

Canal: Lichfield Canal	Fosseway Heath Nature Reserve and Wetland		<i>All work to be carried out with accordance with HSE Guidance note HSG150</i>
Work Location: off Fosseway lane, west end of nature reserve.	Operation: Canal channel and retaining wall construction	RA Sheet No: 1 of 13	Date Task Starts: 6 th July 2019

This risk assessment consists of two sections:

- Part A – General Risk Assessments; and
- Part B – Site-Specific Risk Assessments.

The general assessments cover the regular actions and tasks that can occur on all canal camps. However, each item needs to be checked, amended if necessary and confirmed as applicable to this camp.

The site-specific assessments cover the actions required for tasks being conducted on this camp. They may be tasks that are conducted on most camps but each camp can have different considerations for these tasks; eg: laying bricks may be from a boat or scaffolding and not firm ground.

The layout of the risk assessment allows it to be read piecemeal, i.e. only relevant sections need to be communicated to volunteers engaged in that activity.

Space is available to add hazards, but the reverse of the sheets can be used if there is not enough space on the sheet.

I have reviewed the general risk assessments in Part A and applied amendments and / or additions.					
Reviewer		Role		Date	

List of Sections		See Also:	Final Risk Level	
Part A	GENERAL			
1	Accommodation		L	M
2	Unloading the catering kit	Toolbox talk	L	
3	Travelling to and from site		L	M
4	Arrival on site		L	M
5	Keeping the public safe		M	
6	Setting up the gazebo	Toolbox talk	L	
7	Setting up and using the Burco	Toolbox talk	L	
8	Unloading the trailer	CRT Video, manual handling	L	
9	Working near water	NOT USED		
10	Working at height	WRG guidance note	M	
11	Storage of materials		L	M
12	Use of hand tools		L	
13	Cleaning bricks and similar materials for re-use	COSHH assessment	L	
14	Use of machinery and power tools (other than plant)		L	M
15	Use of plant	Toolbox talk	M	
16	Refuelling machinery and plant	COSHH assessment	L	
17	Setting up and using the mixer	Toolbox talk	L	
18	Mixing mortar (including lime) and concrete	Toolbox talk, COSHH assessment	L	M
19	Laying bricks and blocks	COSHH assessment	L	M
20	Moving and laying coping stones	NOT USED		
Part B	SITE-SPECIFIC (not covered above)			
21	Levelling ground for footpath		L	
22	Excavation for canal channel	Toolbox talk	L	
23	Brick repairs of the towpath retaining wall		L	M
24	Building towpath retaining wall		L	

Likelihood (L):

1	EU	Extremely Unlikely
2	U	Unlikely
3	L	Likely
4	VL	Very Likely
5	AC	Almost Certain

Severity (S):

1	NM	Near Miss
2	FAC	First Aid required
3	>3d	Time off work more than 3 days
4	MI	Major Injury
5	F	Fatal

Risk Level = LxS

Risk Level High / Medium / Low

AC	5	10	15	20	25
VL	4	8	12	16	20
L	3	6	9	12	15
UL	2	4	6	8	10
EU	1	2	3	4	5
	NM	FAC	>3D	MI	F

No.	TASK	HAZARD	WHO IS EXPOSED AND HOW	RISK LEVEL				CONTROL MEASURES	NEW RISK LEVEL				FURTHER ACTION
				L	S	R	RL		L	S	R	RL	
1.1	Accommodation	Kitchen	Cook, volunteers. Cuts, burns and scolds	2	2	4	M	Restrict access to kitchen, cook plus nominated helper. Use oven gloves / mits when handling hot utensils. Do not place sharp knives in washing up bowls.	1	2	2	L	
1.2		Spillages	Cook, volunteers. Slips, trips and falls.	2	2	4	M	Keep floors dry, Pick up spilled food. Keep kitchen tidy.	1	2	2	L	
1.3		Food	Volunteers. illness	2	2	4	M	Keep a check on dates on food packages. Camp-designated cook to have Food Hygiene Level 2 certification. Cook to be aware of allergies and not to mix food / utensils	1	2	2	L	
1.4		Showers and Toilets	Volunteers. Slips, trips and falls.	3	2	6	M	Keep floors as dry as possible. Keep areas tidy. Use anti-slip mats where possible. Don't run in changing areas.	1	2	2	L	
1.5		Boot / wet clothes store	Volunteers. Slips, trips and falls.	2	2	4	M	Keep floors as dry as possible. Keep areas tidy.	1	2	2	L	
1.6		Heaters	Volunteers. Burns.	3	5	15	H	Don't cover heaters with the potential to cause a fire. Make volunteers aware of position of heaters.	1	5	5	M	
2.1	Unloading and loading the catering kit	Heavy and / or awkward items.	Volunteers. Musculo-skeletal and	4	3	12	H	Use appropriate number of volunteers for each item. Co-ordinate lifting.	1	3	3	L	Monitor lifting techniques. Monitor items to ensure they are not left in an unstable position.

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				L	S	R	RL		L	S	R	RL	
			impact injuries.					Only use volunteers capable of lifting the load. Keep carrying distances to a minimum. Avoid twisting with a load. Unload the trailer in order so that unsupported items do not fall.					
3.1	Travelling to and from site	Motor vehicles	Volunteers. Breakdown, collision with other vehicles	2	3	6	M	Properly maintained vehicle. Carry out vehicle checks before driving.	1	3	3	L	
3.2		Weather	Volunteers. Vehicle collision, loss of control	3	5	15	H	Check weather conditions before travelling. Clear screens to ensure good visibility. Check traffic reports on the radio. Ensure lights are in full working order in case of poor visibility	1	5	5	M	Monitor weather conditions, road conditions and adjust driving to suit. Monitor traffic reports.
3.3		Poor light	Volunteers. Vehicle collision, loss of control.	2	5	10	H	Check vehicle before driving make sure lights are working and properly adjusted. Carry spare bulbs. Adjust driving to suit light conditions. Plan the journey to travel in daylight.	1	5	5	M	Monitor light conditions.
3.4		Uneven ground poor ground conditions	Volunteers. Vehicle collision, loss of control	3	5	15	H	Check with locals about unmade road conditions. Avoid unmade roads after poor weather conditions. Avoid unmade roads if you are not sure about ground conditions.	1	5	5	M	Monitor weather conditions while on site and judge whether the situation is worsening.
3.5		Volunteers	Driver. Distraction while driving leading to loss of control.	3	5	15	H	Ensure volunteers use seat belts and don't move about vehicle during travel. Ensure volunteers refrain from attracting driver's attention. Ensure volunteers do not participate in rowdy behaviour.	1	5	5	M	
4.1	Arrival on site	Traffic	Volunteers, visitors, public. Impact injury from moving vehicles.	4	5	20	H	Ensure there is adequate space off road for people. Do not stand or work on the road	1	5	5	M	

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				L	S	R	RL		L	S	R	RL	
4.2		Weather	Volunteers, visitors. Effects of cold, heat, precipitation.	4	1	4	M	Wear appropriate clothing to suit weather conditions. Use sunscreen on exposed skin on hot sunny days. Take hot / cold drinks and food as appropriate. Establish a shelter for people.	1	1	1	L	Monitor weather conditions during the work day
4.3		Uneven ground	Volunteers, visitors, public. Slips, trips and falls.	4	2	8	M	Avoid vegetation and puddles that may hide changes in ground conditions. Wear appropriate footwear. Establish pedestrian routes.	1	2	2	L	
4.4		Animals	Volunteers. Attack, stings and bites.	3	3	9	M	Don't disturb insect nests. Wear long clothing. Avoid contact with dogs off leads.	1	3	3	L	
4.5		Contaminated material	Volunteers. Skin, eye irritation. Puncture wounds from needles, glass. Disease from faeces.	3	3	9	M	Avoid contact with unknown materials. Wear gloves. Avoid contact with face and eyes with dirty hands. Do not handle needles or glass. Wash hands before eating, drinking or smoking. Cover open wounds.	1	3	3	L	
4.6		Public	Volunteers. Abusive behaviour	2	2	4	M	Work within the confines of the site. Have respect for the neighbours, don't start plant too early or work too late, site noisy plant and equipment away from residents. Avoid conflict, walk away from verbal abuse.	1	2	2	L	Monitor members of the public and speak with them about the work activities.
5.1	Keeping the public safe	Site activities	Public. Injury from moving plant and site wide hazards	3	5	15	H	A barrier fence will be erected between the footpath and the site. Before that is in place a banksman will be used to control plant when members of the public are on the site. Erect warning signs All plant parked up and isolated out of working hours.	1	5	5	M	
5.2		Uneven ground	Public. Slips trips and falls	3	3	9	M	Pedestrian route through the site is adequately marked. The surface of the new footpath will be levelled and compacted. Warning signs will be in use.	2	3	6	M	Monitor condition on the new path.

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				L	S	R	RL		L	S	R	RL	
6.1	Set up Gazebo	Gazebo	Volunteers. Entrapment injury.	3	1	3	L	Provide instruction on setting up Gazebo. Keep hands and fingers away from items that may trap them.	1	1	1	L	
6.2		Gazebo	Volunteers. Musculo-skeletal strains and sprains due to manual handling.	3	2	6	M	Use 4 volunteers to set up gazebo. Co-ordinate lifting. Only use volunteers capable of lifting the load.	1	2	2	L	
7.1	Set up and using the Burco	Burco	Volunteers. Musculo-skeletal strains and sprains due to manual handling.	3	2	6	M	Use 2 volunteers to set up Burco. Provide instruction for setting up Burco. Locate Burco on level ground. Fill Burco after setting up.	1	2	2	L	
7.2		Hot Water and steam	Volunteers. Burns and scalds	3	1	3	L	Instruct volunteers in correct use of Burco. Avoid handling Burco during water heating. Take care when filling to avoid splashes of hot water. Avoid removing lid when water is boiling.	1	1	1	L	Monitor water level in Burco.
8.1	Unloading trailer	Tools and equipment	Volunteers. Manual handling injury.	3	2	6	M	Only use volunteers capable of lifting the load. Avoid stretching and twisting when moving equipment.	1	2	2	L	
8.2		Tools and equipment	Volunteers. Entrapment, impact injury	3	2	6	M	Unload the trailer in order. Only remove straps from the item being unloaded to avoid other items accidentally falling. Wear gloves and appropriate footwear.	1	2	2	L	
9.1	Work site near water	NOT USED											
10.1	Working at height	Ground	Volunteers. Falls from height.	4	5	20	H	Avoid unprotected edges. Take care when working close to unprotected edges to avoid overbalancing. Face unprotected edges. No lone working	1	5	5	M	

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				L	S	R V	RL		L	S	R V	RL	
10.2		Structural collapse	Volunteers. Impact injury from collapsing structure, falls and entrapment	2	5	10	H	Avoid unsupported structures. Keep away from edges. No lone working	1	5	5	M	Monitor condition of structures. Monitor weather conditions. Monitor vehicle and plant movements near work site
10.3		Ground openings (these may be hidden by vegetation)	Volunteers. Impact injuries from falls	3	4	12	H	Identify any ground openings. Provide protection to ground openings, fencing or boarding over. Work towards any openings. No lone working.	1	4	4	M	
11.1	Storage of materials	Materials	Volunteers. Manual handling injury.	3	2	6	M	Use mechanical means to unload where possible. Only use volunteers capable of lifting the load. Take breaks to avoid fatigue.	1	2	2	L	
11.2		Materials	Volunteers, Entrapment, impact injury from falling stockpiles.	3	3	9	M	Store materials on level ground. Place materials on pallets, timber battens etc to avoid entrapment with the ground.	1	3	3	L	
11.3		Ground	Volunteers. Falls from climbing onto stored materials	3	4	12	H	Do not climb on stacked materials. Use plant to lift materials to ground level.	1	4	4	M	
12.1	Use of hand tools	Hand tools	Volunteers. Cuts, grazes, impact injury.	3	2	6	M	Use the right tool for the job. Provide training in how to use the tools. Make sure the tool is sharpened if appropriate. Wear gloves.	1	2	2	L	
12.2		Hand tools	Volunteers. Manual handling injury	3	2	6	M	Use the right tool for the job. Provide training in how to use the tools. Make sure the tools is sharpened if appropriate. Take breaks to avoid fatigue	1	2	2	L	Monitor volunteers to make sure breaks are taken
13.1	Cleaning bricks and similar materials for re-use	Dust	Volunteers. Respiratory problems eye irritation	3	3	9	M	Carry out cleaning in a well ventilated area away from other activities. Wear gloves eye protection and dust masks. Provide training in the correct	1	3	3	L	

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				L	S	R	RL		L	S	R	RL	
								techniques.					
		Flying debris	Volunteers. Eye irritation, impact injury	3	3	9	M	Work in a controlled manner. Clean bricks in a designated area. Wear gloves and eye protection.	1	3	3	L	
14.1	Use of machinery and power tools (other than plant)	Power tools	Volunteers. Cuts, grazes, impact injury.	3	2	6	M	Use the right tool for the job. Provide training in how to use the tools. Make sure the tool is sharpened if appropriate. Wear gloves.	1	2	2	L	
14.2		Power tools	Volunteers. Manual handling injury	3	2	6	M	Use the right tool for the job. Provide training in how to use the tools. Make sure the tools is sharpened if appropriate. Take breaks to avoid fatigue	1	2	2	L	Monitor volunteers to make sure breaks are taken
14.3		Power tools	Volunteers. Musculo-skeletal injury due to vibration	3	4	12	H	Use the right tool for the job. Ensure the tool is properly maintained. Review the vibration data for the tool and limit time spent using the tool. Provide training in the use of the tool.	1	4	4	M	Monitor volunteers to make sure they do not exceed the exposure time. (brushcutter new 8.5m/s ² , exposure limit 3hrs max use per 8 hours. Bricksaw new 3.6m/s ² , exposure limit 8 hours)
14.4		Power tools	Volunteers. Hearing damage from noise	3	4	12	H	Use the right tool for the job. Make sure tool is properly maintained Use ear defenders Provide warning signs.	1	4	4	M	
14.5		Flying debris and dust, when brick cutting.	Volunteers, Impact injury, eye injury, dust	2	2	4	M	Work away from other workers Use dust suppression, such as water. Wear gloves, eye protection and dust mask. Wear long clothing.	1	2	2	L	Monitor debris generation and dust
15.1	Use of plant	Plant	Volunteers. Vehicle impact injury	3	5	15	H	Only use authorised staff for plant operation Use banksman to stop plant or pedestrians Segregate plant and pedestrian routes. Make volunteers aware of plant working Wear Hi-Viz clothing	1	5	5	M	

No.	TASK	HAZARD	WHO IS EXPOSED AND HOW	RISK LEVEL				CONTROL MEASURES	NEW RISK LEVEL				FURTHER ACTION
				L	S	R	V		L	S	R	V	
							H	Set up warning signs					
15.2		Reversing plant	Volunteers. Impact with people and objects, possible overturning of plant	3	4	12	H	Use authorised plant operators Travel at a speed that is suitable for the conditions. Look in the direction of travel Use plant that has a reversing beacon or bleeper Wear hi-viz clothing	1	4	4	M	
15.3		Uneven ground	Volunteers. Injury due to plant overturning	3	5	15	H	Use authorised plant operators Travel at a speed that is suitable for the conditions. Look in the direction of travel	1	5	5	M	
15.4		Plant	Volunteers. Hearing damage from noise	3	4	12	H	Ensure plant is properly maintained. Ensure engine covers are in place. Use banksman to signal operator.	1	4	4	M	
16.1	Refuelling machinery and plant	Fuel and oil	Volunteers. Skin irritation when refuelling	3	2	6	M	Use funnels when refuelling and filling with oil. Wear gloves.	1	2	2	L	
16.2		Fuel and oil	Environment, pollution	4	3	12	H	Refuel in designated area. Fully bund fuel store. Use drip trays for static plant Use funnels when refuelling.	1	3	3	L	
17.1	Setting up the mixer	Mixer	Volunteers. Manual handling injury.	3	2	6	M	Only use volunteers capable of lifting the load. Avoid stretching and twisting when positioning the mixer. Place the mixer close to the materials.	1	2	2	L	
17.2		Mixer	Volunteers. Entrapment, impact injury	3	2	6	M	Set the mixer up on a level surface. Keep hands and fingers away from where they can be trapped.	1	2	2	L	
18.1	Mixing mortar and concrete	Cement mortar.	Volunteers. Skin and eye irritation	4	3	12	H	Train volunteers how to mix materials. Provide COSHH assessment Wear eye protection, long sleeves and gloves. Do not stand in front of mixer drum when splashes are likely. Avoid contact with cement / lime	1	3	3	L	
18.2		Cement and sand dust	Volunteers, public.	4	4	16	H	Site mixer in designated area away from other activities and public.	1	4	4	M	Monitor wind conditions

No.	TASK	HAZARD	WHO IS EXPOSED AND HOW	RISK LEVEL				CONTROL MEASURES	NEW RISK LEVEL				FURTHER ACTION
				L	S	R	RL		L	S	R	RL	
			Respiratory problems				H	Provide screens in windy conditions. Place materials in mixer drum in a controlled manner. Wear dust masks Provide training in use of dust masks				M	
18.3		Wash water	Environment. Pollution	4	2	8	M	Collect wash water from mixer. Allow solids to settle before disposing of water	1	2	2	L	
18.4		Cement / sand. Emptying full mixer	Volunteers. Manual handling injury	3	3	9	M	Place materials close to mixer to reduce travel distance. Avoid excessive twisting and lifting. Take regular breaks to avoid fatigue. Training in correct use of mixer and control during emptying.	1	3	3	L	Monitor volunteers for signs of fatigue.
18.5		Mixer / spade	Volunteers. Impact and entrapment from spade catching inside the mixer drum	3	2	6	M	Training in correct use of mixer. Do not allow the spade to enter the mixer drum during operation.	1	2	2	L	
19.1	Laying bricks and coping stones	Bricks / coping stones	Volunteers. Manual handling injury	3	3	9	M	Provide manual handling training. Avoid twisting and bending excessively when laying bricks. Limit time spent brick / stone laying. Take breaks to avoid fatigue.	1	3	3	L	Monitor volunteers for signs of fatigue.
19.2		Cement mortar.	Volunteers. Skin and eye irritation	4	3	12	H	Train volunteers how to use materials. Provide COSHH assessment Wear eye protection, long sleeves and gloves. Avoid skin contact with cement / lime mortar.	1	3	3	L	
19.3		Dust when cutting bricks or stones	Volunteers, public. Respiratory problems	4	4	16	H	Cut bricks / stone in designated area away from public areas. Provide screens in windy conditions. Wear dust masks Provide training in use of dust masks	1	4	4	M	Monitor weather conditions

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				L	S	R	RL		L	S	R	RL	
20.1	Moving and laying coping stones	NOT USED											
21.1	Levelling the ground for footpath	Vegetation	Volunteers. Cuts, scratches and stings.	3	1	3	L	Don't stand under falling vegetation. Wear long clothing and gloves.	1	1	1	L	
21.2		Vegetation	Volunteers. Manual handling injury when raking up debris	2	2	4	M	Rake material into manageable heaps. Avoid over reaching when raking. Take breaks to avoid fatigue.	1	2	2	L	
21.3		Timber setting out pegs and boards	Volunteers. Cuts grazes and splinters	2	1	2	L	Wear gloves when handling timber	1	1	1	L	
21.4		Uneven ground	Volunteers. Slips trips and falls	2	2	4	M	Don't walk on unfinished excavations. Wear supportive footwear	1	2	2	L	
21.5		Material	Volunteers. Impact injury when loading dumper.	3	2	6	M	Get off dumper during loading. Stand in a safe zone away from the excavator	1	2	2	L	
21.6		Material	Volunteers. Impact or entrapment during tipping.	3	2	6	M	Stand away from dumper when tipping. Make sure the dumper driver can see you before tipping	1	2	2	L	
22.1	Excavation for canal channel	Uneven ground	Volunteers. Slips trips and falls	2	2	4	M	Take care when walking on unfinished excavations and stockpiles. Wear supportive footwear	1	2	2	L	
22.2		Material	Volunteers. Impact injury when loading dumper.	3	2	6	M	Get off dumper during loading. Stand in a safe zone away from the excavator	1	2	2	L	
22.3		Material	Volunteers. Impact or entrapment during tipping.	3	2	6	M	Stand away from dumper when tipping. Make sure the dumper driver can see you before tipping	1	2	2	L	
22.4		Material	Volunteers. Cuts and grazes when sorting bricks	3	2	6	M	Rake whole bricks to one side. Wear gloves when handling bricks	1	2	2	L	
22.5		Dust	Volunteers. Respiratory problems, eye	3	2	6	M	Control heights that materials are dropped from. Consider dust suppression in dry	1	2	2	L	Monitor weather conditions

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				L	S	R	RL		L	S	R	RL	
			irritation					conditions. Stop work in windy conditions Wear eye protection and dust masks if dust is a problem.					
23.1	Brick repairs of the towpath retaining wall	Bricks	Volunteers. Impact injury from falling bricks.	3	2	6	M	Demolish bricks in a controlled way. Loosen brick and lift off wall. Wear safety footwear.	1	2	2	L	
23.2		Bricks	Volunteers. Cuts and grazes when handling bricks	3	2	6	M	Wear gloves	1	2	2	L	
23.3		Bricks	Volunteers. Manual handling injury	3	3	9	M	Avoid lifting too many bricks Avoid twisting excessively when moving bricks. Take breaks to avoid fatigue	1	3	3	L	
23.4		Bricks	Volunteers. Entrapment due to collapse	2	4	8	M	Demolish wall in a controlled manner Monitor walls and demolition progresses. Move to another area if a section of the wall looks unstable.	1	4	4	M	Monitor condition of unsupported wall
23.5		Dust	Volunteers. Respiratory problems, eye irritation during demolition	3	2	6	M	Control brick removal to avoid creating too much dust. Stop work in windy conditions Wear eye protection and dust masks	1	2	2	L	Monitor weather conditions
24.1	Building towpath retaining wall	Bricks / blocks	Volunteers. Manual handling injury	3	3	9	M	Avoid lifting too many bricks / blocks Avoid twisting excessively when moving bricks / blocks Take breaks to avoid fatigue	1	3	3	L	Monitor volunteers to ensure adequate breaks are taken

No.	TASK	HAZARD	WHO IS EXPOSED AND HOW	RISK LEVEL				CONTROL MEASURES	NEW RISK LEVEL				FURTHER ACTION
				L	S	R V	RL		L	S	R V	RL	

CAN THE JOB PROCEED? <i>(Tick one box)</i>	<input type="checkbox"/>	Safe using existing control measures	
	<input checked="" type="checkbox"/>	Safe using existing + additional control measures	
	<input type="checkbox"/>	Not safe to proceed	
ARE THERE ANY LONG TERM CONTROLS?	Carry out a dynamic Risk Assessment when you arrive on site and adapt the Risk Assessment to suit any changes that may have occurred, particularly weather conditions.		
ASSESSED BY:	Name: Mikk Bradley	Name (signed) <i>M Bradley</i>	Date: 13 th and 25 th June 2019 (v2 no demolition of towpath wall)
AUTHORISED BY:	Name (Printed)	Name (Signed)	Date: