

**THE HIGHLAND COUNCIL**

**SOUTH PLANNING APPLICATIONS COMMITTEE**  
**24 June 2014**

Agenda Item	6.6
Report No	PLS/052/14

**14/01222/FUL: Renewable Design and Development Ltd**  
**Land 1740m North East of Munerigie, Invergarry**

**Report by Area Planning Manager – South**

**SUMMARY**

**Description:** The proposal is for the development of a run of river hydro power scheme including the construction of three intakes, a buried pipeline and a powerhouse to the north east of Munerigie, Invergarry.

**Recommendation: GRANT**

**Wards:** 12 – Caol and Mallaig

**Development category:** Local

**Pre-determination hearing:** None

**Reason referred to Committee:** 5 or more separate objections

**1.0 PROPOSED DEVELOPMENT**

1.1 This application relates to the delivery of a 1MW hydro electric generating scheme to the north east of Munerigie, Invergarry.

1.2 The application seeks full planning permission for the formation of this hydro electric generating scheme and the associated infrastructure. This includes:

- Two “on-line” intake structures around Loch a Bhainne;
- A main intake below Loch a Bhainne;
- A buried penstock between the intakes and the powerhouse;
- A powerhouse to the north of the A87;
- A buried tailrace to discharge water from the powerhouse to the outfall;
- An outfall structure to allow the water to be discharged back into the river from the scheme;
- Development of temporary access tracks for construction;
- Improvements to the existing access to Munerigie Farm and construction of a new access to the powerhouse.

- 1.3 In support of the application the following studies/assessments have been submitted:
- Environmental Appraisal;
  - Design and Access Statement;
  - Ecology Report;
  - Bryophyte Surveys of the Allt a Bhaine, Allt a Chlachain and Allt Achaidh Luachraich;
  - Landscape and Visual Impact Assessment;
  - Flow Monitoring Information;
  - Morphological and Flood Risk Information;
  - Noise Assessment;
  - Peat Depth Survey;
  - EPI Derogation Report
- 1.4 Variations to the powerhouse design have been submitted to address concerns over design. Additional information for clarification was submitted with regard to peat depths.
- 1.5 The proposed development, if approved, requires a grid connection. This will connect to the existing connection at Munerigie by way of an overhead line and an indicative location for a connection is shown. The overhead line would be subject to a separate application under Section 37 of the Electricity Act 1989 (as amended).

## **2.0 SITE DESCRIPTION**

- 2.1 The site boundary is drawn tightly around the development providing a 5m corridor for construction. The area within the red-line boundary mainly comprises open moorland with a mix of vegetation and some water courses/water bodies. The wider site comprises upland rocky moorland with an area of commercial forestry approximately half way up the hill. The area of the proposed powerhouse comprises undulating ground to the north of the A87(T) road.
- 2.2 The landscape character is defined by the Lochaber Landscape Character Assessment, SNH Review 1998. This defines the Landscape Character as Rocky Moorland in the area of the upper penstock and intakes and as Broad Forested Ridges in the area proposed for the lower penstock and the powerhouse.
- 2.3 The main area of trees potentially affected by the proposed development is an area of commercial forestry where the penstock will pass through an existing fire break. Towards the tailrace of the proposed development there is an area identified as Ancient Woodland of semi-natural origin. This is unlikely to be affected by the proposed development.
- 2.4 While the site itself is not within a site designated for nature conservation purposes, it is close to the West Inverness-shire Lochs Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI). The site is designated as a SPA and SSSI due to the aggregations of breeding Black-Throated Diver and Common Scoter. The qualifying features are considered to be of a "favourable maintained" condition.

- 2.5 The only feature of historical interest within the vicinity of the proposed development is the former church and cemetery at Cuill Donnain, approximately 275m to the west of the proposed development.
- 2.6 The proposed access to the site is from the A87(T). This existing access serves 3 houses from what, for the most part, is not laid to tarmac. The proposed development seeks to improve this access through laying of a tarmacadam surface to facilitate construction.
- 2.7 The site is in an area of predominantly Glacial Till and Glacial Hummocky Deposits with some areas of peat. The Peat Depth Survey demonstrates that the peat depth along the route of the penstock is no more than 500mm.
- 2.8 There are a number of other users of the water courses within the wider area of the proposed Munerigie Hydro Scheme which include:
- Loch Garry Hydro Scheme;
  - Faichem Farm Hydro Scheme;
  - Invergarry Water Treatment Works;
  - Private water supplies for a number of houses, businesses and farms in the area.

### **3.0 PLANNING HISTORY/BACKGROUND**

#### **3.1 EIA**

13/03259/SCRE - Screening Opinion sent to applicant 06.12.2013 informing the applicant an EIA was not required.

### **4.0 PUBLIC PARTICIPATION**

- 4.1 Advertised: 10.04.2014 in the Oban Times. The application was re-advertised in the Oban Times on 08.05.2014 for procedural purposes.

Representation deadline: 26.05.2014

Timeous representations:	9 including Glengarry Community Council
Late representations:	0

- 4.2 Material considerations raised against the proposal are summarised as follows:
- Inadequate assessment of the impact on water supplies for business use, residential use, other operational hydro-electric schemes, agricultural use and public water supply;
  - Inadequate reference to water quality and down burn debris impacts during the construction phase;
  - Impact on flora and fauna;
  - Inadequate assessment has been made as to the impact on the land that might result from diverting water from the burn;

- Existing access track is of poor quality; concern over new track's ability to remain fit for purpose and fit with the landscape;
- Impact on road safety on existing access track serving Munerigie
- Noise impacts;
- Construction impacts (including noise and dust);
- Visual impact of powerhouse;
- Impact on water level in existing water bodies.

4.3 Non-material considerations raised against the proposal are summarised as follows:

- No communication with neighbours over the proposed scheme prior to submission;
- Land is registered as agricultural land and any change in land area for these purposes would be in breach of the Rural Development Scheme;
- Further investigation is required for the access proposal to consider impact on trees and potential for future timber harvesting.

4.4 All letters of representation are available for inspection via the Council's e-planning portal which can be accessed through the internet [www.wam.highland.gov.uk/wam](http://www.wam.highland.gov.uk/wam). Access to computers can be made available via Development and Infrastructure Service offices.

The applicant was given the opportunity to respond to the representations and their response is on the case file.

## 5.0 CONSULTATIONS

5.1 Development and Infrastructure (Forestry): No objection, as the development passes through generally open ground. Considers the main impact will arise from the construction of the penstock through the gap in the commercial forestry. Conditions are recommended related to no tree felling except in the existing 12 m corridor through the commercial forestry and that a tree planting and maintenance plan is submitted and agreed by the Planning Authority.

5.2 Development and Infrastructure (Historic Environment Team): No objection, as the development is predominantly high ground and topography which is unlikely to be have been occupied/used by humans. No conditions or mitigation are recommended.

5.3 Community Services (Environmental Health): No objection, based upon the results of the Noise Assessment. Conditions related to noise levels are recommended. Environmental Health advise the impact of the proposed development on private water supplies should be considered when considering compensation flows.

5.4 Development and Infrastructure (Access Officer): No objection, on the basis that the development is unlikely to affect public access. An access statement is required from the developer to consider the impact on responsible public access during construction.

- 5.5 Scottish Environment Protection Agency (SEPA): Object unless conditions related to construction of borrow pits, construction environmental management and flood risk are applied to any planning permission which may be granted. SEPA initially also objected on the grounds of a lack of information on Ground Water Dependant Ecosystems and Peat. This information was subsequently submitted and SEPA withdrew this element of their objection. In SEPA's letter dated 29 May 2014 they advise that the scheme is likely to be consentable under the terms of The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).
- 5.6 Scottish Natural Heritage (SNH): Object unless mitigation related to impact on Common Scoter is secured by condition. This mitigation would involve no construction within the Common Scoter breeding season of 01 June and 31 July and if work is to continue during this time then a breeding bird survey must be carried out to ensure that no Common Scoter will be impacted by the proposed development.
- 5.7 Transport Scotland (Trunk Roads and Bus Operations): No objection, however Transport Scotland advise a condition related to the submission of a traffic management plan for the construction period be submitted and approved by the Planning Authority, in consultation with the Trunk Roads Authority.
- 5.8 Scottish Water: No objection as Scottish Water are satisfied that the proposed hands-off flows will be sufficient to protect the Scottish Water Abstraction requirement from the Aldernaig Burn which supplies the Invergarry Water Treatment Works. Scottish Water request measures relating to water quality, as set out in their letter, are incorporated into any planning consent issued by the Planning Authority.

## **6.0 DEVELOPMENT PLAN POLICY**

The following policies are relevant to the assessment of the application:

### **6.1 Highland-wide Local Development Plan (April 2012)**

Policy 28	Sustainable Development
Policy 29	Design, Quality and Place Making
Policy 30	Physical Constraints
Policy 51	Trees and Development
Policy 53	Minerals
Policy 55	Peat and Soils
Policy 56	Travel
Policy 57	Natural, Built and Cultural Heritage
Policy 58	Protected Species
Policy 59	Other Important Species
Policy 60	Other Important Habitats
Policy 61	Landscape

Policy 63	Water Environment
Policy 64	Flood Risk
Policy 65	Waste Water Treatment
Policy 66	Surface Water Drainage
Policy 67	Renewable Energy Developments
Policy 69	Electricity Transmission Infrastructure
Policy 72	Pollution
Policy 73	Air Quality
Policy 77	Public Access

## 6.2 **West Highland and Islands Local Plan (As Continued in Force 2012)**

The vast majority of the general policies and land allocations of the Local Plan pertinent to this application have been superseded by the policies of the Highland-wide Local Development Plan.

## 6.3 **Supplementary Planning Policy Guidance**

Flood Risk and Drainage Impact Assessment: Supplementary Guidance (January 2013)

Highland Historic Environment Strategy: Supplementary Guidance (March 2013)

Managing Waste in New Developments: Supplementary Guidance (March 2013)

Physical Constraints: Supplementary Guidance (March 2013)

Sustainable Design Guide: Supplementary Guidance (January 2013)

Trees, Woodlands and Development: Supplementary Guidance (January 2013)

Highland Statutorily Protected Species: Supplementary Guidance (March 2014)

## 7.0 **OTHER RELEVANT PLANNING POLICY**

### 7.1 **Highland Renewable Energy Strategy**

The Development Plan references HRES developed by the Council on a range of Renewable Energy technologies. In particular it addresses the additional benefits from such investment including for example 'Education and Training,' 'Community Benefit' and 'Local Content' which are important considerations when assessing individual project proposals. For the avoidance of any doubt only those parts of the Council's HRES which are compliant with Scottish Government SPP remain in force. HRES sets out a series of issues related to the potential positive and negative effects of hydro-electric developments and how they can be addressed.

## 7.2 **Scottish Government Planning Policy and Guidance**

The Scottish Government's approach to renewable energy is set out in Scottish Planning Policy (SPP), February 2010 with further advice on renewable energy targets set out in its publication "Routemap for Renewable Energy in Scotland". The Scottish Government has recently consulted on an updated policy statement. However it is SPP (February 2010) which requires to be considered in the determination of the current application. It contains a number of subject specific policy statements which are relevant to this application, including:-

- Rural Development
- Landscape and Natural Heritage
- Wild Land
- Transport
- Renewable Energy

7.2 In addition to the above, the Scottish Government sets out further advice on Renewable Energy in a number of documents and web based information including: -

- National Planning Framework for Scotland 2
- PAN 56 – Planning and Noise
- PAN 58 – Environmental Impact Assessment
- PAN 60 – Planning for Natural Heritage
- Online Renewable Energy Advice and Guidance

## 8.0 **PLANNING APPRAISAL**

8.1 Section 25 and of the Town and Country Planning (Scotland) Act 1997 requires that planning applications are determined in accordance with the Development Plan unless material considerations indicate otherwise.

8.2 This means that the application requires to be assessed against all policies of the Development Plan relevant to the application, all national and local policy guidance and all other material considerations relevant to the application.

### 8.3 **Development Plan Policy Assessment**

8.3.1 The Development Plan comprises the adopted Highland-wide Local Development Plan (HwLDP). There are no site specific policies affecting this application site within the West Highland and Islands Local Plan (As Continued in Force). The principal HwLDP policy against which the application needs to be determined is Policy 67 - Renewable Energy. The other HwLDP policies listed at 6.1 of this report are also relevant and the application must be assessed against these, primarily policies 28, 51, 57, 58, 59, 61 and 64.

8.3.2 Policy 67 sets out that renewable energy developments should be well related to the source of the primary renewable resource needed for operation; the contribution of the proposed development in meeting renewable energy targets and positive/negative effects on the local and national economy; as well as all other relevant policies of the development plan and other relevant guidance.

These considerations must be balanced to allow the Council to support proposals where it is satisfied that they are located, sited and designed in such a way which will not be significantly detrimental, alone or in combination with other developments. In doing so the Council will give particular regard to significant effects on the following:

- Natural, built and cultural heritage;
- Species and habitats;
- Visual and landscape impacts;
- Amenity at sensitive locations; safety and amenity of any regularly occupied buildings;
- Ground water, surface water, aquatic ecosystems and fisheries;
- Aviation interests;
- Impact on communication infrastructure;
- Impact on users of core paths or other established public access; and
- Tourism and recreational interests; land and water based traffic and transport interests.

If the Council considers that the proposal will not have a significantly adverse effect on the above matters then the application will be considered to accord with the development plan.

#### Impact on Natural Heritage

8.3.3 The site is located close to Loch Garry which forms part of the West Inverness-shire Lochs SPA/SSSI. As discussed in section 2.4, the site is designated as a SPA and SSSI due to the aggregations of breeding Black-Throated Diver and Common Scoter. The area covered by the development has the potential to be used as a breeding/nesting area for Common Scoter which can nest up to 1km from the loch side. As this is the case the proposal needs to be assessed against the 'Habitats Directive' which is translated into Scots law through the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland). A copy of the Habitats Regulations Appraisal (including Appropriate Assessment) is contained in Appendix 2 of this report. The conclusion of this, based upon SNH advice, is that the proposed development is not likely to have a significant adverse affect if the following mitigation described below is implemented:

- Construction shall only take place outside the breeding season for Common Scoter. This is defined as 01 June to 30 July.
- If work is to continue beyond 01 June and/or recommence before 30 July all operations shall stop and the developer must carry out a breeding bird survey to ensure no Common Scoter will be impacted by the construction processes. The survey to identify potential impact must extend 750m, in all directions, from the construction site. If Common Scoter are found then work shall not commence until they leave the nest.

If Members are minded to grant planning permission this mitigation must be secured by condition. If this mitigation is not secured by condition and Members are minded to grant planning permission then the application will require to be notified to Scottish Ministers.



8.3.4 There are a significant number of Ground Water Dependant Terrestrial Ecosystems (GWDTEs) present across the site. Following a request from SEPA further information and more detailed mapping was provided on GWDTEs by the applicant. This identified that there would be disruption to habitats caused by excavation however as vegetation will re-establish following construction, this is likely to be short term. There are also likely to be alterations to the hydrological regime of wetland habitats by the presence of cut off ditches and alterations to flow routes and drainage patterns during construction. This is likely to be a longer term impact. Mitigation has been proposed to address both the short and long term impacts on GWDTEs. SEPA have requested that this mitigation is secured through condition and submitted as part of a Construction Environment Management Document if planning permission is granted.

8.3.5 In bringing forward this proposal the following surveys have been undertaken by the applicant to establish the impact on ecology as a result of this proposal:

- Desk survey to identify notable or protected species potentially impacted;
- Phase 1 Habitat Survey
- Phase 2 Habitat Survey (mapping Annex 1 habitats and GWDTEs)
- Bryophyte Survey;
- Protected Species Survey for bats, otter, badger, red squirrel, water vole, great crested newt, Scottish wood ant and common lizard;
- Breeding Bird Survey
- Fish Habitat Survey;
- Freshwater Pearl Mussel Survey;
- Freshwater Invertebrate Survey; and
- Evaluation of habitats and species on the site and in the immediate environs.

These surveys have identified a number of impacts on ecology with most effects being identified during the construction period and only limited impacts on Bryophytes and fish passage during operation. Mitigation has been proposed, which includes the appointment of an appropriately qualified Ecological Clerk of Works (ECoW) for the construction period. The mitigation proposed, which is detailed on page 67 of the Environmental Appraisal – Written Statement, can be secured by condition, as part of the Construction Environmental Management Document.

#### Impact on trees

8.3.6 As discussed earlier in this report the most significant impact on trees will be within the area of commercial forest, albeit that the penstock will be sited within an open area of forestry which forms a fire break in the plantation. To avoid impact in this area it is proposed that tree felling associated with the development be restricted to the 12m wide corridor as proposed in the planning application. This can be secured by condition. As discussed earlier, the proposed development is unlikely to affect the area of Ancient Woodland of semi natural origin to the south of the powerhouse.

The applicant has suggested that Aberchalder Estate are planning further areas of forestry to the north of the existing plantation which will help to screen the development. This would require a modification to the Estate's Forest Plan and is not being considered through this planning application.

- 8.3.7 A representation has raised concerns over the need to maintain access and construct the development in a way which will not affect future tree harvesting. No diversion of the existing forest accesses are proposed and any potential conflict needs to be addressed between the applicant and the other land users.

#### Impact on built and cultural heritage

- 8.3.8 As discussed earlier in this report the nearest feature of historical interest is the former church and cemetery at Cuill Donnain, approximately 275m to the west of the proposed development. The Historic Environment Team considers that, subject to there being no significant amendments to the proposed scheme, it is highly unlikely that there would be either a direct or indirect impact on this feature from the proposed development. In addition there is unlikely to be any impact on other historic environment issues given the topography of the area being unsuitable for human occupation/use.

#### Visual impact and impact on landscape (including wild land)

- 8.3.9 As discussed in section 2.2 of this report the landscape character is defined by the Lochaber Landscape Character Assessment, SNH Review 1998. This defines the Landscape Character as Rocky Moorland in the area of the upper penstock and intakes and as Broad Forested Ridges in the area proposed for the lower penstock and the powerhouse. As the pipeline is buried there is unlikely to be long term impact on the landscape character of the area as a result of this element of the scheme, with impacts most likely to arise from the intakes and the powerhouse. The scale of the intakes are unlikely to have significant adverse impact on the Rocky Moorland landscape character of the area, and this has been confirmed by the submitted Landscape and Visual Assessment. The proposed powerhouse has been identified as having an impact. This was however based upon the original design of a flat roofed concrete structure which has now been amended to minimise impact. This is discussed in detail in section 8.3.14 of this report. It is noted that this new structure will change the landscape character of the area but over time as the green roof establishes the new landscape formed by the powerhouse will appear largely natural.
- 8.3.10 The submitted Landscape and Visual Impact Assessment considers the landscape impact based upon a bare earth digital terrain model and considers the visibility over a 10km radius. The visual impact of the scheme has been considered from a total of 14 viewpoints, covering typical views towards the main elements of the scheme. Given the pipeline will be buried and the land restored it is considered that the impact of this will be short term and limited and as such will not be considered further in this report. Given the scale and position of the intakes within the landscape it is unlikely that these will have a significant visual impact except in areas extremely close to the intakes.

- 8.3.11 The powerhouse is the element of the scheme most likely to have a visual impact. The visual impact is likely to be most significant when travelling along the A87(T) road from east to west. Here, there will be a fairly prominent side to the building which will be faced in natural stone however this will only come into view for a short time. Following negotiation on design, it is unlikely that the visual impact of the powerhouse from other view points will be significant.
- 8.3.12 The only other element of the scheme which is likely to have a significant visual impact will be the access track from Munerigie to the powerhouse. Efforts have been made to integrate the access road into the landscape by following contours and as such it is anticipated there will be limited receptors for the access road and it is considered the impact will be low.
- 8.3.13 The development is not in a search area for wild land or an area identified as a core wild land area. The applicant has submitted a plan showing the location of the scheme and relative wildness. The scheme stretches across areas of land identified as having a medium and low level of relative wildness. It is considered that the low impact nature of much of this development in the longer term (i.e. post construction and penstock restoration) is unlikely to alter the relative wildness of the area.
- 8.3.14 As discussed throughout this area of the report on the landscape and visual impact of the development, the powerhouse is likely to be of most impact on the landscape character and have the most visual impact. Recognising this, the original design has been modified following negotiation with the applicant. The original design was a large box type structure, which in terms of scale and elevations, largely reflected traditional hydro-electric powerhouses. However given the landscape in which the powerhouse will sit, it was considered appropriate to try and integrate it better into the landscape. The applicant has now modified the design to essentially build the powerhouse into the landscape with very limited elements of the powerhouse visible – specifically, two of the four elevations visible and a green roof helping the building integrate into the landscape. It has been suggested in the response from the Council’s Forestry Officer that further tree planting around the powerhouse will also help the development to integrate into the landscape in this location. It is agreed that this will facilitate the development’s integration and details of this can be secured by condition.

### Noise

- 8.3.15 The applicant submitted a noise assessment which identifies a background noise level and sets out predicted noise levels for the proposed development which they consider to be not significant at a distance greater than 40m from the source ie the powerhouse. The nearest noise sensitive property is approximately 200m away from the powerhouse location. However, as this assessment measured noise only during the hours of 9am to 10pm, and the development may still be operational at times when background noise will be lower, such as over night, Environmental Health have recommended that a condition is attached to any planning permission which may be granted to limit the permissible noise from the development.

- 8.3.16 It is recognised that disturbance during the construction process is an inevitable consequence of development and would be for a limited period only (60 weeks). Disturbance associated with the construction of the scheme would be controlled under Environmental Health legislation.

#### Water, Flood Risk and Drainage

- 8.3.17 The development requires consent for the abstraction, diversion and use of water for generating electricity. This requires a licence from the Scottish Environment Protection Agency (SEPA) under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended). An application for a Controlled Activities Regulation (CAR) licence for this scheme was submitted in August 2013. In SEPA's letter to the Highland Council (dated 29 May 2014) regarding this scheme they indicated that the scheme is likely to be consentable under the aforementioned regulations.
- 8.3.18 A number of representations to the proposed development have focused on the impact on private water supplies whether they are supplies which serve residences, businesses, or serve agricultural purposes, as well as raising concerns over the operational efficiency of the existing hydro schemes and other users of the water in this area. The planning application was accompanied by information on flow rates and derogation in the form of a Flow Monitoring Project – Final Report and a SEPA EPI Derogation Report. The results of these reports have been considered and addressed in the Environmental Appraisal Written Statement which suggests mitigation to address potential impacts. The mitigation includes no abstraction taking place when the river is flowing lower than a certain level; the level chosen exceeds that required by SEPA to take into account the other users of the water in the area, specifically the Faichem Hydro Scheme.
- 8.3.19 As set out earlier in this report the proposed development seeks to abstract water from a water body which is also used as one of the supplies for the Invergarry Water Treatment Works. While Scottish Water consider that there will be sufficient water still available to the water treatment works when this scheme is developed they have set out a number of pieces of advice to ensure the quality of the water is protected. This includes the provision of:
- Detailed method statement;
  - Risk Assessment;
  - Pollution Prevention Plan;
  - Contingency Plan.

These should address locations where public water supplies may be vulnerable and how the impact is assessed and mitigated. These assessments and mitigation measures can be secured by condition and are likely to form part of any condition requiring a Construction Environmental Management Document to be submitted and agreed before construction starts. Further issues related to water quality are assessed through the CAR Licence.

- 8.3.20 Scottish Planning Policy, Policy 64 (Flood Risk) of the Highland-wide Local Development Plan and the Flood Risk and Drainage Impact Assessment: Supplementary Guidance give very clear policy and advice on dealing with flood risk and drainage in new developments. The Environmental Appraisal explains that the scheme itself will not result in any significant impacts on flood risk at the intake locations or on the abstraction water course. It does however recognise that there is potential for an increase in flood risk where the water is discharged from the powerhouse into the Munerigie Burn (the tailrace). It is proposed that a level monitor will be installed upstream of the A87(T) road culvert to restrict/stop turbine discharge to reduce the risk of the A87(T) flooding as a result of this development. The applicant considers that this approach will not avoid any increase in the existing risk of flooding to the road. However, in addition to this mitigation, SEPA have requested a condition to be attached to any planning permission which may be granted to ensure that the additional mitigation in the form of a new culvert (of a minimum size of 1.5m x 1.2m) under the A87(T) road is provided before the development becomes operational. This can be secured by condition.
- 8.3.21 As with any hydro-electric generating scheme water availability and retention of flows for other users of the water and retention of water quality is key. While the planning system has a role to play in this through consideration of construction methodologies etc, SEPA have a significant role to play in ensuring that the proposed development does not have an adverse effect on the flows of the watercourses for other users, whether those users utilise the water course(s) for private water supplies, water supplies for their business, water supplies for agriculture, abstraction for other hydro schemes or for public water supply. The CAR Licence process also covers water quality and other impacts on watercourses/water bodies. SEPA have been considering this proposed development for some time under the CAR Licence application which considers impact on the aforementioned issues which have been raised through representations and, as previously mentioned, SEPA consider that the scheme is likely to be consentable under the CAR. With that said the mitigation set out in the supporting documentation will be required to be implemented as part of any planning permission which may be granted and as such can be secured by condition.

#### Roads and Transportation

- 8.3.22 The proposed access to the development is from the A87(T) road. Due to the nature of the development the greatest impact on the road network will be during construction, with traffic during operation limited to maintenance of the scheme.
- 8.3.23 During the construction of the proposed development (60 weeks) it is anticipated that traffic on the trunk road at the entrance to the site would increase by 40 vehicles or 3% over the existing average daily minimum of 1,213. As the proposed development accesses the public road network at a junction with a trunk road, Transport Scotland were consulted and as set out in section 5.7 of this report do not object to the scheme. However in order for an appropriate level of management of traffic during the construction period Transport Scotland wish to consider a Construction Traffic Management Plan.

This can be secured by condition and once agreed by the Planning Authority in consultation with Transport Scotland must be implemented. This should also take into consideration the potential impact on the local access from the private road which serves existing interests at Munerigie.

- 8.3.24 During operation it is anticipated that the site would be accessed between 1 and 3 times a week for maintenance purposes to ensure the equipment is functioning and not damaged or blocked in any way. This traffic increase is considered negligible.
- 8.3.25 Once the development is off the public road network the access to the site will utilise an existing private access which currently serves 3 houses. The applicant proposes to upgrade the road to facilitate the construction of the access. Concerns have been raised by third parties as to the nature of the proposed upgrade and whether it will be fit for existing users. It is considered that a properly surfaced road will be an improvement to the existing access. There will also be a spur taken from this private road to the proposed powerhouse for the purposes of both construction and maintenance. This is proposed as a 5m wide aggregate road. The access to Intakes 2 and 3 will utilise existing estate/forestry tracks and the penstock route will be the route for construction of Intake 1. For the maintenance of Intake 1 a “green argo track” is proposed. No new permanent tracks are proposed as part of this scheme, but for the avoidance of doubt in the future this can be controlled by condition as permanent tracks will have an adverse impact of the landscape. This approach is likely to limit the impact of the proposed development on the landscape both during construction and in operation. Proper restoration of the construction route along the penstock will be key to ensuring this is the case. The visual impact of the access is considered in further detail elsewhere in this report.

#### Access and recreation

- 8.3.26 The supporting information which accompanies the application clearly sets out that public access will not be restricted in the area once the scheme is operational. While there are no core paths or records in the Highland Path Record in the area affected by this development, access rights will continue to apply to this area throughout both construction and operation. It is understood that, for health and safety reasons, during the construction period there will be a desire to limit access in certain areas and providing alternative walking routes. Details of how this can be achieved should be submitted and agreed by the Planning Authority before development starts. This should be submitted as part of the Construction Environmental Management Document.

#### Peats and Soils

- 8.3.27 As discussed earlier in this report the application has been supported by a Peat Depth Survey which was submitted following a request from SEPA. This survey identified peat no deeper than 300mm in areas which will be directly affected by the pipeline. A further area of peat was identified below the forest and it is proposed that the penstock pipeline be micro-sited in this area to avoid this area of peat. It is proposed that any peat removed will be replaced in its original location, including all pipeline excavations to be reinstated.

Further details of this should be submitted as part of a Construction Environmental Management Document if planning permission is granted.

### Construction Impacts

- 8.3.28 Throughout this report, it has been made clear that the impacts of the proposed development will be most pronounced during construction – this will include impacts on the environment, noise and potential dust, and water quality. Therefore the applicant will be required to submit a Construction Environmental Management Document (CEMD) before development starts to address the issues likely to arise in the construction of the proposed development. This CEMD should draw on the draft Construction Environmental Management Plan which has been presented in the submitted Environmental Appraisal – Written Statement which accompanied this application and follow the guidance set out in The Highland Council’s Construction Environmental Management Process for Large Scale Projects Guidance.

### **8.4 Material Considerations**

- 8.4.1 Eight letters of objection have been received to the proposal. The points raised are summarised in section 4.2 above and assessment of the material issues raised are discussed above. Consideration of other material considerations follows.

### Compatibility with Highland Renewable Energy Strategy (HRES)

- 8.4.2 Policy 67 of the HwLDP recognises the strategy developed by the Council on a range of renewable energy technologies. HRES highlights the potential for hydro-electric development in Highland and outlines the positive and negative effects of this type of development. These are addressed through previous sections of this report.

### Compatibility with national policy

- 8.4.3 SPP advises that “Planning Authorities should support the development of a diverse range of technologies, guide development to appropriate locations and provide clarity on the issues that will be taken into account when specific proposals are assessed. Development Plans should support all scales of development associated with the generation of energy and heat from renewable resources ensuring that the area’s renewable energy potential is realised and optimised in a way that takes into account the relevant economic, social, environmental and transport issues and maximises benefit.”
- 8.4.4 It is considered that a hydro electric scheme such as the one presented in this application will help Highland to realise and optimise its renewable energy potential. The way in which the proposal addresses economic, social, environmental and transport issues are set out and considered in this report.
- 8.4.5 There are no other material considerations that have been raised through representations.

## **8.5 Any other considerations within representations**

- 8.5.1 A number of representations have raised concerns over a lack of communication from the applicant/agent prior to submission of the application. The applicant has suggested there had been communication/discussion with some of the key stakeholders in recent years about the proposal. However, as this is a local scale application there is not a requirement to undertake formal community consultation.
- 8.5.2 A representation has raised that land within which some of the application lies is registered as agricultural land and any change in land area for these purposes would be in breach of the Rural Development Scheme. While this may be the case this is a matter over which the Planning Authority has no control and is something that needs to be addressed by the land owner/tenant of the land.

## **9.0 CONCLUSION**

- 9.1 Within Scottish Planning Policy and other Government advice and strategies there is considerable support for renewable energy developments that help to maximise renewable energy capabilities. The Highland-wide Local Development Plan and the Highland Renewable Energy Strategy also support renewable energy developments, including run-of-river hydro electric schemes. This support is of course conditional on the full assessment of projects against a number of criteria.
- 9.2 The application has drawn a number of objections from local residents and landowners, largely related to impact on water supplies and quality. As discussed earlier in this report there is a significant role for the Controlled Activities Regulation Licensing process in addressing these issues. SEPA are responsible for administering this process and consider the scheme likely to be consentable.
- 9.3 A number of statutory bodies, including SEPA and SNH, have objected unless conditions are attached to any planning permission which may be granted. Given the scale of the scheme and its potential impact throughout the construction period these conditions are considered proportionate and recognise that their interests can be effectively managed through planning conditions and other regulatory processes.
- 9.4 The application has been submitted with an adequate level of information to allow the Planning Authority to have a clear understanding of the main impacts of the development. It is considered that a development such as this given its scale is likely to have a locally significant impact on the economy. It is recognised that there will however be landscape and environmental impacts, largely focussed in the short term during the construction period and immediately after the restoration of the penstock pipeline. Many of these impacts can be mitigated and managed, particularly with regard to the impact on existing properties and users of the water environment, in conjunction with other regulatory processes.
- 9.5 The application is seen to accord with the policies of the Council's Development Plan. There are no material considerations that outweigh the policies as presented within the Development Plan.



## 10.0 RECOMMENDATION

**Action required before decision issued** No

It is recommended the application be **Granted** Planning Permission, subject to the conditions listed below:

### Conditions

1. The development shall be carried out in accordance with the plans and details set out in the application and supporting environmental information, except in so far as the approved development is amended by any of the following conditions. For the avoidance of doubt the supporting environmental information is, for the purpose of this condition, defined as:
  - Munerigie 1MW Hydro Electric Scheme: Ecology Report May 2011 for Renewable Design and Development Ltd (RDD) by Highland Ecology and Development Ltd;
  - Bryophyte Survey of the Allt a' Bhainne, Munerigie August 2013, A Report for Gregor Cameron Consultancy Ltd by N.G. Hodgetts;
  - Bryophyte Survey of the Allt a' Chlachain, Munerigie March 2014, A Report for Gregor Cameron Consultancy Ltd by N.G. Hodgetts;
  - Bryophyte Survey of the Allt Achaidh Luachraich, Munerigie March 2014, A Report for Gregor Cameron Consultancy Ltd by N.G. Hodgetts;
  - Glenbuck and Munerigie Flow Monitoring Project – Final Report, April 2011, Prepared and submitted by HydroLogic;
  - Munerigie Hydropower Scheme Environmental Appraisal – Volume 1: Written Statement, March 2014, EnviroCentre Limited;
  - Munerigie Scheme: Aberchalder Estate, Landscape and Visual Impact Assessment, v4 March 2014, Cragnish Design;
  - Munerigie Hydro Power Scheme: Additional Supporting Morphological and Flood Risk Information Letter, 4<sup>th</sup> March 2014, by Gregor Cameron Consultancy Ltd;
  - Munerigie Hydroscheme – Noise Assessment, submitted to The Highland Council on 27<sup>th</sup> March 2014, Gregor Cameron Consultancy Ltd.

**Reason** : In the interests of the environment in accordance with Policies 57, 58, 59 and 60 of the Highland-wide Local Development Plan.

2. For the avoidance of doubt, no borrowpits, construction compounds or permanent access tracks other than those shown on the approved plans, shall be constructed as part of this planning permission.

**Reason** : To ensure that, if development(s) of this type/ these types are required to support this development that they are properly assessed through the submission of a planning application.

3. **No development shall commence** until a Construction Environmental Management Document (CEMD), in accordance with The Highland Council's Guidance Note on Construction Environmental Management Process for Large Scale Projects (August 2010) (as amended, revoked or re-enacted; with or without modification), has been submitted to, and approved in writing by, the Planning Authority (in consultation with SEPA, SNH and Scottish Water). The CEMD shall be submitted at least three months prior to the intended start date on site and shall include the following:
- i. An updated Schedule of Mitigation (SM) drawing together all approved mitigation proposed in support of the application and other agreed mitigation (including that required by agencies and relevant planning conditions attached to this permission);
  - ii. Change control procedures to manage/action changes from the approved SM, CEMD and Construction Environmental Management Plans;
  - iii. Construction Environmental Management Plans (CEMPs) for the construction phase, covering:
    - a. Habitat and Species Protection;
    - b. Pollution Prevention and Control;
    - c. Dust Management;
    - d. Noise and Vibration Mitigation;
    - e. Site Waste Management;
    - f. Surface and Ground Water Management;
      - i. Drainage and sediment management measures from all construction areas including access track improvements; and
      - ii. Mechanisms to ensure that construction will not take place during periods of high flow or high rainfall.
    - g. Water Course Management;
    - h. Peat Stability, Slide Risk and Management;
    - i. Mitigation to protect Public and Private Water Supplies;
    - j. Mitigation to protect Groundwater-dependant Terrestrial Ecosystems;
    - k. Emergency Response Plans; and
    - l. Other relevant environmental management as may be relevant to the development.
  - iv. Special Study Area plans for:
    - a. Groundwater-dependant Terrestrial Ecosystems;
    - b. Species habitat identified within the Environmental Appraisal and/or raised by consultees;
    - c. Any other specific issue identified within the Environmental Appraisal, Schedule of Mitigation and/or conditions attached to this permission; and
    - d. Protection of the public water supply addressing the precautions identified in Scottish Water's response to the planning application.
  - v. Post-construction restoration and reinstatement of temporary working areas;

- vi. A map showing all temporary and permanent watercourse crossings and description of the crossings proposed;
- vii. Unless conditioned separately as part of this permission, details for the appointment, at the developer's expense, of a suitably qualified Environmental Clerk of Works (ECoW), including roles and responsibilities and any specific accountabilities required by conditions attached to this permission;
- viii. A statement of responsibility to 'stop the job/activity' if a breach or potential breach of mitigation or legislation occurs;
- ix. Details of the new culvert under the A87(T) road to the south of the powerhouse measuring a minimum of 1.5m x 1.2m; and
- x. Methods for monitoring, auditing, reporting and the communication of environmental management on site and with the client, Planning Authority and other relevant parties.

Thereafter, development shall be carried out in accordance with the approved Schedule of Mitigation, Construction Environmental Management Document and any Construction Environmental Management Plans approved thereunder.

**Reason** :To ensure the impacts of construction are well understood by all parties involved with the construction of the project and that best practices are deployed to mitigate the expected impacts of the development on the local environment both generally and with regard to specific resources/features.

- 4. No development shall commence until details of a replacement culvert under the A87(T) road to the south of the site, measuring a minimum of 1.5m x 1.2m, have been submitted to, and agreed in writing by the Planning Authority, in consultation with SEPA. The agreed culvert shall be installed before first operation of the proposed hydro-electric scheme and maintained in perpetuity.

**Reason** : To ensure that the development does not increase the risk of flooding of the A8(T) Road.

- 5. No development shall commence on site until a construction phase Traffic Management Plan (including a routing plan for construction vehicles) has been submitted to, and approved in writing by, the Planning Authority, in consultation with the Trunk Roads Authority. The plan will detail measures to be taken to safeguard traffic, both on the trunk road and using the Munerigie access road, at a location where visibility is reduced. The approved Traffic Management Plan shall be implemented prior to development commencing and remain in place until the development is complete.

**Reason** : To maintain the safety for both trunk road traffic and traffic moving to and from the development.

- 6. No development or works shall take place during the breeding season for Common Scoter. This is defined as 01 June to 30 July.

If work is to continue beyond 01 June all operations shall stop and the developer must carry out a breeding bird survey to ensure no Common Scoter will be impacted by the construction processes. The survey to identify potential impact must extend 750m, in all directions, from the construction site. If Common Scoter are found then work shall not commence until they leave the nest.

If work is to re-commence before 30 July, the developer must carry out a breeding bird survey to ensure no Common Scoter will be impacted by the construction processes. The survey to identify potential impact must extend 750m, in all directions, from the construction site. If Common Scoter are found then work shall not commence until they leave the nest.

**Reason:** To avoid likely significant adverse effects on the West Inverness-shire Lochs Special Protection Area.

7. Tree felling in association with the development shall be restricted to the 12m corridor where the development passes through the existing commercial plantation. Outwith this area no trees are to be cut down, uprooted, topped, lopped (including roots) or wilfully damaged in any way, without the prior written permission of the Planning Authority.

**Reason :** To ensure the protection of retained trees during construction and thereafter.

8. **No development shall commence** until a Tree Planting Plan and maintenance programme has been submitted to and approved in writing by the Planning Authority. The approved Tree Planting Plan shall be implemented in full during the first planting season following commencement of development or as otherwise agreed in writing by the Planning Authority.

**Reason :** In the interest of amenity.

9. All pipelines between the intakes and between the intakes and powerhouse shall be located within a 5m construction corridor, unless otherwise agreed in writing by the Planning Authority. Thereafter, and within three months of the completion of pipe laying, the ground shall be reinstated to a condition comparable with that of the adjoining land, to the satisfaction of the Planning Authority.

**Reason :** To ensure that all ancillary elements of the development are acceptable in terms of visual, landscape noise and environmental impact considerations.

10. **No development shall commence** until a detailed Outdoor Access Plan of public access across the site (as existing, during construction and following completion) has been submitted to, and approved in writing by, the Planning Authority. The plan shall include details showing:

- i. All existing access points, paths, core paths, tracks, rights of way and other routes (whether on land or inland water), and any areas currently outwith or excluded from statutory access rights under Part One of the Land Reform (Scotland) Act 2003, within and adjacent to the application site;

- ii. Any areas proposed for exclusion from statutory access rights, for reasons of privacy, disturbance or effect on curtilage related to proposed buildings or structures;
- iii. All proposed paths, tracks and other routes for use by walkers, riders, cyclists, canoeists, all-abilities users, etc. and any other relevant outdoor access enhancement (including construction specifications, signage, information leaflets, proposals for on-going maintenance etc.);
- iv. Any diversion of paths, tracks or other routes (whether on land or inland water), temporary or permanent, proposed as part of the development (including details of mitigation measures, diversion works, duration and signage).

The approved Outdoor Access Plan, and any associated works, shall be implemented in full before development starts or as otherwise may be agreed within the approved plan.

**Reason :** In order to safeguard public access both during and after the construction phase of the development.

11. All plant, machinery and equipment associated with this development shall be so installed, maintained and operated such that:-

Any associated operating noise does not exceed NR20 when measured or calculated within the bedroom of any noise sensitive premises with windows open for ventilation purposes.

**OR**

The operating noise rating level does not exceed the Background noise level by more than 5dB(A) including any characteristic penalty. Terms and measurements to be in accordance with BS 4142: 1997 Rating industrial noise affecting mixed residential and industrial areas.

(For the purposes of this condition, “noise sensitive premises” includes, but is not necessarily limited to, any building, structure or other development the lawful use of which a) falls within Classes 7 (Hotels and Hostels), 8 (Residential Institutions) or 9 (Houses) of the Town and Country Planning (Use Classes) (Scotland) Order 1997 (as amended), or b) is a flat or static residential caravan.

**Reason :** To ensure that the noise impact of the development does not exceed the predicted noise levels set out within the supporting noise assessment.

12. No development or work shall commence on the powerhouse until full details of the finishes and materials of any doors, shutters, vents and guttering of the powerhouse (including samples where necessary) have been submitted to, and approved in writing by, the Planning Authority. Thereafter, development and work shall progress in accordance with these approved details.

**Reason :** To ensure the final design uses finishes and materials that are suitable in terms of visual impact considerations.

13. No development or work shall commence on the powerhouse until full details of proposed landscaping materials to be used to integrate the powerhouse into the landscape (including details of planting to be used and provision of samples where necessary) have been submitted to, and approved in writing by, the Planning Authority. Thereafter, development and work shall progress in accordance with these approved details.

**Reason :** To ensure the final design uses appropriate landscaping that is suitable in terms of visual impact considerations.

14. No development shall commence until an Environmental Clerk of Works (ECoW) has been appointed by the developer. Their appointment and remit shall first be approved in writing by the Planning Authority (in consultation with SEPA and SNH). For the avoidance of doubt, the ECoW shall be appointed as a minimum for the period from the commencement of development to the final commissioning of the development and their remit shall, in addition to any functions approved in writing by the Planning Authority, include:

- i. Providing training to the developer and contractors on their responsibilities to ensure that work is carried out in strict accordance with environmental protection requirements;
- ii. Monitoring compliance with all environmental and nature conservation mitigation works and working practices approved under this consent;
- iii. Advising the developer on adequate protection for environmental and nature conservation interests within, and adjacent to, the application site;
- iv. Directing the placement of the development (including any micro-siting, if permitted by the terms of this consent) and the avoidance of sensitive features; and
- v. The power to call a halt to development on site where environmental considerations warrant such action.

**Reason :**To ensure the impacts of construction on ecology are well understood by all parties involved with the construction of the project and that best practices are deployed to mitigate the expected ecological impacts of the development on the local environment both generally and with regard to specific resources/features.

## **REASON FOR DECISION**

The proposals accord with the provisions of the Development Plan and there are no material considerations which would warrant refusal of the application.

## **TIME LIMITS**

### **Time Limit for the Implementation of this Planning Permission in Principle**

In accordance with Section 59 of the Town and Country Planning (Scotland) Act 1997 (as amended), an application or applications for the approval of matters specified in conditions attached to this planning permission in principle must be made no later than whichever is the latest of the following:

- i. The expiration of THREE YEARS from the date on this decision notice;
- ii. The expiration of SIX MONTHS from the date on which an earlier application for the requisite approval was refused; or
- iii. The expiration of SIX MONTHS from the date on which an appeal against such refusal was dismissed.

The development to which this planning permission in principle relates must commence no later than TWO YEARS from the date of the requisite approval of any matters specified in conditions (or, in the case of approval of different matters on different dates, from the date of the requisite approval for the last such matter being obtained)., whichever is the later. If development has not commenced within this period, then this planning permission in principle shall lapse.

## **FOOTNOTE TO APPLICANT**

### **Initiation and Completion Notices**

The Town and Country Planning (Scotland) Act 1997 (as amended) requires all developers to submit notices to the Planning Authority prior to, and upon completion of, development. These are in addition to any other similar requirements (such as Building Warrant completion notices) and failure to comply represents a breach of planning control and may result in formal enforcement action.

1. The developer must submit a Notice of Initiation of Development in accordance with Section 27A of the Act to the Planning Authority prior to work commencing on site.
2. On completion of the development, the developer must submit a Notice of Completion in accordance with Section 27B of the Act to the Planning Authority.

Copies of the notices referred to are attached to this decision notice for your convenience.

### **Accordance with Approved Plans & Conditions**

You are advised that development must progress in accordance with the plans approved under, and any conditions attached to, this permission. You must not deviate from this permission without consent from the Planning Authority (irrespective of any changes that may separately be requested at the Building Warrant stage or by any other Statutory Authority). Any pre-conditions (those requiring certain works, submissions etc. prior to commencement of development) must be fulfilled prior to work starting on site. Failure to adhere to this permission and meet the requirements of all conditions may invalidate your permission or result in formal enforcement action.

### **Flood Risk**

It is important to note that the granting of planning permission does not imply there is an unconditional absence of flood risk relating to (or emanating from) the application site. As per Scottish Planning Policy (p.198), planning permission does not remove the liability position of developers or owners in relation to flood risk.

### **Scottish Water**

You are advised that a supply and connection to Scottish Water infrastructure is dependent on sufficient spare capacity at the time of the application for connection to Scottish Water. The granting of planning permission does not guarantee a connection. Any enquiries with regards to sewerage connection and/or water supply should be directed to Scottish Water on 0845 601 8855.

### **Local Roads Authority Consent**

In addition to planning permission, you may require one or more separate consents (such as dropped kerb consent, a road openings permit, occupation of the road permit etc.) from the Trunk Roads Authority and/or the Roads Authority prior to work commencing. These consents may require additional work and/or introduce additional specifications and you are therefore advised to contact your local Trunk Road Authority and / or Roads Authority officer at the earliest possible opportunity.

Failure to comply with access, parking and drainage infrastructure requirements may endanger road users, affect the safety and free-flow of traffic and is likely to result in enforcement action being taken against you under both the Town and Country Planning (Scotland) Act 1997 and the Roads (Scotland) Act 1984.

Further information on the Council's roads standards can be found at: <http://www.highland.gov.uk/yourenvironment/roadsandtransport>

Application forms and guidance notes for access-related consents can be downloaded from:

<http://www.highland.gov.uk/yourenvironment/roadsandtransport/roads/Applicationformsforroadoccupation.htm>

### **Mud & Debris on Road**

Please note that it is an offence under Section 95 of the Roads (Scotland) Act 1984 to allow mud or any other material to be deposited, and thereafter remain, on a public road from any vehicle or development site. You must, therefore, put in place a strategy for dealing with any material deposited on the public road network and maintain this until development is complete.

### **Damage to the Public Road**

Please note that the Council, under Section 96 of the Roads (Scotland) Act 1984, reserves the right to recover all costs for repairing any damage to the public road (and/or pavement) which can be attributed to construction works for this development.



### **Protected Species - Halting of Work**

You are advised that work on site must stop immediately, and Scottish Natural Heritage must be contacted, if evidence of any protected species or nesting/breeding sites, not previously detected during the course of the application and provided for in this permission, are found on site. For the avoidance of doubt, it is an offence to deliberately or recklessly kill, injure or disturb protected species or to damage or destroy the breeding site of a protected species. These sites are protected even if the animal is not there at the time of discovery. Further information regarding protected species and developer responsibilities is available from SNH: [www.snh.gov.uk/protecting-scotlands-nature/protected-species](http://www.snh.gov.uk/protecting-scotlands-nature/protected-species).

### **Protected Species - Ground Nesting Birds:**

Construction/demolition works have the potential to disturb nesting birds or damage their nest sites, and as such, checks for ground nesting birds should be made prior to the commencement of development if this coincides with the main bird breeding season (April - July inclusive). All wild bird nests are protected from damage, destruction, interference and obstruction under the Wildlife and Countryside Act 1981 (as amended). Some birds (listed on schedule 1 of the Wildlife and Countryside Act) have heightened protection where it is also an offence to disturb these birds while they are in or around the nest. For information please see: [www.snh.org.uk/publications/online/wildlife/law/birdseggs.asp](http://www.snh.org.uk/publications/online/wildlife/law/birdseggs.asp)

### **Private Water Supplies:**

Existing private water supplies shall be safeguarded in accordance with the mitigation set out in the Supporting Environmental Information H'Airigh & Liddesdale Hydro electric schemes by Broadland Renewable Energy Ltd dated April 2013.

### **Construction Hours and Noise-Generating Activities**

You are advised that construction work associated with the approved development (incl. the loading/unloading of delivery vehicles, plant or other machinery), for which noise is audible at the boundary of the application site, should not normally take place outwith the hours of 08:00 and 19:00 Monday to Friday, 08:00 and 13:00 on Saturdays or at any time on a Sunday or Bank Holiday in Scotland, as prescribed in Schedule 1 of the Banking and Financial Dealings Act 1971 (as amended).

Work falling outwith these hours which gives rise to amenity concerns, or noise at any time which exceeds acceptable levels, may result in the service of a notice under Section 60 of the Control of Pollution Act 1974 (as amended). Breaching a Section 60 notice constitutes an offence and is likely to result in court action.

If you wish formal consent to work at specific times or on specific days, you may apply to the Council's Environmental Health Officer under Section 61 of the 1974 Act. Any such application should be submitted after you have obtained your Building Warrant, if required, and will be considered on its merits. Any decision taken will reflect the nature of the development, the site's location and the proximity of noise sensitive premises. Please contact [env.health@highland.gov.uk](mailto:env.health@highland.gov.uk) for more information.

Signature: Allan J Todd  
Designation: Area Planning Manager – South  
Author: Simon Hindson  
Background Papers: Documents referred to in report and in case file.  
Relevant Plans: Plan 1 – Layout Plan MUN-PLANNING-002  
Plan 2 – Site Layout Plan MUN-PLANNING-001  
Plan 3 – Site Layout Plan MUN-PLANNING-002  
Plan 4 – Section Plan 163857J-006  
Plan 5 - Intake Structure Allt A Bhainne MUN-IN-001  
Plan 6 - Intake Structure Allt A Bhainne MUN-IN-002  
Plan 7 - Intake Structure Allt A Bhainne MUN-IN-003  
Plan 8 - Intake Structure Allt A Bhainne MUN-IN-003  
Plan 9 - Intake Structure Allt A Bhainne MUN-IN-004  
Plan 10 – Intake Structures 1 and 3 MUN-IN-005  
Plan 11 – Intake Structures 1 and 3 MUN-IN-006  
Plan 12 – Powerhouse Layout Plan MUN-POWERHOUSE-001  
Plan 13 – Powerhouse Elevations/Section MUN-  
POWERHOUSE-004 Version 1

## Appendix 1 – Letters of Representation

Name	Address	Date received	For/Against
Karen and Alex Campbell	Leacan Dubha, Invergarry, PH35 4HR	18.04.2014	Against
Mr Robin Dixon	Robin Dixon & Son Ltd, Barfad Farm Office, Tarbert, PA29 6UL	24.04.2014	Against
Mr and Mrs J Sloggie	Achadhluachraich, Invergarry, PH35 4HR	24.04.2014	Against
Macphee and Partners Solicitors Estate Agents, on behalf of Duncan Grant	Airds House, An Aird, Fort William, PH33 6BL	24.04.2014	Against
Colin and Lauren Grant	Faichemard Farm, Invergarry, PH35 4HG	24.04.2014	Against
John Doddie, for Rodger Doddie	Munerigie Farm, Invergarry	22.04.2014	Against
Mr Michael Dawson	Achadhluachraich, Invergarry PH35 4HR	11.04.2014	Against
Alison Greenshields	e-mail	24.04.2014	Against
Glengarry Community Council		17.05.2014	Against

## Appendix 2 – Habitats Regulations Appraisal

### DEVELOPMENT OF A RUN OF RIVER HYDRO POWER SCHEME INCLUDING THE CONSTRUCTION OF THREE INTAKES, A BURIED PIPELINE AND A POWERHOUSE TO THE NORTH EAST OF MUNERIGIE, INVERGARRY. 14/01222/FUL

#### **CONSIDERATION OF PROPOSALS AFFECTING EUROPEAN SITES**

The West Inverness-shire Lochs status as a classified SPA under the <EC Directive 92/43/EEC, the ‘Habitats Directive,’ and EC Directive 79/409/EEC, the ‘Birds Directive,’> means that The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), the ‘Habitats Regulations,’ apply.

This means that where the conclusion reached by the Council on a development proposal unconnected with the nature conservation management of a Natura 2000 site is that it is likely to have a significant effect on that site, it must undertake an appropriate assessment of the implications for the conservation interests for which the area has been designated. The need for appropriate assessment extends to plans or projects outwith the boundary of the site in order to determine their implications for the interest protected within the site.

This means that the Council, as competent authority, has a duty to:

- \* determine whether the proposal is directly connected with or necessary to site management for conservation; and, if not,
- \* determine whether the proposal is likely to have a significant effect on the site either individually or in combination with other plans or projects; and, if so, then
- \* make an appropriate assessment of the implications (of the proposal) for the site in view of that site's conservation objectives.

The competent authority can only agree to the proposal after having ascertained that it will not adversely affect the integrity of the site. If this is not the case, and there are no alternative solutions, the proposal can only be allowed to proceed if there are imperative reasons of overriding public interest, which in this case can include those of a social or economic nature.

It is evident that the proposal is not connected with or necessary to site management for conservation, hence further consideration is required. Because it may impact on the following factors:

- the impact of construction of the scheme will have on the population of the species as a viable component of the site. There is potential that Common Scoter will nest within the working corridor of the proposed development as the habitat is suitable. Once eggs are incubating, there is potential for the birds and/or nests to be destroyed construction works; and
- the disturbance of the species from construction of the proposal. As Common Scoter can nest up to 1km away from the loch, there is potential during the breeding season for Common Scoter to be disturbed by construction noise.

In the West Inverness-shire Lochs SPA, the proposal may have a significant effect on the qualifying interests. The Council is therefore required to undertake an appropriate assessment of the implications of the proposal for the West Inverness-shire Lochs SPA in view of the site's conservation objectives.

## **APPROPRIATE ASSESSMENT**

While the responsibility to carry out the appropriate assessment rests with the Council, advice contained within Circular 6/1995 is that the assessment can be based on the information submitted in the Environmental Appraisal submitted in support of the application and informed by SNH's appraisal.

### **Appraisal**

In its latest response to the Council, SNH has provided an appraisal of the impact that the proposal is likely to have on the SPA. SNH conclude that subject to the implementation of the following mitigation:

- No development or works shall take place during the breeding season for Common Scoter. This is defined as 01 June to 30 July.
- If work is to continue beyond 01 June all operations shall stop and the developer must carry out a breeding bird survey to ensure no Common Scoter will be impacted by the construction processes. The survey to identify potential impact must extend 750m, in all directions, from the construction site. If Common Scoter are found then work shall not commence until they leave the nest.
- If work is to re-commence before 30 July, the developer must carry out a breeding bird survey to ensure no Common Scoter will be impacted by the construction processes. The survey to identify potential impact must extend 750m, in all directions, from the construction site. If Common Scoter are found then work shall not commence until they leave the nest.









that on this basis the proposal will not adversely affect the integrity of the West Inverness-shire Lochs SPA.

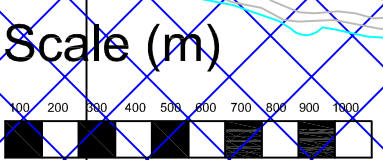
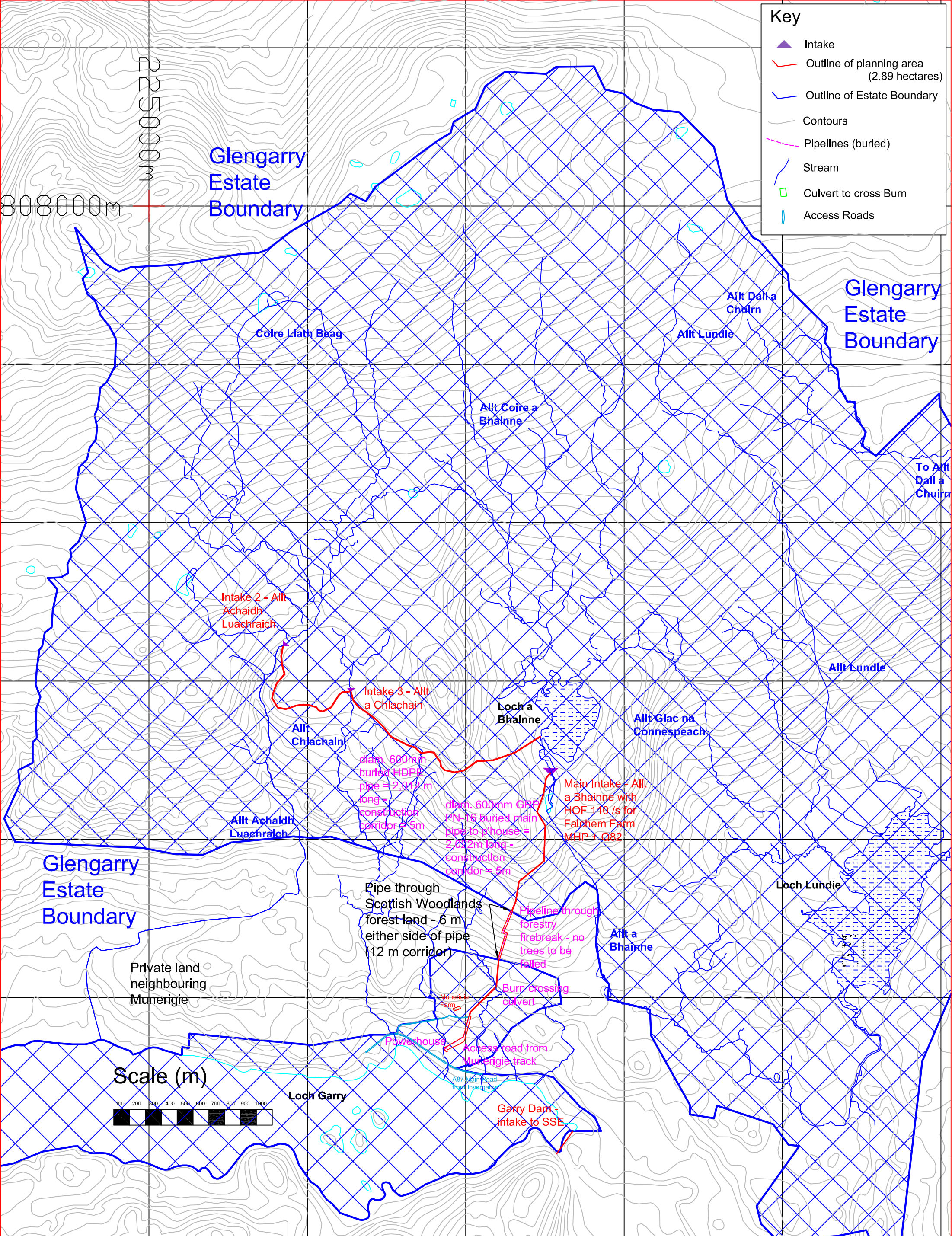
### **Decision**


On the basis of this appraisal and the strict implementation of the aforementioned mitigation it can be concluded that the proposal will not adversely affect the integrity of the West Inverness-shire Lochs SPA.



**Key**

-  Intake
-  Outline of planning area (2.89 hectares)
-  Outline of Estate Boundary
-  Contours
-  Pipelines (buried)
-  Stream
-  Culvert to cross Burn
-  Access Roads











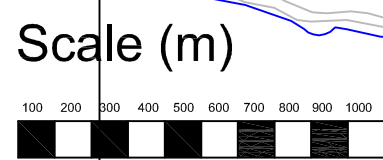
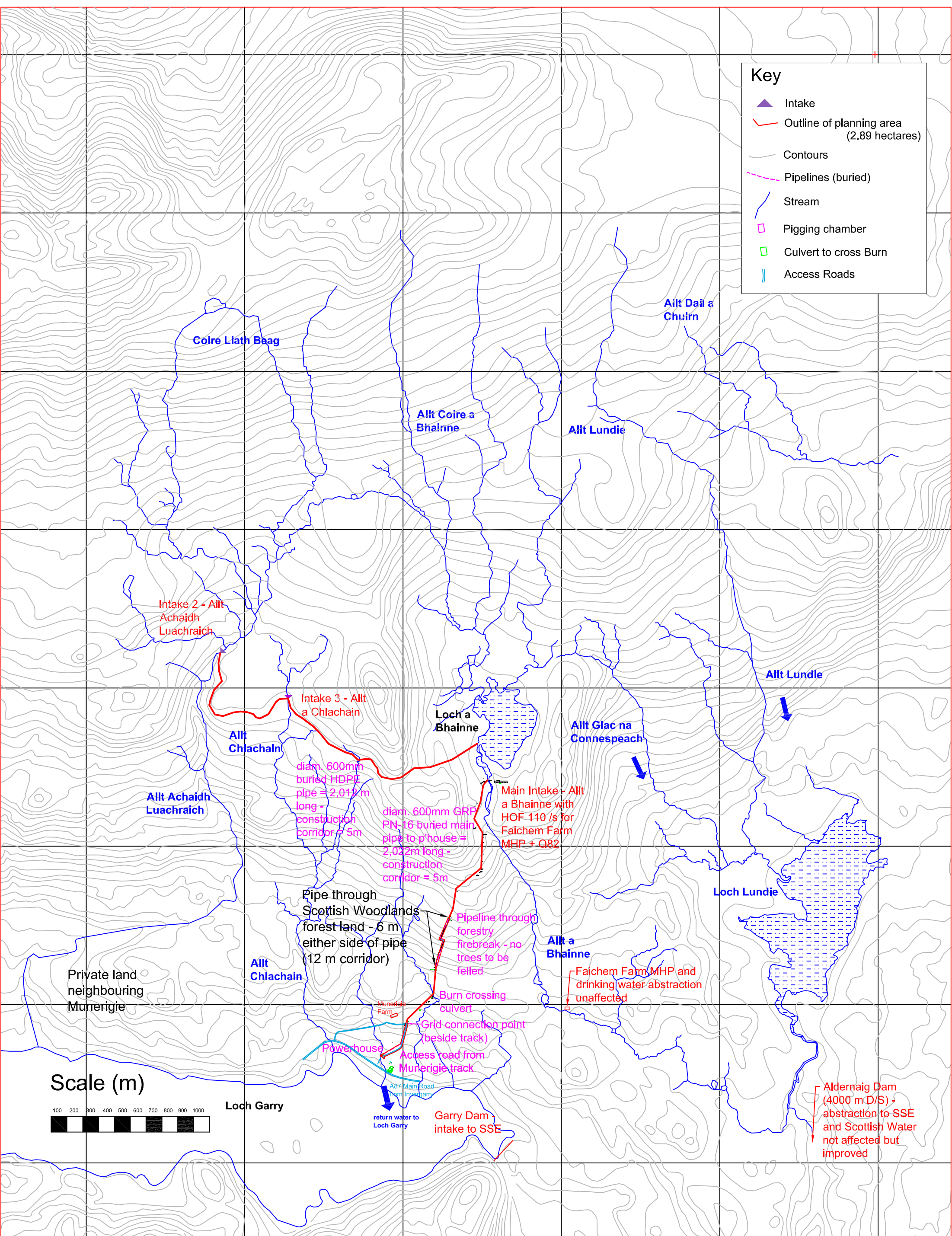
	Drawn by: ST	Checked by: MB	Approved by & date: RTM 12 Mar 2014	Filename: GB and Mun Planning w/ Estate	Date: 12 March 2014	Scale: 1:10,000 [A1]
	Munerigie Hydro Scheme, from Loch a Bhainne, near Invergarry, Scotland			Renewable Design & Development 3 Monmouth Place, Bath, BA1 2AT Tel: 01225 839981		
	Munerigie Hydro Scheme - OVERVIEW PLAN IN ESTATE			DRG. NO. Mun-Planning-002	Issue: 2	Sheet: 2/2


**Glengarry Estate Boundary**



**Key**









-  Intake
-  Outline of planning area (2.89 hectares)
-  Contours
-  Pipelines (buried)
-  Stream
-  Piggling chamber
-  Culvert to cross Burn
-  Access Roads

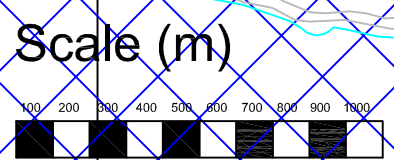
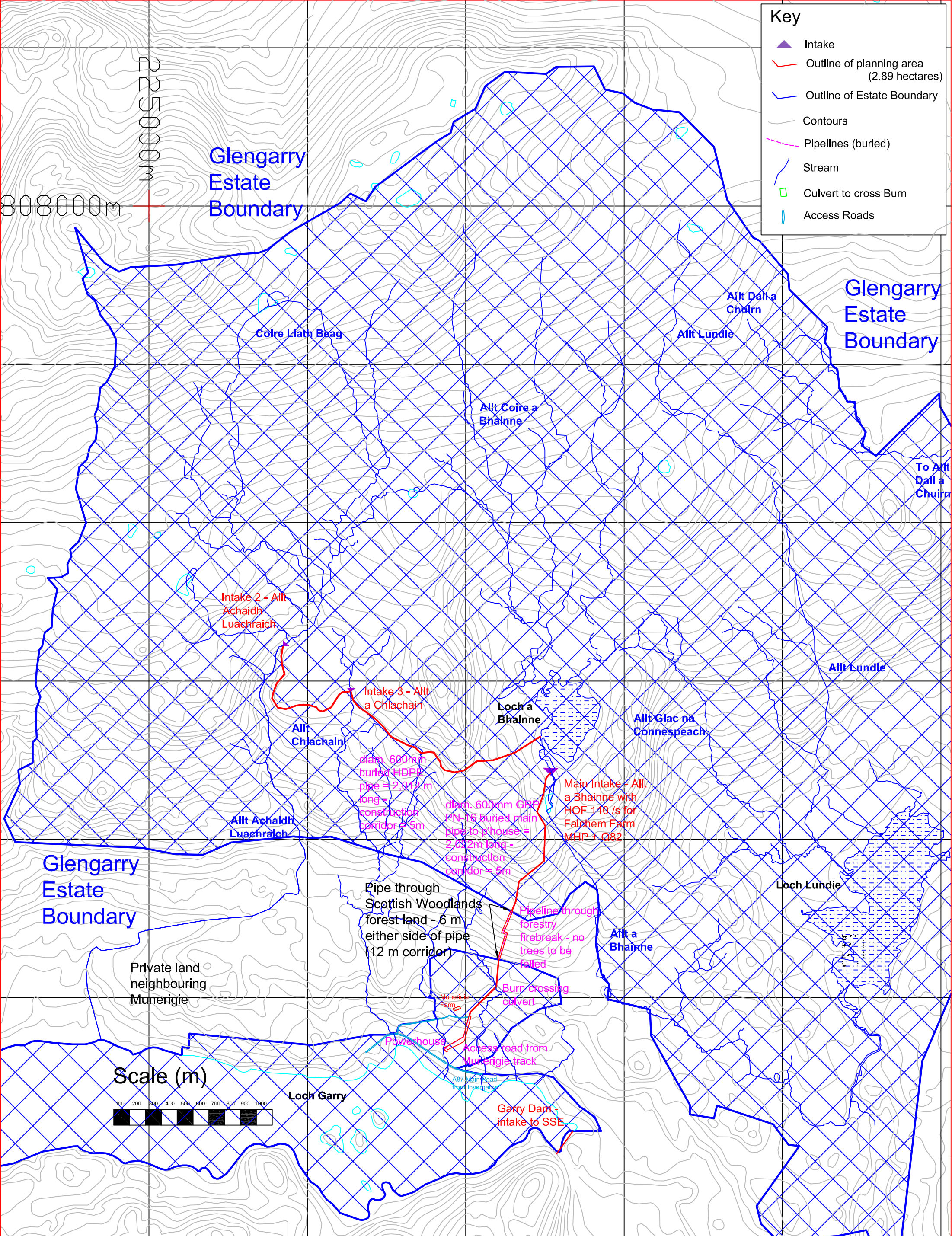



 <p><b>RDD</b> RENEWABLE DESIGN AND DEVELOPMENT</p>	Drawn by: ST	Checked by: MB	Approved by & date: RTM 12 Mar 2104	Filename: Munerie Scheme Planning	Date: 12 March 2014	Scale: 1:10,000 [A1]
	Munerie Hydro Scheme, from Loch a Bhainne, near Invergarry, Scotland		Renewable Design & Development 3 Monmouth Place, Bath, BA1 2AT Tel: 01225 839981			
	Telephone: 01799 841378 E-Mail: simon@rdd.co.uk		DRG. NO. Mun-Planning-001		Issue: 2	Sheet: 1/2



**Key**

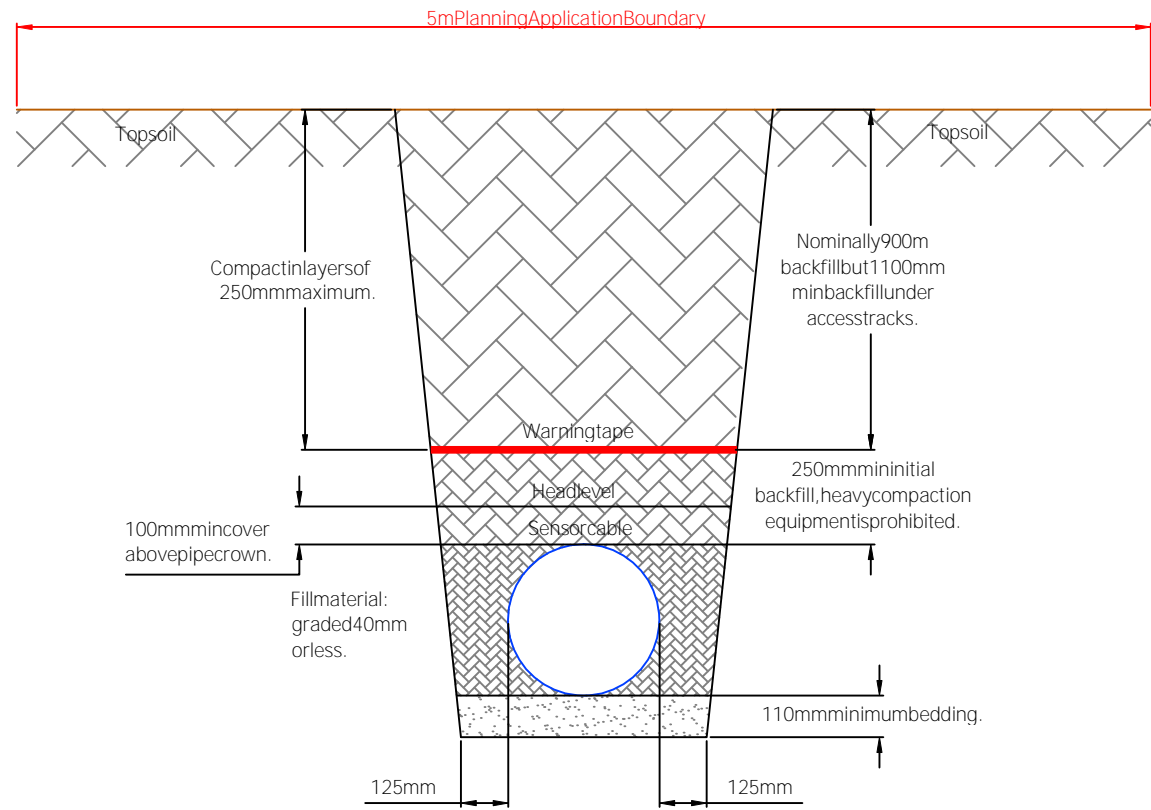
-  Intake
-  Outline of planning area (2.89 hectares)
-  Outline of Estate Boundary
-  Contours
-  Pipelines (buried)
-  Stream
-  Culvert to cross Burn
-  Access Roads



 <p><b>RDD</b> RENEWABLE DESIGN AND DEVELOPMENT</p>	Drawn by: ST	Checked by: MB	Approved by & date: RTM 12 Mar 2014	Filename: GB and Mun Planning w/ Estate	Date: 12 March 2014	Scale: 1:10,000 [A1]
	Munerigie Hydro Scheme, from Loch a Bhainne, near Invergarry, Scotland		Renewable Design & Development 3 Monmouth Place, Bath, BA1 2AT Tel: 01225 839981		Munerigie Hydro Scheme - OVERVIEW PLAN IN ESTATE	
	Telephone: 01799 841378 E-Mail: <a href="mailto:simon@rdd.co.uk">simon@rdd.co.uk</a>	DRG. NO. Mun-Planning-002	Issue: 2	Sheet: 2/2		

**Glengarry Estate Boundary**





Indicative Cross Section through Pipeline

Scale 1:20

Do not scale this drawing

Rev	Date	Amendment	Initials

Craighall Business  
Park, Eagle Street,  
Glasgow, G49XA  
Tel: 0141 3415040  
Fax: 0141 3415045

Client  
Gregor Cameron Consultancy Ltd.

Project  
Merk Hydro Scheme

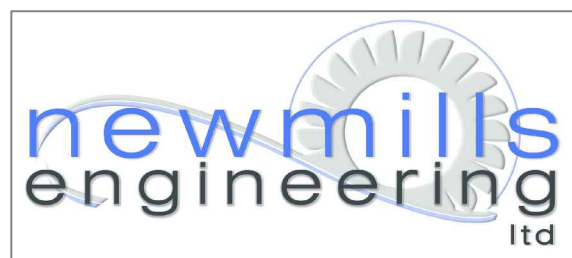
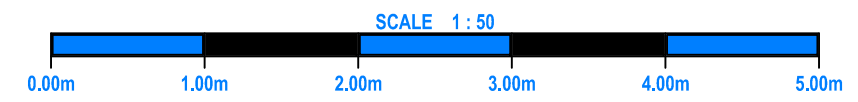
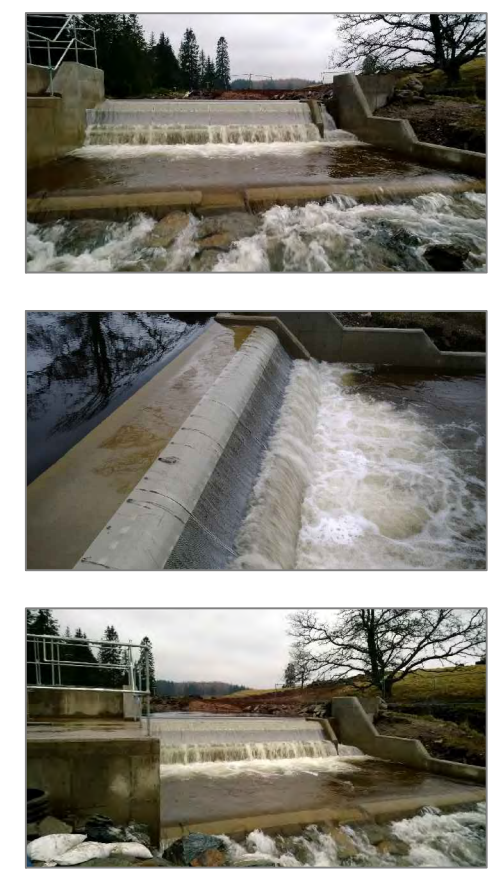
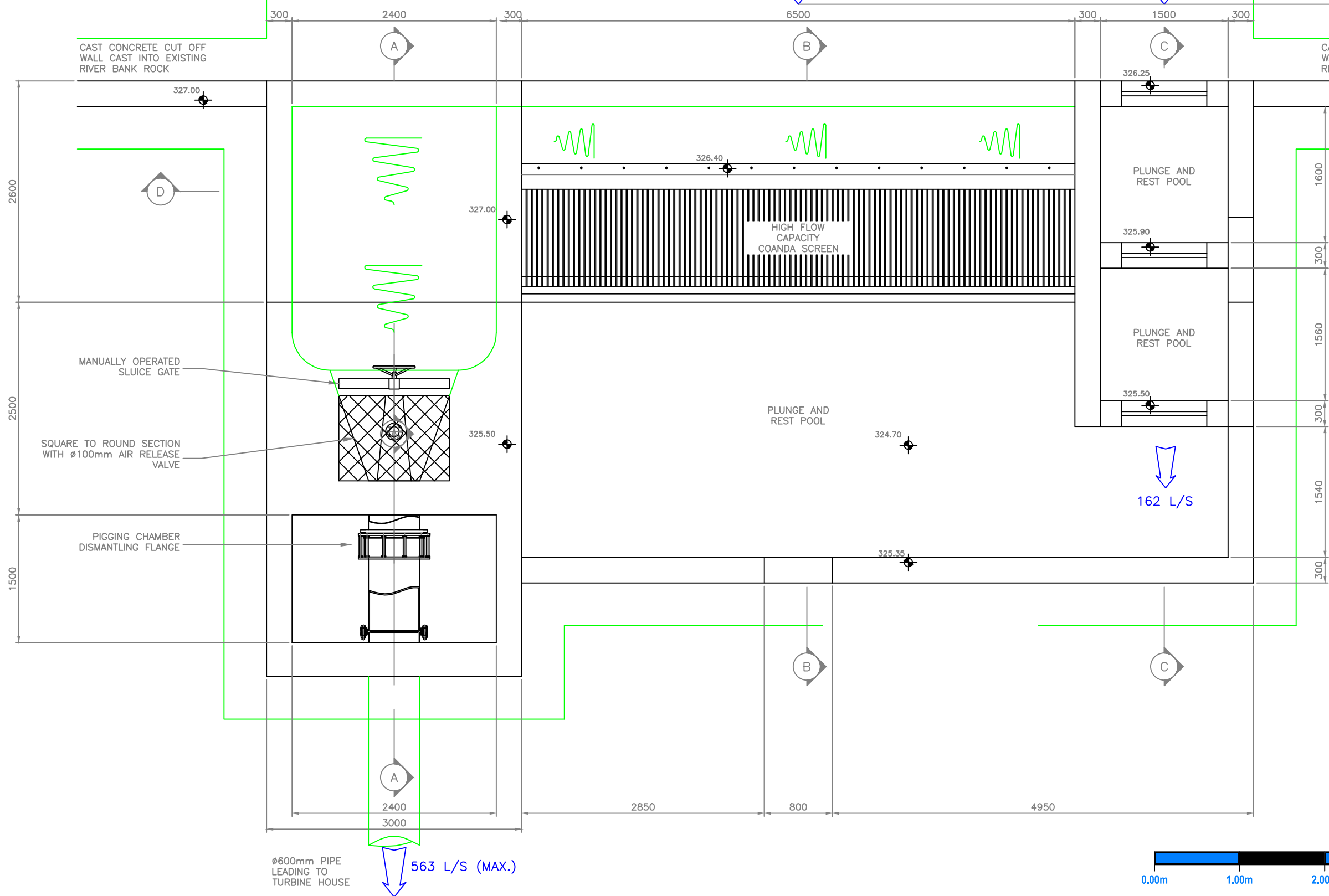
Title  
Cross Section Through Pipeline

Status	WORKING	
Drawing No.	163857J-006	Revision

Filepath: k:\163857\vdrgs\cad

Scale	As shown	A3	Date	22 Jan 2014
Drawn	JS	Checked	FM	Approved
				NG

PLAN - MUNERIGIE HYDRO SCHEME  
 MAIN INTAKE STRUCTURE ON  
 ALLT a BHAINNE



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 N.Ireland, BT38 9JW  
 Tel: +44 (0)28 93353220  
 Fax: +44 (0)28 93353220  
 Info@newmillshydro.com  
 www.newmillshydro.com

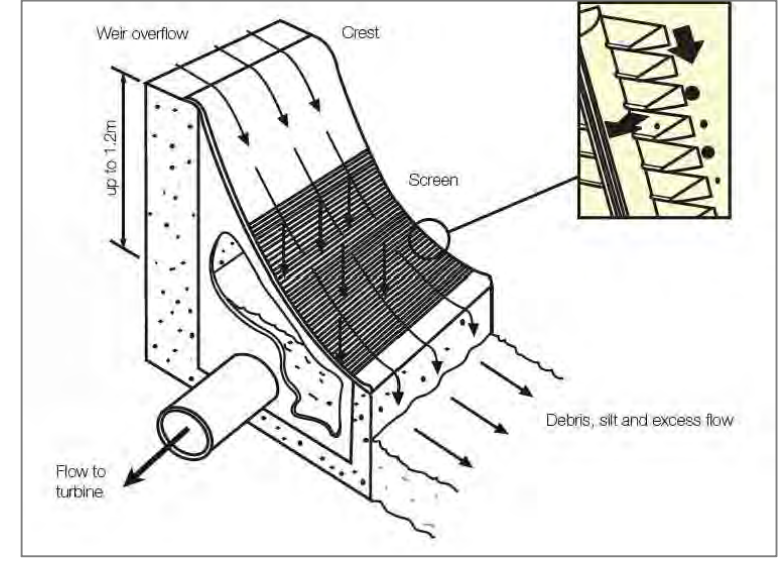
CONTRACT	MUNERIGIE HYDRO SCHEME	DRAWING NO.	MUN-IN-001	DATE	ISSUED 16-09-2013
JOB DISCIPTION	PLAN MAIN INTAKE STRUCTURE ALLT A BHAINNE	REVISION NO.	D	DRAWN BY	W.MCQUITTY
COMMENTS	MAIN INTAKE STRUCTURE WITH SPILLWAYS AND PIGGING CHAMBER	FILE REF. NO.	MUN-INTAKES	CHECKED BY	RTM/ST
MATERIAL NOTES	N/A	SHEET NO.	1 OF 7	SCALE	N.T.S
				PRINT SIZE	A3

No.	Revisions	DATE.	BY.	APP.
A	DETAILED DESIGN CHANGES	06/12/2012	WMCQ	RTM / ST
B	04-01-13 ST DETAIL ADDED	09/01/2013	WMCQ	ST
C	LEVEL ERR - MAIN INTAKE	11/09/2013	WMCQ	ST
D	COANDA SCREEN DESIGN	26/02/2014	WMCQ	RTM / JON
E	-	-	-	-
F	-	-	-	-
G	-	-	-	-

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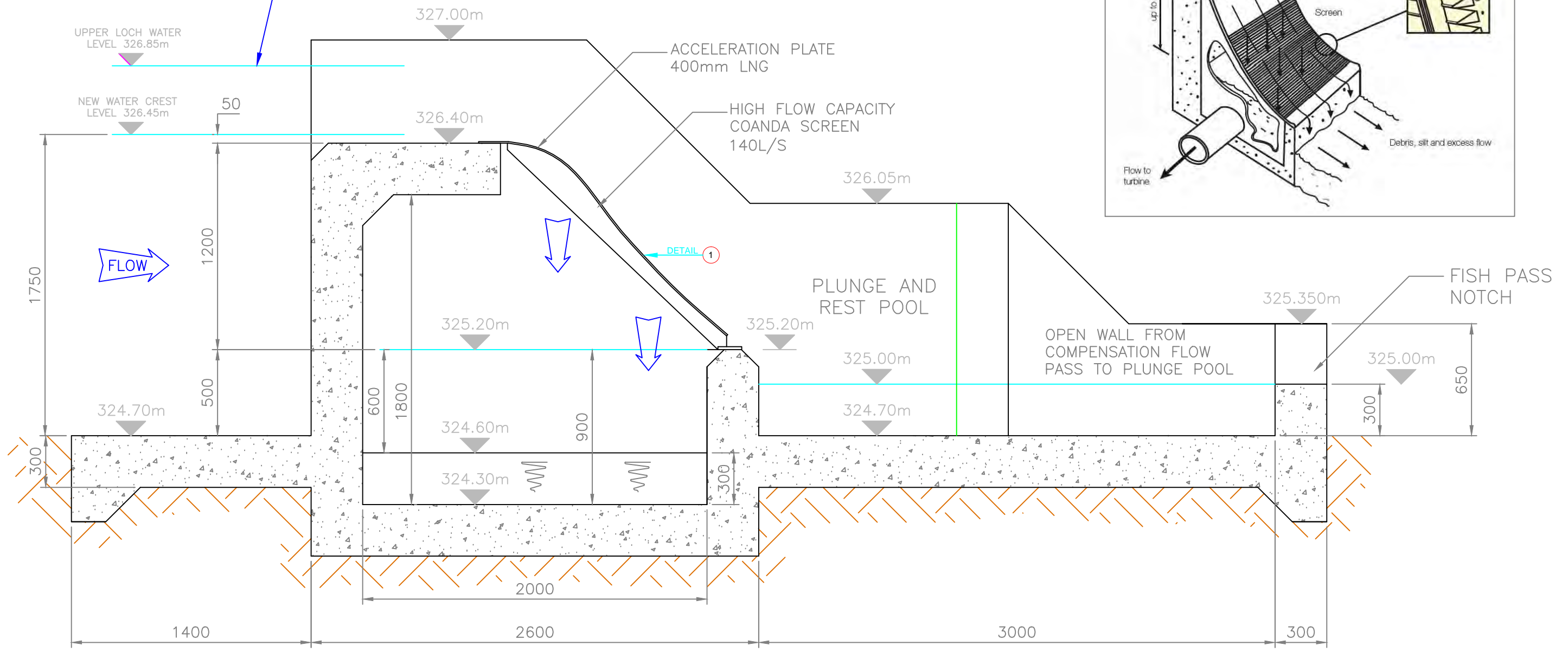
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1-1 Detail  
Coanda screen

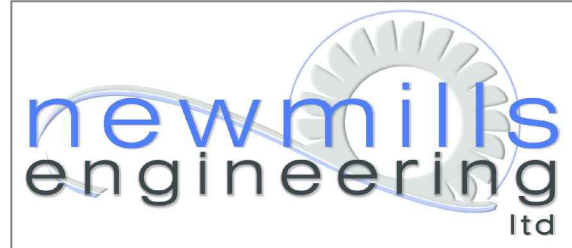


CAPACITY OF WEIR BEFORE REACHES LOCH A BHAINNE  
 LEVEL =  $1.75 \times ((4.7m + 2.6m) + 0.003) \times 0.45m^{1.5} +$   
 TURBINE @  $0.522 \text{ m}^3/\text{s} = 4.38 \text{ m}^3/\text{s}$

FOR REFERENCE, LARGEST ALLT A BHAINNE FLOW AT  
 THIS POINT MEASURED BY HYDROLOGIC =  $3.58 \text{ m}^3/\text{s}$  (2  
 FEB 2011 AT 14:00)



B-B Section  
Coanda screen typical



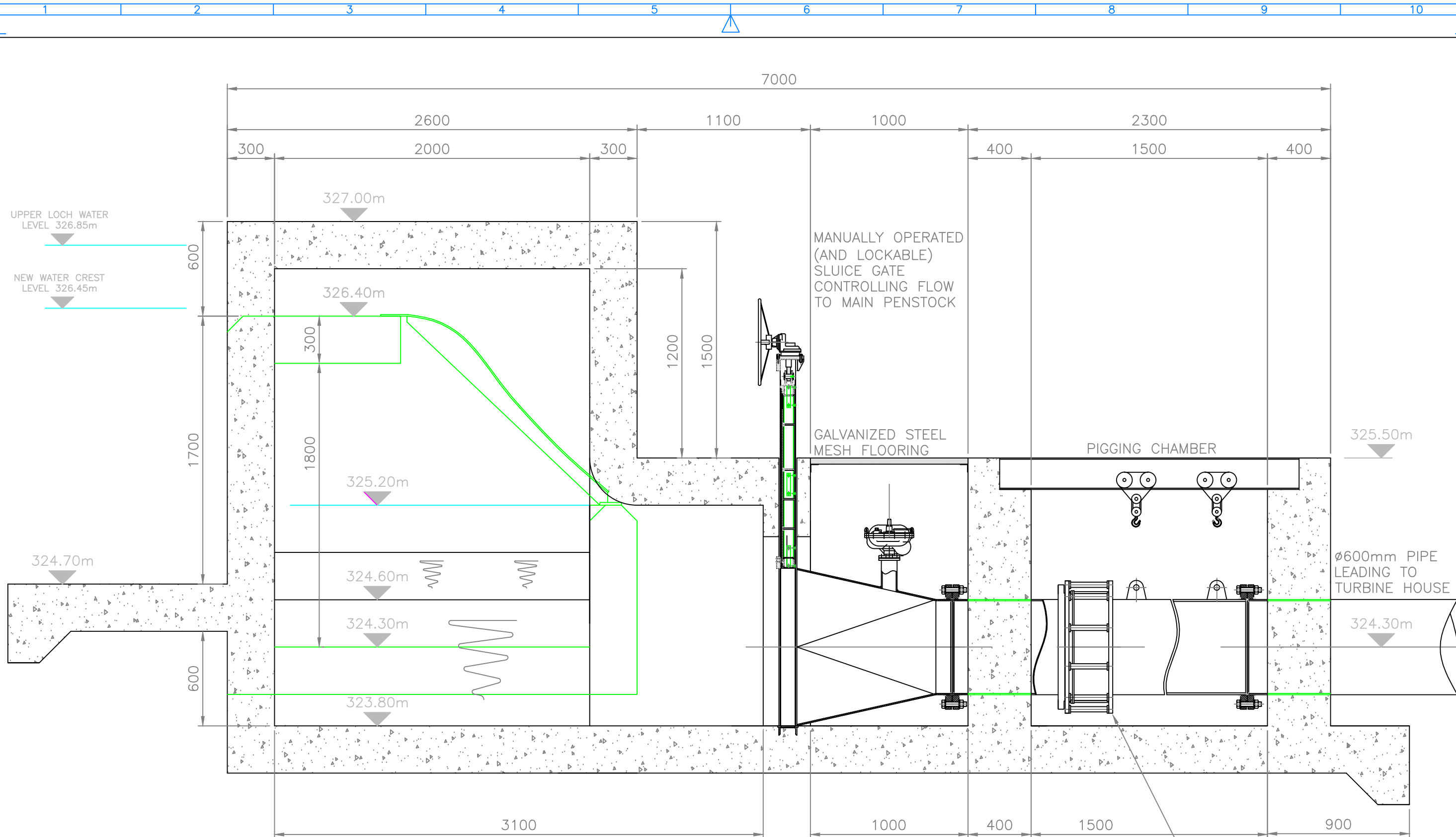
**Newmills Engineering Ltd**  
 Mill Lane, Island Road, Ballycarry,  
 Carrickfergus, Co. Antrim,  
 N.Ireland, BT38 9JW

Voice: +44 (0)28 93353220  
 Fax: +44 (0)28 93353220  
 Info@newmillshydro.com  
 www.newmillshydro.com

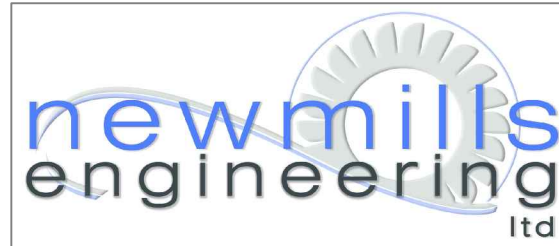
CONTRACT	MUNERIGIE HYDRO SCHEME	DRAWING NO.	MUN-IN-002	DATE	ISSUED 16-09-2013	No.	Revisions	DATE.	BY.	APP.
JOB DISCRPTION	MAIN INTAKE SCEEN ALLT A BHAINNE	REVISION NO.	D	DRAWN BY	W.MCQUITTY	A	DETAILED DESIGN CHANGES	06/12/2012	WMCQ	RTM / ST
COMMENTS	MAIN INTAKE STRUCTURE WITH SCREENS	FILE REF. NO.	MUN-INTAKES	CHECKED BY	RTM/ST	B	04-01-13 ST DETAIL ADDED	09/01/2013	WMCQ	ST
MATERIAL NOTES	N/A	SHEET NO.	2 OF 7	SCALE.	N.T.S	C	LEVEL ERR. - MAIN INTAKE	11/09/2013	WMCQ	ST
				PRINT SIZE.	A3	D	COANDA SCREEN DESIGN	26/02/2014	WMCQ	RTM / JON
						E		-	-	-
						F		-	-	-
						G		-	-	-

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**Section A-A**  
**Distilling and Pigging Chamber Typical**

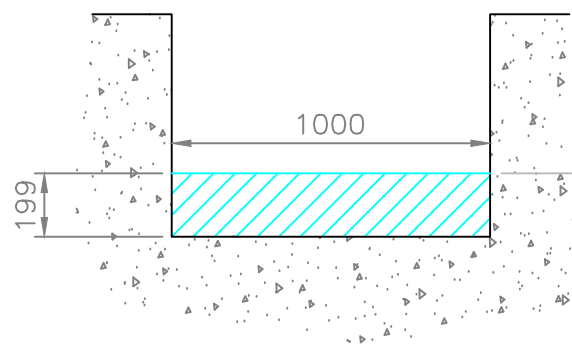


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 Fax: +44 (0)28 93353220  
 Info@newmillshydro.com  
 www.newmillshydro.com

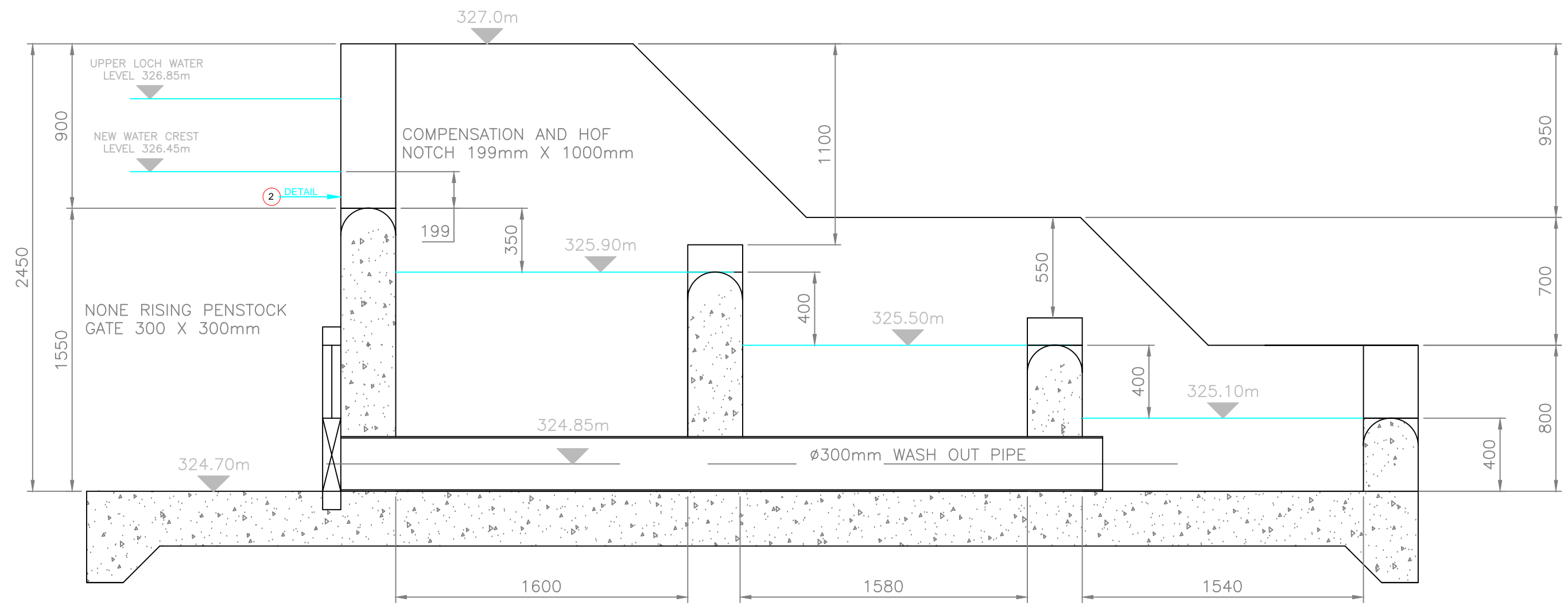
CONTRACT	MUNERIGIE HYDRO SCHEME	DRAWING NO.	MUN-IN-003	DATE	ISSUED 16-09-2013	No.	Revisions	DATE.	BY.	APP.
JOB DISCRPTION	PIPE MAIN INTAKE AT ALLT A BHAINNE	REVISION NO.	D	DRAWN BY	W.MCQUITTY	A	DETAILED DESIGN CHANGES	06/12/2012	WMCQ	RTM / ST
COMMENTS	MAIN INTAKE STRUCTURE WITH SPILLWAYS AND PIGGING CHAMBER	FILE REF. NO.	MUN-INTAKES	CHECKED BY	RTM/ST	B	04-01-13 ST DETAIL ADDED	09/01/2013	WMCQ	ST
MATERIAL NOTES	N/A	SHEET NO.	3 OF 7	SCALE.	N.T.S	C	LEVEL ERR. - MAIN INTAKE	11/09/2013	WMCQ	ST
				PRINT SIZE.	A3	D	COANDA SCREEN DESIGN	26/02/2014	WMCQ	RTM / JON
						E		-	-	-
						F		-	-	-
						G		-	-	-

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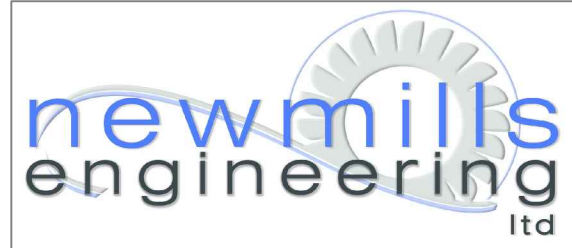
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COMPENSATION AND HANDS OFF FLOW = 162 L/s



**Section C-C Fish Pass and Compensation Flow Typical**



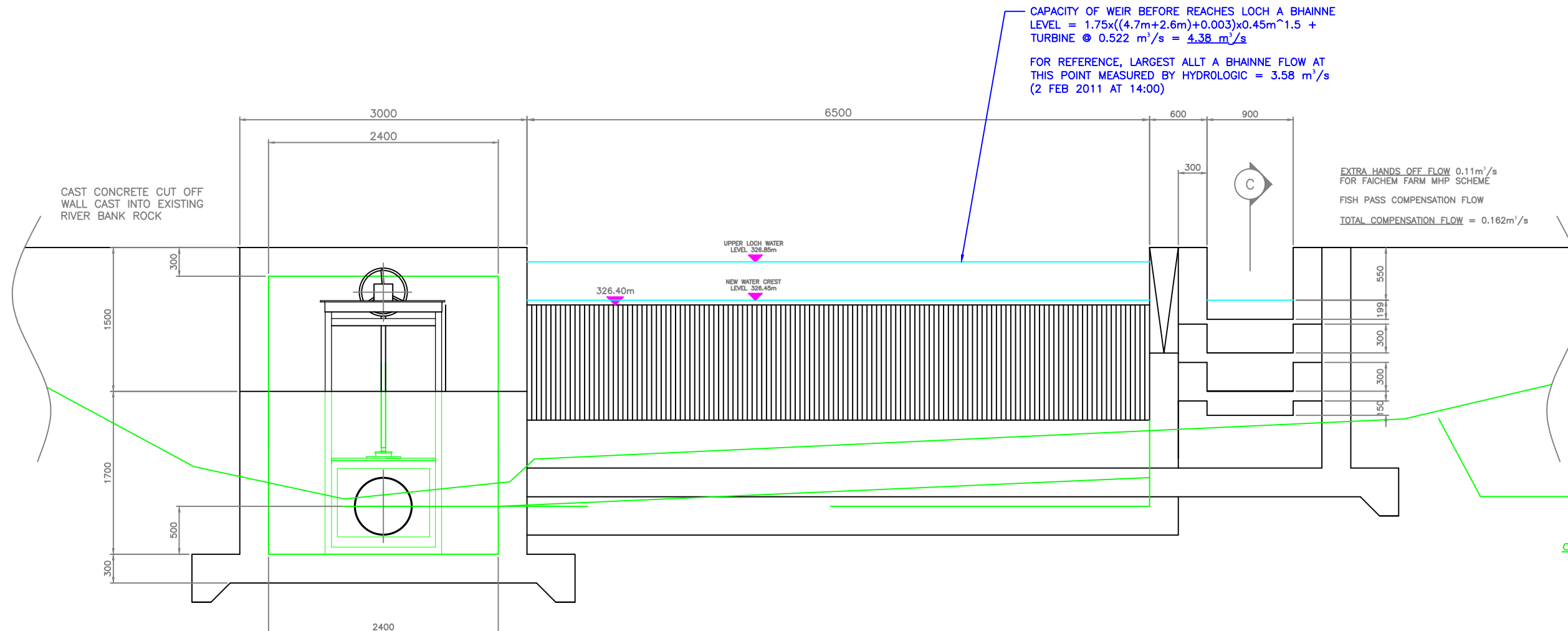
**Newmills Engineering Ltd**  
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 www.newmillshydro.com

CONTRACT	MUNERIGIE HYDRO SCHEME	DRAWING NO.	MUN-IN-003	DATE	ISSUED 16-09-2013	No.	Revisions	DATE.	BY.	APP.
JOB DISCRIPTION	PIPE MAIN INTAKE AT ALLT A BHAINNE	REVISION NO.	D	DRAWN BY	W.MCQUITTY	A	DETAILED DESIGN CHANGES	06/12/2012	WMCQ	RTM / ST
COMMENTS	MAIN INTAKE STRUCTURE COMPENSATION FLOW AND FISH PASS	FILE REF. NO.	MUN-INTAKES	CHECKED BY	RTM/ST	B	04-01-13 ST DETAIL ADDED	09/01/2013	WMCQ	ST
MATERIAL NOTES	N/A	SHEET NO.	3 OF 7	SCALE.	N.T.S	C	LEVEL ERR. - MAIN INTAKE	11/09/2013	WMCQ	ST
				PRINT SIZE.	A3	D	COANDA SCREEN DESIGN	26/02/2014	WMCQ	RTM / JON
						E		-	-	-
						F		-	-	-
						G		-	-	-

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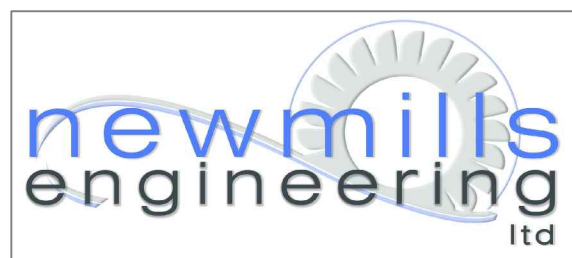
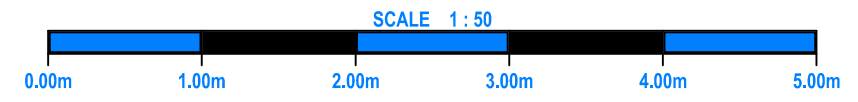


CAPACITY OF WEIR BEFORE REACHES LOCH A BHAINNE  
 LEVEL =  $1.75 \times ((4.7\text{m} + 2.6\text{m}) + 0.003) \times 0.45\text{m}^{1.5} +$   
 TURBINE @  $0.522 \text{ m}^3/\text{s} = 4.38 \text{ m}^3/\text{s}$

FOR REFERENCE, LARGEST ALLT A BHAINNE FLOW AT  
 THIS POINT MEASURED BY HYDROLOGIC =  $3.58 \text{ m}^3/\text{s}$   
 (2 FEB 2011 AT 14:00)

EXTRA HANDS OFF FLOW  $0.11 \text{ m}^3/\text{s}$   
 FOR FAICHEM FARM MHP SCHEME  
 FISH PASS COMPENSATION FLOW  
 TOTAL COMPENSATION FLOW =  $0.162 \text{ m}^3/\text{s}$

RIVER SURVEY SECTION  
 PROFILE  
 SPATIAL DATA LIMITED  
 chartered land surveyors  
 AUGUST 2008  
 CREW: NR,BC,RB  
 CHK: NR



**Newmills Engineering Ltd**  
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 Carrickfergus, Co. Antrim,  
 N.Ireland, BT38 9JW  
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 Fax: +44 (0)28 93353220  
 Info@newmillshydro.com  
 www.newmillshydro.com

CONTRACT	MUNERIGIE HYDRO SCHEME	DRAWING NO.	MUN-IN-004	DATE	ISSUED 16-09-2013	No.	Revisions	DATE.	BY.	APP.
JOB DISCRIPTION	MAIN INTAKE STRUCTURE ALLT A BHAINNE	REVISION NO.	C	DRAWN BY	W.MCQUITTY	A	DETAILED DESIGN CHANGES	06/12/2012	WMCQ	RTM / ST
COMMENTS	MAIN INTAKE STRUCTURE WITH SPILLWAYS AND PIGGING CHAMBER	FILE REF. NO.	MUN-INTAKES	CHECKED BY	RTM/ST	B	LEVEL ERR. MAIN INTAKE	11/09/2013	WMCQ	ST
MATERIAL NOTES	N/A	SHEET NO.	4 OF 7	SCALE.	N.T.S	C	COANDA SCREEN DESIGN	26/02/2014	WMCQ	RTM / JON
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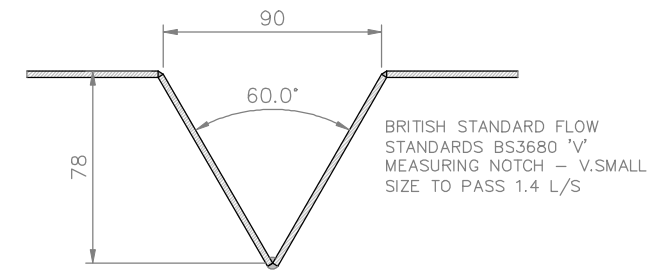
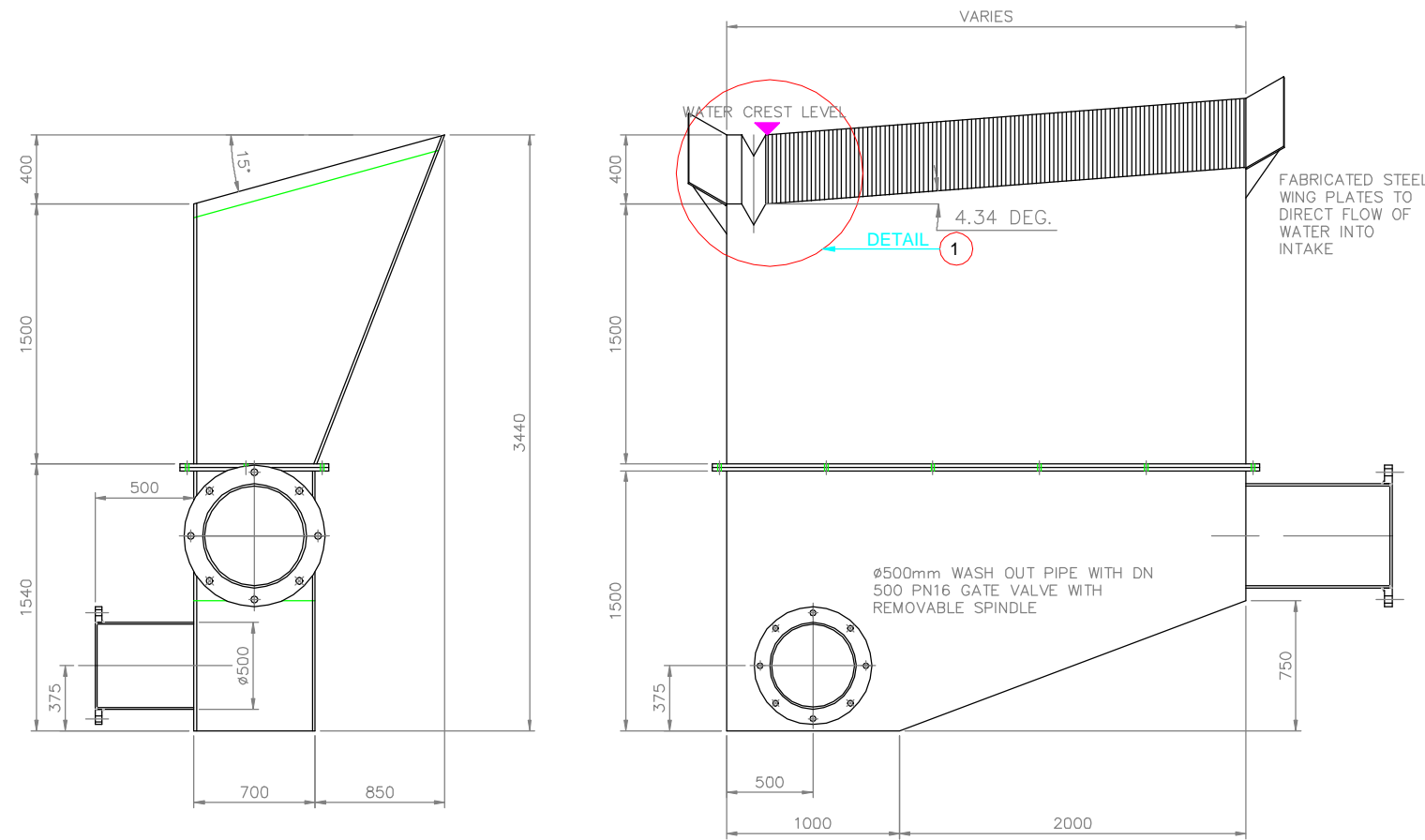
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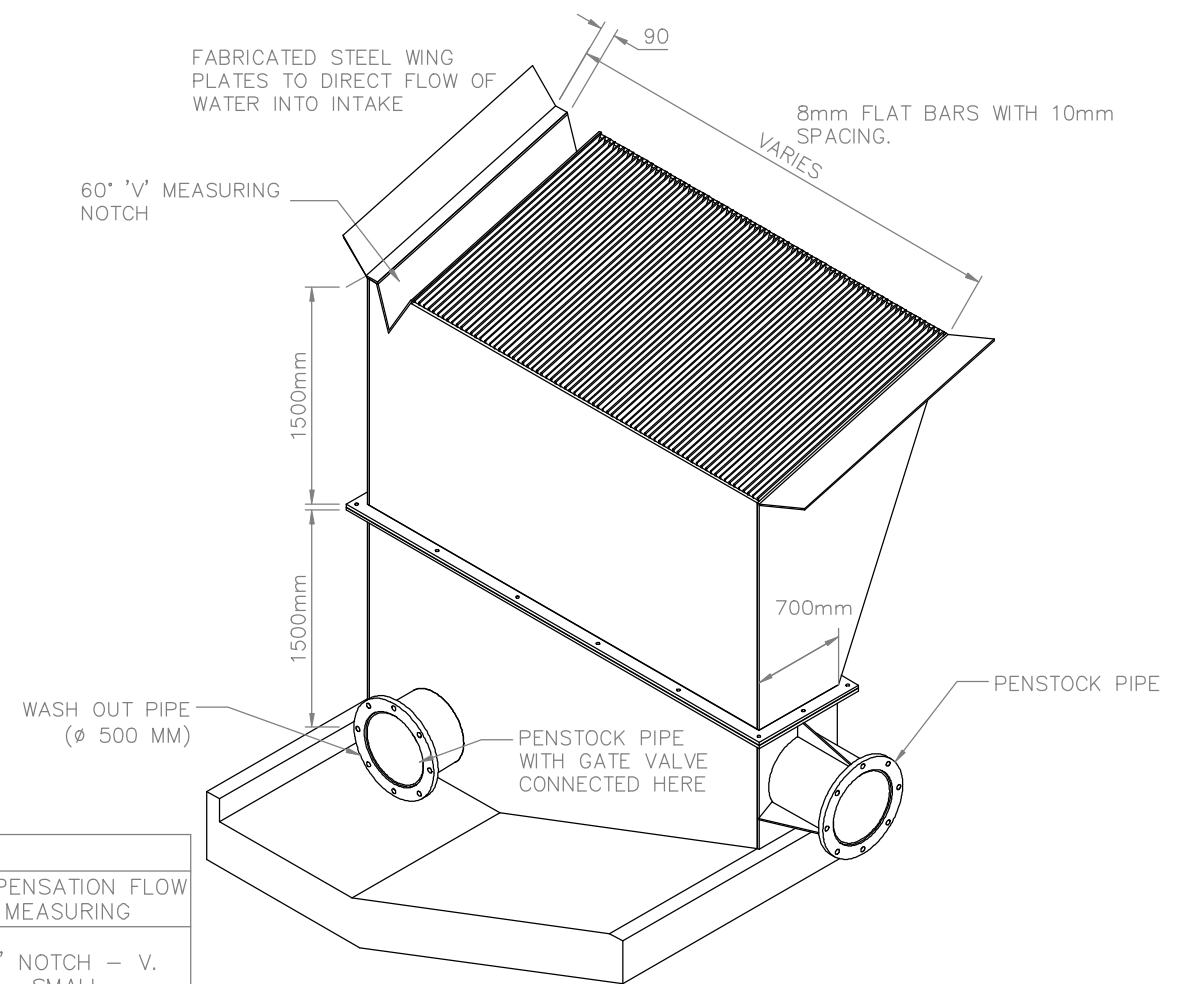
# MUNERIGIE HYDRO SCHEME - WASH OVER INTAKE 3

INTAKE SCREEN 3 ANGLED AT 4.34 DEG. TO ALLOW VARIABLE ABSTRACTION RATE ACCORDING TO RDD TO BE CONFIRMED WITH SEPA PRIOR TO CONSTRUCTION

STEEL FABRICATED NOTCHES –NOT TO SCALE



DETAIL - V. SMALL 1



NOTE: PENSTOCK PIPE ORIENTATION (LOOKING DOWNSTREAM)

## MUNERIGIE SMALL INTAKE STRUCTURES TYPICAL STEEL FABRICATION

MUNERIGIE HYDRO SCHEME INTAKE SUMMARY

INTAKE NUMBER	NAME	FLOW m <sup>3</sup> /s	CREST LEVEL	WEIR WIDTH	PENSTOCK DIAMETER	PENSTOCK ORIENTATION	COMPENSATION FLOW MEASURING
3	ALLT a CHLACHAIN	0.037 m <sup>3</sup> /s	362m	1250 mm	ø650 mm	LEFT HAND	'V' NOTCH – V. SMALL

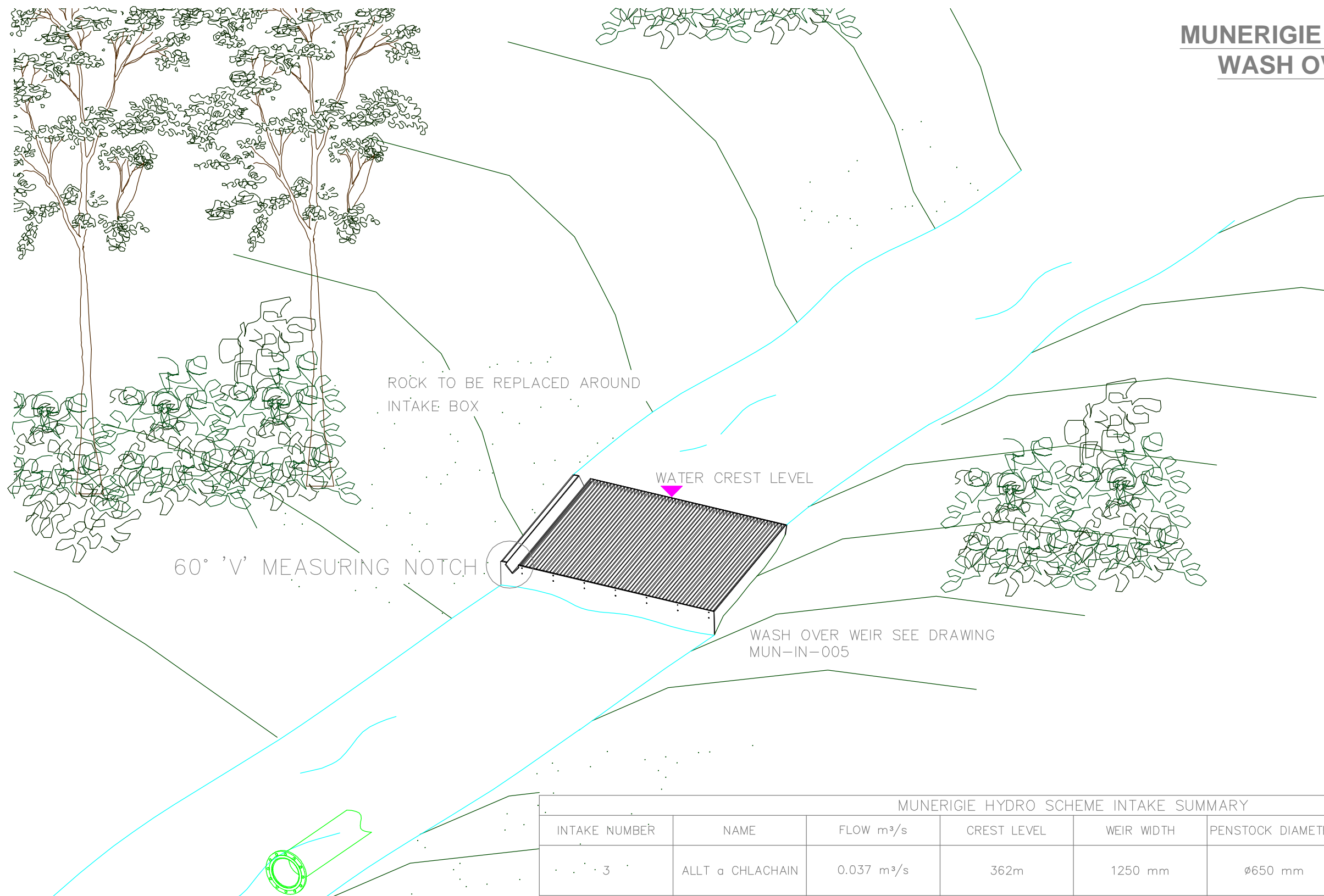
**Newmills Engineering Ltd**  
Mill Lane, Island Road, Ballycarr y,  
Carrickfergus, Co. Antrim,  
N.Ireland, BT38 9JW  
  
Tel:- +44 (0)28 93378389  
Fax:- +44 (0)28 93353220  
Info@newmillshydro.com  
www.newmillshydro.com

CONTRACT	MUNERIGIE HYDRO SCHEME	DRAWING NO.	MUN-IN-005	DATE	ISSUED 16-09-2013
JOB DISCRIPTION	FABRICATED INTAKE STRUCTURES 1 & 3	REVISION NO.	D	DRAWN BY	W.MCQUITTY
COMMENTS		FILE REF. NO.	MUN-INTAKES	CHECKED BY	RTM/ST
MATERIAL NOTES	N/A	SHEET NO.	5 OF 7	SCALE:	N.T.S
				PRINT SIZE:	A3

No.	Revisions	DATE.	BY.	APP.
A	DETAILED DESIGN CHANGES	06/12/2012	WMCQ	RTM / ST
B	ANGLED FOR VAR. ABSTR.	11/09/2013	WMCQ	ST
C	REMOVE REF TO INTAKE 1	20/02/2014	JON	ST
D	ABS FLOW UPDATE	20/02/2014	JON	ST
E				
F				
G				

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# MUNERIGIE HYDRO SCHEME - WASH OVER INTAKE 3



60° 'V' MEASURING NOTCH

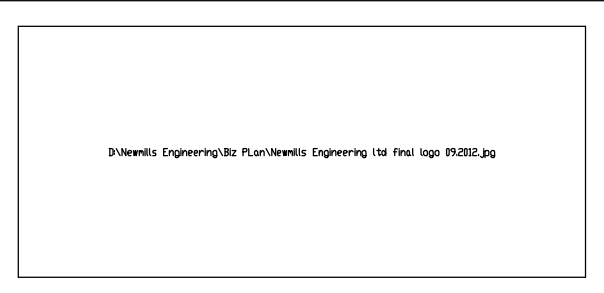
ROCK TO BE REPLACED AROUND INTAKE BOX

WATER CREST LEVEL

WASH OVER WEIR SEE DRAWING MUN-IN-005

SUBMERGED SAND DRAIN POSITIONED DOWNSTREAM OF INTAKE WEIR

MUNERIGIE HYDRO SCHEME INTAKE SUMMARY							
INTAKE NUMBER	NAME	FLOW m <sup>3</sup> /s	CREST LEVEL	WEIR WIDTH	PENSTOCK DIAMETER	PENSTOCK ORIENTATION	COMPENSATION FLOW MEASURING
3	ALLT a CHLACHAIN	0.037 m <sup>3</sup> /s	362m	1250 mm	ø650 mm	LEFT HAND	'V' NOTCH - V. SMALL



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 Carrickfergus, Co. Antrim,  
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 Tel:- +44 (0)28 93378389  
 Fax:- +44 (0)28 93353220  
 Info@newmillshydro.com  
 www.newmillshydro.com

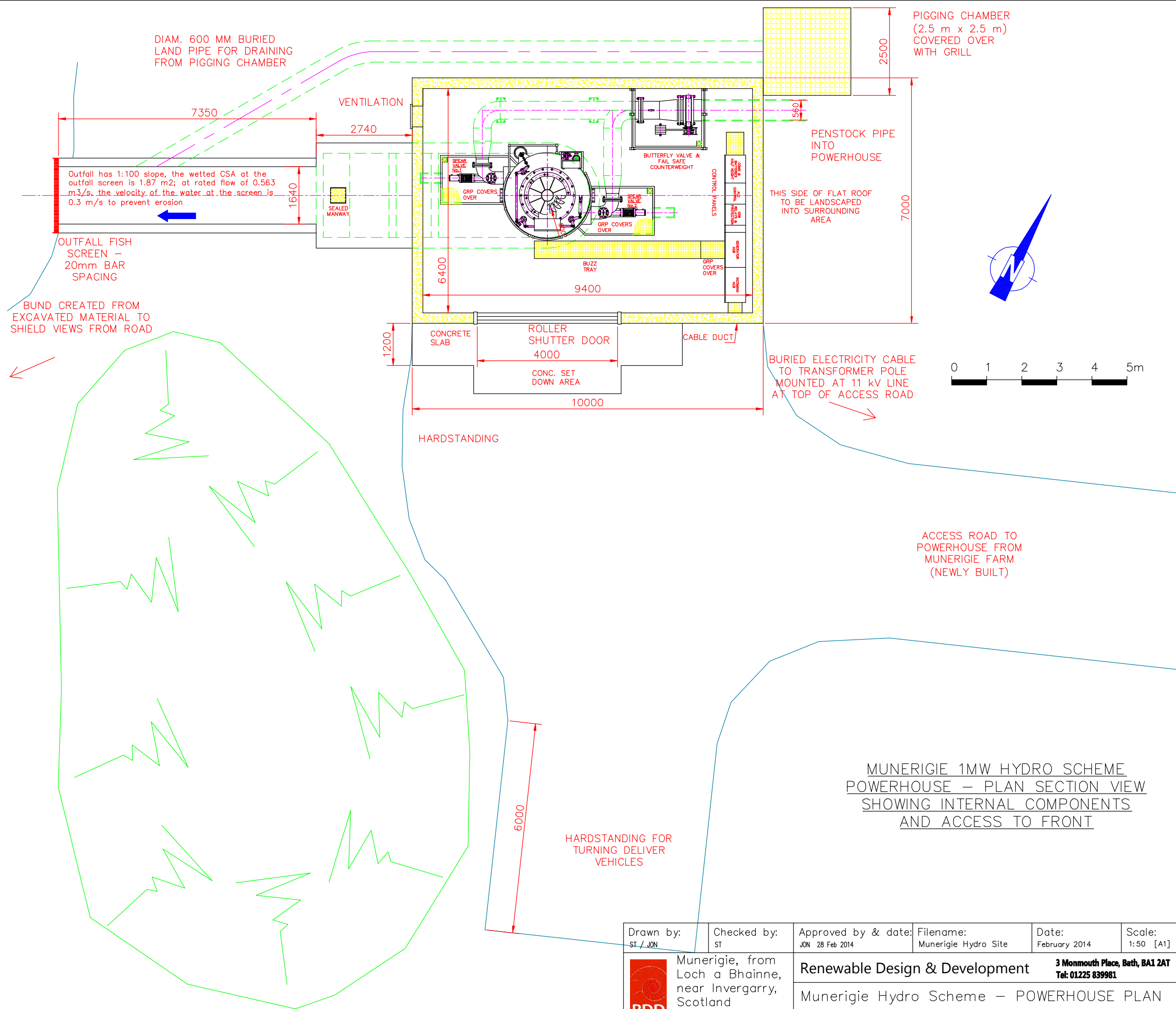
CONTRACT	MUNERIGIE HYDRO SCHEME	DRAWING NO.	MUN-IN-006	DATE	ISSUED 16-09-2013
JOB DISCRPTION	FABRICATED INTAKE STRUCTURES 1 & 3	REVISION NO.	D	DRAWN BY	W.MCQUITTY
COMMENTS		FILE REF. NO.	MUN-INTAKES	CHECKED BY	RTM/ST
MATERIAL NOTES	N/A	SHEET NO.	6 OF 7	SCALE:	N.T.S
				PRINT SIZE:	A3

No.	Revisions	DATE.	BY.	APP.
A	DETAILED DESIGN CHANGES	06/12/2012	WMCQ	RTM / ST
B	ANGLED FOR VAR. ABSTR.	11/09/2013	WMCQ	ST
C	REMOVE REF TO INTAKE 1	20/02/2014	JON	ST
D	ABS FLOW UPDATED	20/02/2014	JON	ST
E	-	-	-	-
F	-	-	-	-
G	-	-	-	-

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Drawn by: ST / JON	Checked by: ST	Approved by & date: JON 28 Feb 2014	Filename: Munerigie Hydro Site	Date: February 2014	Scale: 1:50 [A1]
-----------------------	-------------------	--	-----------------------------------	------------------------	---------------------

 RDD RENEWABLE DESIGN AND DEVELOPMENT	Munerigie, from Loch a Bhainne, near Invergarry, Scotland	3 Monmouth Place, Bath, BA1 2AT Tel: 01225 839981
---	---	--

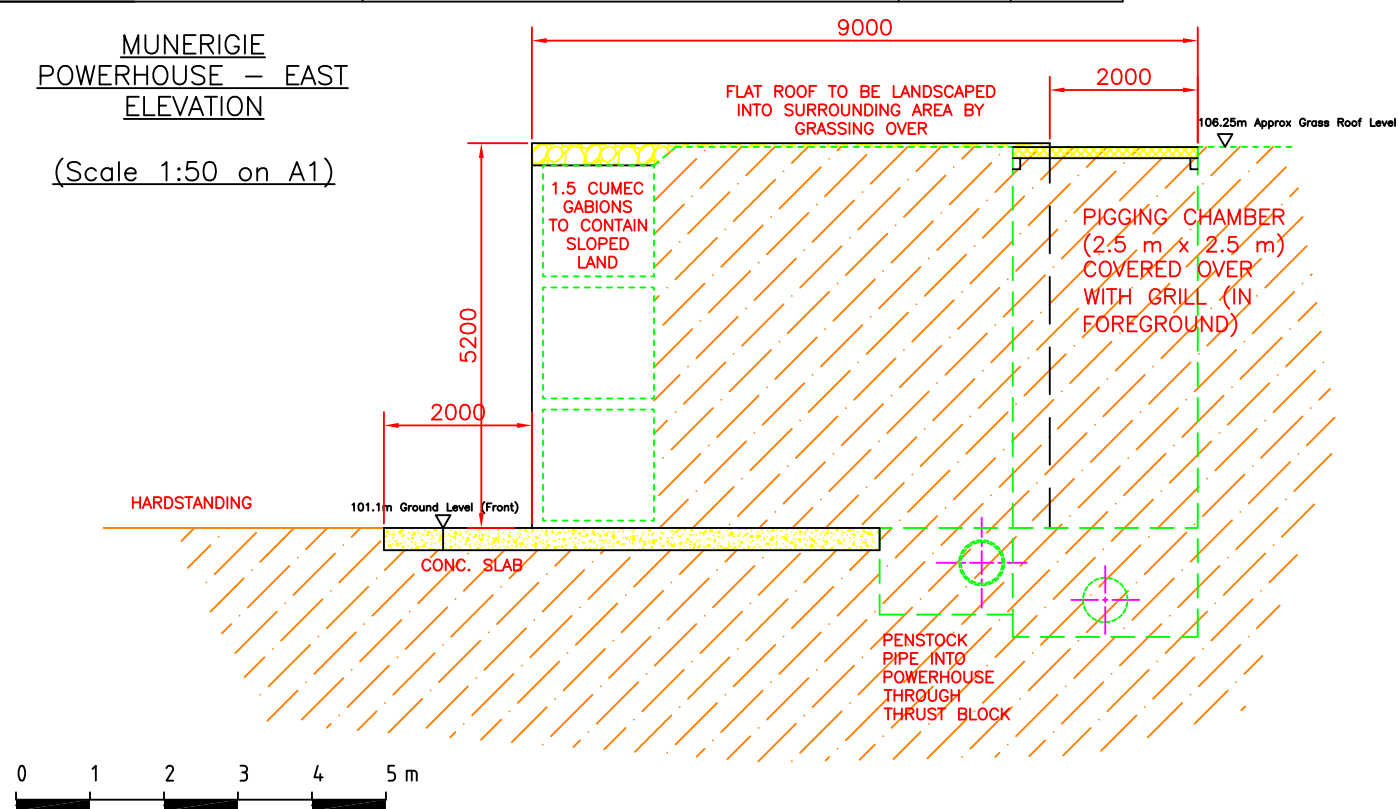
Munerigie Hydro Scheme – POWERHOUSE PLAN		
--	--	--

DRG. NO. Mun–Powerhouse–001	Issue: 1	Sheet: 1/3
-----------------------------	-------------	---------------

Drawn by: ST	Checked by: JON	Approved by & date: JON 9 June 2014	Filename: Munerigie Site Powerhouse	Date: June 2014	Scale: 1:50 [A1]	Revisions:
 <b>Munerigie, from Loch a Bhainne, near Invergarry, Scotland</b> Telephone: 07799 841378 E-Mail: simon@r-dd.co.uk		<b>Renewable Design &amp; Development</b> 3 Monmouth, Bath, BA1 2AT Tel: 01225 839981		1: Change to wooden doors painted grey		
<b>Munerigie Hydro Scheme - POWERHOUSE ELEVATIONS</b>			DRG. NO.	MUN-Powerhouse-004	Issue:	1
			Sheet:	1/1		

**MUNERIGIE POWERHOUSE – EAST ELEVATION**

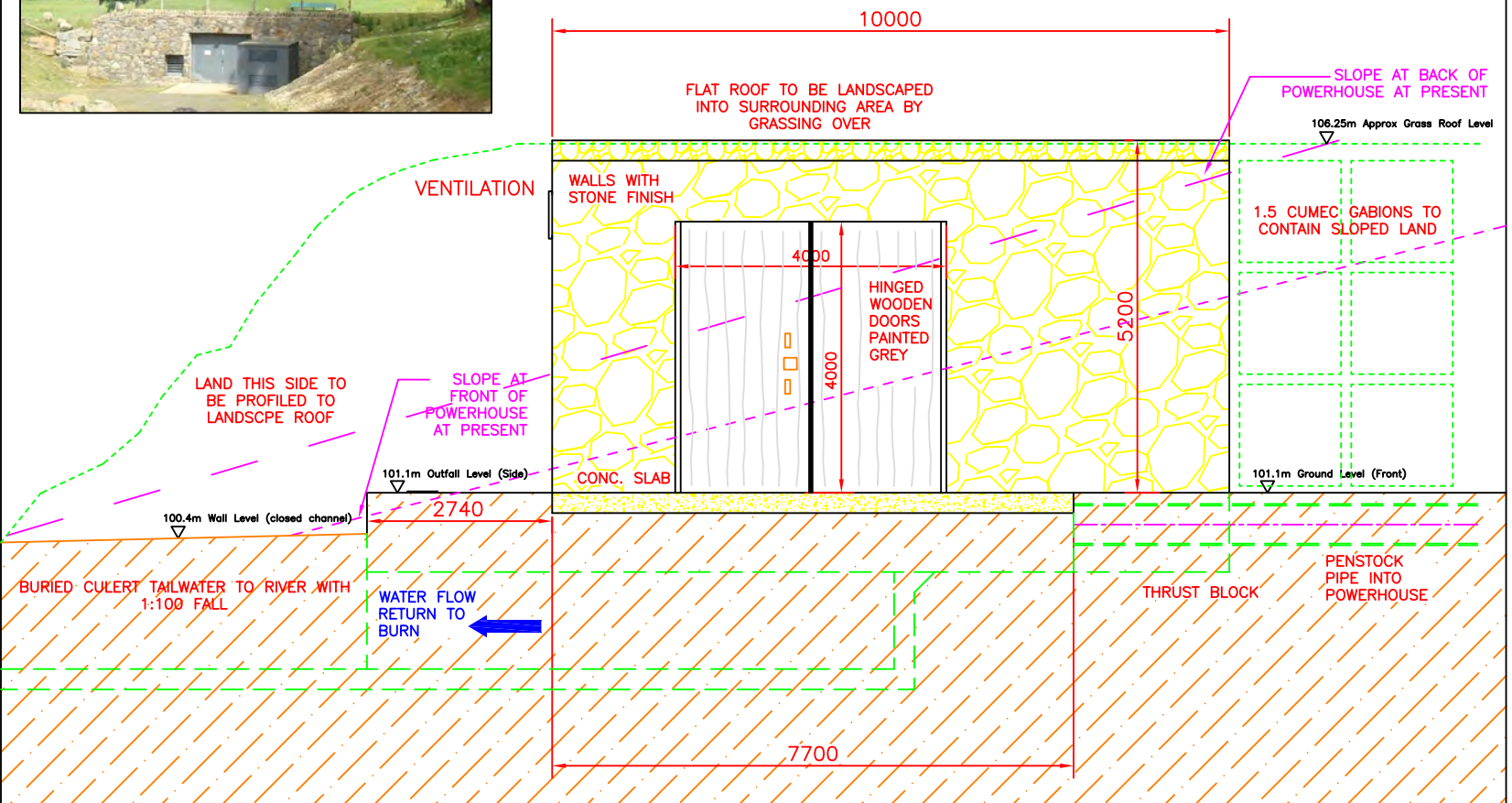
(Scale 1:50 on A1)



Example of Similar Powerhouse in Scotland to show landscaping

**MUNERIGIE POWERHOUSE – NORTH ELEVATION**

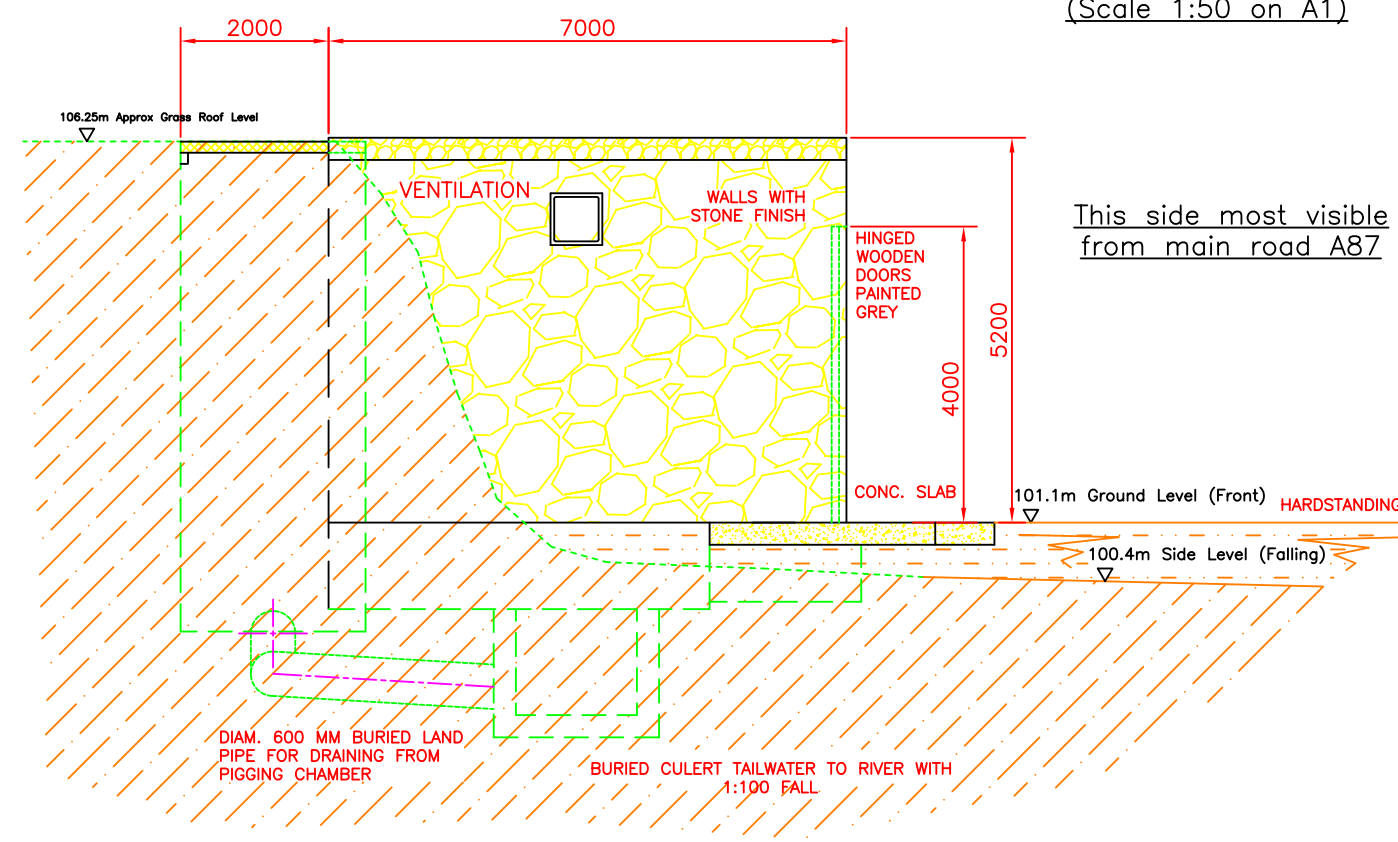
(Scale 1:50 on A1)



PIGGING CHAMBER (2.5 m x 2.5 m) COVERED OVER WITH GRILL (IN BACKGROUND)

**MUNERIGIE POWERHOUSE – WEST ELEVATION**

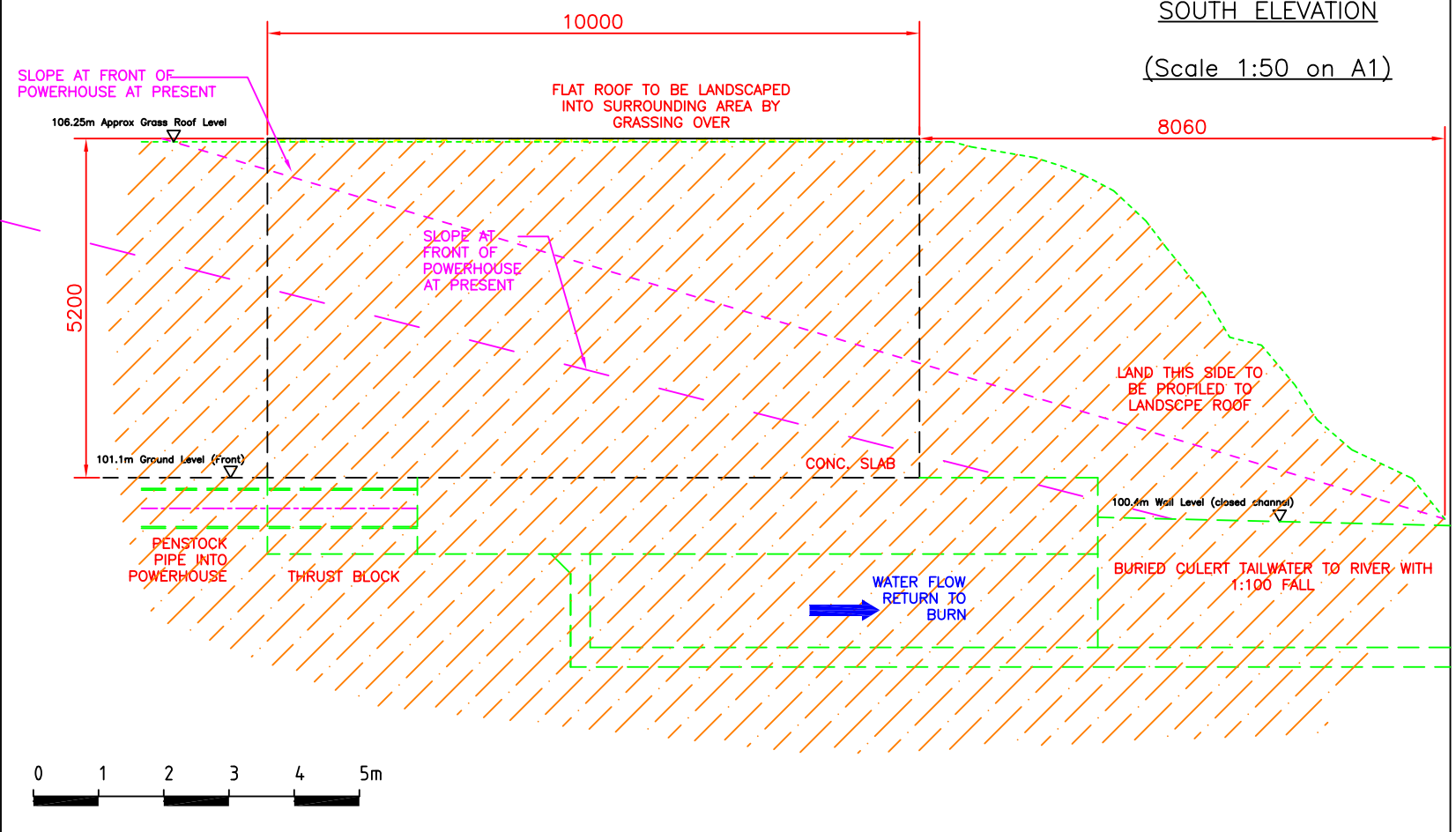
(Scale 1:50 on A1)

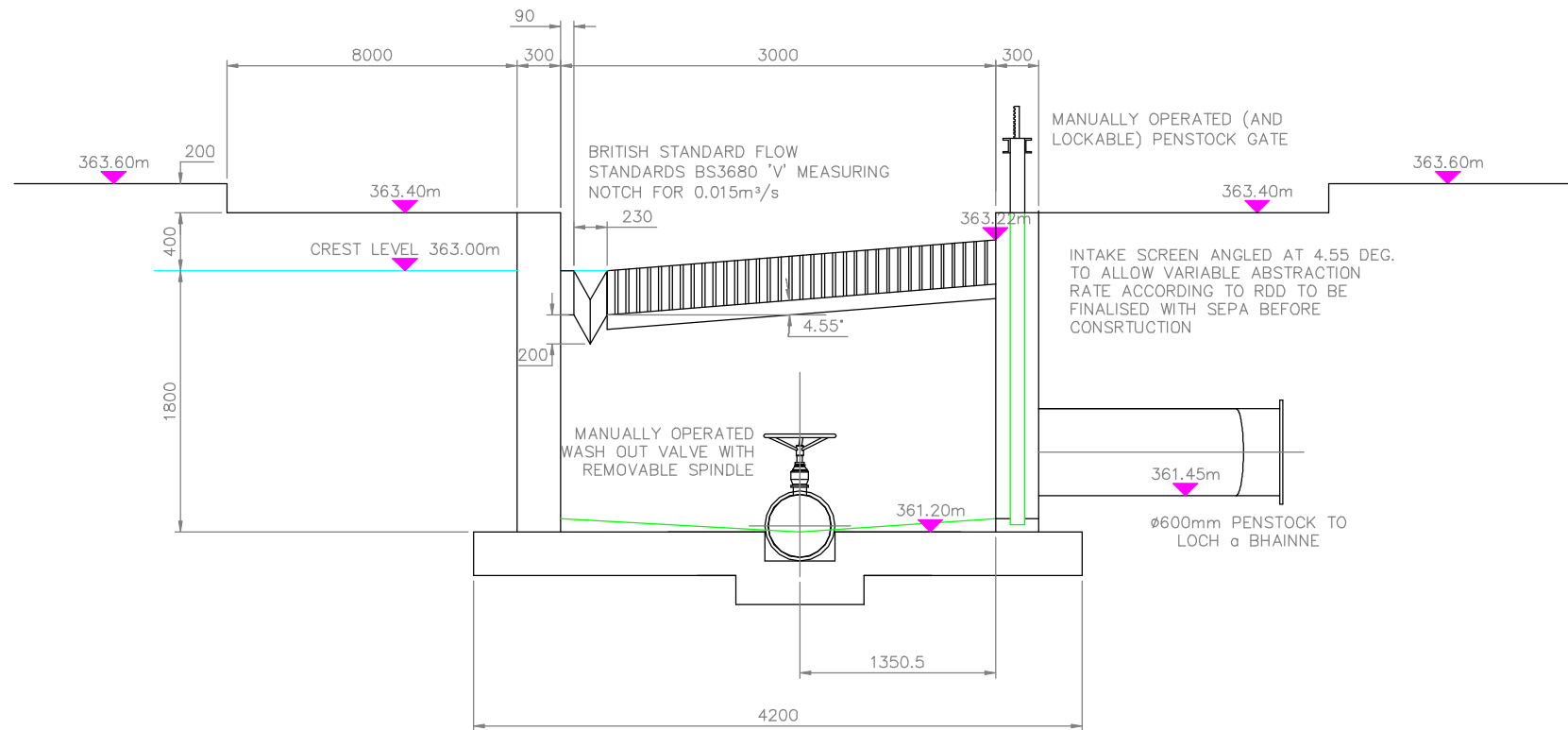
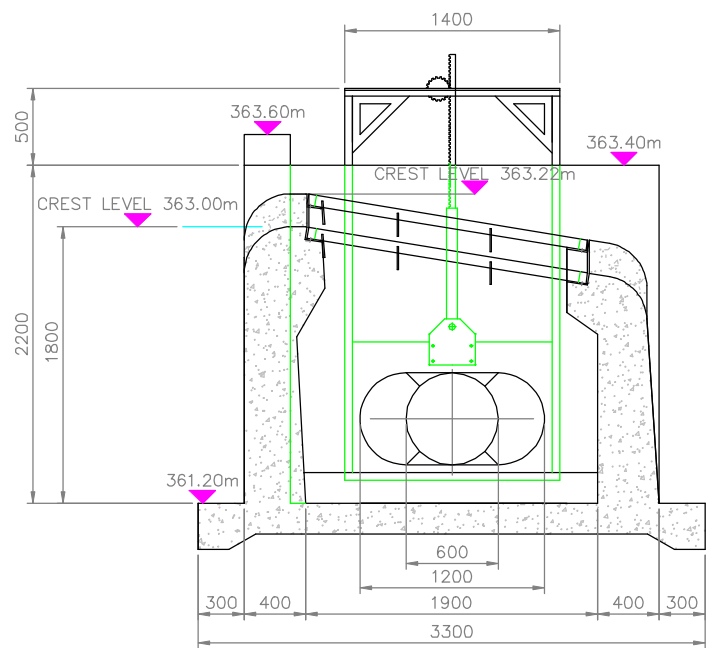


This side most visible from main road A87

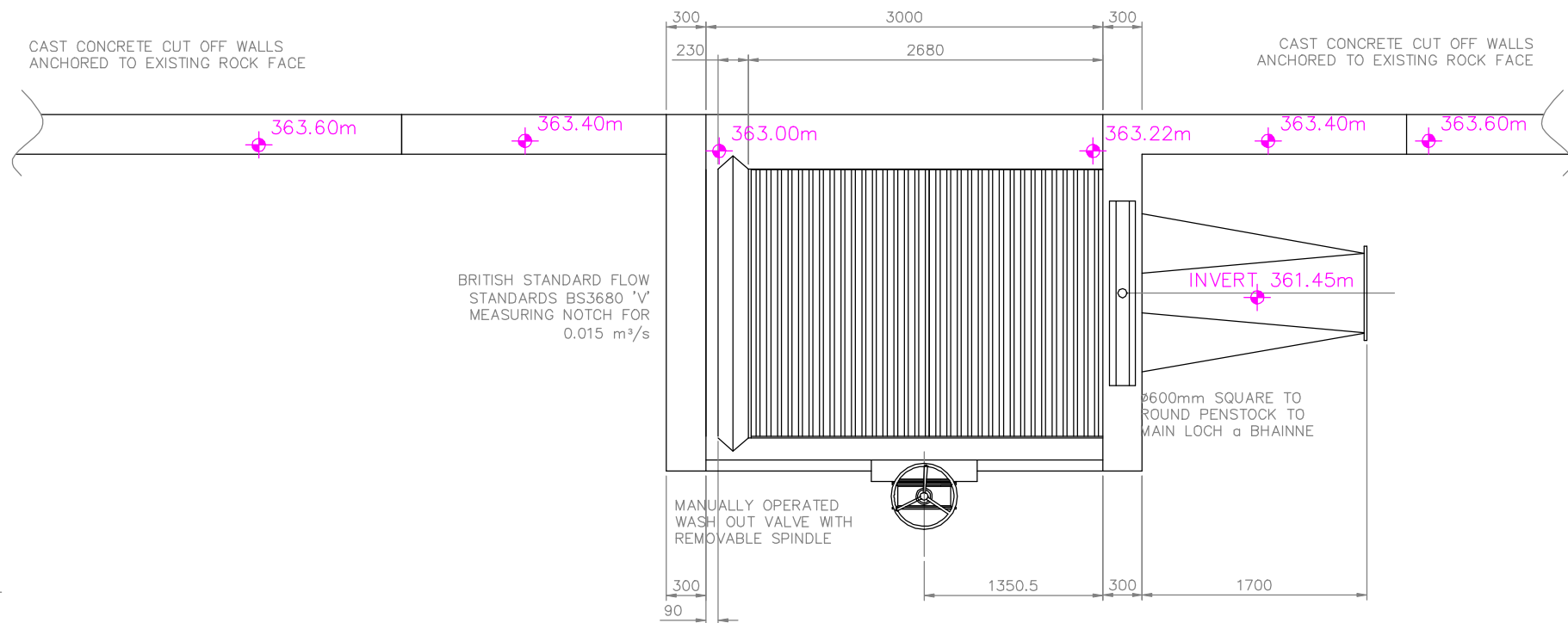
**MUNERIGIE POWERHOUSE – SOUTH ELEVATION**

(Scale 1:50 on A1)





MUNERIGIE HYDRO SCHEME INTAKE SUMMARY							
INTAKE NUMBER	NAME	FLOW m <sup>3</sup> /s	CREST LEVEL	WEIR WIDTH	PENSTOCK DIAMETER	PENSTOCK ORIENTATION	COMPENSATION FLOW MEASURING
2	ALLT a LUACHRAICH	0.303 m <sup>3</sup> /s	363m	3000 mm	ø600 mm	LEFT HAND	'V' NOTCH - SMALL



## MUNERIGIE HYDRO SCHEME - DETAIL OF WASH OVER INTAKE 2 ON ALLT ACHAIDH LUACHRAICH

D:\Newmills Engineering\Biz Plan\Newmills Engineering Ltd final logo 092012.jpg

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CONTRACT	DRAWING NO.	DATE	No.	Revisions	DATE.	BY.	APP.
MUNERIGIE HYDRO SCHEME	MUN-IN-007	ISSUED 16-09-2013	A	DETAILED DESIGN CHANGES	06/12/2012	WMCQ	RTM / ST
JOB DISCRPTION	REVISION NO.	DRAWN BY	B	04-01-13 ST DETAIL ADDED	09/01/2013	WMCQ	ST
INTAKE STRUCTURE ALLT ACHAIDH LU ACHRAICH	D	W.MCQUITTY	C	ANGLED FOR VAR. ABSTR.	11/09/2013	WMCQ	ST
COMMENTS	FILE REF. NO.	CHECKED BY	D	ABS FLOW UPDATED	20/02/2014	JON	ST
	MUN-INTAKES	RTM/ST	E		-	-	-
MATERIAL NOTES	SHEET NO.	SCALE.	F		-	-	-
N/A	7 OF 7	N.T.S	G		-	-	-
		PRINT SIZE.					
		A3					

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