


Contract Name:	Wylfa 132Kv Cable Works	Contract No.:	4000001
Method Statement Title:	Water Discharge Activities		
Ref Number:	014	Revision:	02

Issue	Date	Author (Print Name)	Checked by (Print Name and Signature)	Description of the amendment
1	15/02/2018	Sarah Steen		
2	20/11/2018	Sarah Steen		

Note 3 key predictable behaviours from RAMS and ensure they are addressed


1. Pumping activity not monitored as required.

2. PH checks not carried out as required.

3. Pumping location changed without prior consent.

Method Statement prepared for a Costain directly controlled activity. It indicates acceptance of all responsibilities associated with the Method Statement. ALL REVIEWS CARRIED OUT MUST BE DATED.

Designer Hazard Risk Reg. / Drawing reviewed: YES / NO Revision: _____ Date: _____
(Author to confirm consideration has been given to residual risks identified during design)

Costain TWC Approval: Print Name _____ Signature  Date: _____
(There is a requirement for a TWC to review all Class 2 & 3, others at section manager discretion)

Costain Approval: Print Name  Signature  Date: 21/11/18
(Contract Leader or nominated person)

External Approval: Print Name _____ Signature _____ Date: _____
(if required, e.g. Client, Designers, etc.)

Receipt Acknowledgements: Print Name  Signature  Date: 21/11/18
(Sub-Contractor / Supervisor / Manager)

Distribution:

Name	Company	Position
Sarah Steen	Costain	Environment Manager
Paul McDermott	Costain	Site Manager
Barrie Grimshaw	Costain	Site Supervisor
Alan Grieves	Costain	SHE Advisor
Lucy Greenough	Costain	Environment Graduate
Andy Williams	Costain	Site Supervisor

RAMS Review Record:

Date	Reviewer	Comments/Reason for review

1.0 Scope of Works			
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This document is to ensure the effective management of water discharge activities on site to prevent pollution to watercourses/drainage ditches and the local environment. It also includes the emergency discharge of water. This document complies with Horizon's Discharge of Uncontaminated Water to Land (HNP-S3-EWM-PRC-00007 Rev: 2.0 Category C).

This document only covers discharging uncontaminated water to ground with the approval of Horizon and where necessary the Landowner.

2.0 Personnel

Barrie Grimshaw & Andy Williams Site Supervisors shall be responsible for ensuring the RAMS are adhered to ensuring conditions are met for the discharge operation prior to authorising a Permit to Pump (PTP). They will be responsible for ensuring daily monitoring of watercourses and standing water which shall be formally recorded.

Sarah Steen (Environment Manager) shall be responsible for ensuring this document is applicable to the discharge activities Costain are undertaking and for carrying out periodic inspections to ensure compliance.

Lucy Greenough (Environment Graduate) shall be responsible for undertaking daily monitoring of all discharge locations.

Nominated Personnel – In the event of Lucy being unavailable a person who has been briefed on the procedures will undertake the required visual monitoring and sign the PTP as having checked this.

3.0 Programme of Operations and Potential Interface with Others

- Site Programme and allotted time – Water discharge activities could be undertaken at any time ensuring compliance with this document.
- Construction Phase Health & Safety Plan – Section D within the HASEMP will reference Water Management documentation produced for the Project
- Attendance of Co-ordination meetings – A Start of Shift will be carried out daily and include any water discharge activities taking place.
- Risk Assessments – A risk assessment has been completed in conjunction with this Method Statement.
- Operations which may/will affect others - It is anticipated that other works will be being undertaken in the vicinity of the detailed water discharge activities. As far as reasonably practicable, the water discharge activities will be sited away from direct interaction with the ongoing works. Where interaction must take place, existing task operatives will be briefed together to ensure that all works are understood and can be completed safely.
- Inductions and Tool Box/Safety Awareness Talks – All staff will be taken through the Site Induction. This RAMS document will be briefed to all applicable personnel prior to commencing works. Where contract works interact with water discharge activities all operatives will be briefed on this RAMS document.
- Horizon – Are to be notified of water discharge activities and water discharge locations agreed prior to any discharge taking place when working on Horizon land. Horizon do not need to be contacted when not working in their areas.
- Horizon must be informed of out of hours pumping.

4.0 Working Environment Considerations

The majority of excavations and areas of stripped ground on site contain uncontaminated water and compliance with this and Horizon's document as referenced above enables the discharge to ground.

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There are 2 areas on site field 5 and field 9 which have previously contained elevated levels of pH (>9) due to the use of CBS. Any water from these 2 areas containing elevated levels of pH (>9) are to be removed with the use of a tanker.

Water within these areas may be discharged as long as the procedures have been followed such as. RAMS, water management plan and the Permit to pump as long as the pH level is acceptable.

When discharging water hourly checks are to be conducted by the permit to pump acceptor. Regular daily checks are also to be carried out by Barrie Grimshaw, Andy Williams or Lucy Greenough.

When on Horizon land all discharges will be agreed with Horizon and in all other cases the Landowner (where applicable) and will be suitably placed to ensure maximum distance from any sensitive receptors.

Leptospirosis

Weil's disease is a severe form of a bacterial infection known as **leptospirosis**. Leptospirosis is caused by bacteria from the genus *Leptospira*. The infection typically only causes mild flu-like symptoms, including headaches and chills. In severe cases, such as in Weil's disease, it can lead to organ failure and bleeding. Operatives must maintain high levels of personal hygiene and wash hands before meal breaks. Operatives must take care placing exposed hands to the mouth due to risk of infection.

5.0 Plant, Equipment, Materials and Welfare Arrangements

5.1 Plant and Equipment

- Pumping equipment (sizes to be confirmed on a location basis and agreed with Horizon).
- Silt sock
- Hanna pH monitor

All plant and equipment will be checked on arrival to site to ensure in clean working order and the form SHE-T-360. Calibration of the Hanna pH monitor will be as specified in the manufacturers guidelines.

5.2 PPE

- White hard hat (EN397)
- Safety Glasses (EN166 F)
- Flame Retardant Coveralls (EN470-1, EN531)
- Jacket and trousers (BSEN 471 Class 2)
- Steel toe and mid sole laced boots (ISO 20345)
- Gloves – Suitable waterproofing
- Wellingtons – Under Risk Assessment
- Waders – Where required

5.4 Welfare

- Elliott cabin set up

6.0 Safe System of Work to be adopted

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Before works begin on site, Wyifa Water Management and Emergency Plan (identifying environmental arrangements) shall be completed as part of the Health, Safety and Environmental Management Plan (HASEMP). This shall identify:

- Those pollutants that could be generated / released from the works
- Measures to be taken to prevent pollution on site
- Locations of spill kits
- Refuelling procedures
- Frequency of checks of fuel tanks and mobile bowers; results are to be recorded on the Oil Storage Tanks and Mobile Bowers Checklist
- Risks to water courses are to be established, controlled and monitored with the Watercourse Monitoring Record.

Hold Point

A Point of Work Risk Assessment (POWRA) should be in place for the specific water management task.

Water Discharge Management

Where water has collected in excavations or natural depressions in the ground a visual and olfactory inspection of the water shall take place to identify any signs of contamination e.g. any sheens, discoloration, unusual smells etc).

Inspections are to be carried out by the site supervisors prior to issuing a permit to pump.

Lucy Greenough to monitor pre inspections on an adhoc basis.

Where contamination has been identified, no pumping of water shall take place. A sample shall be collected for further testing and the area made safe until results have been provided.

Pump Preparedness

- Horizon land
The disposal point for pumping surface water will be agreed in advance with Horizon and Costain.

The discharge points will take cognisance so as not to find a direct route to a known water course, or back to the pump location, therefore to reduce the likelihood of flooding.

Once the site supervisor has checked the water to be discharged, identified it as clean and uncontaminated, pH testing will be carried out to check the pH levels of the water. If outside of the readings 6 – 9 then the water will not be discharged and a further solution adopted and agreed with Horizon.

- None Horizon land
Once the site supervisor has checked the water to be discharged, identified it as clean and uncontaminated, pH testing will be carried out to check the pH levels of the water. If outside of the readings 6 – 9 then the water will not be discharged and a further solution adopted and agreed with APS and Costain.

Field 5 may require pumping adjacent to the ditch running along the north boundary, this is acceptable but will require a silt fence along the full side of the ditch. Hourly monitoring must be adhered to.

NOTE DIRECT DISCHARGE TO DITCH IS NOT ALLOWED.

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- All Areas

APS shall obtain an authorisation to pump, the pump size and its siting location agreed with site supervisor. The selection of pump will be identified to regulate the amount of water passing through the pump, again to reduce the likelihood of flooding. The hoses & pump will be checked for leaks, with any compression joints secured. A sedi-sock/sedi-bag will be placed on the end of the hose to minimise any silt contamination.

A plant nappy will be placed appropriately beneath the pump and will be checked daily.

The pump outlet hose will be fitted with a silt sock and the hoses connected as per the manufactures instruction the inlet hoses will be connected with enough length to reach the required outfall destination

The PtP holder who has been given the authorisation to pump will remain at the location when the pump is started to monitor the water condition, discharge point, and drip tray content, stopping the pump as required to carry out the appropriate maintenance.

The discharge location will be checked daily by site supervisor prior to the PtP being signed, to ensure that water is continuing to infiltrate into the ground as intended and not causing any flooding.

All pumping works is to stop immediately should ground become saturated.

General Conditions

If any protected or non-protected species is discovered work must stop and ecologist notified before commencement of discharge.

Watercourses and ditches within the Project boundary will be regularly monitored (visual inspection and pH check) and formally recorded on a Water Monitoring Form and uploaded onto Share Point. Daily checks will be carried out by Site supervisor and weekly checks Lucy as identified in Section 2.

Unexpected Contamination

Since contaminated material can also be discovered where it is not expected, operatives will be briefed on what signs of contamination to look out for. These include:

- Discoloured soil
- Unexpected odours
- Fibrous texture to the soil
- Presence of foreign objects e.g. chemical / oil / fuel containers
- Evidence of underground structures and tanks
- Discovery of waste pits

7.0 Emergency Procedures and First Aid Arrangements

If any ground/water contamination is discovered, then works must stop and no discharge shall be made. A sample shall be collected for further confirmatory laboratory analysis. If there is an increase of silt or the ground is becoming saturated all works to be stopped.

8.0 Amendments to Safe System of Work



Method Statement Template

The Costain Way

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None.

9.0 Document Review Requirements

To be reviewed as a minimum 3 monthly.

Contract:	Wylfa 132kv cable works
Operation/Activity:	Site Wide Water Management Operations
Risk Assessment No.	14
Part C Work Activity Safety Plan	
Operation/Activity Summary:	

Read in conjunction with Method Statement 014 - Water Management.
All works are to be undertaken in accordance with the HSG47 standards Avoiding Danger from Underground Services and Scottish Power guidance - Avoiding danger from Overhead Power Lines
These works will be site wide and continual throughout the contract duration.

No	Hazards (potential for harm)	Likelihood	Impact	Risk Rating	Site Control Measures <i>Can the hazard be removed?</i>	Training / certification required (ist)
1	Working adjacent to waters edge/ water courses	1	4		Lifelbelts to be situated near to water courses Operatives to wear waders when working in water course. Safe access and egress points into water courses etc.	CSCS

Contract:	Wylfa 132kv cable works
Operation/Activity:	Site Wide Water Management Operations
Risk Assessment No.	14

2	Leptospirosis	1	4	Water management personnel to be briefed on disease and to carry wets disease cards. Visual skin checks by trained responsible person Maintain high levels of personal hygiene and wash hands before meal breaks. Take care placing exposed hands to the mouth due to risk of infection.	CSCS
3	Manual Handling (Silt fencing operations)	1	3	Manual handling assessment to be carried out. There are no heavy lifts required, but when operatives are hand digging to install silt fence, more regular breaks and shift work is to be adopted to avoid repetitive strain injury. Wherever possible all materials to be transferred to the installation location by either the wheeled dumper truck or transit van.	
4	Noise from plant and equipment in use	1	3	Ear defenders to be provided >80dBa, mandatory >85dBa. Follow manufacturers guidance. Health surveillance hearing tests annually for 2 years then every 3 years	
5	Slips, trips and falls.	1	3	Works are to be kept well segregated with equipment and materials giving clear access and egress.	
6	Spill/Contamination	1	3	Toolbox talk to be carried out in use of spill kits, designated spill kit locations must be known. Costain supervisors must be notified of any spillages asap. Environmental Incident Procedure to be followed. All re-fuelling of plant to be carried out within the compound area only.	

First Aid Contact (Name & Telephone No/Radio ID)	Andy Williams - Radio Channel 1-2
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Permits required	Additional PPE	Manager Responsible	Paul McDermott
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Contract:		Wylfa 132kv cable works	
Operation/Activity:		Site Wide Water Management Operations	
Risk Assessment No.		14	
Permit to Dig Permit to lift		Mandatory PPE only	Supervisor/Foreman Responsible Date:
			Andy Williams/Barrie Grimshaw 21/11/2018
Prepared by:			
Signature	Approved by:		
Name	Signature	Name	
Post	Name	Post	
	Sarah Steen		
	Environmental Project Manager		

Levelhead of harm (L)	Severity of impact (S)
1 Very low - Unlikely harm will occur	1 Insignificant
2 Low - Harm may seldom occur	2 Minor - Minor injury (no lost time)
3 Medium - Harm may occur frequently	3 Significant - Lost Time injury
4 High - Likely that harm will occur on a regular basis	4 Severe - Major injury/Over 7 day absence
5 Very High - Very likely harm will occur/certain	5 Very Severe - Fatality

Severity of impact (\$)	1	2	3	4	5
Very low - Unlikely harm will occur	1	2	3	4	5
Low - Harm may seldom occur	1	2	3	4	5
Medium - Harm may occur frequently	1	2	3	4	5
High - Likely that harm will occur/certainly	1	2	3	4	5
Very High - Very Likely harm will occur/certain	1	2	3	4	5

5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Conclusions	STOP! Hazard must be removed or all practicable steps are to be taken to reduce level of risk
High (Red)	Risk to be controlled as far as is reasonable practicable
Low (Green)	Risk to be controlled as far as is reasonable practicable

All personnel to receive Costain
Site Induction
Reversing vehicles must be
accompanied by a banksman

