuing sharp tools 3. Training covers keeping hands behind the cutting edge.	1. None 2. Site leader to ensure competence 3. None	1	3	3
6.	Use of bow-saw, potential for cuts and digit injury.	3	3	9	1. Gloves are part of PPE 2. First aid kit includes bandages/plasters to prevent ingress of dirt into wounds.	1. None	1	3	3
7.	Burns from bonfire lighting and bonfire operation	4	3	12	1. Long trousers worn, as this work is carried out in winter, minimises risk of burn. 2. Gloves are part of PPE 3. Large bonfires give out so much heat it can be felt 2 metres away so hazard is obvious. 4.	1. None 2. None 3. None			
8.	Potential for bonfire to get out of hand, leading to potential conflagration and need for emergency services to be called.	2	5	10	1. The way we work is that 1 person feeds the fire, others bring material to the area. 2. Recent WRG publications have increased awareness of this issue.	1. None 2. None Note. Calling emergency services is a risk to KESCRG good reputation rather than H & S risk.	1	3	3
9	Injuries, cuts and	4	2	8	1. Gloves are included in PPE.	1. None	2	2	4



	splinters from brush, especially hawthorns				2. Minimal cutting/handling of brush takes place, bonfires big enough to burn sizeable branches/bushes. 3. First aid available if required.	2. None 3. None			
10	Barbed wire. Potential jagged cuts and tetanus.	3	4	12	1. Most people have tetanus protection. 2. Any accidents reported to site leader. 3. Gloves are provided as PPE.	1. None. 2. Site leader to advise seeing GP for tetanus booster if cut is sustained. 3. None	1	4	4
11	Danger from Live Overhead Cables when trees fall. Potential electrocution.	2	5	10	1. Local group will advise specific hazards in their work plan. 2. Part of tree-felling course covers hazards such as overhead cables.	1. None 2. None	1	3	3
12	Use of Brushcutter				Covered by separate Risk Assessment				



CONTROL MEASURES TREE FELLING AND BRASH CUTTING AND BURNING

Ref no	ADDITIONAL CONTROL MEASURE REQUIRED	BY WHOM	BY WHEN	STATUS (COMPLETED YES/NO)
1	1 & 2. None			
2	1 – 3. None			
3	1. None 2. Site leader to plan tree felling area with chainsaw operator before and during work	2. Site leader	Pre- and during work.	
4	1. None			
5	1. None 2. Site leader to determine competence to use sharp tools before issue. 3. None	2. Site leader	2. Before tool issue.	
6	1. None			
7	1 – 3. None.			
8	1 – 2. None.			
9	1 – 3. None.			
10	1. None 2. Site leader to advise visiting GP if open cuts are sustained. 3. None	2. Site leader	2. If cut is sustained.	
11	1 – 2. None			
12	See Brushcutter Risk Assessment (RA-002)			



Risk Assessment: HAZARDS RELATING TO BRICK AND CONCRETE WORK

Ref no	HAZARD	LIK	SEV	RAT	EXISTING CONTROL MEASURES	ADDITIONAL CONTROL MEASURES REQUIRED	LIK	SEV	RAT
1.	Scaffolding. Unsafe scaffolding collapsing, leading to serious injury	4	4	16	1. Scaffolding can only be certified by a competent person before use. 2. "Scaftag" used to denote status of scaffold. 3. Where possible "zip-up" access is used (less skilled to erect). 4. Site leader checks scaffold before use on daily basis.	1. None 2. None 3. None 4. None	1	3	3
2.	Falls from height.	4	5	20	1. Openings are barriered off with "Heras" or similar demarcation. 2. Working areas use scaffolding or "zip-up" staging. 3. Scaffold and access equipment always has toe-boards and mid-rails to prevent fall-through. 4. Toe-boards prevent kick-through of material to anyone working below.	1. None 2. None 3. None 4. None	1	3	3



3.	Weather. Heatstroke, sunburn, windburn	3	3	9	1. Trailer kit always includes drinking water and sun-cream. 2. Sunburn covered in site brief. 3. Shelter available at breaks, kit includes gazebo or similar.	1. None 2. None 3. None	1	2	2
4.	Lime/mortar/cement. Risk of burns and eye injury.	3	4	12	1. Site brief covers dangers of lime and cement. 2. PPE includes gloves and safety eyewear. 3. Site first aid kit includes eyewash, cold water always available on site.	1. None 2. None 3. None	1	3	3
5	Dermatitis. Potential injury from wet materials.	3	2	6	1. Kit includes wipes. 2. PPE includes gloves.	1. None 2. None	1	2	2
6.	Handling wet mortar/cement. Tends to be heavy and difficult to handle. Potential sprains and strains	3	3	9	1. Buckets provided in trailer kit. 2. Mortar boards used on site, small quantities req'd. 3. We stop when tired and take breaks. Part of volunteer ethos.	1. None 2. None 3. None	1	3	3
7.	Muscular-skeletal injury from wheelbarrowing.	3	4	12	1. Barrow runs made as level as possible, boards and ramp material on site. 2. Barrows not over-filled, covered in site brief. 3. PPE includes boots to	1. None 2. None 3. None	1	3	3



					maintain grip and support ankles.				
8.	Sharp edges on bricks, concrete, scaffolding. Potential cuts, grazes.	3	2	6	1. Gloves provided in PPE. 2. General awareness covered in site brief. 3. First Aid Kit always available on site.	1. None 2. None 3. None	1	2	2
9	Hand tools. Digit injury, flying debris, cuts from sharp edges on tools.	4	3	12	1. PPE includes gloves and safety eyewear. 2. As with all tools, hands are placed behind the cutting edge. 3. Some of the chisels have hand-guards (not all).	1. None 2. None 3. None	1	2	2
10	Falling/mishandled bricks & other materials when carrying them.	4	2	8	1. PPE includes gloves for better handling. 2. Safety footwear is mandatory footwear.	1. None 2. None	1	2	2
11	Operation of cement mixer				See separate risk assessment	N/A			
12	Operation of Bricksaw				See separate risk assessment	N/A			



CONTROL MEASURES BRICK AND CONCRETE WORK

Ref no	ADDITIONAL CONTROL MEASURE REQUIRED	BY WHOM	BY WHEN	STATUS (COMPLETED YES/NO)
1.	1 – 4. None			
2	1 – 4. None			
3	1 – 3. None			
4	1 – 3. None			
5	1 – 2. None			
6	1 – 3. None			
7	1 – 3. None			
8	1 – 3. None			
9	1 – 3. None			
10	1 – 2. None			
11	See Cement Mixer Risk Assessment RA-001			
12	See Bricksaw Risk Assessment RA-003			