



MacAulay Askernish LTD

Method Statement/Risk Assessment

Scourie Village DOA – Repairs to Outfall
(Scottish Water)

MSRA 21 Outfall Pipe Repair

Date	Revision	Author	Signature	Approved	Signature
01/02/2023	1	A Macleod	[Redacted]	A McDowall	[Redacted]



Contract:	Scourie Village DOA – Repairs to Outfall	Contract No:	519340000
Operation:	Outfall Pipe Repair	MSRA Number:	21

1.0 Scope of Works
This method statement is to detail the method of work Involved in completing works associated with the survey of a damaged section of the Scourie Village DOA Outfall.

2.0 Date/Duration
Duration in Days: 2

3.0 Reference to Applicable Documentation	
Scottish Water ATC	Environmental Good Practice - CIRIA Pocketbook
GE700 - CITB Construction Site Safety	Scottish Water DOMS/NWH Guidance
HASAWA 1974	EUSR Safe Digging Practices
The Water Environment (Controlled Activities) (Scotland) Regulations 20121	

4.0 Plant/Equipment		
Excavator	Signs	Barriers
GCA4 + Genny	Spill Kits	UTV/ATV
Hand Tools	Pipe Welding Equipment	Throw Lines

5.0 Personnel		
Site Manager	Plant Operator	Banksman
Engineer		

6.0 PPE	
Safety helmet - BS EN397:20012+A:2012	Safety Glasses - BS EN 166:2002
Safety Footwear - BS EN ISO 20346:2014	Gloves - BS EN420:2003+A1:2009
Reflective Clothing - BS EN ISO 20471:2013	Ear Protection - BS EN352:2002
Life jacket - BS EN396:1994	Fire Resistant PPE - BS EN11612

7.0 Training	
SMSTS	New Roads And Streetworks
First Aid	Manual Handling
CPCS/NPORS CSCS	Scottish Water DOMS/NWH
Banksman	EUSR Level 1&2 (Safe Digging)



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8.0 Permits	
Permit to break ground	Trial hole log
Scottish Water ATC	

9.0 Emergency Contact Details		
Name and Contact Number	Role	Company
Stephen Macaulay - [Redacted]	Commercial Manager	MAL
Angus McDowall - [Redacted]	Contracts Manager	MAL
Donald John MacAulay - [Redacted]	Operations Director	MAL
Andrew Macleod - [Redacted]	SHEQ Manager	MAL

10.0 Method of Work
<p>Method of Construction (Work Instruction)</p> <p>Preparation</p> <p>Prior to commencement of works all personnel will be briefed on the details of this Method Statement and associated Environmental and Health & Safety Risk Assessments. Records of briefings are to be recorded on forms and kept in the site file.</p> <p>The area where the survey works are to be conducted in will be clearly identified and communicated to all personnel.</p> <p>A permit to break ground must be raised by site management before work commences,</p> <p>A CAT4+ Genny scan will be conducted with all services found clearly marked and communicated to site personnel.</p> <p>The previously identified services within the area should be clearly marked on the ground.</p> <p>Sizes and materials of all found services will be identified and spare fittings/pipe will be held on site as a redundancy should any damage to existing services occur.</p> <p>All personnel must report to site office for a site induction when arriving on site. A permit to break ground must be in place before any excavations commence.</p> <p>Prior to commencement of works all personnel will be given a toolbox talk on Leptospirosis. Should circumstances require works to deviate from the processes detailed in this RAMS then work must STOP and site supervision informed. Work will only commence when RAMS have been amended, reviewed, and approved.</p>



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As the works will be taking place in below the high-water line, works will be tidal and only be completed when the tide is past the area of works and on the ebb. Constant monitoring of the tidal movement conducted on site.

All personnel must wear lifejackets/personal floatation devices when working within the tidal range. Throw lines will be made available on site and will be kept within reach on site and clearly identified to all personnel prior to works commencing.

Any work processes undertaken on site will be in accordance with MacAulay Askernish LTD's policies and procedures and controlled by site management. There will be a daily briefing conducted at the start of each shift, with daily work activities, permits, hazards and personnel involved detailed and communicated.

All works will be carried out by trained, experienced, and authorised personnel, with site supervision in place at all times during the project. Method statements, risk assessments and permits will be detailed to all relevant personnel before work activities commence with all personnel providing a signature as confirmation of reading and understanding the relevant document and confirming compliance.

Onsite Movements

Prior to any plant movements on site a walkover survey will be conducted (daily) to ensure any hazardous ground conditions are identified and communicated to all site personnel.

All plant will be in good serviceable condition and thoroughly cleaned prior to arrival on site. There must be no fuel/fluid leaks from any equipment and where possible bio-degradable hydraulic oil is to be used in all plant.

When moving on site, all plant will be accompanied by a qualified banksman who will survey and communicate ground conditions ahead to the plant operators in order to take the most efficient, least disruptive path to the work area. All plant movements will be limited to protect sensitive habitats. Any damage caused by plant movements will be reinstated as the plant works back from work area.

Should the terrain needing to be crossed by plant be deemed unstable or unsuitable for the plant to cross and no other route available bog mats will be deployed to decrease the ground pressure of the excavators. The bog mats will be placed and removed by the excavators.

Consideration will be given to any services in the area with utility drawings consulted, and any restrictions imposed by relevant utility suppliers strictly adhered to e.g. working distances from overhead cables/poles. Utility drawings must be no more than 90 days old.

Materials needed during works on site will be delivered to site compound by delivery trucks and dispersed around site using a UTV operated by a qualified, experienced operator only when authorised by site management. UTV usage will be limited to protect sensitive habitats.



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Re-Fuelling

All plant on site will be re-fuelled by designated, trained personnel, only from mobile, bunded fuel bowzers with adequate spill kits attached. Where possible re-fuelling will be done from site compound before each shift in a controlled environment with plant nappies placed between the plant and the fuel bowzers for the entirety of the re-fuelling process. Re-fuelling will not take place within 10m of any watercourses or drains to avoid any pollution due to spillages.

Should re-fuelling be required on site at any point, the fuel will be transported by UTV to the plant in approved fuel cannisters. The cannisters will be secured in the UTV in the site compound to ensure no spillages will occur during transportation to plant. The re-fuelling process will be completed by designated personnel with plant nappies placed between the plant and the fuel bowzers for the entirety of the re-fuelling process. Spill kits must always be at point of re-fuelling. Re-fuelling will not take place within 10m of any watercourses or drains to avoid any pollution due to spillages.

Any spillages must be dealt with immediately and reported to site management.

Interface with Livestock/Marine Life or Persons not Involved in Project

The site compound will be completely enclosed by Herras fencing and locked using a padlock when not in use. The area where work activities are being conducted will be signed and barriered off when work is being carried out in the area. No excavations will be left exposed when no personnel are working in the area. Trained banksmen will accompany each item of plant while accessing/egressing site and while in operation. Should any personnel not involved in the work activity be in the area the banksmen will inform them of the safe areas of travel.

Exposing of Outfall Pipe

The existing outfall pipe will be exposed by an excavator with a bladed bucket and a banksmen supervising. The excavator will not operate within 500mm of any known service and a GCAT4 + Genny scan will be conducted every 150mm during the trenching, with any services detected exposed by hand using insulated shovels.

The trench excavation will allow for approximately 500mm clearance on both sides of the pipe work and 200mm below the pipe work, this will allow ample working room within the excavation. A sump will be created in the excavation for the use of a pump to remove excess water from the trench. The pumped water will be discharged along the shore, this will allow the water to be filtered by the shore material before reaching the sea. All pumps will be place in a designated area, on plant nappies and away from the work area to avoid possible contamination of the sea. All pumps to be in good serviceable condition. The sides of the trench will then be battered back to limit the possibility of subsidence.

Any excavated materials will be placed away from the edges of the excavation and re-used to re-instate the area once the installation is complete.



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Repair of the Outfall Pipe

Once the outfall has been shut down, the pipe will be marked either end of the damage at the cut-out points. The pipe will then be cut using hand tools. The operative will be wearing full PPE including eye protection.

Once cut the pipes will be cleaned and prepped to receive mechanical couplers, the couplers will then be fixed to the pipe. A section of new pipe will be cut to complete the repair out of suitably sized pipe of the same material as the existing outfall pipe.

The pipe section of pipe will then be lifted into place using the excavator. The pipe sections will be attached by a qualified slinger/signaller using suitable lifting accessories.

Tag lines will be attached to the pipe sections prior to lifting and used to stabilise the load throughout the process until it is secured in place. Operatives controlling tag lines will be clearly visible to the slinger signaller (who is guiding the lift) and at a safe distance from the excavator and the excavation, with clear route communicated prior to lift commencing.

Slinger/signaller to supervise all lifting movements and operations. Plant arms/attachments not permitted to lift over personnel, other vehicles, and cabins at any time. No persons will stand or work within the operating radius of the excavator without the operator’s permission. Clear communication system to be established between banksman and operatives prior to commencing works to enable this – hand signals or similar.

Once in place the new section of pipe will be secured to the existing outfall pipework by the mechanical couplers, using hand tools and torqued to manufacturers settings.

Backfilling and Re-Instatement of Surrounding Area

Once the pipe and fittings have been inspected and passed, the pipe will then be encased with a minimum of 150mm of concrete, as per the Scottish Water Standard Specification for outfalls. The remaining trench will be backfilled using the previously excavated material.

The concrete will be delivered to site by concrete delivery truck. The truck will be guided into a designated discharge position by a qualified banksman. A visqueen sheet will be laid on the ground under the concrete truck discharge chute where the excavator bucket will be placed, and the concrete discharged into from the truck. The excavator will then place the concrete in the excavation guided by a qualified banksman.

Following full discharge of concrete, the concrete delivery truck will attend previously prepared washout area. Skip lined with visqueen has been prepared including availability of tonne bags to allow concrete delivery truck driver to position discharge chute within tonne bag, wash out (minimal waste as only small amount of concrete being discharged)

The concrete will then be left to cure before any works continue.



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All excess materials/equipment will then be removed from site and the area tidied.

11.0 Risks Identified

Interface with Plant	Environmental Impact
Plant Movements	Slips/Trips/Falls
Damage to existing Services	Fire
Lifting activities	Working near water
Manual Handling	Working in excavations

Risks above are detailed and assessed with controls listed in section 13.0 Risk Assessment below.

12.0 Emergency Arrangements

First aiders to be present on site at all times
Emergency response plan communicated to all personnel
Fire Marshall present on site
Fire extinguishers on site with valid inspection date
Details of all COSHH materials on site and communicated to all first aiders

13.0 MacAulay Askernish LTD

Risk Assessment



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Task	Hazards	Persons Affected	Risk			Controls	Risk		
			L	S	R		L	S	R

Preparation	Site Hazards, Traffic	Site Operatives	3	4	12	<ul style="list-style-type: none"> All personnel to receive site induction from All personnel to sign in/out from site daily. All personnel involved in task briefed on MSRA related to task and sign as recognition of reading and understanding. Personnel to hold recognised qualification in related subject as task being conducted with copies held in site office and checked for validity. 	1	4	4
Surveying Works	Slips/trips/falls	Site Operative	3	3	9	<ul style="list-style-type: none"> Area to be clearly identified to all personnel involved in task. Debris and loose material removed from site before commencing task. Barriers and signs in place throughout task. Relevant PPE to be worn at all times on site. All excavations barriered off when work not being conducted. Excavations to have graded ramps integrated for safe access egress. 	1	3	3
	Interface with Plant	Site Operatives	3	4	12	<ul style="list-style-type: none"> Hi-Viz clothing worn at all times on site. Banksmen to be utilised to controls site movements. All plant operators to hold valid CPCS/NPORS CSCS qualification for relevant item of plant. All personnel briefed on site traffic management plan (if relevant) 	1	4	4
Plant Movements	Interface with site traffic/Plant	Site Operatives	3	5	15	<ul style="list-style-type: none"> Hi-Viz clothing worn at all times on site. Banksmen to be utilised to controls site movements. All plant operators to hold valid CPCS/NPORS CSCS qualification for relevant item of plant. All personnel briefed on site traffic management plan (if relevant) 	1	5	5
Manual Handling	Muscle injuries/strains	Site Operatives	3	3	9	<ul style="list-style-type: none"> All personnel trained in manual handling with copy of certification held in site office. Avoid manual handling where possible, utilise mechanical lifting aids. Load size, shape, weight to be assessed prior to lifting. Where possible split load to manageable sizes. Use correct lifting techniques. Ensure area surrounding lift is clear from hazards and clutter. Plan route to be taken when carrying load prior to commencing task. 	1	3	3
Damage to existing Services	Site Personnel,	Site Operatives,	4	4	16	<ul style="list-style-type: none"> CAT4+ and genny scan conducted and services marked prior to works commencing with all personnel informed of positions. 	1	4	4

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Task	Hazards	Persons Affected	Risk			Controls	Risk		
			L	S	R		L	S	R
		Utilities Customers				<ul style="list-style-type: none"> Personnel conducting works to have relevant EUSR training for task. A permit to break ground must be in place and approved by site manager prior to work commencing. Banksmen to be trained and utilised to ensure no unauthorised personnel enter area of works. Relevant utility drawings consulted. Drawings to be checked for validity and no more than 90 days old. Services to be isolated where possible. No picks or sharp implements to be used when conducting trial holes. Hand dig only when within 500mm of known services. Air pick to be utilised around live services. First aiders briefed on works being conducted on live services. All personnel working on/near underground services must wear fire retardant PPE for the duration of the works. In the event of a service strike, MAL emergency notice procedures to be followed. 			
Use of ATV//UTV	Impact injuries, interface with plant	Site operatives	4	3	12	<ul style="list-style-type: none"> All ATV/UTV's to be in good serviceable condition. UTV to have functioning beacons. ATV operators to wear helmets at all times. No ATVs to carry passengers. ATVs/UTV to be in full sight of excavator operator at all times when travelling on moorland. All operator to be fully trained for relevant item of plant. 	1	3	3
Excavator Operations						<ul style="list-style-type: none"> CAT4+ and genny scan of area conducted prior to excavation commencing with all known/found services communicated to personnel and clearly marked. All plant operators trained and authorised to use the item of plant with relevant CPCS/NPORS CSCS qualification produced and held in site office. A permit to break ground must be in place and approved by site manager prior to work commencing. Excavators to be used Excavator must be isolated with Deadman switch in raised position before any personnel approach the plant. All plant to have flashing orange beacons when in operation. Green beacon to be active when seat belt fastened. 			

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			L	S	R		L	S	R
						<ul style="list-style-type: none"> Banksman to be out with the radius of the excavator, with boom extended, during the operation. Banksmen to ensure exclusion zone for personnel in the area is maintained around excavator. Banksmen to be always visible to excavator operator during the operation. All personnel involved in task to have relevant level of EUSR training with records kept in site office. Daily plant Check sheet completed with any defects reported. Valid thorough examination certification available for all plant on site. All open excavations to be barriered off when unattended with signs erected and all personnel informed of locations. All plant to be thoroughly cleaned prior to use on site. Bio-degradable hydraulic oil to be used where possible. 			
Working on or near water	Drowning, Tides	Site operatives	4	4	16	<ul style="list-style-type: none"> Work to only commence when tide has passed the work area. Tides to be monitored throughout the task to and all personnel informed of incoming tides. All equipment and machinery removed from area prior to tide reaching work area. All personnel to wear lifejackets/personal flotation devices when working near water. Throw lines to be in place on site close to work area throughout task. All personnel briefed on emergency procedures prior to works commencing on site. 	1	4	4
Placing Concrete	Concrete Burns	Site operatives	3	4	12	<ul style="list-style-type: none"> COSHH data sheets to be made available to all personnel involved in task. Full PPE including gloves and eye protection to be worn. Avoid contact with cement mortar and bare skin/eyes. No operatives to kneel in concrete to prevent burns to skin through clothing. Care taken to prevent washout water entering watercourses. Concrete washout to be conducted in designated washout area only. 	1	4	4

All Personnel must read above MSRA and sign MAL RAMS sign off sheet as recognition of understanding the procedures detailed above.

