



SAFE SYSTEM OF WORK

(Incorporating Method Statement, Risk Assessments & COSHH)

Project Title		Site Location		Ref:
Greenock No 8 & Alum Dam		Overton Road Greenock		
Scope of Work:	Detail:	Diversion of incoming flows, vegetation clearance and trial holes		
	Start Date:	TBC	Duration:	5 weeks
	Required Permits:	Scheduled Monument Consent, Access Certificate from SW.		
	Statutory Notifications:			

	Name	Position	Signature	Date
Prepared By:	Bill Henderson	Contracts Manager		29 Aug 2016
Revisions:				
Comments:				

NOTE: The above revision table can be used for commenting on risk assessments/method statements from sub-contractors.

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4	Personal Protective Equipment
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SECTION 1:	HEALTH & SAFETY RISK ASSESSMENTS
Cross reference to relevant site specific risk assessments	

Loading/unloading	Manual handling	Slips trips and falls
Noise and vibration	Working with plant	Working next to water course
Working with materials containing cement	Working at height	

SECTION 2: ENVIRONMENTAL RISK ASSESSMENTS		
Cross reference to relevant site specific risk assessments		
Refuelling	Working next to water course	

SECTION 3: COSHH ASSESSMENTS		
Cross reference to relevant site specific COSHH assessments		
Petrol	Oil	2 stroke oil
Diesel	Cement	

SECTION 4: PERSONAL PROTECTIVE EQUIPMENT	
Hard hat, hi-visibility clothing, safety footwear & gloves as standard. Detail other PPE required from the risk assessments.	

SECTION 5: PUBLIC INTERFACE/THIRD PARTY/CLIENT	
Highlight significant management issues	Detail how these issues are to be managed
Interface with walker	Public to be escorted through works as required

SECTION 6: EMERGENCY ARRANGEMENTS (first aid, rescue procedures, environmental etc.)
<p>Alarm to be raised by shouting – muster point to be identified on site and location advised in site briefing. Site Manager to be informed immediately of all emergencies and incidents. Emergency contact numbers, details of first Aiders and Fire Action requirements to be displayed in site canteen. Accident and Emergency Hospital (8.6miles) – Inverclyde Royal Hospital, Larkfield Road, PA16 0XN, Greenock. 01475 633777</p> <p>BT- 0800 917 3993 Scottish Water – 0845 603 8855 Scottish power – 0845 272 7999 Transco – 0800 111 999 (gas escapes) SEPA – 0800 807 060</p> <p>The foreman is a qualified First Aider, first aid boxes will be kept in the site Office. All refuelling will take place at the site compound above drip tray and spill kits will be located at all refuelling points.</p> <p>In the unlikely occurrence of a major spillage contact should be made with specialists Adler and Allan, Dunniflats Depot, Lugton, Kilmarnock KA3 4EA, 0800 592827.</p>

SECTION 7: MONITORING & COMPLIANCE
Detail site management & supervision who will carry out inspections to ensure compliance with this Safe System of Work

GEORGE LESLIE LTD – QSE MANAGEMENT SYSTEM

Prepared by
Alan Kirkwood

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Daily:	Site Foreman	Weekly:	Site Manager
Others/comments			
<p>All plant and machinery to be operated by trained and authorised personnel. Labour and plant certificates to be retained on site. All operatives to be encouraged to observe risks constantly by raising concerns to Supervision/Management (Don't look away cards)</p> <p>All operatives involved in these operations will be fully briefed on this method statement by GL Foreman and will sign the method statement briefing form.</p> <p>GL foreman to give a toolbox talk to advise all operatives of the scope of works and the way they must conduct themselves on site to ensure all safe working practice are adopted and that their responsibilities to their fellow workman are clearly understood.</p>			

SECTION 8:	RESOURCES REQUIRED
Personnel:	Ganger 2 Operatives Machine operative
Supervision:	Site Manager (part time) Foreman
Plant/Equipment:	8t excavator 6t dumper small tools ½ bag mixer Whacker plate
Materials:	Cement, sand, geotextile, Pitching stone, type 1.

SECTION 9:	METHODOLOGY
Method Statement/Sequence of Task	
<ul style="list-style-type: none"> • Scope of works :- • Greenock No 8 – clear vegetation from approach to secondary overflow spillway, make good slope failure, and repair damage to masonry sides of channel. Increase capacity of the spillway channel by removal of vegetation and repairing masonry sides to channel. Repair upstream rock armour • Alum Dam :- Install handrail along top of Dam, installation of handrail around secondary overflow channel outlet near footpath, replacement of existing trash screen 	
<ul style="list-style-type: none"> • Greenock No 8 Methodology :- • Stage 1 – Site establishment 	
<ul style="list-style-type: none"> • Ensure that SW Operations have reduced the level in the reservoir to a level that prevents spilling in advance of works commencing. • Water levels in the reservoir must be checked each day at the start, middle and end of each shift to ensure that the level is not rising to a height that would interfere with the works, if the level rises SW must be advised and requested to open the scour valve to drop the level to agreed level. • Welfare cabin and container will be delivered to site by hi-ab lorry and set in position at location agreed with SW within the site boundary. • 'Heras' type fencing will be erected around the cabins to form a site compound including space for car parking. • Designated area will be established for refuelling of plant • Designates access routes to the various work areas will be identified and improved if required to allow safe access to all work areas. 	
<ul style="list-style-type: none"> • Stage 2 – Maintenance works to Secondary overflow spillway and channel 	
<ul style="list-style-type: none"> • 8t tracked excavator shall be delivered to site and off loaded at the site compound, from there it will be moved to the start of the spillway approach channel under the guidance of a qualified banksman. • The machine shall start at the lower end of the channel and under the guidance of a banksman will remove the vegetation from the sides and base of the channel where accessible, where the machine cannot remove vegetation due to its position or where damage may occur the vegetation shall be removed by hand . All vegetation removed from the channel shall be disposed of on site at a location agreed with SW Operations. • Once all the vegetation has been removed the channel shall be inspected and those areas requiring repairs to the masonry will be marked out. • Defective areas will be cleaned out to provide a uniform surface to lay the new masonry/pitching stone, the new pitching stone will be laid on a mortar bed to form a flat surface and then the joints will be infilled with mortar. • This process will be repeated at each identified area of repair, materials will be transported to the working area by excavator. • After carrying out the repairs to the masonry in the channel works can commence on the slope failure section. • The area to be repaired shall be identified and marked out on the ground. 	

<ul style="list-style-type: none"> The excavator, under the direction of the banksman, shall excavate out the material that has slipped and landed in the spillway and remove to the agreed deposition area.. The area shall be trimmed and rolled to receive the type one infill material and compacted.
<ul style="list-style-type: none"> Type 1 material shall be delivered to site by road lorry and unloaded at the compound area, where the excavator shall load it onto a 6t dumper which will transport it to the work area where it will be deposited.
<ul style="list-style-type: none"> Once all the material is at the work site the excavator shall spread it to form a uniform slope sympathetic to the surrounding topography. The type 1 will be compacted as it is placed in layers.
<ul style="list-style-type: none"> Once the new slope has been formed topsoil will be delivered to site and transported to the work area by dumper where it will be spread by the machine over the type 1 to match the surrounding topography, grass seed shall then be spread on the area.
<ul style="list-style-type: none"> Water levels within the reservoir shall be monitored continuously during this stage of the works and if the level in the reservoir rises to height where it may spill works shall cease immediately and all plant, materials and equipment shall be removed from the channel until the level has receded to a safe level
<ul style="list-style-type: none"> Stage 3- Repair upstream rock armour :-
<ul style="list-style-type: none"> On completion of the Stage 2 works works will commence on the repairs to the upstream rock armour.
<ul style="list-style-type: none"> The upstream rock armour shall be inspected before works commence and all areas requiring repair shall be identified, marked and agreed with SW.
<ul style="list-style-type: none"> At each agreed location voided areas shall be cleared of all vegetation and debris and dug out by hand to allow type 1 to be placed and compacted by ramming. Mortar shall be hand mixed and placed in a layer on the type 1, the rock armour shall be placed on the mortar layer and levelled to match surrounding topography, the joints shall then be filled with mortar to prevent movement of the stones.
<ul style="list-style-type: none"> On completion of all repairs the work areas will be inspected and all debris and excess materials removed to the site compound for disposal.
<ul style="list-style-type: none"> All access routes will be inspected and any damage in the form of ruts etc shall be made good and seeded.
<ul style="list-style-type: none"> The site compound and huts will be removed from site and the area left in good order.
<ul style="list-style-type: none"> •
<ul style="list-style-type: none"> Alum Dam Methodology:-
<ul style="list-style-type: none"> Stage 1 – Installation of handrail along top of Dam
<ul style="list-style-type: none"> Due to the short time scale of the works welfare facilities will be provided using a Welfare van.
<ul style="list-style-type: none"> Materials and small plant will be delivered to site by a squad pick up and carried to the work area manually.
<ul style="list-style-type: none"> The position of the hand railing will be marked on the top of the concrete wall before commencing works.
<ul style="list-style-type: none"> Due to the danger of falls from height associated with the works operatives will wear harnesses with fall arrest lanyards attached to steel spikes driven into the ground.
<ul style="list-style-type: none"> Starting at one end of the dam the vertical posts for the tubular hand railing will be fitted to the concrete by drilling and installing bolts through the base into the concrete.
<ul style="list-style-type: none"> The horizontal hand railing will then be fitted between post to complete each section, works will continue in this manner until the hand railing is fitted along the length of the dam wall.
<ul style="list-style-type: none"> On completion of the fence the steel support pins for the harnesses will be removed.
<ul style="list-style-type: none"> Stage 2 – Installation of the hand-railing around the secondary overflow channel outlet
<ul style="list-style-type: none"> In advance of the tubular hand railing being installed concrete bases will be installed for the vertical post.
<ul style="list-style-type: none"> The position of the vertical posts will be marked out on the ground over the length of the new hand-railing.
<ul style="list-style-type: none"> Holes 300x300x450mm deep will be excavated at these points by hand and filled with concrete which will be hand batched on site.
<ul style="list-style-type: none"> After the concrete has been left to harden for 2 weeks the hand-railing posts can be installed on the concrete pads by fixing to the concrete by drilled anchor bolts.
<ul style="list-style-type: none"> The horizontal hand-railing sections will be fitted to the vertical posts as works progresses until the hand-railing is completed.
<ul style="list-style-type: none"> Check the area on completion and remove any excess excavated material and debris.
<ul style="list-style-type: none"> Stage 3- Replacement of existing trash screen
<ul style="list-style-type: none"> In advance of any works on site a new trash screen will be measured on site, prefabricated off site and galvanised.
<ul style="list-style-type: none"> Once the new screen is ready it will be delivered to site by pick up and transported to the work area manually.
<ul style="list-style-type: none"> The old screen will be unbolted removed and the new screen fixed to the concrete using new fixings drilled into the concrete. The old screen will be removed and disposed of off-site.
<ul style="list-style-type: none"> •
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<ul style="list-style-type: none"> •

SECTION 10: COMMUNICATION

Highlight below the **key points** to be included in the safe system of work **briefing to operatives**. These should be

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extracted from relevant sections of this safe system of work and associated site specific risk/COSHH assessments.	
RISKS IDENTIFIED	RISK CONTROLS TO BE BRIEFED TO OPERATIVES
Loading/Off-loading	<ul style="list-style-type: none"> ❖ Plan the loading/offloading to take account of ❖ Wearing appropriate PPE including hi-vis clothing, safety boots, helmet, gloves, eye-protection etc. as required ❖ Whenever possible load from/to flat/firm ground ❖ The weight of the load to be carried and whether as a single item or made up of many individual items
Manual Handling	<ul style="list-style-type: none"> ❖ Ascertain information on the load to be lifted such as weight, (maximum weight 20kg men and 12 kg women) shape irregularities (bulky/unwieldy), difficult to grasp, unstable with contents likely to shift, sharp, hot or potentially damaging. ❖ Keep access routes free from obstruction and clearing up spillages ❖ Manual handling instruction and training to operatives on the priority for mechanical lifting and safe lifting techniques ❖ Wearing appropriate Personal Protective Equipment including gloves, hard hat, hi-visibility clothing and safety footwear as a minimum
Trips, slips and falls	<ul style="list-style-type: none"> ❖ Site is generally level – but sloping / grassed areas may be slippery when wet. ❖ Safe pedestrian routes will be established ❖ Good housekeeping (plant storage, materials and waste) will be maintained
Nuisance	<ul style="list-style-type: none"> ❖ Site Speed limit to be established for all plant ❖ Engines to be switched off when not in use.
Public Relations	<ul style="list-style-type: none"> ❖ Due consideration for all local residents – any complaints to be referred to the site Manager
Refuelling	<ul style="list-style-type: none"> ❖ Wherever possible refuelling to take place at the site compound area over drip trays
Invasive species	<ul style="list-style-type: none"> ❖ There is an area adjacent to the site which has Japanese Knotweed growing, no access is to be taken through this area and no materials to be deposited in this area.
Working next to water course.	<ul style="list-style-type: none"> ❖ When working adjacent to water course ensure that no materials, fuel etc are deposited in the water. Any materials that do find their way into the water course must be removed immediately to protect the local wild life. Water levels in the cutting to be monitored daily and pump started to reduce water level in cutting as required.
Working at Height	<ul style="list-style-type: none"> ❖ When working in areas where a fall from height could occur operatives should wear fall arrest equipment tied back to suitable anchor points
Working with materials containing cement	<ul style="list-style-type: none"> ❖ Gloves and goggles must be worn at all times
	<ul style="list-style-type: none"> ❖ Should cement be deposited on the skin this should be washed off immediately.
	<ul style="list-style-type: none"> ❖ If material enters the eyes these should be washed out continuously until all material is removed.
	<ul style="list-style-type: none"> ❖ If Irritation continues the operative should be taken to the nearest Accident and emergency department for further treatment.
	<ul style="list-style-type: none"> ❖
	<ul style="list-style-type: none"> ❖
	<ul style="list-style-type: none"> ❖
	<ul style="list-style-type: none"> ❖

I the undersigned confirm that I have understood this briefing & will work in accordance with the method of

