

AGENDA ITEM 6

APPENDIX 3

PA-0272

RESPONSE TO CNPA

Response to Cairngorms National Park Authority

Introduction

This document responds to the Cairngorms National Park Authority's (CNPA) letter, dated 28th October 2014, requesting further information on a number of topics relating to the River Pattack Hydro Scheme planning application [Application Reference 14/02344/FUL] [CNPA Reference PA-272].

Each of the 9 objections listed by CNPA are addressed in turn, with extra figures and documents attached within and to this report.

Objection 1: Access onto A86 – details are required of the upgrading of this junction and these details to be appropriate to the small scale landscape character of this area (for example avoiding the use of kerbed radii) and to include any post development restoration that may be required.

Response:

The A86 junction will be the primary access and egress point from the main road. An important issue to consider is the existing amount of room/width available in the turn off area immediately off the A86. A construction requirement will be to minimise the risk of large vehicles parking stationary on the A86 whilst waiting to gain entry into the site. To this end the requirement would be to ensure enough area is available for two 40' articulated sized vehicles/low loaders to comfortably stand stationary in the area immediately adjacent to the A86. In this case, if a lorry was waiting to pull out of the site onto the A86 to go in the Dalwhinnie direction, this would not prevent a lorry pulling into the site thus ensuring adequate safety levels for the A86 general traffic.

Any expansion of this track entrance area would be carried out in line with the recommendations outlined in the Traffic Assessment (Appendix 3.2 of the original Environmental Statement). A minimum curve radius of 15m would be required to provide an adequate turning area, and would be suitably surfaced to provide sufficient grip. Aesthetically compromising kerbed edgings would not be required. However, hidden pin kerbs that finish flush with the new surface level would be recommended and these could be wooden if appropriate.

Any expansions to and alterations of this type would be reinstated to their former condition at project completion. For information, Figures 2 – 4 below, include photographs of the existing entrance way. For reinstatement to happen effectively, a full survey of this area will be undertaken during the post-consent detailed design stage, which will allow the existing ground levels to be pin-pointing. It is suggested that a planning condition is created to cover reinstatement in accordance with detailed plans to be agreed.

A further consideration is the level of advanced warning for A86 traffic to warn general traffic of the presence of turning construction traffic at the junction. This will be achieved through the provision of appropriate signage in accordance with the relevant and current traffic regulations by a suitably competent contractor. Visibility risk mitigation would also be carried out in line with that recommended in the Traffic Assessment (Appendix 3.2 of the original Environmental Statement).

Finally, visibility at this junction would also need to be improved, with particular regard for the requirement of a visibility splay of 9m x 215m at the entrance. This would be achieved and maintained by controlling vegetation growth within the splay to prevent visibility from being obscured (see Figure 1, below).

Figure 1: Sketch showing vegetation management and indicative temporary junction widening required at the entrance to site from A86

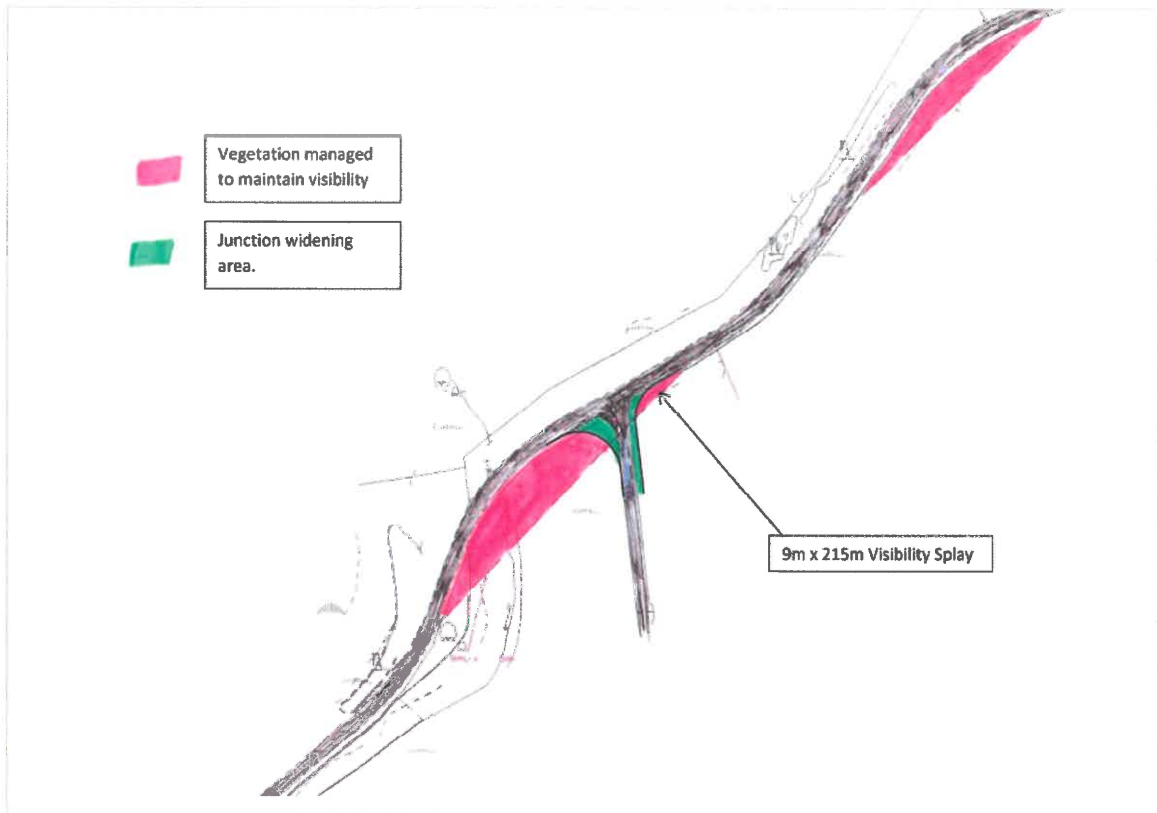


Figure 2: Photo of entrance approaching from the east



Figure 3: Photo of entrance approaching from the west



Figure 4: Photo of entrance approaching from the south



Objection 2: Site Establishment Area close to bridge over River Pattack - information is required on the provision of a small, informal car park in the general area to enhance public access post development including information on signage and interpretation.

Further detail from CNPA: It is understood from previous correspondence that the agent is willing to actively look at this point, presumably in full consultation with relevant roads authorities too, in order to establish the potential for some additional parking in the vicinity.

Response:

The provision of informal car parking facilities has been discussed at great length with Ardverikie Estate, Highland Planners and CNPA representatives, to which a number of significant risks have been raised - most notably: overnight camping; dumping of derelict vehicles; and general littering.

It is understood that the background aim of this provision is to improve access to the Upper Falls (Falls of Pattack). Instead of meeting these aims by the provision of new car parking facilities it is now proposed these aims can be achieved by focusing effort in linking the existing pedestrian access tracks on Ardverikie Estate, which lead to the Falls, with the existing car park and footpaths at NRG NN 567 903, on neighbouring Forestry Commission Scotland (FCS) land.

Discussions with FCS regarding the detail and provision of such a link are on-going, but the developer, Ardverikie Estate and FCS do give their agreement in principle to this solution. A successful route is entirely dependent on whether a safe means of crossing the River Pattack is available, which itself would be well outwith the scope of commitments for the River Pattack Hydro Scheme, but if the temporary bailey bridge at NRG NN 564 899 is allowed to remain, or an alternative bridge developed due to other development activity, such a crossing could be available. At the time of writing, a planning application for the retention of this bridge and part of the track is under consideration by Cairngorms National Park Authority (Reference number 2015/0075/DET).

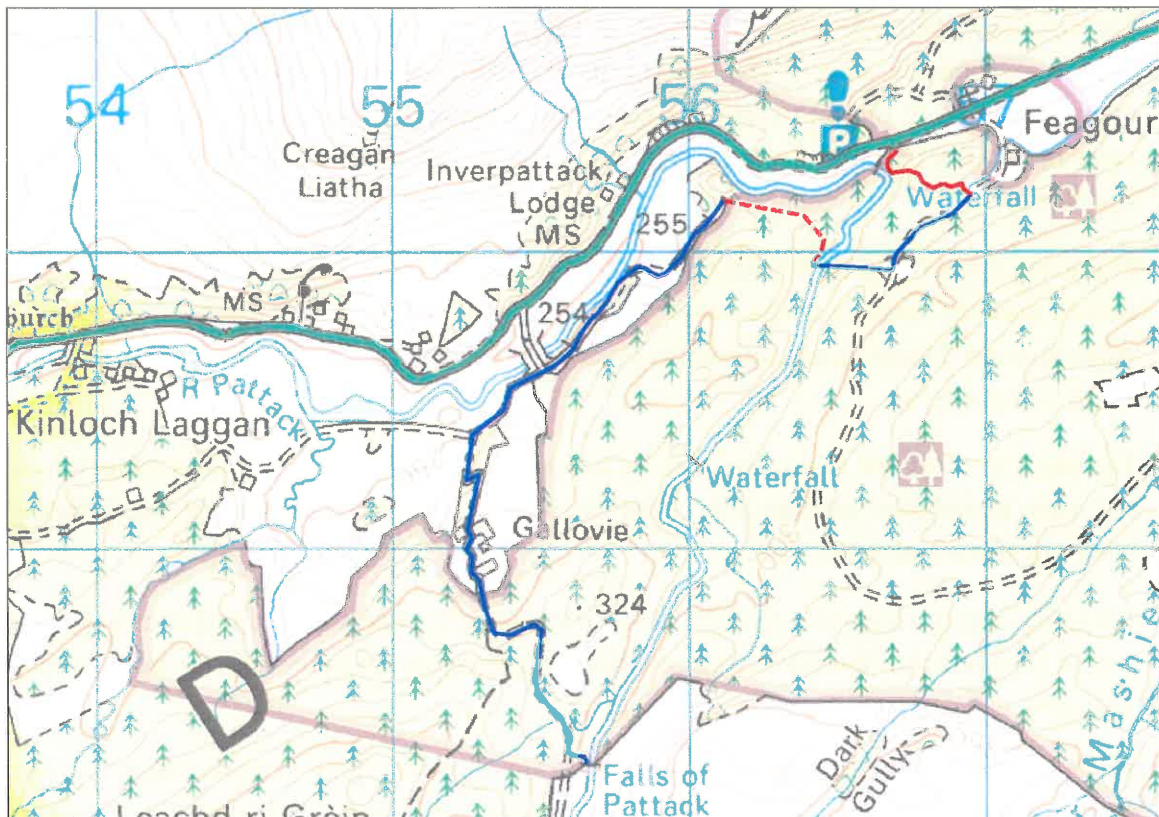
Bearing in mind the above, an indicative proposal would be to:

- formalise an unsurfaced footpath, connecting the kissing-gate at the end of Ardverikie's track (NGR NN 561 902), across heather moorland, to the bailey bridge (or similar) across the River Pattack on FCS land (a distance of some 500m);
- from here walkers would be directed to join the Forestry track, and lead off onto the existing footpaths (NGR NN 569 902) down to the existing car park;
- include new appropriate waymarking from the FCS car park to the Falls of Pattack (a distance of some 4.3km);
- see Figure 5, below for further details of the anticipated elements.

This proposal would enable continuous waymarked pedestrian access from this existing car park to the Falls without the need for walking on any part of the busy A86 trunk road.

Much thought is still required between the developer and FCS in order to realise this opportunity in the most appropriate way. We would ask therefore that this proposal would be allowed to move forward as a commitment to be pursued if at all possible, rather than as a formal condition. This then allowing for the possibility that access across the Pattack becomes unavailable in the near or longer term or that any required consultation brings up specific incompatibilities preventing these proposals from being carried out.

Figure 5: Sketch showing how a new footpath (red dashed) could link up the existing footpath (solid red) and tracks (blue solid) on FCS land with the existing tracks on Ardverikie Estate (blue solid), to allow continuous pedestrian access to the Falls of Pattack



Objection 3: Second site establishment area beside River Pattack within National Park - details (including site area, species, number, spacing and maintenance) are required of provision of riparian tree planting here to enhance the existing tree cover.

Further detail from CNPA: It is also understood from previous discussions that the agent is willing to meet with our Landscape Advisor and planning representatives to discuss what type of planting/areas would be suitable.

Response:

Following a site visit with CNPA planning and landscape representativeness, a commitment is now made to strengthen the existing scattered woodland cover in the riparian zone with additional tree planting, between the river bank and fence line along the stretch of this site establishment area, see Figure 6 below. It should be noted that part of the eastern section of this site is an active gravel bank which is not suitable for tree planting.

The species choice will reflect the existing tree cover and likely comprise of the following species – Common alder (75%), Downy birch (15%), Rowan (5%) and Grey willow (5%). Planting will be in discrete species groups; the spacing will be random but at an average stocking density of 2,500 stems per ha. It is estimated that 500 trees will be planted in this riparian zone.

There is a stock fence on the south side of the site, but there is no fence close to the river. Due to periodic flooding of the lower lying land, the erection of deer fences or upgrading of existing stock fences is considered impractical. Planted trees will therefore be protected using tree shelters.

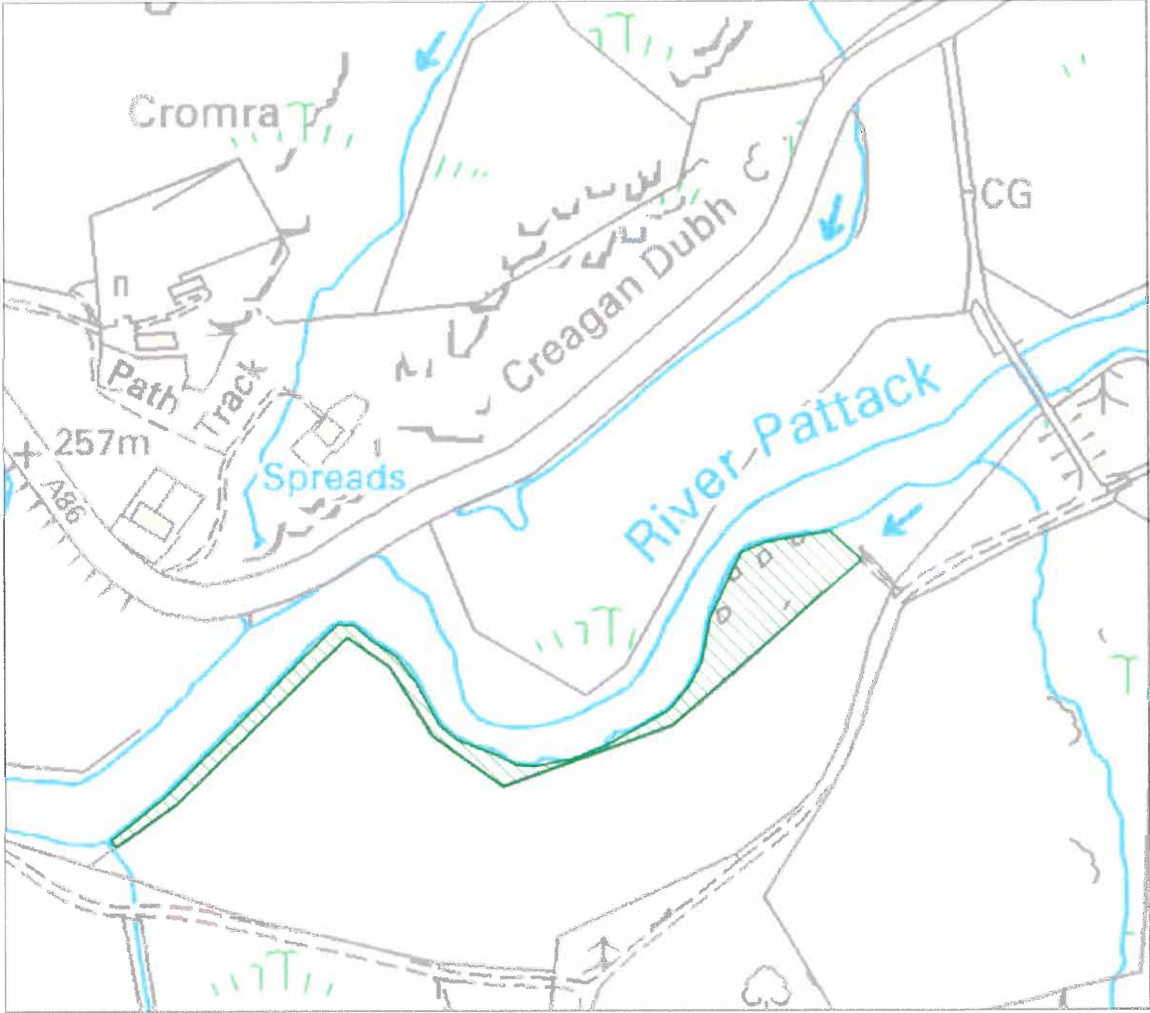
The planted trees will be maintained for a period of 5 years when it can be expected they will have established satisfactorily. This will include controlling competing vegetation and the replacement of failed trees.

For this planting zone, tree planting can occur during the construction phase and will occur within 12 months of the start of construction, ensuring an optimum time for tree planting is available.

It is important to note that this proposal is not currently part of Ardverikie's approved Forest Plan. As such the commitment to plant trees made here is subject to future approval being granted by Forestry Commission Scotland (FCS) to a variation of that Plan, which in relation to this area is anticipated to be forthcoming. Due to the timing of the Forest Plan review process it is difficult to gain support in principle for these proposals at this stage. Variations to Forest Plans need to be discussed with the FCS at formal meetings and this can be a lengthy process. However, Ardverikie's Forest Plan is up for review in the short term and these proposals will be included in that process, which is anticipated to take in the order of 12 months to complete.

Full details, including a construction method statement, will be provided to Highland Council prior to beginning of planting.

Figure 6: Plan showing riparian region to the north of site establishment area – the green hatching shows the area to be planted



Objection 4: Site Establishment Area at junction of Gallovie/Pattack track and Kinloch/Pattack tracks – details (including site area, species, number, spacing and maintenance) are required of the restoration, post development, of this land to native woodland.

Further detail from CNPA: It is also understood from previous discussions that the agent is willing to meet with our Landscape Advisor and planning representatives to discuss what type of planting/areas would be suitable.

Response:

Following discussion on site between Ardverikie Estate, CNPA planning and landscape representatives, and the developer, it was decided to completely remove this site establishment area from the planning proposal. This has been conveyed to Highland Planners by information provided in the recently submitted Addendum to the Environmental Statement.

Objection 5: Pipeline Route and temporary access track; details (including site area, species, number, spacing and maintenance) are required of planting of native broadleaf trees to be carried out along this western edge of the National Park.

It is also understood from previous discussions that the agent is willing to meet with our Landscape Advisor and planning representatives to discuss what type of planting/areas would be suitable.

Response:

Following a visit to site with the CNPA planning and landscape team, a commitment is now made to provide some tree planting along the estate track known as the 'Sanctuary Road'. This is designed to provide interest at this edge of the National Park, and some softening of views to the construction works reinstatement corridor on this part of the site. Planting will occur on the west of the estate track up to the existing deer fence, and east of the track for a distance of up to 10m. Importantly, planting will not be designed to be dense in order to allow the views beyond still to be seen, and specific stretches where the topography allows for panoramic views will be left unplanted to allow wider unobstructed views of the distant vista.

The following species are proposed – Downy birch (75%), Scots pine (10%), Rowan (10%) and Eared willow (5%). Tree planting will be in small groups to avoid a hedge effect. Planting sites will be carefully selected to avoid areas where the peat depth is greater than 50cm. The tree spacing will be random but at an average stocking density of 2,500 stems per ha. It is estimated that around 1,500 trees will be planted as a result of this commitment.

Despite the existing deer fences it is probable that deer will have access to the proposed planting site. It is proposed, therefore, to protect all planted trees with tree shelters.

The trees will be given an application of phosphate fertiliser after planting.

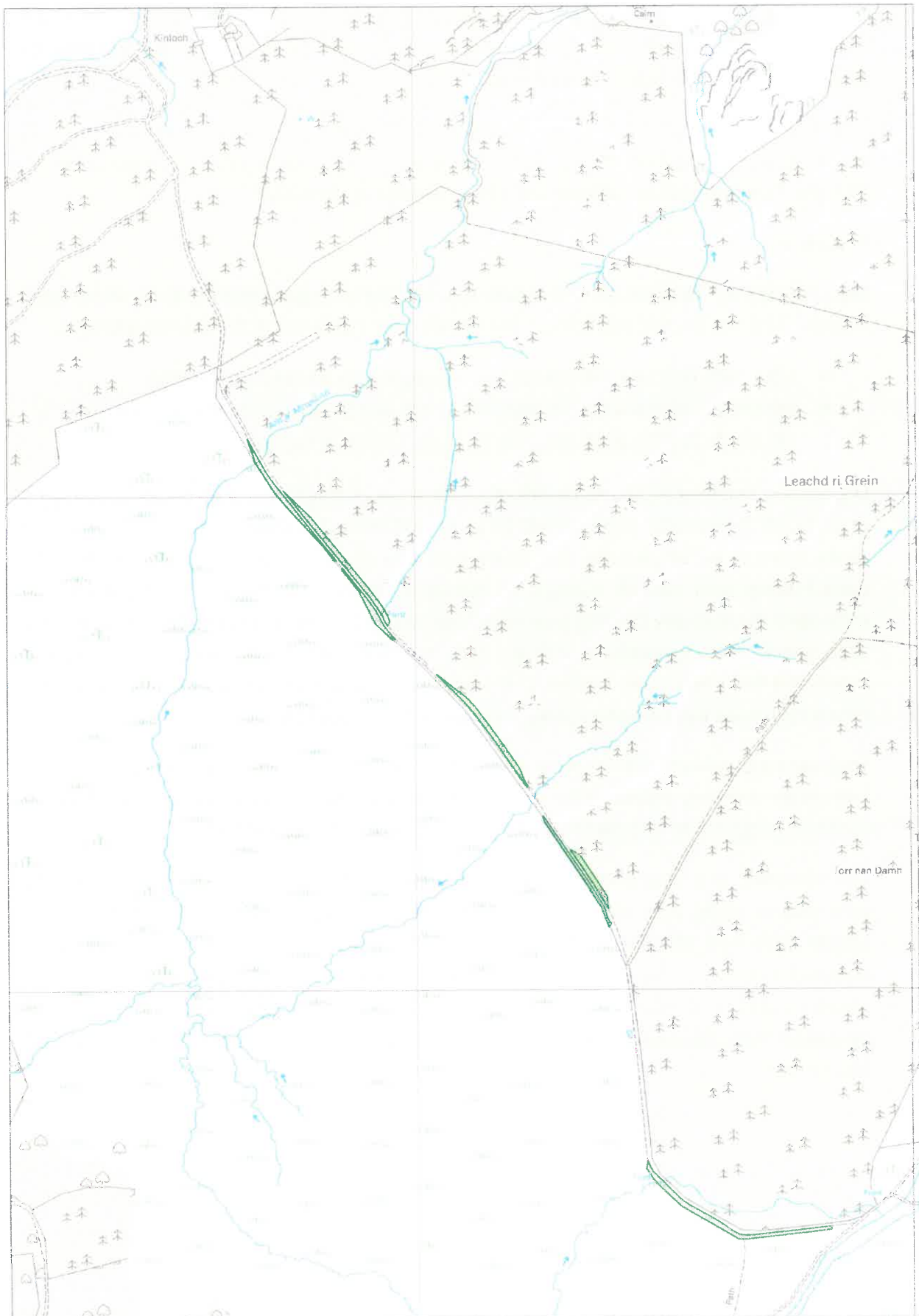
Maintenance of the planted areas will be undertaken for 5 years after planting. This will include control of competing vegetation and the replacement of failed trees. However, given the altitude of this area, no commitment is made to maintenance after this initial period if the trees do not establish within this timeframe.

For this planting zone, and after discussion with CNPA landscape advisor, planting will occur within 12 months after commissioning, to ensure that construction is not limited by the new planting on this important access route, and to prevent any damage to the new trees occurring during the construction phase.

Full details, including a construction method statement, will be provided to Highland Council prior to the beginning of planting, but an indicative layout for discussion is shown in Figure 7 below.

Please note that this proposal is contrary to Ardverikie's current approved and active Forest Plan. The Plan specifically included the previous felling of a number of areas along the Sanctuary road in order to create open spaces. As such the commitment to plant trees here is subject to approval being granted by Forestry Commission Scotland (FCS) to a variation of the Forest Plan once the final detail is known. As mentioned above under Objection 3, variations to Forest Plans can be a lengthy process making it difficult to gain approval in principle for this proposal at this stage. However, Ardverikie's Forest Plan is up for review in the short term and these proposals will be included in that process, which is anticipated to take in the order of 12 months to complete.

Figure 7: Plan showing 'Sanctuary Road' – green hatching on both sides of track shows indicative areas to be planted



Objection 6: Powerhouse – details are required of the proposed method for the protection of trees identified for retention, and design and finishes of the building (walls and roof) to reflect those of other buildings on the estate.

Further detail from CNPA: The CNPA Planning Committee were keen to ensure that any visual impacts arising from the new powerhouse would not have an adverse impact upon the National Park and that suitable material be submitted to show this.

Response:

The applicant would point the Committee to a number of Engineering Drawings which were included with the original application, but copied here (Appendix A) for ease of reference:

- 12) MMD-338713-C-DR-XX-0031-P2 - Powerhouse Wider Location Plan;
- 15) MMD-338713-A-DR-XX-0001 P2 - North and South Architectural Elevations;
- 16) MMD-338713-A-DR-XX-0002 P2 - East and West Architectural Elevations.

Engineering Drawing 12 shows details of which areas of trees should be retained, removed or replaced. Those to be retained will be protected through suitable construction exclusion zones, sized to encompass the root protection area of each tree. This would be done by using fencing with suitable signage, all managed by the contractor. If the powerhouse excavation exposes any clashing tree roots then they will need to be curtailed adequately to allow construction to continue, with any consequential deterioration in the condition being monitored from that point onwards. If any root curtailed tree showed deterioration over time it may need to be felled to protect the powerhouse structure.

Engineering Drawings 15 & 16 show architectural elevations which detail the type, material and colour currently proposed for the external of the powerhouse building. Full details of the final design are to be agreed with Highland Council under condition.

Also attached, is a new photomontage (Appendix B) created for CNPA showing how the powerhouse might look when viewed from the main road over the other side of Loch Laggan (this was also included in the recent Addendum of Information submitted to Highland Council). The powerhouse building is located approximately 800m from this nearest public road - the scheme having a "slight adverse" long term visual impact during operation from this viewpoint (Chapter 11 and Figure 11.2 of the original Environmental Statement).

Objection 7: Waterfalls on the River Pattack - evidence is required of the accuracy of the methodology of the assessment submitted (appendix 4.3 of the applicant's Environmental Statement) relating to the visual impact upon the Falls of Pattack and examples of where it has been used and verified on constructed schemes. The impact upon all three waterfalls on the River Pattack required to be considered and information provided regarding the priority to be given to recreational users, as opposed to energy generation use in terms of water flows and usage in order to ensure that there is no adverse impact upon the National Park.

Further detail from CNPA: It is appreciated that prior to the Committee's consideration of this consultation, the agent submitted some additional material seeking to substantiate the methodology and this has been passed to SEPA too whom I understand may consider visual impacts, but will certainly consider water flows and their response will be of key importance to the CNPA here. The matter of the priority of recreational users as opposed to the energy generation use will also require to be clarified.

Response:

Appendix 4.3 of the original Environmental Statement, containing the work on waterfall analysis has been updated by the Applicant and is contained as Appendix A4.4 of the Addendum of further information, a copy of which has now been provided to CNPA.

The CAR licensing process has now been completed, with SEPA granting a licence for the proposed River Pattack scheme. A copy of the licence [CAR-L-1123625] is attached in Appendix C. Part of the licencing process included an analysis of visual impact to the Pattack waterfalls, a copy of which it is understood to have already been sent from SEPA to CNPA. Richard Fyfe, SEPA's lead licensing officer for the project, has also kindly agreed to attend a Committee meeting if invited to do so by CNPA.

Regarding the prioritisation of recreational users over energy generation, it would be impractical to install any form of interactive prioritisation where recreational users could dynamically restrict the amount of water abstracted by the hydro scheme. This would create too large an uncertainty for the hydro owner, and render the scheme uneconomic. However, a degree of prioritisation has already been committed to through SEPA's Water Licencing process to help mitigate against the impact on canoeing flows. This arrangement has been agreed with the Scottish Canoe Association (SCA) and consists of a number periods each year when water will be artificially released from the reservoir, these are known as freshet releases. The timing of these releases will be agreed with SEPA and the SCA and will be published ahead of time through SEPA's Scotland wide release schedule. These freshet releases are fully governed by SEPA through the Water Licencing process, and it is hoped these will also benefit other recreational users such as waterfall viewers. More details on the impact of canoeing are described in Section 4.9 of the original Environmental Statement, with full details of this mitigation presented in Paragraph 4.9.8 of that Section.

Objection 8: Ecology – confirmation that there will be no adverse impacts upon ecology and in particular riverine species and habitats on the River Pattack within the National Park as a result of variation of water flows.

Further detail from CNPA: The Planning Committee wished to establish that there would be no adverse impacts upon the riverine habitats including algae, migratory fish and bryophytes. It is understood that SEPA are currently assessing such matters in the context of their CAR licensing regime and their consideration and conclusions will be of key relevance. Also that SNH have requested submission of further information on lower plants and again this material and the results of SNH's consideration will be of key relevance here too.

Response:

The CAR licensing process has now been completed, with SEPA granting a licence for the proposed River Pattack scheme. A copy of the licence [CAR-L-1123625] is attached in Appendix C. We would encourage CNPA to liaise with SEPA on any detailed information they require, but hope that the Committee will gain significant comfort from the successful conclusion of this licencing process. Richard Fyfe, SEPA's lead licensing officer for the project, has kindly agreed to attend a Committee meeting if invited to do so by the CNPA.

Regarding protected species, specifically under the remit of SNH, an Addendum of further information has now been submitted by the Applicant with a copy provided to CNPA. A full response from SNH is expected shortly.

Objection 9: Public Access – confirmation that public access and core paths will be unaffected by the proposed development, in particular the core path running from the Dalwhinnie/Ben Alder area to Pattack.

Further detail from CNPA: It is our understanding that existing core paths within the National Park will be unaffected - confirmation of this and any arrangements to ensure all public access is maintained on the core path from Dalwhinnie/Ben Alder area to Pattack is required.

Response:

Only one Core Path [Dalwhinnie to Ben Alder – Route 215] is located within the project area itself. Of the stretch within the Cairngorm National Park, only one short section (approximately 600m) is directly affected by the proposed construction works. However, given the interest in the continuation of the entire route this report deals with provisions intended to allow continued use of this Core Path throughout the life of the project.

A pedestrian plan along the Core Path is included in Figure 8 and contains five main points:

1. The footpath diversion proposal along the existing hill walking and stalking path. This will allow the closure of the existing estate track to the public which runs immediately alongside the River Pattack from upstream of the Sanctuary area up to beyond the reservoir impoundment area and is required due to the very close proximity of construction work in that area. The proposed path closure is shown in grey, with the diversion route shown as a red dashed line. At the downstream end of this diversion a temporary path will cross the pipeline corridor and existing access track to allow reconnection with the existing route. One of two proposed crossing points will be used and the position of the pipe laying front will influence which route should be adopted and this will be managed by the Construction Contractor. Please refer to the crossing point arrangements attachment for further details of how this will work in practice (see Figure 10).

In order to keep the public safe, we would look to use this diversion for the majority of the construction period, which is anticipated to last approximately 2 years.

2. The permanent footpath diversion to follow new track – shown in purple on Figure 8. The new reservoir will inundate a section of the existing estate track. It is therefore proposed to permanently divert this track onto higher ground. This will allow continued usage by the estate and the public.

3. There is a short stretch of existing track that will likely be used for both plant access and pedestrians near to the track junction in the middle of the site and is circled in red on the plan (Figure 8). A typical section through the track is also included (Figure 9) to show this arrangement. It should be noted that the existing estate track may require some improvement and/or widening to accommodate these requirements.

4. At the northern end of the site, 'Gallovie' bridge and the adjacent short stretch of track will be used by both construction traffic and pedestrians. Width restrictions on the bridge will therefore require suitable signage to warn pedestrians of construction traffic as they share this area, however pedestrian segregation may be possible on the track to the south side of the bridge before the path turns off up to Gallovie Farm (which will not see construction traffic). The area this point refers to is circled in red at the top of the plan (Figure 8).

5. Areas of track not affected by construction are substantial and include:

- the track between Gallovie Farm, past the falls of Pattack and through to the junction in the middle of the site (noted in point 3 above); and
- track to the south of the plan.

Both areas are noted on the plan in the green boxes (Figure 8).

Figure 8: Dalwhinnie to Ben Alder Core Path (Route 215) management plan during construction

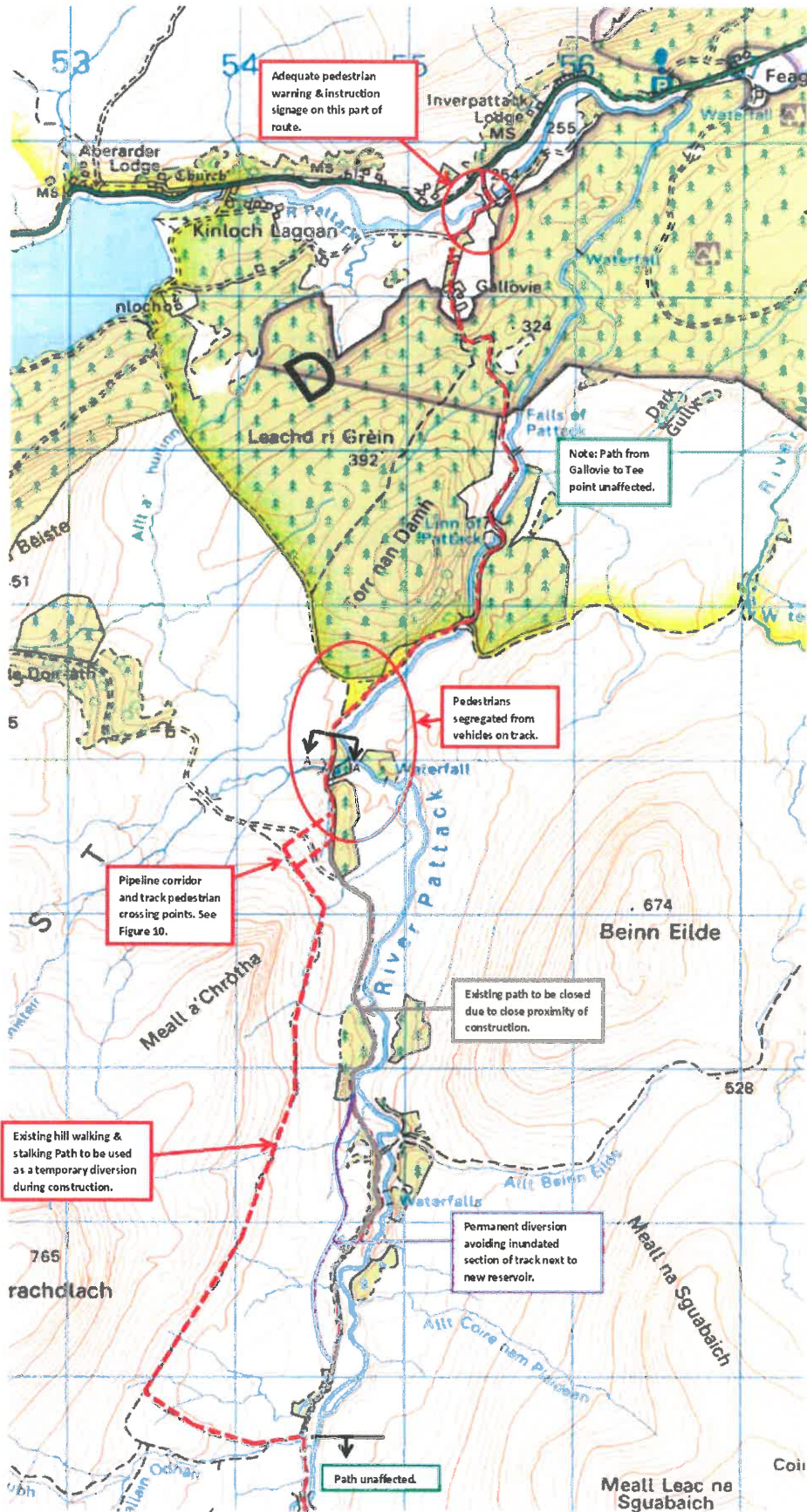


Figure 9: Section A-A looking south through track to incorporate pedestrian footpath

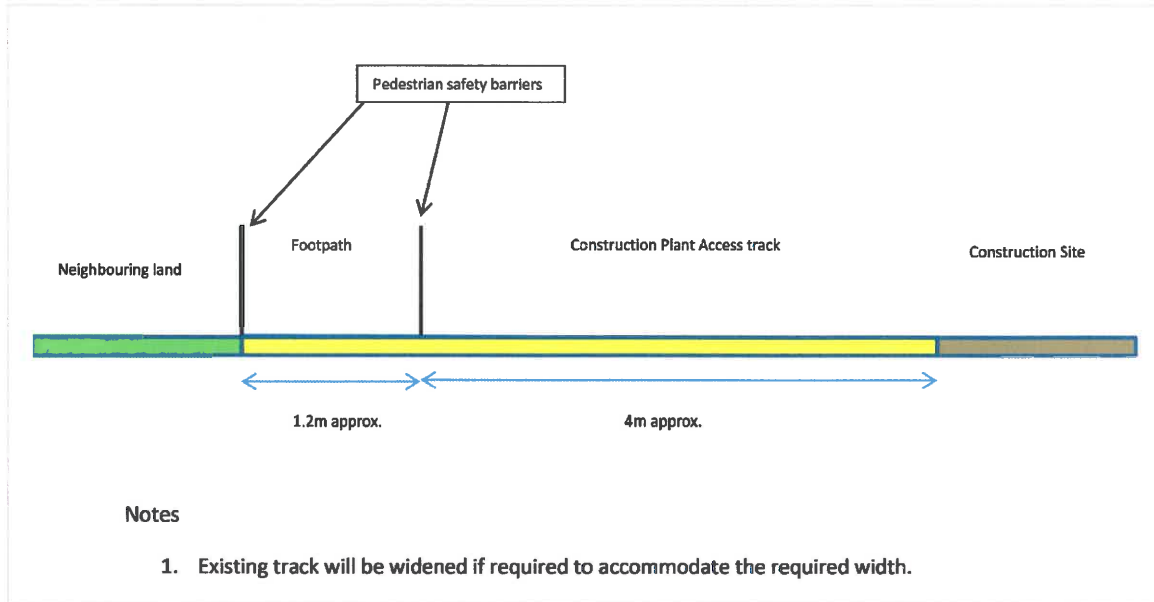
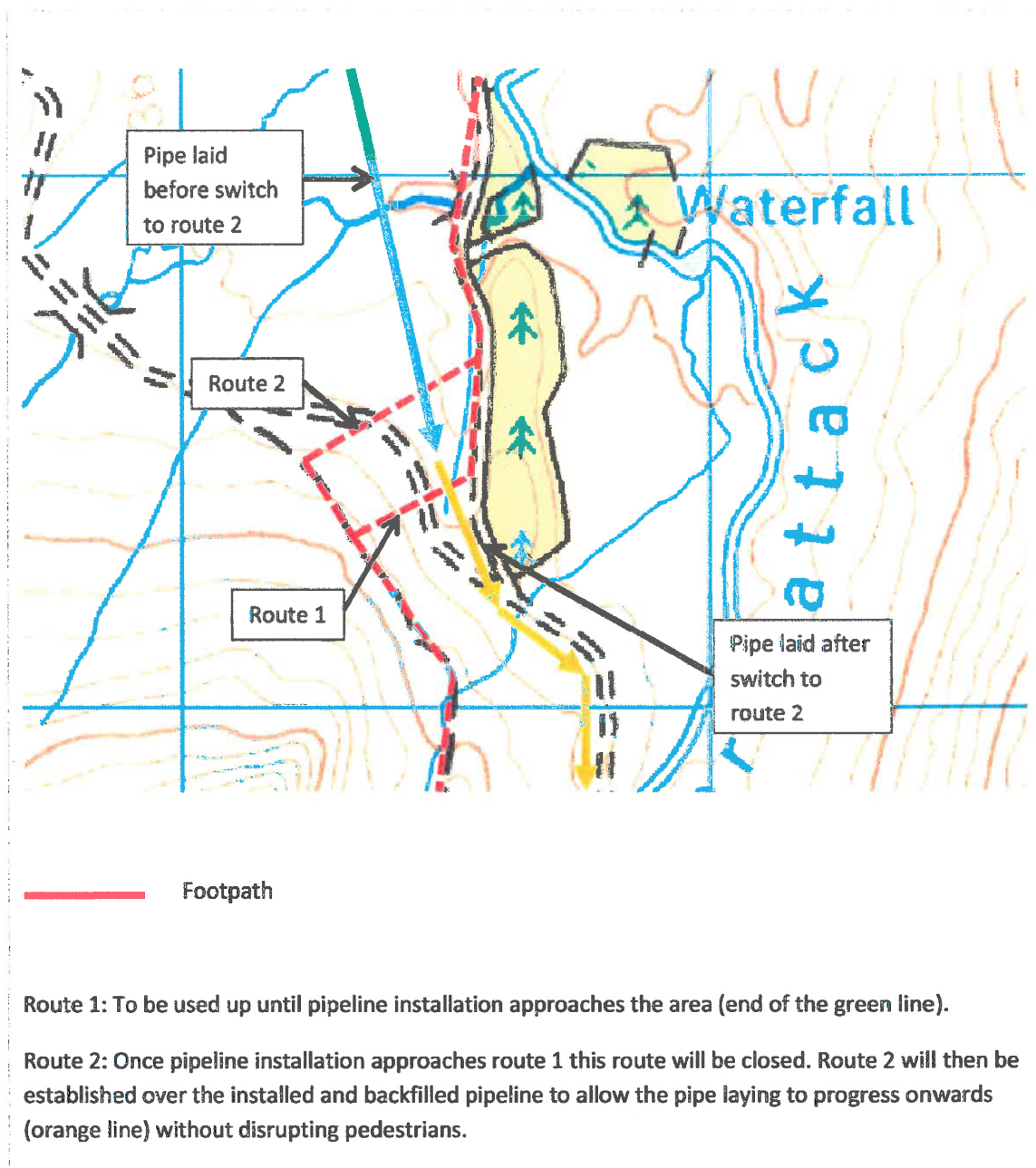


Figure 10: Pipeline corridor pedestrian crossing point arrangements

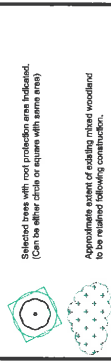


Appendix A

Engineering Drawings

- 12) MMD-338713-C-DR-XX-0031-P2 - Powerhouse Wider Location Plan
- 15) MMD-338713-A-DR-XX-0001 P2 - North and South Architectural Elevations
- 16) MMD-338713-A-DR-XX-0002 P2 - East and West Architectural Elevations

- Notes**
- All alternatives in green unless otherwise noted.
 - Subject to relevant planning permissions, subject to relevant planning permissions, subject to relevant planning permissions.
 - Subject to relevant planning permissions, subject to relevant planning permissions, subject to relevant planning permissions.
 - Subject to relevant planning permissions, subject to relevant planning permissions, subject to relevant planning permissions.
 - Proposed new tracks and handstanding areas to be gravel surfaced.
 - Large water storage for powerhouse and handstanding to be discharged to Loch Laggan.
 - Foot drainage to discharge via septic tank to soakaway.
 - Non-potable water supply for building from roof rainwater harvesting.
 - Drainage to be provided to be 2m above high water level.
 - Drainage to be provided to be 2m above high water level.
 - Final layout and design to be agreed with The Highland Council.



Reference drawings

The drawing supersedes MM Drawing MMD-338713-CR-HH-XX-001 P5 dated 12/04/13

MMD-338713-CR-XX-0001
MMD-338713-CR-XX-0002
MMD-338713-CR-XX-0003
MMD-338713-CR-XX-0004

Rev	Date	Drawn	Description	DS	DM
P2	05/09/14	DM	Minor Amendments	DS	DM
P1	28/05/14	DM	Preliminary Issue		

Checked / Approved

PRELIMINARY
DO NOT USE FOR CONSTRUCTION

Date:

1 Albert Quay
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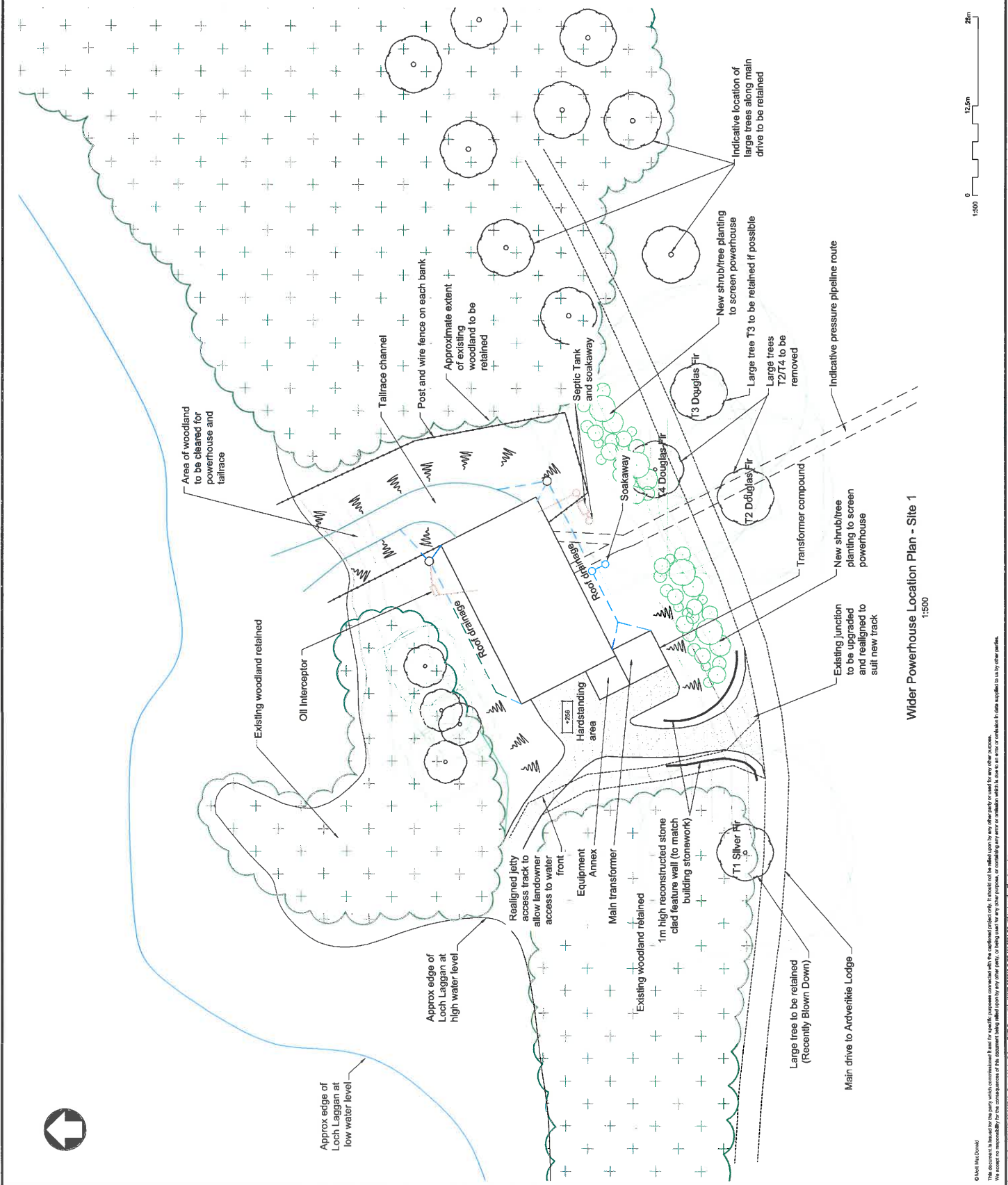
The energy to lead

Client

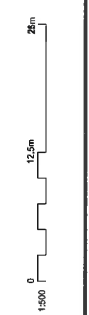
The River Patrick Hydro Scheme
Indicative Powerhouse Structure
Wider Location Plan

Design/Drawn/Scale	Discipline	Stage	PRE	P2
Design/Drawn/Scale	D Structural D Survey D Civil/Struct	D Structural D Survey D Civil/Struct	Eng check Coordination Approval	NA NA NA NA NA NA

Drawing Number: MMD-338713-CR-XX-0003



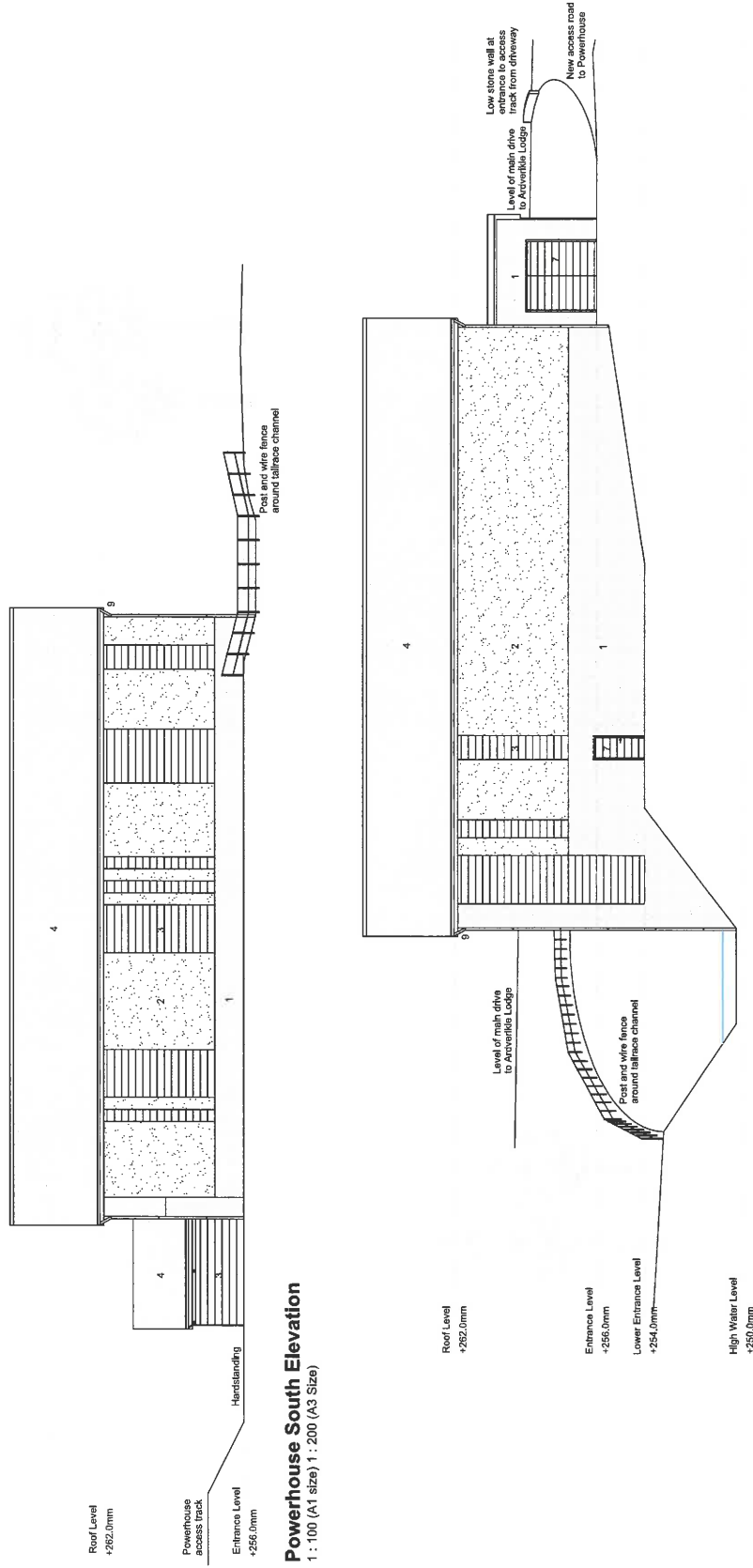
Wider Powerhouse Location Plan - Site 1
1:500



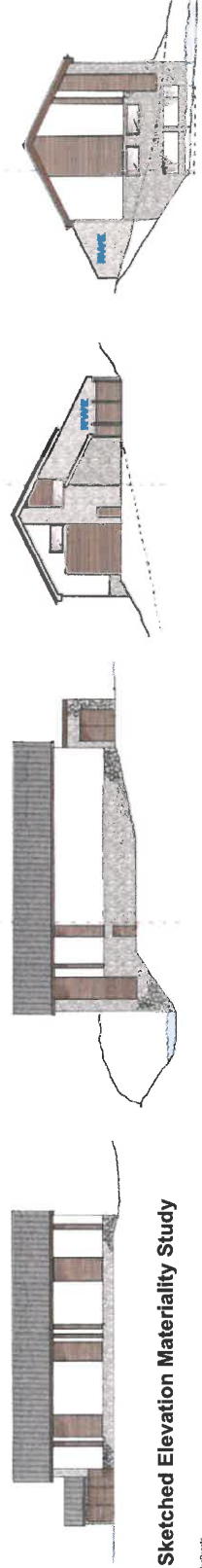
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Project: MMD-338713-CR-XX-0003
Drawing: MMD-338713-CR-XX-0003 P5
Date: 05/09/14

Pattack Hydro Materials

- 1 - Reconstituted Stone Cladding - Ledgestone Gray
- 2 - Polymer White Render - Storrend Flex Coat System
- 3 - ProdEX Light Brown Proforma Cladding Panels - Concealed Fixing System
- 4 - Kingspan KS1000 RT Roof Tile - 15 Degree Pitch - Anthracite Colour
- 5 - PPC Aluminium Louvers
- 6 - Tallrace Weir with 20mm Screening
- 7 - PPC Steel Door with ProdEX Cladding
- 8 - PPC Roller Shutter
- 9 - Aluminium Gutter, Downpipe, Fascias and Soffits - Light Brown to match ProdEX cladding



Powerhouse North Elevation
1 : 100 (A1 size) 1 : 200 (A3 Size)



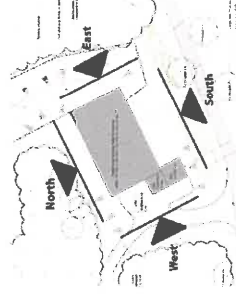
Sketched Elevation Materiality Study

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This document is issued for the specific project mentioned and for specific systems mentioned with the enclosed project work. It shall not be relied upon for any other purpose.
We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

Notes

- A. All dimensions in metres unless otherwise noted.
- B. Levels are above ordnance datum, from Starnet topographical survey.
- C. Subject to revision during detailed design, to incorporate requirements of CAR Licence and Planning Permission.
- D. Tree/canopy sizes indicative, location of selected trees from Starnet survey, root protection areas from Arboricultural survey.
- E. Proposed new tracks and handstanding area to be gravel surfaced.
- F. Surface water drainage for powerhouse and handstanding to be discharged via tallrace outfall to Loch Laggan.
- G. Foul drainage to discharge via septic tank to soakaway.
- H. Non-potable water supply for building from roof rainwater harvesting.
- I. Flood water level in Loch Laggan assumed to be 2m above high water level.
- J. Final building finish to be confirmed with The Highland Council Planning Dept after detailed design.
- K. Digs to be read in conjunction with MMD-338713-C-DR-XX-0031, 0033, 0034 as well as MMD-338713-A-DR-00-0001, 0002.

Key to symbols



Reference drawings

Rev	Date	Drawn	Description	Checked	App'd
P2	04/09/2014	CA	Preliminary Issue	KH	DM
P1	30/05/2014	CA	Preliminary Issue	KH	DM



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Client

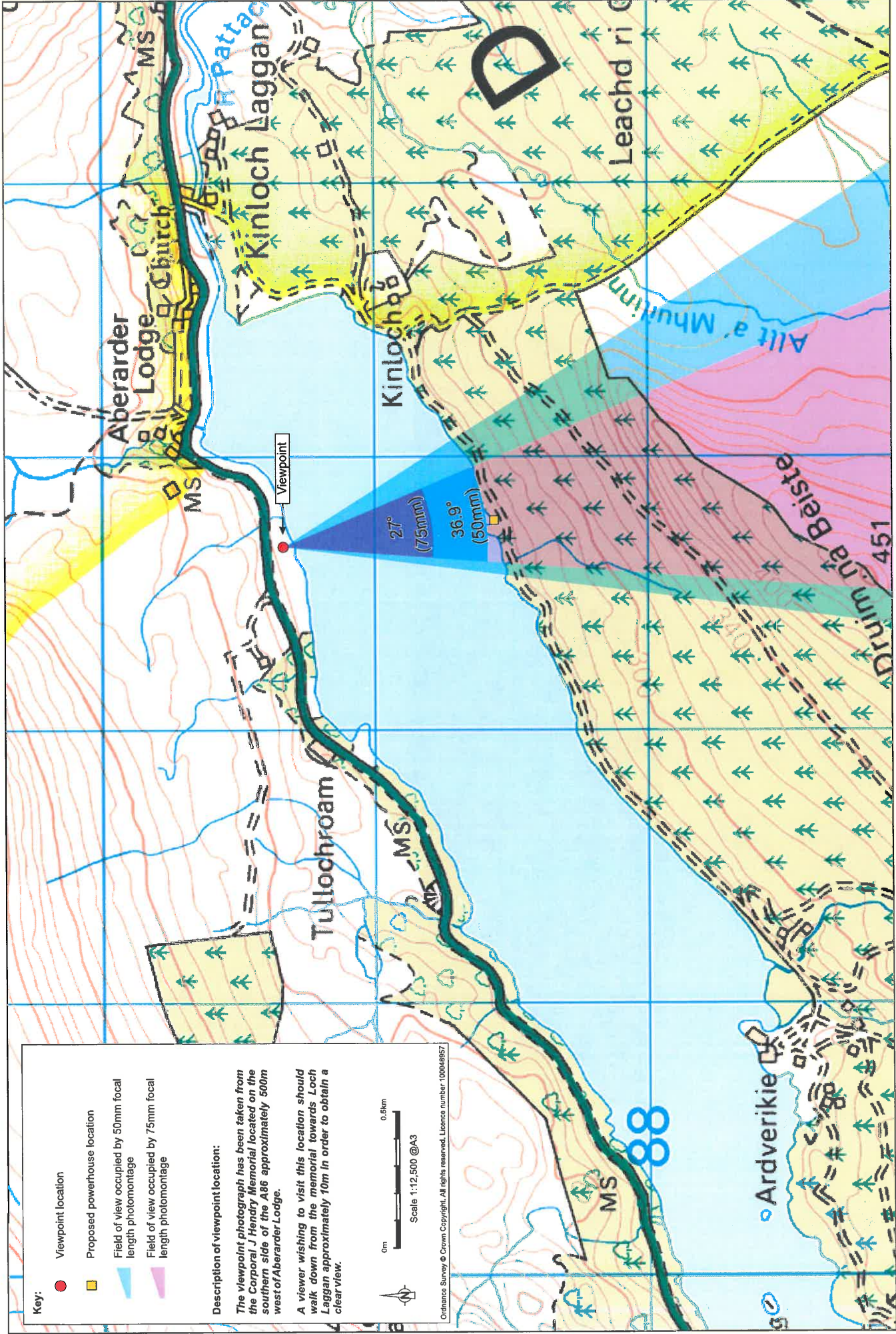


This
River Pattack Hydro Scheme
Architectural Elevations
Sheet 1 of 2
North & South Elevations

Designed	K Haggarty	K Haggarty	Eng check	N/A	N/A	N/A
Drawn	C Armour <td>C Armour <td>Coordination</td> <td>MA</td> <td>MA</td> <td>MA</td> </td>	C Armour <td>Coordination</td> <td>MA</td> <td>MA</td> <td>MA</td>	Coordination	MA	MA	MA
Deep check	K Haggarty	K Haggarty	Approved	D MacDonald	D MacDonald	D MacDonald
Scale at A1	1:100	PRE	Status	Rev	Rev	P2
Drawing Number	MMD-338713-A-DR-00-XX-0001					

Appendix B

Powerhouse Photomontage



Key:

- Viewpoint location
- Proposed powerhouse location
- Field of view occupied by 50mm focal length photomontage
- Field of view occupied by 75mm focal length photomontage

Description of viewpoint location:

The viewpoint photograph has been taken from the Corporal J Hendry Memorial located on the southern side of the A86 approximately 500m west of Aberarder Lodge.

A viewer wishing to visit this location should walk down from the memorial towards Loch Laggan approximately 10m in order to obtain a clear view.

0m 0.5km
Scale 1:12,500 @A3

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FIGURE 1: Viewpoint Location

Grid Ref: 252673 789338 : Distance to proposed powerhouse - 775m : Viewpoint elevation (AOD) : 263.4m

FINAL

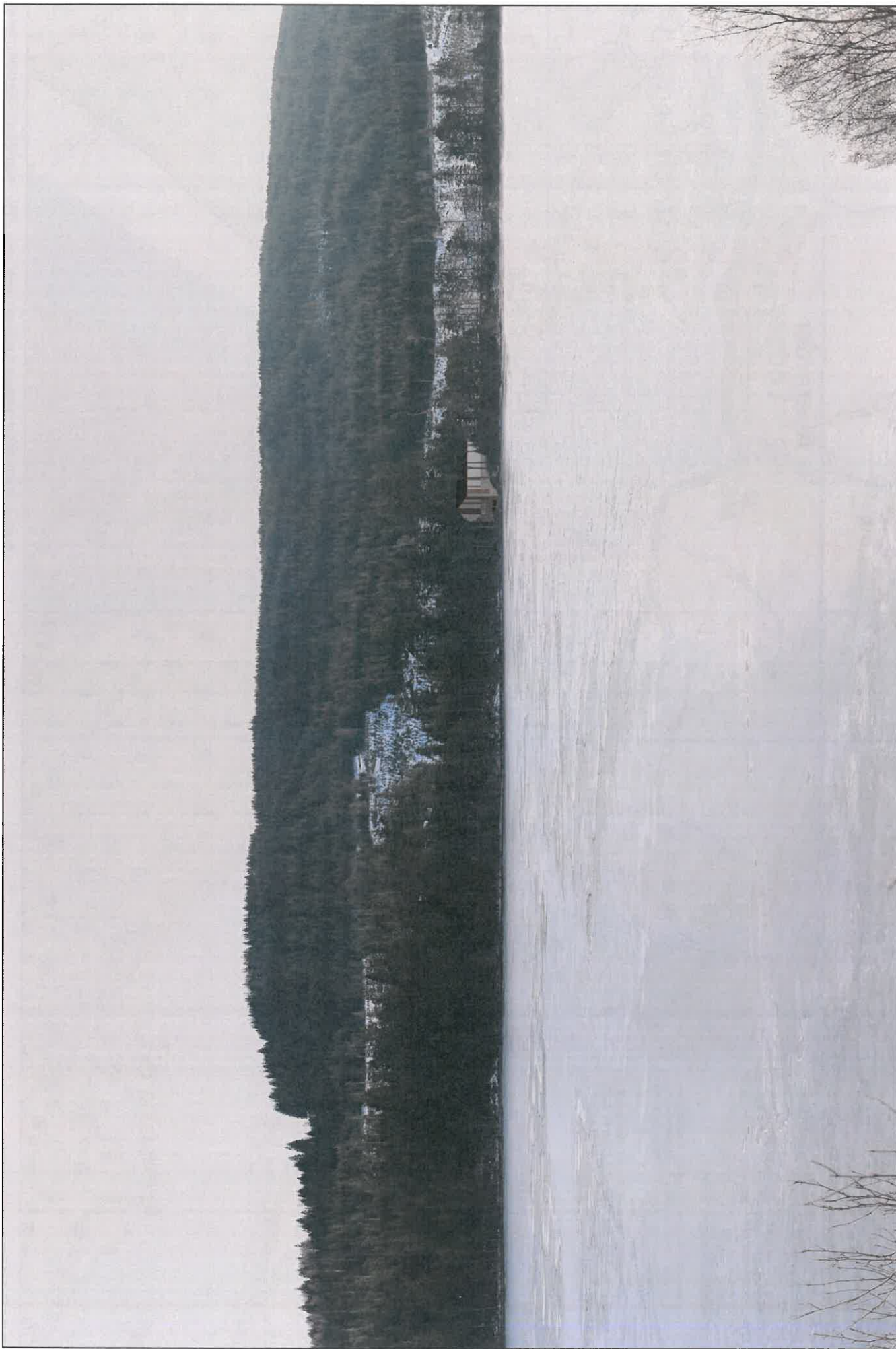


FIGURE 2a. 50mm Focal Length Photomontage

When viewed at a comfortable arms length, this image is representative of the maximum field of view of clear vision but is not representative of scale and distance

Distance to proposed powerhouse - 775m : Camera - Canon EOS 6D : Focal length - 50mm : Camera height - 1.5m : Date - 05/02/15 : Time - 13.59



FIGURE 2b. 75mm Focal Length Photomontage
This image should be viewed at a comfortable arms length (approx 500mm)

Distance to proposed powerhouse - 775m : Camera - Canon EOS 6D : Focal length - 75mm : Camera height - 1.5m : Date - 05/02/15 : Time - 13.59

FINAL

Appendix C

SEPA Licence - CAR-L-1123625

SCOTTISH ENVIRONMENT PROTECTION AGENCY
WATER USE LICENCE
UNDER THE WATER ENVIRONMENT (CONTROLLED ACTIVITIES) (SCOTLAND)
REGULATIONS 2011 ("THE REGULATIONS")

LICENCE NO.: CAR/L/1123625

RESPONSIBLE PERSON: RWE INNOGY UK LIMITED

SITE ADDRESS: RIVER PATTACK HYDRO
ARDVERIKIE ESTATE
KINLOCHLAGGAN
NEWTONMORE

This Licence is granted to RWE Innogy UK Limited with company number 02550622 and having their registered office at Auckland House, Lydiard Fields, Great Western Way, Swindon, Wiltshire, SN5 8ZT.

This licence shall take effect on 15 January 2015.

1. Environmental Limit Conditions

1.1. Controlled Activities Description

1.1.1. The controlled activities are for the primary purpose of hydro-electric power generation.

1.2. Controlled Activity Locations

1.2.1. The controlled activities described in Table 1 are hereby authorised.

Table 1 Authorised Activities

Name/Reference	NGR	Associated Waters	Activity
River Pattack hydro scheme Impoundment 1 Location 511304	NN 5488 8307	River Pattack	Construction and operation of an impounding works
River Pattack hydro scheme Impoundment 2 Location 511305	NN 5307 8513	Allt Mhainisteir	Construction and operation of an impounding works
River Pattack hydro scheme Impoundment 3 Location 511303	NN 5310 8513	Allt Mhainisteir (central)	Construction and operation of an impounding works
River Pattack hydro scheme Impoundment 4 Location 511306	NN 5338 8482	An Caochan Cuil	Construction and operation of an impounding works
River Pattack hydro scheme Impoundment 5 Location 511307	NN 5535 8335	Allt Beinn Eilde	Construction and operation of an impounding works
River Pattack hydro scheme Abstraction 1 Location 511205	NN 5488 8307	River Pattack	Abstraction
River Pattack hydro scheme Abstraction 2 Location 511299	NN 5307 8513	Allt Mhainisteir	Abstraction
River Pattack hydro scheme Abstraction 3 Location 511300	NN 5310 8513	Allt Mhainisteir (central)	Abstraction
River Pattack hydro scheme Abstraction 4 Location 511301	NN 5338 8482	An Caochan Cuil	Abstraction
River Pattack hydro scheme Abstraction 5 Location 511302	NN 5535 8335	Allt Beinn Eilde	Abstraction
River Pattack hydro scheme tailrace Location 511308	NN 5276 8858	Loch Laggan	Return of abstracted water

The authorised activities set out in Table 1 are authorised subject to the limits set out in Tables 2, 3, 4, 5 and 6, and the conditions contained in this licence.

Table 2 Rates of Abstraction and Height of Impounding Works

Name/Reference	NGR	Maximum rate (m³/second)	Maximum daily volume (m³/day)	Height (m)
River Pattack hydro scheme Impoundment 1 Location 511304	NN 5488 8307	n/a	n/a	18
River Pattack hydro scheme Impoundment 2 Location 511305	NN 5307 8513	n/a	n/a	1
River Pattack hydro scheme Impoundment 3 Location 511303	NN 5310 8513	n/a	n/a	2
River Pattack hydro scheme Impoundment 4 Location 511306	NN 5338 8482	n/a	n/a	1
River Pattack hydro scheme Impoundment 5 Location 511307	NN 5535 8335	n/a	n/a	1
River Pattack hydro scheme Abstraction 1 Location 511205	NN 5488 8307	8.0	691,200	n/a
River Pattack hydro scheme Abstraction 2 Location 511299	NN 5307 8513	0.07	6,048	n/a
River Pattack hydro scheme Abstraction 3 Location 511300	NN 5310 8513	0.29	25,056	n/a
River Pattack hydro scheme Abstraction 4 Location 511301	NN 5338 8482	0.1	8,640	n/a
River Pattack hydro scheme Abstraction 5 Location 511302	NN 5535 8335	0.08	6,912	n/a

1.3. Installation of level monitoring equipment

- 1.3.1. A water level indicator shall be provided at the intake specified in the first and second columns of Table 3.
- 1.3.2. The water level indicator shall indicate the level of the water as it relates to the height below the crest of the spillway.

1.4. Compensation Flow

1.4.1. For the intake specified in the first and second columns of Table 3, a minimum continuous flow shall be released as specified in column five of that table whenever, during the period in any given year for that intake in the third column of that table, the loch level, as measured in accordance with condition 1.3.2, upstream of the intake is at the level specified in the fourth column of that table.

1.5. Freshets

1.5.1. Without prejudice to condition 1.4.1, an additional volume of 576,000m³ shall be available each year for release to the River Pattack, from Impoundment 1, in volumes, of durations, on dates and at times to be agreed in writing with SEPA.

1.6. Hands off Loch Level

1.6.1. There shall be no abstraction from the intake specified in the first and second columns of Table 3 when the water level as measured in accordance with condition 1.3.2 is at or below 3m below the spillway.

1.6.2. Notwithstanding condition 1.4.1, for the intake specified in the first and second columns of Table 3, the minimum continuous flow released downstream may fall below 0.726 m³/s during any period when the loch level is at 3m below spill and the natural inflow is less than 0.726 m³/s.

Table 3 Compensation Flow

Name/Reference	NGR	Period	Loch Level (m below spill)	Flow (m ³ /s)
River Pattack hydro scheme Impoundment 1 Location 511304	NN 5488 8307	All Year	3	0.726
River Pattack hydro scheme Impoundment 1 Location 511304	NN 5488 8307	All Year	0	0.839

1.7. Hands off Flows and Residual Flows

1.7.1. During the period specified in the third column of Table 4, for each intake specified in the first and second columns of that table, water may be permitted to be abstracted when the flow upstream of the intake is greater than or equal to the flow in the fourth column of that table, but only to the extent that the flow immediately downstream of the intake is greater than or equal to the flow specified in the fifth column of that table.

Table 4 Hands off Flow Requirements

Name/Reference	NGR	Period	Flow upstream of intake (m³/second)	Flow downstream of intake (m³/second)
River Pattack hydro scheme Abstraction 2 Location 511299	NN 5307 8513	All year	0.01	0.003
River Pattack hydro scheme Abstraction 3 Location 511300	NN 5310 8513	All year	0.04	0.015
River Pattack hydro scheme Abstraction 4 Location 511301	NN 5338 8482	All year	0.02	0.005
River Pattack hydro scheme Abstraction 5 Location 511302	NN 5535 8335	All year	0.01	0.004

1.7.2. For each intake specified in the first and second columns of Table 55, the corresponding flow specified in the fifth column of the said table shall, during the period in any year given for that intake in the third column of that table, be delivered when the flow upstream of the intake as specified in the fourth column of that table is reached.

Table 5 Residual Flow Requirements

Name/Reference	NGR	Period	Flow upstream of intake (m³/second)	Flow downstream of intake (m³/second)
River Pattack hydro scheme Abstraction 2 Location 511299	NN 5307 8513	All year	0.038	0.008
River Pattack hydro scheme Abstraction 3 Location 511300	NN 5310 8513	All year	0.163	0.033
River Pattack hydro scheme Abstraction 4 Location 511301	NN 5338 8482	All year	0.055	0.011
River Pattack hydro scheme Abstraction 5 Location 511302	NN 5535 8335	All year	0.046	0.009

1.8. Fish Screens

1.8.1. Fish screens effective for preventing the passage of fish (including smolt, in the case of intakes) shall be provided at each location specified in the first and second columns of Table 6 for the period given in the third column of that table.

Table 6 Fish Screens

Name/ Reference	NGR	Period
River Pattack hydro scheme Abstraction 1 Location 511205	NN 5488 8307	All year
River Pattack hydro scheme Abstraction 2 Location 511299	NN 5307 8513	All year
River Pattack hydro scheme Abstraction 3 Location 511300	NN 5310 8513	All year
River Pattack hydro scheme Abstraction 4 Location 511301	NN 5338 8482	All year
River Pattack hydro scheme Abstraction 5 Location 511302	NN 5535 8335	All year
River Pattack hydro scheme tailrace Location 511308	NN 5276 8858	All year

1.9. Monitoring of Scheme

1.9.1. You shall monitor, record and submit written returns to SEPA according to the descriptors specified in Table 77. If you have not abstracted any water, you are still required to submit the form indicating this. The appropriate form for water data returns can be found on the SEPA website at: [http://www.sepa.org.uk/water/water regulation/data returns.aspx](http://www.sepa.org.uk/water/water%20regulation/data%20returns.aspx).

Table 7 Monitoring Requirements

Monitoring	Method	Submission date
Flow monitoring (total of all abstractions specified in Table 1 (in m ³ /day))	As agreed in writing with SEPA	31 January annually
Fish monitoring	Quantitative surveys as agreed in writing with SEPA	31 January every 2 years from the date of commissioning
Sediment management	As agreed in writing with SEPA and according to a sediment management plan	2 months prior to commissioning of scheme

1.10. Environmental Harm

- 1.10.1. Other than as specifically permitted or limited by any condition of this authorisation, the authorised activities shall not have a significant adverse impact on, or cause pollution of, the water environment.

2. Environmental Management Conditions

2.1. Responsible Person

- 2.1.1. As the responsible person to whom this licence is issued, you shall secure compliance with the conditions contained within this licence.

2.2. Construction, Design and Operation of Scheme

- 2.2.1. No less than two months prior to the proposed date of commencement of construction of the scheme, a set of design drawings and a construction method statement shall be submitted to SEPA for written approval.
- 2.2.2. The design drawings shall demonstrate that all mitigation required in accordance with the 'Guidance for developers of run of river hydropower schemes' published by SEPA and dated January 2014 will be delivered.
- 2.2.3. No changes shall be made to any approved design drawings or method statement without SEPA's prior written approval.
- 2.2.4. Construction works shall not take place between November and May in any year without SEPA's prior written approval.
- 2.2.5. No later than 7 days before works commence, you shall notify SEPA in writing of the date of commencement of the construction works.
- 2.2.6. You shall notify SEPA in advance of the date that the scheme becomes operational.
- 2.2.7. All monitoring equipment shall be calibrated and maintained in good working order at all times.

2.3. Records

- 2.3.1. A copy of this licence and all records of water abstracted shall be kept at the site and shall be made readily accessible for examination by all relevant staff.

2.4. Incidents

- 2.4.1. In the event of an incident, you shall notify SEPA without delay and in any case by the next working day after identification of the incident.

"incident" means any of the following situations:

- Where an accident occurs which has had or could have an adverse impact on the water environment;
- Where any malfunction, breakdown or failure of plant or techniques is detected which has had or could have an adverse impact on the water environment;
- Any event, such as force majeure or emergency actions, which results, or is likely to result, in a breach of any condition of this licence.

In this condition, "water environment" has the same definition as it is given in section 3 of the Water Environment and Water Services (Scotland) Act 2003.



Signed:
Authorised to sign on behalf of the
Scottish Environment Protection Agency

Date: 15 January 2015