# METHOD STATEMENT

## MVV O&M GmBH,
## South West Devon Waste Partnership
## &
## Kier Construction Limited

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FOR

## Construction of Bull Point Access Road

## DOCUMENT HISTORY

| DATE | ISSUE | COMMENTS | ORIGINATOR | CHECKED BY | APPROVED BY |
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| 24/01/11 | 1 | With particular reference to environmental considerations. | JD | | |
| 22/03/11 | 2 | Minor update following client comments | JD | | |
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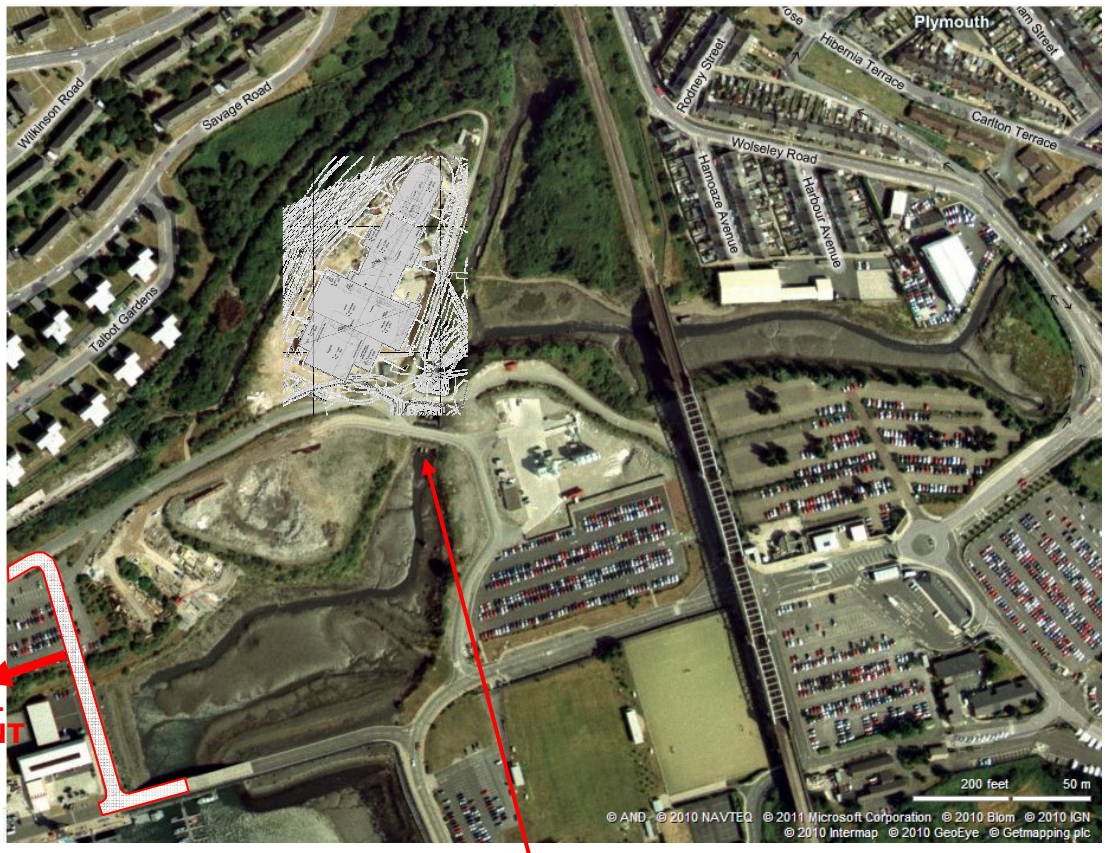
# CONTENTS

## 1. Scope

This document describes the procedures and method of work for carrying out the construction works for the new Bull Point access road for the Energy from Waste CHP Facility at Devonport with particular reference to environmental considerations. Due to the nature of the immediate surroundings, these will be mainly geared towards protecting the ecology of the watercourse and the surrounding habitats.

## 2. Introduction

The area of land known as Bull Point is shown on the plan below.




It is currently accessed by the two bridges indicated above and the access road to their west. During construction and subsequent operation of the EfW CHP facility the bridges and access road will be closed to non-construction traffic, so an alternative access to Bull Point must be constructed first. The approximate extent of the new access road is shown outlined in red on the satellite image above and involves cutting a new road up the embankment that forms the southern boundary of the car park.

There is some environmental risk involved with this element of construction as the route passes close to the watercourse known as Weston Mill Creek as is illustrated by the photograph below. This risk will be managed in accordance with this document.


Various other contract documentation will be produced and issued for approval prior to commencing work on site. These documents include:

- Construction Phase Plan
- Quality Plan
- Environmental Plan
- Waste Management Plan

## 3. Construction Sequence

### 3.1. Site Set-up

Prior to the project starting, a Site Waste Management Plan (SWMP) will be drawn up for continuous monitoring throughout the project under the Site Waste Management Plans Regulations 2008.

The project team will be experienced in their designated areas of responsibility. The integrated project team will ensure the work is competently supervised with respect to environment as well as health and safety and quality.

A detailed environmental risk assessment will be produced and monitored.

All personnel will have attended the mandatory Kier Construction and MVV site inductions and will have been briefed on the contents of the RAMS (risk assessments and method statement) and COSHH (Control of

Substances Hazardous to Health) assessments relevant to their operations.

The access road construction site will be surrounded by a secure 2m high fence to prevent unauthorised access and to clearly show the area that will be under special rules owing to its proximity to the watercourse.

These rules will include:

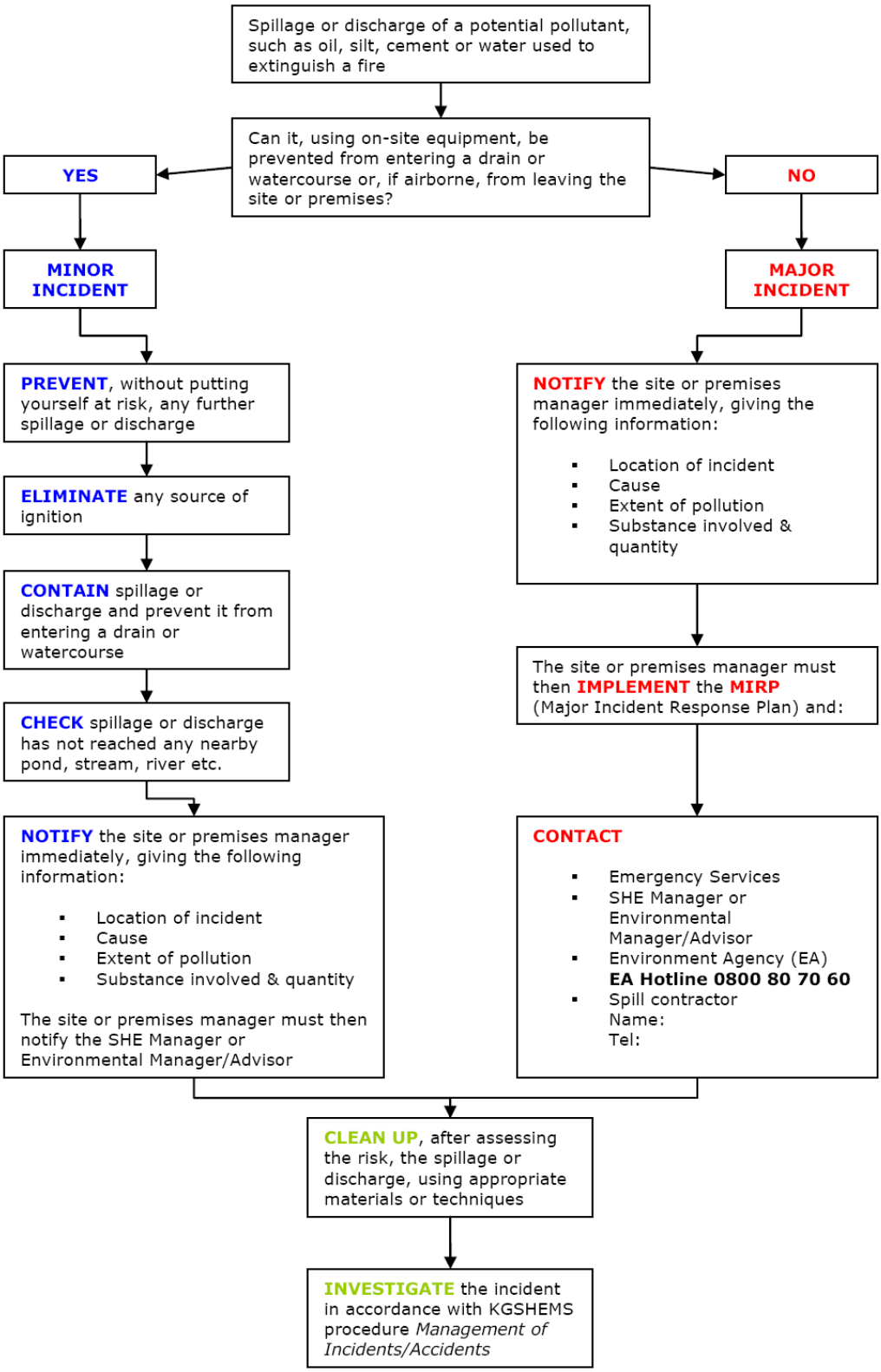
- a designated, bunded plant refuelling area situated well away from the stream.
- use of biodegradable hydraulic fluid in machines that will work within the boundary.
- all plant must be inspected daily for fluid leaks and must not be used until any leak is rectified.
- no plant, materials, labour or debris may be allowed to enter the water.
- emergency spill kits must be made available and maintained at all times.

All site personnel will be briefed on the environmental emergency response procedure. A flow chart depicting the Kier Environmental Incident Response Procedure is show on the following page.

In addition KCL operates various permit-to-work procedures and the following shall be implemented during these activities:

- Permit to Excavate

**Typical Environmental Incident Response Procedure for Site/Premises**



**Consent to Discharge**

Consent/permission must be obtained from the relevant enforcing authority, in this case, the Environment Agency (EA), before disposing of any water into a storm drain or controlled water course such as a ditch, stream, pond, lake, river or aquifer.

The enforcing authority will require that any water discharged into a drain or controlled water course is free from pollutants, such as silts or hydrocarbons. They may, as a condition of the consent, set absolute limits on the amount of suspended solids or other pollutants the discharged water can contain. Therefore, the quality of the discharged water, for example that pumped out of a temporary run-off collection bund, through a silt settlement tank and into a watercourse, must be regularly monitored. If it is suspected that the water has become polluted, the discharge must stop until the source of pollution is identified and stopped. The frequency of inspections will be agreed with the regulator. The findings of each inspection will be recorded on the SHE Monitoring Form.

Therefore the temporary run-off collection bund must be of a large enough volume to prevent over-topping in the event of heavy rain and/or discharge being temporarily suspended.

### 3.2. Closure of the existing road

These construction works will be done in three phases to minimise disruption to dockyard traffic:

1. Earthworks to the car park embankment.
2. Removal of existing surfacing to car park and existing road.
3. Asphalt surfacing.

In the initial phase traffic will not be affected as the work will be limited to a short section away from the existing road.

The second phase will see short-term closures of the road to wharf 14 and to an area of the car park. Where necessary all traffic will be diverted onto the two existing bridges.

The surfacing works will also require short-term closures and the same diversions will be put in place.

### 3.3. Excavation and sub-base construction

A full survey of existing services (buried or otherwise) will be carried out using a Cable Avoidance Tool, existing statutory undertakers' plans and ground-penetrating radar and all services shall be clearly marked using wooden pegs, or other marks.

Before any excavation can commence, a lined run-off water collection bund will be constructed at the bottom of the existing batter to the east of the road alignment and along the full length of the interface with Weston Mill Creek. The capacity of this bund will be determined from rainfall records. Water from the bund will be pumped using a 'silent' pump through a series of settlement tanks (e.g. "Silt-Busters" – see photo) and then carefully discharged into the creek. The discharge will be regularly monitored for turbidity and other pollutants before it enters the stream. To prevent solids entering the bund a barrier will be constructed along the full length which will not impede rainwater run-off, but will stop earth or stone entering the bund (e.g. debris netting). This is to be continually monitored during excavation and filling and manually cleared of material whenever necessary.

Following the issue and briefing of a Permit to Excavate to all personnel involved the existing surfacing will be removed using an excavator with a hydraulic breaker attached and removed by 9T dumper for disposal in accordance with the SWMP. If necessary, service diversions will be done at this time, although the scope of this has yet to be determined.
Material will be excavated only when required to reduce exposure time and the resultant weathering effects. The cutting will be formed and arisings removed to stock pile on site for re-use, keeping top-soil separate. The formation and sub-base will be profiled in accordance with the new alignment using existing materials where practical and using a 360$^{o}$ tracked excavator.

During excavation, filling or any other relevant works, the creek and its banks will be continually monitored to prevent anything falling in.

### 3.4. Drainage and buried services

Permanent drainage and buried cable ducts/mains water or gas pipes will be constructed using the 360$^{o}$ tracked excavator and will be controlled using the same procedures as for the excavation section above. Specialist contractors will be used to lay/connect pipes and cables after undergoing the same SMART briefings as for Kier operatives.

### 3.5. Kerbs and ancillaries

Concreting operations such as kerb-laying are subject to quality, environmental and safety controls such as Pre-Concrete Notice, Post-

Concrete Record, in addition to those described for the activities above to prevent concrete being deposited in or near the creek. Any concrete that does spill will be disposed of in a specially designated skip and this skip will also be used to contain the water used for washing out the mixer. The skip's contents will be disposed of as inert waste when all the cement has cured.

If, after thorough risk assessment, the level of risk to the watercourse from contamination from cement remains too high, fast-setting concrete mixes may be specified, although this level of risk is highly unlikely due to the nature of the mix designs.

Backfilling to buried structures and making-good including constructing road gulleys will be done to the current highways standards as required. This will include materials such as as-dug, imported fill, kerbing, asphalt paving and soft landscaping.

Lighting columns will be installed by specialists.

Top soil will be spread and cultivated as required for planting.

### 3.6. Surfacing

Bituminous material will be delivered to site by 6/8 wheeled insulated lorries. The agreed supplier will have been advised of access by our supervisor. A banksman will direct the lorry to an agreed waiting area prior to laying the material.

On commencement of machine lay work, the banksman will direct the lorry driver onto the front of the paving machine so that the materials can be loaded directly into the hopper. Regular visual checks of the material will be undertaken to ensure consistency and quality of material. Temperature of the material will be monitored regularly. Materials found to be below recommended minimum laying temperatures will be returned to quarry for re-use. All operatives must stand clear from the side of the paving machine when any moving parts are being lowered or raised. The material will then be compacted by a tandem roller and pedestrian hand roller where necessary.

No hazardous waste will be produced during this work sequence. Any surplus material will be returned to the quarry or disposed of to be recycled.

### 3.7. Restoration of watercourse bank

After completion of the construction works to this element and removal of all associated risks to the watercourse, the bund will be pumped dry and removed. Any silt will be removed first taking special care to not allow any of this fluid material to spill into the watercourse or onto the bank. It will be deposited onto an existing stockpile away from any sensitive receivers to dry out. Then the membrane will be removed and disposed of in

accordance with the SWMP. The fill material will be carefully removed to the stockpile and mixed with the silt for suitable re-use in another element of the project. The topsoil will be restored and seeded to mitigate erosion.

## 4. Quality

All project operations will be controlled by Kier's quality procedures, industry standards and project specific quality control plans as agreed and approved by MVV. The quality control plans will define all project documents required including ITP's, all approvals, project hold points, records required, and verifying authorities.

## 5. Safety

All personnel accessing the site will be subject to MVV and KCL site rules and will wear PPE as required.

In addition to the above, all operatives will wear appropriate PPE relevant to the tasks being carried out. These include the mandatory long sleeves, long trousers, safety boots, task-specific gloves, safety helmet, and safety glasses. Other task-specific PPE may include disposable overalls, face protection, hearing protection, Wellington boots (for concreting) or full body safety harness where there is a risk of falls from height.

The following Safety Risk Assessments are relevant to the works and will be produced by competent persons and attached to the detailed Method Statement in accordance with the Construction Phase Plan:

- Initial site setup
- Manual Handling
- Working at Height
- Working Over Water
- Slips, trips and falls
- Excavations
- Power tools and abrasive wheels
- Working near services (live, redundant and unknown)
- Landscaping
- Working near mobile plant and plant movement
- COSHH Assessment for all hazardous products
- Weil's Disease
- Lift Plans
- Surfacing works

All personnel will be fully briefed on the safe method of work, via the use of a site specific induction and operation specific SMART (Specific Method And Risk Training) briefings, prior to the works being carried out.

All lifting operations (e.g. lifting of pipes using an excavator equipped with an SLI) will be controlled by the lift supervisor and SQEP banks-men.

The site safety and environment will be continually monitored via weekly site inspections as well the continual monitoring as described in the above

paragraphs. These inspections are carried out independently of the project management and are recorded. Inspection results will be made available upon request. The Health and Safety Plan will also be continually reviewed, the results recorded and changes implemented.