“AFON LAS MICRO HYDRO SCHEME”

Detailed Method Statement

Environmental Management Plan

&

Restoration Plan

Prepared by:

North Wales Hydro Power Ltd

April 2014

Pant Idda, Rhyd-y-Foel, Abergele, Conwy, LL22 8EE.
T: 07810 141052  E: richard@northwaleshydropower.co.uk
www.northwaleshydropower.co.uk

North Wales Hydro Power is the trading name of North Wales Hydro Power Limited a company incorporated in England and Wales, registered number 07515857
CONTENTS

1 Summary 3
2 General Description of Works 3
   2.1 Environmental Clerk of Works 3
3 Location & Access 4
4 Documentation 4
5 Duration of Works 5
6 Method Statement 5
7 Environmental Management Plan 13
   7.1 Specific Flora / Fauna 13
   7.2 Concrete 14
   7.3 Silt 15
   7.4 Fuel & Oil 15
   7.5 Noise 16
   7.6 Waste Water Disposal 16
8 Restoration Plan 16
1. SUMMARY

This statement describes the proposed activities required for the installation of a 100kW micro hydro scheme on land adjoining the Afon Las watercourse near Nant Peris and includes the procedures required to safeguard the environment during the construction and restoration phase.

2. GENERAL DESCRIPTION OF WORKS

The scheme makes use of the water available in a river known as Afon Las within the Snowdonia National Park. The layout is shown in drawing Layout Drawing, and the works consist of the following:

- Installation of a Coanda Screen and integrated intake chamber unit onto stream bed
- Construction of stone faced retaining walls
- Welded polyethylene pipeline (~ 280mm outside diameter, approx. 615m long)
- Powerhouse with concrete floor slab and external pipe anchor block, clad in stone and a slate roof
- Turbine/generator set (~ 100kVA)
- Twin wall plastic discharge pipe (tailrace) to feed water back to the watercourse (~ 350mm outside diameter, approx. 6m – 10m long)
- Cabling to intake pressure sensor for automatic control (along penstock route)
- Buried power cabling to pole-mounted transformer
- Network Operator fuses and metering inside powerhouse building

As the intake will be built in the stream bed, close attention will be paid to mitigating the specific risks to the environment, as outlined below.

2.1 ENVIRONMENTAL CLERK OF WORKS – SUPERVISION AND MAINTENANCE OF SUITABLE METHODOLOGIES AS OUTLINED BELOW

The project manager for the construction phase will also be appointed to act as an environmental clerk of works for the duration of construction. The role includes monitoring all works and implementing pollution prevention measures on an on-going basis and ensuring that such measures are adequate and properly maintained.

The Environmental Clerk of Works will keep an accurate log of environmental protection measures for example measures outlined in this statement e.g. tool box talks, operator familiarisation with constraints and methodologies.
This document details the steps that will be taken to avoid any pollution incident however if a pollution incident occurs, we will contact Natural Resources Wales immediately on 0800 807060. Immediate remedial action will include stopping construction work and reinforcing all measures in place to prevent pollution as outlined below.

3. LOCATION & ACCESS

As shown on the CMS Plan, the scheme will be accessed as follows:

i) Intake – Located at OS Grid Reference SH 61906 57994 will be accessed via a new existing track and along the proposed pipe route together with the use of helicopters to deliver materials and equipment.

ii) Turbine House and Outfall – Located at SH 61370 57761 and SH 61369 57766 these will be accessed via the existing access track direct from the existing road as set out on the CMS Plan.

iii) Penstock and remainder of scheme - Access will be via along the penstock route, existing tracks and proposed temporary construction tracks as shown on the CMS Plan.

All materials and equipment with the exception of the intake materials will be stored at the temporary compound area located adjacent to the turbine house and access track shown on the CMS Plan. The intake material will be dropped off by helicopter and stored at the Helicopter Drop off Location shown on the CMS Plan.

4. DOCUMENTATION

In addition to this document, the outline design in be built in accordance with the following drawings and documents:

<table>
<thead>
<tr>
<th></th>
<th>General Layout &amp; Site Plan</th>
<th>NWHP_S160_Layout_Plan_Rev_H</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Intake Plans</td>
<td>NWHP_S160_Intake_Planning_revG</td>
</tr>
<tr>
<td>3</td>
<td>Turbine House</td>
<td>NWHP_S160_Powerhouse_revE</td>
</tr>
<tr>
<td>4</td>
<td>Outfall</td>
<td>NWHP_S160_Outfall_Planning_revC</td>
</tr>
<tr>
<td>5</td>
<td>Tree Report</td>
<td>MWA_BS5837_Report</td>
</tr>
<tr>
<td>6</td>
<td>Ecology Report</td>
<td>EDP_Report_(April_2014)</td>
</tr>
</tbody>
</table>
5. **DURATION OF WORKS**

It is estimated that the works will take up to five months to complete. However, the weather could have a significant impact on the length of time required on site. North Wales Hydro Power’s preferred approach for small schemes of this scale is to hold back on construction during wet periods in order to limit damage to the working area. We are able to be flexible as we will be building this scheme as the Project Manager, appointing a series of sub-contractors as and when required.

6. **METHOD STATEMENT**

<table>
<thead>
<tr>
<th></th>
<th>Site Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Set up compound areas as shown on the CMS Plan including storage and welfare in the designated area which is to be located adjacent to the turbine house track.</td>
</tr>
<tr>
<td>1.2</td>
<td>Install signage and fencing as required</td>
</tr>
<tr>
<td>1.3</td>
<td>Topsoil to be stripped and stored adjacent to route on upper side of the route to contain run off. Any excavated sub soils / stone to be kept separate from topsoil</td>
</tr>
<tr>
<td>1.5</td>
<td>Any potential drainage points from workings to watercourses to be blocked with straw bales and / or terram as necessary to filter sediment</td>
</tr>
<tr>
<td>1.6</td>
<td>If the workings expose any underground water drainage routes, these may require temporary fluming and / or containment using clay barriers to prevent access / penstock route becoming drainage route</td>
</tr>
<tr>
<td>1.8</td>
<td>All works shall be carried out in accordance with the approved tree report</td>
</tr>
</tbody>
</table>

**Tree Method Statement**

- Minor crown raising to 3m-4m where appropriate along access routes.
- Trees T2, T3, T8, T9 & T10 will be carefully removed to facilitate access and the construction of the intake. As a precaution it is recommended that T2...
and T3 are carefully felled by ‘soft felling’ techniques with a licensed and experienced bat worker in attendance.

- Between E1 and F on the CMS Plan the pipe route passes across part of the RPA of an ash tree sited next the watercourse. In order to avoid damaging the roots it is proposed to hang dig/Airspade dig around the roots of this tree.

- Between F and H the pipe route passes through a group of hawthorn. In order to minimise excavation in this area it is proposed that the pipe will be laid at existing ground level following the existing contours and then overburdened with a thin layer of soil, hessian and seed or turf.

- Tree protection fencing used around trees in close proximity to the pipe route as indicated on the CMS Plan and Tree Report.

- Within the first planting season following completion of the works the applicant will plant Sessile Oaks sapling/’whip’ trees along the existing fenced off area of the riparian zone of the depleted reach as approximately shown on the CMS Plan.

- Site operations should take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees.

- Any materials whose accidental spillage would cause damage to a tree will be stored and handled well away from the outer edge of its RPA. It is essential that allowance should be made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees.

- If any tree pruning or felling or and hedge removal begins between April and mid August a suitably qualified and experienced surveyor will complete surveys for breeding birds along the construction corridor no more than 24 hrs before work begins and appropriate mitigation steps will be taken if necessary.

### 2 Intake Construction

28 calendar days’ notice will be given to NRW before construction commences.

The intake is to be a Coanda Screen integrated into a concrete formed weir and chamber structure, plunge pool.

#### 2.1 Use Ø500mm twin-wall pipe (or similar) with sandbags, visqueen and plastic sheeting to create a temporary diversion to form a natural stream crest upstream of works. The flow will be returned to the beck in a rocky section where the risk of the
flow stirring up the river bed is minimal.

| 2.2 | Place straw bales downstream of works to catch any displaced sediment. |
| 2.3 | Any remaining water below the diversion point will be pumped out and returned to the stream via a silt trap and / or discharged over grass, whichever is necessary to ensure no silt from the working area enters the watercourse. The silt trap shall consist of a hole dug in a flat area of surrounding ground and lined with a terram / geotextile layer to trap any silt. The water will then drain through the ground back into the stream. The silt trap will not be dug in a flush area. |
| 2.4 | If required, remove bedrock using heavy duty battery SDS chisel or pecker attached to excavator to form stable bedrock base for weir to be formed on. |
| 2.5 | Wire-brush bedrock to remove slime and allow good bond with concrete. |
| 2.6 | Excavate to necessary depth for weir and intake chamber |
| 2.7 | Pour blinding layer of concrete for base. |
| 2.8 | Drill and chem-set rebar into bedrock. |
| 2.9 | Cut + install wire mesh / rebar. |
| 2.10 | Form shuttering around mesh on base to form structure around. |
| 2.11 | Pour concrete (to be mixed on site) into structure

**NOTE** – Check weather forecast and only proceed with pouring concrete if three clear days ahead – this is to prevent washout of works in spate flows. |
| 2.12 | Remove shuttering |
| 2.13 | This process will be repeated to form different sections |
| 2.14 | Bell mouth to be formed / fixed in the intake chamber exit point |
| 2.15 | Once main intake works are complete any exposed areas of concrete will be clad in stone as indicated on the planning drawings |
| 2.16 | Allow minimum three days for concrete to cure before removing bypass pipe |

### 3 Pipeline and Sensor Cable

The pipeline is to be made from 12-14m lengths of Ø280mm HDPE pipe, welded on site.

A gate valve will be installed at both ends of the pipeline to allow manual shut-off.

| 3.2 | Deliver pipe to site and stored at the temporary pipe storage compounds shown on the CMS Plan. |
| 3.3 | Place sections of pipe along route using a tracked dumper (or similar). |
| 3.4 | Excavate pipe trench where applicable in short sections.  

The pipe route installation will be tailored to the ground conditions, habitats and topography as follows:

**Zone 1: Intake to A1.**
The penstock pipe will be laid at ground level or very shallow hand dug trench (100mm to 150mm deep) from the intake to point A1 following the existing contours and overburdened with a thin layer of soil, hessian and seed or turf.

**Zone 2: A1 to E1**
With the exception of crossing the watercourse between pegs B and C the pipe will be buried in a shallow trench up to a maximum of 1m depth. All trench work will be kept to a minimum possible width (c.300mm) and depth in order to minimise the footprint and overall excavation required.

**Zone 3: E1 to F**
The pipe route passes across part of the RPA of an ash tree sited next the watercourse. In order to avoid damaging the roots it is proposed to hang dig/Airspade dig around the roots of this tree in order to bury the pipe.

**Zone 4: F to H**
Through this group of hawthorn woodland the pipe route will pass close to and across the periphery of several RPAs. In order to minimise excavation in this area it is proposed that the pipe will be laid at existing ground level following the existing
contours and then overburdened with a thin layer of soil, hessian and seed or turf.

Zone 5: H to K
Between H and I the pipe route crosses through a small flush area and then I to J crosses the watercourse and J to K crosses the periphery of the SAC boundary and grassland habitat. It is proposed to hand dig and bury the pipe in a shallow trench in this zone to minimise impact on the habitats.

Zone 6: K to Outfall
The pipe will be installed in a standard shallow trench throughout this zone.

General Precautions:
Particular care will be taken that contractors follow the approved method statement and CMS. In particular the following precautions will also be taken:

- All contractors to be informed of the location of the SAC boundary
- Where excavators need to access across wet ground conditions or any flush area, either extra wide low ground pressure tracked excavators and/or bog mats will be used to avoid damage to the habitats
- Turves will be stripped and replaced within 24 hours along pipe route following pipe installation. Pipe trench/turves keep to minimum i.e. 300mm wide. Where it become impractical to strip turves then appropriate seed mix will be used and/or brash/hay cutting taken from pipe route corridor and applied to soil following pipe installation.
- No materials will be stored within any flush areas
- Only those materials necessary for the installation of the intake and part of the pipe route will be taken into/stored in this part of the site.
- Where necessary silt traps will be used to prevent sediment transfer into any flush areas

3.5 Sections of pipe to be welded together using butt welding or electro fusion joints, at the welding stations shown on the CMS Plan then dragged along the pipe route and laid into trench and reinstated over as appropriate (Note – unless construction uncovers any sharp or big grain rock, no pipe bedding materials is required. Sorting may be required).

Pipe section between the Turbine House and Peg K will be dragged into position by excavator or tracked dumper truck etc. as will the pipe section from Peg E1 to the Intake.
The pipe for section Peg K to E1 will be dragged to Peg K from the lower welding station and then dragged into position using a winch and pulley system set up close to Peg E1.

| 3.6 | Single cable to be laid along pipe route. Cable to be covered in silt trench or similar. |
| 3.7 | Where necessary any reinstated areas will be fenced off using temporary stock proof fencing such as electric fencing etc if livestock are to be present to allow any turfed or reseeded to fully establish for a minimum of one full growing season post construction. |

### 4 Powerhouse

The powerhouse is designed around a concrete floor slab which restrains both the pipe and the turbine. The building will be of concrete shuttered construction with stone facing, and a slate roof. The turbine will discharge into a concrete sump, with a tailrace made from 350mm twin-wall pipe.

Care will be taken to prevent runoff flushing excavated material into the watercourse nearby.

<p>| 4.1 | Mark out powerhouse and tailrace. |
| 4.2 | Excavate foundation trenches, sump and trench for tailrace. |
| 4.3 | Cast wall footings and floor sump. |
| 4.4 | Install tailrace pipe. |
| 4.5 | Construct formwork for sump around first section tailrace pipe, and formwork for turbine bed frame. Include anchor block, floor drain and cable ducts (as will be shown in engineering drawings). |
| 4.6 | Cast sump walls and main floor slab, with starter bars for anchor block. Slab to have slight fall to allow drainage into floor drain, and apron to fall away from building. |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.7</td>
<td>Build up block walls, leaving cut-out for anchor block, and including ventilation notches top and bottom of southern gable end.</td>
</tr>
<tr>
<td>4.8</td>
<td>A trial stone work panel, including pointing not less than 2.00 m sq will be constructed for prior approval by Local Planning Authority. As soon as approval gained remaining stone facing can be completed.</td>
</tr>
<tr>
<td>4.9</td>
<td>Fit wall plates, rafters, heavy duty impermeable waterproof membrane and cover with earth and seeds.</td>
</tr>
<tr>
<td>4.10</td>
<td>Fit insulation to internal roof space to control noise, plus baffle boxes over ventilation notches for same purpose.</td>
</tr>
<tr>
<td>4.11</td>
<td>Fit doors and rainwater goods as appropriate.</td>
</tr>
<tr>
<td>5</td>
<td>Tailrace &amp; Outfall</td>
</tr>
<tr>
<td>5.1</td>
<td>Form barrier around outfall to isolate works from watercourse using steel piles or sandbags / visqueen. The outfall should be built as parallel to the bank as possible.</td>
</tr>
<tr>
<td>5.2</td>
<td>Dig trench for tailrace pipe to watercourse</td>
</tr>
<tr>
<td>5.3</td>
<td>Install tailrace pipe</td>
</tr>
<tr>
<td>5.4</td>
<td>Use local boulders to create scour protection and scree at outfall and landscape pipe exit</td>
</tr>
<tr>
<td>5.5</td>
<td>Fit outfall screen (stainless steel with 6mm spacing)</td>
</tr>
<tr>
<td>5.6</td>
<td>Backfill pipe (selected backfill to avoid damage)</td>
</tr>
<tr>
<td>6</td>
<td>Electro-Mechanical Installation</td>
</tr>
</tbody>
</table>
6.1 Deliver turbine / generator and control panel and ancillaries to site, unload to concrete apron and use rollers to move into powerhouse lifting area.

6.2 Fit turbine and generator in place, align, bolt down and grout in.

6.3 Fix main inlet valve support to concrete, and check alignment / positioning of unit.

7 **Connect & Restrain Pipe**

7.1 Pipe to be flushed with intake screen in place to remove debris from pipe (small stones etc.)

7.2 Cut pipe to length, and fit reducer with stub pipe to suit turbine inlet. Reducer to be located within anchor block, at upstream end.

7.3 Connect pipe to turbine inlet using VJ coupling or similar, ensuring 5-10mm gap between flange and end of pipe.

7.4 Construct formwork for anchor block, fixing pipe securely to prevent floating in concrete.

7.5 Pour anchor block

7.6 Backfill around block

7.7 Ground to be reinstated as far as reasonably practical to same standard and condition as prior to construction (see section 8 below for further information)

8 **Electrical Installation & Power Cabling**

8.1 Install control cabinet

8.2 Connect generator, actuator and sensor cables. Install local power and lights.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8.3</td>
<td>Connect signal cable from intake</td>
</tr>
<tr>
<td>8.4</td>
<td>New transformer and fuse / metering to be installed on new pole by DNO</td>
</tr>
<tr>
<td>8.5</td>
<td>Install LV power cable from pole to powerhouse. Cable to be installed in duct. Warning tape to be laced in trench, depth and other details to be specified by DNO</td>
</tr>
<tr>
<td>8.6</td>
<td>Fuses to be fitted by DNO following electrical installation</td>
</tr>
<tr>
<td>8.7</td>
<td>Install intake level sensor(s) under intake screen</td>
</tr>
<tr>
<td>9</td>
<td><strong>Final civil's, making good</strong></td>
</tr>
<tr>
<td>9.1</td>
<td>Stone face powerhouse</td>
</tr>
<tr>
<td>9.2</td>
<td>Remove straw bales, waste and excess materials, making good.</td>
</tr>
<tr>
<td>9.3</td>
<td>Remove sediment from any traps, fill and reinstate turf</td>
</tr>
<tr>
<td>9.4</td>
<td>Dirty water to be pumped out of working areas and bunds before these are removed.</td>
</tr>
<tr>
<td>10</td>
<td><strong>Commissioning</strong></td>
</tr>
<tr>
<td>10.1</td>
<td>System commissioning as per turbine supplier instructions</td>
</tr>
</tbody>
</table>

### 7. Environmental Management Plan

The areas of environmental impact that are relevant to the proposed works include contamination of the river with concrete and / or silt, fuel or oil spillages and disposal of waste (both solid and liquid). Specific risks associated with these areas, together with mitigation procedures to minimise or eliminate these risks are outlined in the following sub-sections.

Relevant EA pollution prevention guidelines will be followed, including:
7.1 Specific Flora / Fauna

7.1.1 Otter / Badger

No Hazards will be left overnight and all holes will be covered or fitted with escape routes.

7.1.2 Bats

No lighting will be used on the site at night after 8pm as this could disturb foraging bats.

If works are to be undertaken outside of daylight hours, where possible, lighting should be directional and focussed on the development area and away from the wider countryside and any areas of shrub/scrub.

7.1.3 Breeding Birds

As set out above if any tree pruning or felling or and hedge removal begins between April and mid August a suitably qualified and experienced surveyor will complete surveys for breeding birds along the construction corridor no more than 24 hrs before work begins and appropriate mitigation steps will be taken if necessary.

7.2 Concrete

Any fresh concrete or cement entering the watercourse has the potential to kill fish, and poses the greatest environmental risk for this project. Great care will be taken at all stages of the work to prevent concrete or cement entering the watercourse.

7.2.1 Transportation and Storage of Concrete

The volume of concrete required will be of the order of 5-6m$^3$ at the intake and 8-9m$^3$ at the powerhouse. Concrete will likely be delivered to site pre-mixed for the powerhouse and mixed on site for the intake. It will then either be tipped into the formwork or shovelled by hand. It must be ensured that any spillages that occur during transportation cannot enter the river.

- PPG 01 “General guide to the prevention of pollution”
- PPG 05 “Works in, near or liable to affect watercourses”
- PPG 06 “Working at construction and demolition sites”
Cement will be stored off the ground (e.g. on pallets or boards) and covered from wind and rain. Concrete will be mixed in a sheltered area to avoid dry cement being blown around, and this will be done well away from the river, in an area with no risk of runoff entering the watercourse.

7.2.2 Concrete Pouring

Placing concrete at the intake poses the greatest risk of spillage / leakage into the watercourse. As the majority of the intake work will be in or adjacent to the stream bed, the river will be diverted well away from the formwork, and the surrounding areas de-watered and protected from runoff in the event of rain. Plywood sheet will be placed around the areas being poured in order to collect any spillage.

Concrete casting will only be carried out in dry conditions – a full local forecast will be obtained daily, and concrete only poured if dry weather is forecast for at least three days. This will minimise the risk of washout before concrete is cured.

7.2.3 Washing of equipment

A small pit will be dug well away from the river, to contain wash water and allow cement / concrete to be settled out. All equipment will be washed in / to this pit. Once the cement has cured the pit can be filled in.

7.3 Silt

Silt, although not as harmful as concrete, can have an adverse effect on the river environment and all efforts will be made to prevent silt entering the watercourse.

7.3.1 General silt protection

Straw bales will be placed downstream of the intake works to act as stilling ponds to collect disturbed silt. All working areas will be kept as dry as possible, and runoff from the surrounding banks should be diverted away from the works.

7.3.2 Excavated material

Where it is deemed to be appropriate, i.e. within close proximity of a watercourse then excavated material will be placed away from the river on plastic sheeting and will be covered in the event of rain.

7.4 Fuel & Oil
Fuel or oil entering the watercourse can kill fish, invertebrates and plants and contaminate any downstream abstractions. It will not be allowed to enter the river.

Fuel storage, and spill kits (including drip trays) will be located within the compound at the powerhouse location which will be locked when absent from the site. In the event of a fuel spillage, a clean-up operation will commence immediately using materials on site. Fuel storage will comply with the Control of Pollution (Oil Storage) Regulations 2001.

7.4.1 Storage

All oil and fuel containers will be placed in suitable containment bunds well away from the river. The bund volume will be at least 110% of the storage container. Large-scale storage of fuel will not be required or permitted on site.

7.4.2 Refuelling vehicles or equipment

Any refuelling or oiling is to be carried out well away from the river. Suitable containers and funnels will be used to avoid spillage, and drip trays or absorbent material will be placed beneath equipment while filling.

7.4.3 Leakage

Machinery (plant, generators, pumps, etc.) and any fuel storage facilities must be checked daily to ensure there are no oil leaks.

A clean up kit will be available on site to absorb and contain any spillages.

7.5 Noise

Noise from machinery and equipment will be minimised to reduce the effect on wildlife and the amenity of neighbours.

7.5.1 Plant machinery noise

There will be 4-6 weeks of excavator work across the site. There will also be noise from general access and transportation of materials.

7.5.2 Other machinery noise

Generators, pumps and other machinery will be switched off when not in use. Such machinery will not be required to run continuously, and will not operate outside the hours of 8am to 8pm.
except during the period immediately after the intake weir cast in which case pumps will keep the working areas dry through the night.

7.5.3 Waste Disposal

While we do not envisage us moving or making contact with any type of controlled waste in this project, we note that this should be removed from the site by a registered waste carrier to an appropriately licensed site or company.

Copies of all waste disposal licences and waste transfer documents will be filed on site and available for inspection.

7.6 Waste Water Disposal

The site welfare facilities will generate waste water from toilets and washbasins, and these are to be fitted with a waste water collection tank that can be pumped clean by a registered operator for removal and treatment at a local water treatment works.

8. Restoration Plan

The banks, pipeline route and surrounding areas will be reinstated as appropriate, with excavations being reseeded if turf stripping and replacement becomes impractical. Where necessary the reinstated ground will be fenced out to allow the sward to re-establish itself with greater ease. Generally ground to be reinstated as far as reasonably practical to same standard and condition as prior to construction.

In summary the following measures will be taken to ensure that the site is reinstated as far as reasonably practical to the same standard and condition as prior to construction:

- Use of Low Ground Pressure extra wide tracked excavators and bog matt in sensitive areas to avoid damage and reduce need for reinstatement
- Working corridor kept to minimum
- Excavation/trenches kept to a minimum depth and width
- Pipe welded in long sections and dragged into place before trench excavated
- Excavations backfilled and reinstated as soon as reasonably practical
- Works carried out in dry weather conditions where possible
- Utilising existing tracks for access and pipe route as shown on the layout plan to avoid unnecessary encroachment into other areas
- Where possible and practical, depending on geological structure, turf to be stripped and re-laid in original position
- Where relaying of turf not practical the excavated soil will be backfilled and compacted to a suitable compaction and then reseeded using a suitable local/native seed mix
• If livestock are to be present, any reinstated areas to be fenced off with temporary stock proof fencing such as electric fencing etc to allow ground to fully re-establish for at least one full growing season post construction.
• Any sections of overburdened pipe will be done so with soil from the shallow scrap/trench under the pipe or from other soil excavated along the pipe route, or a combination of brash, seed and hessian screening.