

Supporting Information and Method Statement

for

Macfarlan Smith

Marine Licence Application for Effluent
Pipeline Engineering, Barnkirk Point,
Newbie

Project 6644

Issue A1

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Revision History

Issue	Originated/Updated by (date)	Reviewed by (date)	Approved by (date)	Nature of changes
P1	Peter Shanahan (25/06/2021)	Ian Sherlock (28/06/2021)		
A1	Peter Shanahan (25/06/2021)	Ian Sherlock (28/06/2021)	Kate Riley (30/06/2021)	

I Introduction

Macfarlan Smith propose to undertake remedial engineering works on their SEPA permitted (SEPA PPC/W/20032/CP04, emission point 1) gravity-fed effluent outfall pipeline into the Eden Channel that serves their pharmaceutical facility located at Three Trees Road, Newbie, Annan, Dumfries and Galloway. The pipeline is buried <1m below sands of the Solway Firth approximately 320 m from shore at Barnkirk Point (Figure 12). The pipeline is likely blocked by silt and requires investigation via an inspection chamber with specialist drill equipment and drain inspection techniques to assess the extent of the blockage and any potential damage to the pipeline sections.

Under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (ref. 1) the proposed works are regarded as "construction" requiring a licence application with Marine Scotland's Licensing Operations Team (MS-LOT) (ref. 2).

This document contains supporting information for a licence application with MS-LOT following Marine Scotland guidance (ref. 4 and 5). Appendix I contains photographs provided by Macfarlan Smith of the proposed work area. Appendix II contains a method statement by Enterprise Groundworks, Macfarlan Smith's appointed contractor. Appendix III contains details of consultation emails. Appendix IV contains a risk matrix that summarises the main environmental risks and their mitigation. A site layout drawing D6644-IE-0001 accompanies the application showing the general area of works.

2 Location

The proposed works to Macfarlan Smith's effluent outfall pipeline are located at Barnkirk Point, Newbie, Annan, Dumfries and Galloway (Figure 8).

Works below the Mean High Water Springs (MHWS) are proposed to include the inspection chamber (Figure 7) and a 10 m wide access corridor 320 m seaward to the pipeline outfall (approximate area 3,700 m²). WGS84¹ locations as follows:

- Inspection chamber 54°57'56"N 3°16'06"W

¹ World Geodetic System - standard for GPS

- Pipeline outfall 54°57'46"N 3°16'06"W
- Access to foreshore (Figure 10) 54°57'57"N 3°16'06"W
- Area extents
 - Northwest 54°57'56"N 3°16'07"W
 - Northeast 54°57'56"N 3°16'06"W
 - Southeast 54°57'46"N 3°16'06"W
 - Southwest 54°57'46"N 3°16'07"W

See site plan drawing D6644-IE-0001.

It is expected that a break in the pipeline is approximately 150 m downstream of the inspection chamber and requires access with a 14t 360° excavator. A 10 m wide access corridor is proposed for the excavator to access the full length of the pipeline should excavation and temporary shoring be required at any point downstream of the inspection chamber (Figure 8). (The pipeline runs 245 m from the inspection chamber.)

Access from land is proposed at a point where an informal track (Figure 1 and Figure 2) meets the foreshore shingle and pebble (54°57'57"N 3°16'06"W) (Figure 10). At this location will be placed the directional drill rig and its generator power plant.

The work area is accessed via Macfarlan Smith's private roads off Three Trees Road, Newbie. Locked gates are located near to Three Trees Road (54°58'20"N 3°16'37"W) and at Newbiebarns (54°58'5"N 3°16'56"W) (Figure 11). A fenced tidal tank compound located at Barnkirk Point operated by Macfarlan Smith (Figure 6) will be used to base welfare facilities and plant (54°57'58"N 3°15'55"W).

Approximately 500 m of the Annandale Way public right of way uses Macfarlan Smith's access roads. Only approximately 50 m of the Annandale Way (Figure 4) will be near to the proposed work areas on land, but not directly impacting access. As per Enterprise Groundworks' method statement public safety will be managed with signage, fencing and trained personnel. Following advice from the local authority (Appendix III) advance notices of works will be placed at suitable points of entry on Macfarlan Smith's land.

3 Method Statement

Appendix II contains the method statement produced by Enterprise Groundworks which incorporates best work practices under CIRIA guidance C744 for marine environments (ref. 6).

4 Schedule

The proposed works are planned for between 18th October 2021 and 15th November 2021 (4 weeks). Enterprise Groundworks' method statement details the schedule of activities (Appendix II), with 8 weeks in total for commissioning activities.

5 Potential impacts

A risk assessment matrix is provided in Appendix IV to support this licence application regarding potential impacts to the environment and expected methods of mitigation. All residual risk to the environment from the proposed activities are low.

Under The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (ref. 3) the proposed works are not listed as Annex 1 or Annex 2 activities of the EIA Directive.

Drawing D6644-IE-0001 provides the boundary of the following conservation areas in proximity of the proposed works:

- Upper Solway Flats and Marshes
 - Ramsar UK11079 (44,000 ha)
 - Site of Special Scientific Interest (SSSI) (Scotland) (17,000 ha)
- Solway Firth
 - Special Area of Conservation (SAC) (Scotland) (44,000 ha)
 - Special Protection Area (SPA) (Scotland) UK9005012 (44,000 ha)

The limited extent of the proposed works being focused at Barnkirk Point, with plant operations to be minimised to reinstate the effluent pipeline during winter, are expected to have no adverse harm on the above conservation large area designations (i.e. bird assemblages).

6 Noise Monitoring

6.1 Marine Noise Registry

The proposed construction project will not produce loud (i.e. loud considered as >186 dB ref. 8), low to mid frequency (10 Hz to 10 kHz) impulsive noise. None of the following activities are proposed requiring registration with the Marine Noise Registry Service (ref. 8):

- Seismic surveys
- Sub-bottom profiling
- Impact pile driving
- Explosive detonation
- Acoustic deterrent devices
- Multibeam echo-sounders

6.2 Typical Plant Noise

Based on the method statement by Enterprise Groundworks (Appendix II) and typical noise levels for construction plant (ref. 9), Table 1 below gives typical noise parameters for the proposed plant to support the licence application. No excessively loud noise levels (i.e. >186 dB) are expected for these typical plant operating at Barnkirk Point (Figure 10). Nearest residential receptors are at Newbiebarns >1 km from the proposed site.

Table 1 Typical plant noise pressure levels and octave bands for proposed construction works (ref. 9)

Plant	Power rating kW	Equipment size	Octave Band Sound Pressure Levels (Hz)								Sound Pressure Level, dB(A)
			63	125	250	500	1k	2k	4k	8k	
Directional drill (generator)	106	-	67	80	74	72	72	72	68	61	77
Water Pump (Diesel)	10	100 kg	70	65	66	64	64	63	56	46	68
Tracked Excavator	41	8 tonne	81	72	68	68	66	64	60	55	71

7 Consultation

In preparation for this application, Stopford undertook on behalf of Macfarlan Smith preliminary enquiries with Marine Scotland, Dumfries and Galloway Council and Northern Lighthouse Board. The responses from these organisations can be found in Appendix III.

References

- 1 The Water Environment (Controlled Activities) (Scotland) Regulations 2011
<https://www.legislation.gov.uk/ssi/2011/209/contents/made>
- 2 Marine Scotland (2021), Marine Licence Applications. <https://marine.gov.scot/marine-licence-applications>
- 3 The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017
<https://www.legislation.gov.uk/ssi/2017/115/made>
- 4 Marine Scotland (2015), Guidance for Marine Licence Applicants. Version 2.
<https://www.gov.scot/publications/marine-licensing-applications-and-guidance/>
- 5 Marine Scotland (2015), Marine Licence Application for Construction Projects. Version 1.0.
<https://www.gov.scot/publications/marine-licensing-applications-and-guidance/>
- 6 CIRIA (2015), C744 Coastal and Marine Environmental Site Guide (Second Edition). CIRIA, London.
- 7 Scottish Government (2014), Noise Registry. Accessed 18th June 2021.
<https://www.webarchive.org.uk/wayback/archive/20150218204301/http://www.gov.scot/Topics/marine/Licensing/marine/guidance/noise-registry>
- 8 JNCC (2021), Marine Noise Registry Service. Joint Nature Conservation Committee.
<https://mnr.jncc.gov.uk/>

- 9 Defra (2005), Update of noise database for prediction of noise on construction and open sites. Table 4 Sound level data on general site activities. Department for Environment, Food and Rural Affairs.

http://randd.defra.gov.uk/Document.aspx?Document=NO01043_5581_FRP.pdf

Appendices

Appendix I. Site Photos - Macfarlan Smith 3rd June 2021



Figure 1 Access to beach looking southward (Macfarlan Smith).



Figure 2 Access to beach looking northward (Macfarlan Smith).



Figure 3 Public Right of Way looking East (Macfarlan Smith).



Figure 4 Public Right of Way looking East (Macfarlan Smith).



Figure 5 Public Right of Way looking West (Macfarlan Smith).



Figure 6 Tidal Tank Compound (Macfarlan Smith).



Figure 7 Inspection chamber on Beach looking east towards Tidal Tanks (Macfarlan Smith).



Figure 8 Inspection chamber on beach looking southward from proposed position of Drilling Rig (Macfarlan Smith).



Figure 9 Elbows joints inside inspection chamber (Macfarlan Smith).



Figure 10 Access point at shore looking north. X indicates approximate position for drilling rig and excavator access to beach (Macfarlan Smith).



Figure 11 Gate to access lane along coast and Annandale Way at Newbie Barns Farm. Google, 2009.



Figure 12 Pipeline outfall and former location beacon in 1990s (Macfarlan Smith).

Appendix II. Method Statement - Enterprise Groundworks

Method Statement

Project:	Tidal Tank Pipeline Outlet Repair Works		
Activity:	Temporary Repair Works		
Description:	To carryout reparation and cctv condition survey work on 350mm ductile iron tidal tank discharge pipeline for Johnson Matthey, Newbie, Annan.		
Start Date:	Still to be determined.	Duration:	8 weeks
Assessor:		Hours of Work:	The working day will revolve around the tidal flow of the Solway basin.

Responsibilities

Project Manager:	Henry McClelland.
Supervisor:	Ian Carruthers
Number of Operatives:	4

Hazards

Hazards Associated With Activity:	Use of Hand Tools Use of Portable Electrical Equipment COSHH Manual Handling Lifting Operations Work at Height Handling of Materials
Site Specific Hazards:	Overhead work Working with other trades on site Tidal waters Confined spaces entry Excavation works on sea-bed Underground services General members of the public interface Loss of containment/spillage

Risk assessments will be carried out for the activity and attached to this method statement, will form part of the induction and must be followed on site.

Work Procedure & Control Measures

All work to be carried out in accordance with the risk assessments in place.

Identification of any conflicts with other working groups or work activities operating within the same area and specify communication and liaison arrangements to control additional risks.

The site compound will be established using the secure facilities in place at the tidal tank compound.

All plant and equipment will be delivered to the storm water catch tank access area then moved to the tidal tank compound in an organised and safe manner.

The first stage of the works is to prepare accesses to the beach area above the high tide mark where the drilling rig will be sited.

The inspection chamber can then be prepared for access, De watered, the removal of both double flanged bends, this will allow a blank plate to be fitted whilst using a confined space access method and the pipeline to be charged using a controlled method in order to identify the fracture in the pipeline.

Once the fracture has been identified, excavations will take place around damaged pipe and all necessary repair works undertaken. The excavation depths aren't expected to exceed a metre in depth, a confined space methodology would be applied if depths exceeding a metre were to be encountered.

The pipeline will be re-pressurised at this point to gain reassurance of the integrity of the pipeline before any drilling commences.

After establishing the pipeline is intact, excavations will be commenced to entry side of the inspection chamber to allow the reinforced concrete wall to be broken out to a size and scale big enough to allow drilling rods to enter the chamber.

The pipeline will be depressurised, blank plate removed then drilling will commence.

The horizontal drilling rig will sit above the high tide mark at all times in the area identified on the site plan, once the drill head and rods have entered through the access point in the inspection chamber, the excavation will be backfilled, any excavation equipment removed from the beach back on to identified setting down area as per plan attached

Drilling will commence, blockage is expected to be at the discharge point, rods will be added and pushed through the pipeline until resistance is encountered, at this point the drill head and rods will drill through the blockage at a very slow pace using higher volumes of water to help displace materials causing the blockage.

After the blockage has been removed, the drilling rods and drill head will be withdrawn from the pipeline and the chamber using the reverse methodology that has been applied for the entry.

The blank plate will be refitted, the pipeline tested by pumping water through without any signs of resistance, any signs of resistance will indicate signs of blockage remaining.

Once confident the blockage is clear, any damage to concrete chamber will be repaired, double flanged bends re installed, all plant, equipment etc removed back to compound awaiting removal from site.

Functional testing will be undertaken at the appropriate discharge times using the existing tidal tanks as would happen under normal working circumstances.

All plant, equipment and any necessary tools etc will be removed from site works area and stored at the Tidal Tank compound when out of any working hours.

The Annandale Way has been identified as a core path by Dumfries and Galloway Council, the core path will be kept open and accessible at all times with any signage and barriers being put

in place as necessary clearly defining a safe route of access.
Work area to be securely cordoned off to prevent unauthorised access.
All workers to undertake site induction prior to commencing work.
PPE to be worn at all times on site.

TRAINING

Only qualified, certified or otherwise competent personnel will be permitted to undertake the work.
All operatives are to receive training on manual handling techniques, asbestos awareness and work at height.
All workers to undertake site induction prior to commencing work.
Toolbox talks will be carried out at weekly intervals during the works to raise awareness of relevant H&S issues.
Training in abrasive wheels given for timber cutting activities.

DELIVERY & STORAGE

All required materials to be delivered to the site prior to works commencing.
Where possible materials to be cut to size off-site and delivered ready for installation.
All equipment and materials delivered to the site will be labelled and stored at a designated location in accordance with manufacturer's instructions and any applicable COSHH assessments.
Dry storage area to be used for timber products. (scaffold batons/trench support if required)
Materials will be stored safely away from access routes.
Materials to be stored within storage area as identified at site compound.

ACCESS

Work at height will be eliminated where possible, through changing work procedures or using alternative equipment.
Stepladder and ladders are only to be used for access and short duration work, and only when there is no suitable alternative such as full access scaffolding, tower scaffold or MEWP.
Exclusion zones will be established around the work area using suitable barriers and signage to prevent unauthorised entry (ie general members of the public) to the area.
A ladder will be used to access the chamber and controlled under a confined space entry permit.
Access equipment will be securely stored at the end of each shift to prevent unauthorised use.
The Annandale Way has been identified as a core path by Dumfries and Galloway Council, the core path will be kept open and accessible at all times with any signage and barriers being put in place as necessary clearly defining a safe route of access.
Work area to be securely cordoned off to prevent unauthorised access.

HOUSEKEEPING

All good practice guidelines regarding housekeeping in the workplace will be observed.
All spillages will be immediately cleaned up so as to prevent any slip hazards.
All work equipment, chemicals and substances will be properly secured when they are not in use, so as to prevent any unauthorised usage or accidental contact.
During the works, the area will, so far as is reasonably practicable, be kept clean and tidy with clear walkways as appropriate.

PREPARATION

Use hazardous substances in accordance with the manufacturer's instruction, material data sheets and COSHH assessments.

All materials visually checked for defects and surface condition or warping, and defective materials taken out of use.

Materials protected during transportation and storage.

Inspect material for defects and ensure straightness before use.

The temporary works materials used will be cleaned to remove any dust, substances, contaminated or loose materials.

Prior to installation all temporary works materials to be inspected for suitability by the temporary works coordinator.

TEMPORARY WORKS

All structural temporary works will be designed by a competent temporary works engineer.

A temporary works coordinator will be appointed for managing temporary works on site.

Temporary works register to be completed on site and maintained to ensure all temporary works are installed correctly and signed off at each agreed stage.

Where possible temporary work elements will be delivered cut to size ready for use.

Where cutting on site is required, competent persons to cut timber to required lengths in the designated area to ensure clear and safe preparation away from the main work area.

During cutting operations additional PPE (dust mask, eye protection and gloves) required.

All lifting operations covered by a separate method statement, risk assessment and lifting plan.

Setting out done by a competent surveyor to agreed specification before commencement.

Temporary works including propping and shoring to be erected in agreed sequence to specification and agreed design.

Adjustable steel props fixed as struts for falsework.

Any props or other temporary supports used must be as specified in the temporary works design and agreed with the temporary works coordinator.

Ensure that any props do not exceed their safe working load.

Struts and adjustable props used as necessary as per design to support vertical elements.

Ensure adequate support provided to support the weight of the existing structure and any additional loads during construction.

Ensure adequate bracing and rigidity of supports during installation.

Temporary works checked for alignment, straightness and levels.

Props and sides to be erected true vertically.

Loads will only be supported by temporary works once checked off and permit to load issued.

Once the any structural alterations or new construction is complete, check columns to ensure they are still plumb, if any slight movement has occurred make the necessary adjustments to props.

Any alterations or adjustments must be done under supervision from the temporary works coordinator.

Temporary works are only removed in agreed sequence once permanent construction is self supporting and signed off by structural engineer.

Agree minimum period with the competent structural engineer and temporary work engineer.

Any temporary works removed carefully without disturbing, damaging or overloading the structure.

WORK AT HEIGHT

All current legislation and codes of practice regarding working at height will be complied with. Suitable access equipment will be selected to provide a safe working platform (taking into account the task, the duration of the platform use and the location in which the platform is to be used) shall be employed whilst undertaking any work at height and will be subject to inspection before and during its use.

Suitable access shall be provided to the working platform and will be subject to inspection before and during its use.

Suitable barrier edge protection shall be employed where necessary.

Suitable warning signage and barriers (as appropriate) shall be positioned around the work platform base and exclusion zone, so as to prevent unauthorised access.

Only those persons who have received suitable instruction shall be permitted to undertake work at height.

Note: **Working inside the chamber is classed as working at height.**

WORK EQUIPMENT

All current legislation and codes of practice regarding work equipment usage will be complied with.

Only those persons who have received suitable and sufficient instruction and training will be permitted to use work equipment.

All work equipment to operate on 110v.

Any mains powered 240v work equipment will operate, via a transformer or other power-reducing device, at a reduced voltage of no more than 110v.

Prior to using any item of work equipment, it will be inspected to ensure that it is in good condition and unlikely to cause injury or harm to any person as a result of its correct usage.

Equipment guards to be correctly fitted before use.

All personnel are advised to check tools before each use and to take unsafe equipment out of service immediately, for repair or replacement.

Periodic testing and maintenance of all equipment carried out in accordance with regulations and manufacturer's instructions.

When not required for immediate use, all items of work equipment will be securely stored so as to prevent any unauthorised use or accidental contact with any sharp / rotating blades.

WORKSPACE

All good practice guidelines regarding the provision of sufficient clear working space will be observed.

Prior to the commencement of any works, sufficient clear working space (taking into account the nature of the work, the location in which the work is to be undertaken and the needs of any other building or site occupants) will be made available, so far as is reasonably practicable.

Suitable warning signage and barriers (as appropriate) shall be positioned around the work area, so as to restrict other persons from entering the area. During the works, attention will be paid at all times to the maintenance of a clear working space. If during the works, the maintenance of a clear working space is impracticable, the person undertaking the work will liaise with the site management / principal contractor with a view to resolving the issue.

LIFTING OPERATIONS

Machine lifting plan / lifting plan to be completed for all lifting operations involved with the

task.

Lifting equipment will be of sufficient capacity, will have a current test and thorough examination certificates and will be inspected weekly.

All lifting gear to be clearly identifiable and colour coded for the currency of examinations.

All lifting gear is subject to thorough examinations which are to be carried out by a competent person and recorded at least at six monthly intervals.

Damaged equipment is to be taken out of use immediately.

Equipment is to be of the correct length(s) and have sufficient safe working load capacity for the task.

All persons involved in any lifting operations to be competent for the task they are to carry out.

Communication between the crane operative and banksman is to be by two-way radios or hand signals if there is a good line of vision.

Access to the area below lifting operations prohibited and to be prevented at all times, with suitable barriers and signage.

Heavy loads are to be lifted into position by mechanical aids to minimise manual handling.

Where manual handling is required this will be supported by lifting gear and sufficient personnel must be allocated to the work, from a safe working platform.

EXTERNAL WORK

External work prohibited during extreme weather such as rain, strong winds or snow or high tide.

Operatives to be warned of the dangers of skin damage prior to external work. Operatives must wear appropriate clothing to protect skin and must apply sufficient sun protection when exposed to UV rays.

Work area to be segregated from any pedestrians or traffic and signs erected to prevent members of the public or vehicles coming into contact with operatives or access equipment.

The Annandale Way has been identified as a core path by Dumfries and Galloway Council, the core path will be kept open and accessible at all times with any signage and barriers being put in place as necessary clearly defining a safe route of access.

Work area to be securely cordoned off to prevent unauthorised access.

MANUAL HANDLING

All manual handling will be minimised through the provision of mechanical aids where practicable.

Where possible materials will be supplied in loads under 25kg. Operatives are not expected to handle loads any items weighing more than 25 kg on the site without assistance.

If items above 25kg are to be lifted, or unusual, unstable or hazardous items, the supervisor or site manager will determine a safe method of handling through completing a risk assessment and specifically instruct nominated individuals.

Any items or loads above 25kg to be handled through mechanical aids or team lifting.

Deliveries and materials handling will be planned to minimise the extent of manual handling of materials.

Routes by which materials have to be carried by hand will be checked for and kept free of, obstructions.

Appropriate PPE will be worn to make sure that materials can be handled safely, e.g. gloves and safety footwear.

Two or more operatives will carry larger or heavier items.

HARMFUL SUBSTANCES

All current legislation and codes of practice regarding chemical or substance use will be complied with.

Where possible any hazardous substances will be substituted for alternative non-hazardous substances. (The drilling rig will be filled with a non hazardous hydraulic oil, Q8 hydraulic oil bio 46)

COSHH assessments will be carried prior to use of hazardous substances.

Only those persons who are fully conversant with a chemical or substance will be permitted to use the chemical or substance.

Adequate ventilation will be maintained at all times where hazardous chemicals or substances are used.

When not required for immediate use, chemicals and substances will be kept in suitable closed containers and in a secure location, so as to prevent their unauthorised use.

If during the works, the provision or maintenance of a well-vented workplace is impracticable, the person undertaking the work will liaise with the site management / principal contractor with a view to resolving the issue.

If any unmarked containers, unusual or odorous solids (including discoloured soil), asbestos or asbestos-like materials, unidentified fluids or gasses are discovered then works should cease in the area such that subsequent work will not disturb the material found. The Client / Clients Representative will be informed immediately. Work should not re-commence until resolved and safe to do so.

WASTE DISPOSAL

All current legislation regarding the prevention of environmental contamination (including waste disposal) will be complied with.

Any contaminated or hazardous waste created as a result of works carried out will be properly contained and disposed of by a specialist company.

Waste must be transferred using a waste transfer note.

Anticipated waste is Gasket seals, damaged pipework, bolts, nuts and washers, broken out concrete debris, cleaning rags/wipes.

Correctly completed waste transfer and consignment notes will be retained for a minimum of 2 and 3 years respectively, ensuring a full description of waste with EWC (European Waste Catalogue) code. The original waste transfer and consignment notes must be passed to Johnson Matthey Ltd for recording purposes with a copy retained by Enterprise Groundworks UK.

It should be noted that the removal of Specialist Waste from the site requires notification to be sent to SEPA at least three days before the intended removal date.

POLLUTION AND INCIDENT CONTROL

It is anticipated that the following potential pollutants may be present during the Project:

- Plant fuels and lubricating oils
- Noise and vibration
- Construction Waste.

Assessments carried out under the Control of Substances Hazardous to Health Regulations

2002 shall include details of disposal of such substances.

FUEL, LUBRICANTS AND OTHER LIQUIDS

Enterprise Groundworks UK and contractors engaged on the Project shall avoid any environmental damage, as a result of the inadequate storage or misuse of any potentially polluting substance.

Substances to be used on the project shall be notified to Johnson Matthey Ltd prior to delivery and use.

- All refuelling of plant shall be undertaken by a nominated trained person in the Tidal Tank Compound which is well away from any water courses.
- The fuel bowser shall carry the necessary pollution control kits to deal with any emergency spills and leaks.
- All portable/mobile bowzers shall be double skinned.
- In a similar manner, any servicing of plant shall only be carried out in designated areas (Tidal Tank Compound).
- Drip trays must be placed under all static engine driven plant items such as compressor, generators etc.
- Drip trays shall be used when refuelling plant or carrying out maintenance or repair tasks that may give rise to a leak of oil, fuel, hydraulic fluid, contaminated coolant water etc.
- Diesel fuel shall be stored in a bunded/self-bunded tank complying with the Control of Pollution the Water Environment (Oil Storage) (Scotland) Regulations 2006.
- Oils and lubricants shall be stored within the confines of a bund and locks shall be fitted to all stores and storage tanks.
- Paints and thinners shall also be stored in a bunded COSHH store with lock and a nominated person shall be selected to oversee delivery and security.
- Portable bunds must be used in working areas for containment of oil, lubricants, chemicals and de-greasing fluids.
- Absorbent material/spill kits must be supplied by the contractor.
- No potentially polluting materials or substances shall be stored near watercourses or in such a situation that these materials can fall or be carried into a watercourse.
- All static plant shall be self-bunded or stored in a drip tray in case of drips or leaks.
- Bunds and drip trays must be of suitable capacity to hold the total potential spill quantity including fuel from auxiliary fuel tanks

In areas of potential risk, or during operations which may give rise to risk to the environment, emergency procedures shall be prepared, and pollution control equipment provided before work commences. Spill kits, which shall be replaced or replenished after use, must be in the vicinity of the work.

CLEANING

After completion of the work, the area shall be left in a clean, tidy condition and all associated waste shall be removed and properly disposed of.

EQUIPMENT and Plant LIST

Drilling Rig and tooling

Drill head locating device

14t 360 degree excavator

Welfare facilities
Security fencing
Signs and barriers
Water pumps
Generator
Lifting chains/slings/shackles etc
General hand tools
Van/pick up
Cable avoiding tool (CAT)
Metal detector
Ratchet straps
Trench support
Trench covers/road plate
Temporary lighting
Electrical extension leads
Water bowser
Small diameter pipe
Concrete breakout equipment
Cut off saw

PPE Requirements



Safety
Boots



Hard Hat



Hi-Viz
Clothing



Gloves



Ear
Defenders



Dust Mask



Eye
Protection



Harness



Full Face
Shield



Overalls



RPE



Other

Other PPE:

Additional PPE is required for certain activities as indicated by specific risk assessments. Dust masks and eye protection to be worn during cutting operations.

Management Arrangements

Monitoring Arrangements:

Monitoring of this activity will be carried out using a variety of different means such as: inspections, checklists, meetings, audits, reviews, and employee consultation. The supervisor will carry out regular inspections of the works and highlight any concerns.

First Aid Provision:

Nominated First Aider(s)
First Aid Kit
Accident Book

Welfare Provision:

Welfare facilities will be provided within close proximity to the work area. Personnel must not eat, drink or smoke in the work area. Welfare facilities, including rest areas and toilet facilities, will be left as they were found in a clean and tidy manner, and operatives are to ensure that they are reasonably clean and tidy before entering premises.

Emergency Procedures:

In the event of an accident notify the first aider immediately, for a major injury call 999 or if in doubt call 111.

In the event of a fire sound the alarm and exit the site by the nearest exit, to not attempt to tackle the fire unless you have been trained to do so and it is safe to do so.

In the event of discovering a material that you suspect could be asbestos containing, stop work immediately and notify the site manager/supervisor for further instructions.

Completed By

Name:	
Signature:	
Date:	

Acknowledgement

Appendix III. Consultation

Marine Scotland Licensing Operations Team, 22nd April 2021

"We would expect you to include a clear description of the proposed works and how they will be done as part of the application. So although some of the specific tasks you mention would individually not require a marine licence, as a whole "project" you should include all of them.

It is unlikely that PAC (Pre-Application Consultation) would be required for repair works, however, without knowing the full extent of the proposed works we cannot say that for certain.

I would suggest you complete an application and submit it, give as much detail as possible about the proposed works, we will then review it and if we need additional information will ask for it. The licensing process can take 14 weeks or longer depending on the complexity of the application and location of the works. The "time clock" does not begin until the application fees have been paid."

Richard Masters, Countryside Access Officer, Dumfries & Galloway Council, 10th June 2021

"I have been forwarded your enquiry regarding the access at Newbie.
Thank you for letting us know about this and the proposed access for the works.

There is no issue with this as you do not propose to close or divert any access.
The only thing that you need to ensure is that any relevant health and safety site signage is in place, so that members of the public know that works are being undertaken and that they may encounter vehicles using the track.

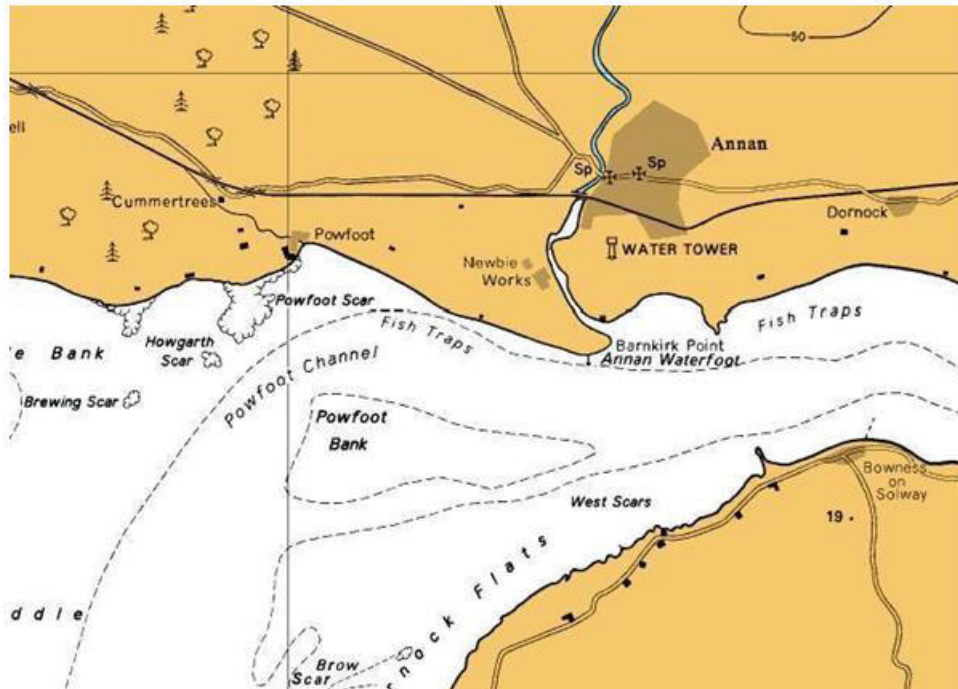
We always find that it's better to have some signs up advising people what is going on and when, as soon as you can. Just so people who use the path regularly aren't surprised when they find something happening."

Northern Lighthouse Board, Navigation Officer, 27th April 2021

Thank you for your enquiry, it's been passed to the Navigation Team to assist you.

I've had a quick look at the area you mention but as far as I can ascertain there isn't an active Aid to Navigation (AtoN) there (please see the chartlet below). However, I note from a D&G Council walking route information flier that it states there is an 'electric beacon' there.

FYI - NLB are a Statutory consultee in the Marine Licensing process so if there is an application we'll be asked for comment.



Appendix IV. Risk Assessment Table

Hazard	Consequence	Severity (A)	Likelihood (B)	Risk (A x B)	Mitigation	Residual Risk (A x B ¹)
Vehicle/plant collision with pedestrian/cyclist on public right of way (PROW).	Injury or death to pedestrian/cyclist. Loss of time.	5	2	10	Warning signs on footpath and public notices. 10 mph speed limit recommended. Banksman for moving plant. Warning beacons operational (where fitted). Minimal vehicle/plant movement on site. No vehicle/plant movement along PROW during operations. Radio link to Macfarlan Smith security and mobile phone coverage on site.	5 x 1 = 5 LOW
Vandalism.	Fire. Spillages of hazardous substances to land/marine.	4	2	8	Tidal tank compound with locked gate used for storage of plant and fuel. Fuel bower locks recommended. 24 hour security at Macfarlan Smith facility. No public vehicle access.	4 x 1 = 4 LOW

Vehicle/plant fire.	<p>Deposition of burnt materials to land/marine. Explosion. Spillage of fuel/oil to land/marine. Secondary fire to local vegetation. Visual impact. Emergency services on scene.</p> <p>Disturbance of birds, including: Ringed Plover nests. At high tide Ringed Plovers, Bar-tailed Godwits and Turnstones.</p>	4	2	8	<p>No smoking. Daily checks on vehicles/plant. Vehicles/plant maintained by contractor. Vehicles/plant operated within limits (i.e. no overheating). Fire extinguishers available. Site checked for overhead and buried electrical cables. Spills kit on site. Emergency management plan. Direct communication with Macfarlan Smith security via mobile phone and radio. Trained personnel. Radio link to Macfarlan Smith security and mobile phone coverage on site.</p>	<p>4 x 1 = 4</p> <p>LOW</p>
Fuel/oil spillage during refuelling.	<p>Ground and groundwater contamination. Fire/explosion.</p>	3	3	6	<p>Fuel bowser in acceptable condition (i.e. couplings, hose, corrosion, integrity). Bund for external fuel tank to generator where applicable. No smoking. Drip trays mandatory during refuelling. Spills kit on site. Trained personnel. Fire extinguishers available. Radio link to Macfarlan Smith security and mobile phone coverage on site.</p>	<p>3 x 1 = 3</p> <p>LOW</p>

Tidal flow	Risk to personnel of drowning. Loss of vehicles/plant. Loss of temporary fittings (i.e. timber).	5	3	15	Only works on or near pipeline when tide is at acceptable level determined by site foreman. Tide times reviewed for each day. Drill rig and generator located on land. Temporary fittings to be adequately secured/rigged so not to float away.	5 x 1 = 5 LOW
Extreme weather/sea conditions.	Risk to personnel of exposure. Loss of vehicles/plant.	4	3	12	Weather forecast and daily conditions assessed by site foreman. No work on pipeline during extreme weather conditions. Welfare unit on land.	4 x 1 = 4 LOW
Noise	Impulsive 'loud' noise 10 Hz to 10 kHz range to marine environment and residential receptors. Disturbance of bird assemblages.	3	3	9	No loud (i.e. 186 dB) impulsive noise sources in proposed method. Drill rig with generator (77 dBA) and water pump (68 dBA) used only during daytime and located on land >1 km from nearest residential receptor at Newbie Barns Farm. Excavator (71 dBA) used only during daytime and operating below MHWS >1 km from nearest residential receptor at Newbie Barns Farm. Trained operators using plant.	3 x 1 = 3 LOW

Damage to foreshore by heavy plant	Physical impact to rocky foreshore from tracked excavator.	2	4	8	Minimal plant movement over rocky foreshore. Recommended cover for areas of rocky foreshore above MHWS. Trained operators using plant.	2 x 2 = 4 LOW
Discharge of contaminated pipeline contents to sea in breach of permit.	Localised impact to water quality of conservation area at pipeline outlet.	2	3	6	Watching brief by site personnel for state of pipe contents. Pipeline sediment not expected to be contaminated (i.e. sand and sea water).	2 x 2 = 4 LOW

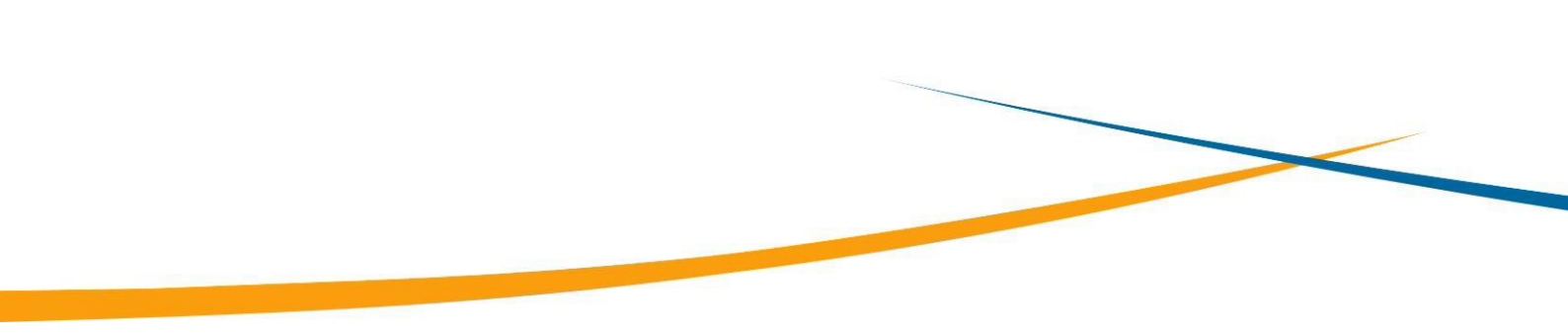
RISK = SEVERITY x LIKELIHOOD

- Severity and Likelihood are assessed assuming no controls are in place
- Residual risk assumes stated controls are implemented - in general, severity will not change, but likelihood is reduced ($B^1 < B$).

RANKING:

- Severity: 1 (Insignificant); 2 (Minor); 3 (Moderate); 4 (Major); 5 (Extreme/Catastrophic)
- Likelihood: 1 (Remote); 2 (Unlikely); 3 (Possible); 4 (Probable); 5 (Highly probable)

Where 1-5 = LOW; 6-9 = MODERATE; 10-15 = HIGH; >15 UNACCEPTABLE



Supporting Information and Method Statement
for
Macfarlan Smith
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Project 6644
Document number: R6644-IE-0001

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