

Paper 4

Appendix I

Landscape Officer Comments



**CNPA Application Ref.
Nos. 2013/0261/DET
Corriemulzie Hydro**

**INTERNAL SPECIALIST
RESPONSE**

Internal Specialist (Name & Job Title): Frances thin Landscape adviser

Interests affected by proposal (category e.g.- natural heritage, cultural heritage, access issues, economic development, housing)

- Landscape

Potential impacts on interests, including evidence of impacts:

Landscape and visual Character

The proposed scheme lies within the LC area called Mar Lodge Policies. The lower parts of the scheme are within the an area that was formerly a designed landscape, and is now part of the area characterized by a rich combination of parkland and native woodlands, the dramatic floodplain of the Dee and views across this to distant hills from footpaths and roads. The upper parts of the scheme lie in moorland where the river cuts through outcropping rock and glacial-fluvial debris. In between are the former hydro dam and impoundment area (now breached and partially collapsed), conifer plantations and broadleaved woodland. The upper parts of the site are contained within the landform and woodland giving the area a small scale feel, yet set within the wider landscape of the Dee and out across which views can be gained to the hills. The area is accessed via a footpath/landrover track that extends up on to Corie nam Freumph on the west side of Morrone, a popular Corbett. The area encompasses a number of the special landscape qualities for which the Park is recognized and valued.

The falls of Corriemulzie, a one-time well-visited landmark (Victorian times) are beneath ad immediately north of the bridge. Enclosed in the gorge and surrounded by patches of fenced woodland these falls are hidden from general view.

The scheme is within the Deeside and Lochnagar NSA

Appraisal of impacts: Lists and the significance of the impacts

Component of Hydro scheme	Landscape character effects	Visual amenity effects	Mitigation/enhancement to meet policy 6 Landscape (complement and enhance character), policy 2.3 conserve and enhance special landscape qualities (NPPP) especially wildness
Primary intake 6m (1.5m tall) wide concrete structure	The obvious manmade structure will sit in the river channel, a	Limited visual envelope but very visible	It is my view that the primary intake in this location would have a

<p>including intake chamber coanda screen, concrete weir, wing wall extending into firm ground, constructed plunge pool (penstock pipe exits on east side of burn).</p> <p>The side slopes to the channel are rocky, solid rock outcrop on south bank and weathered bed rock on north.</p> <p>The CMS describes the layout but gives no detail of construction</p>	<p>prominent feature experienced within the context of a highly natural and aesthetically very attractive setting. And particularly from the bridge which is only a few meters away.</p> <p>The access provision will highlight the presence of the intake in the wider landscape.</p> <p>This is a highly sensitive location, a cluster of key characteristics that contribute to a number of special landscape qualities of the NSA and the wider National park (dominance of natural landforms, the dominance of nature, natural sounds, attractive and contrasting textures, moraines and birch trees, an accessible and beautiful 'spot' where the dominance of nature prevails.</p> <p>And the magnitude of the change would be high in the short term and medium in the longer term.</p> <p>Intake I in combination with the penstock, access track,</p>	<p>from the footpath/ bridge at close quarters</p> <p>Pale colours of the intake, its linear forms and spillways (visually contrasting with natural forms) will make this a prominent feature. I would strongly disagree with the LVIA assessment at page 87 – visual effect considered to be low to no change. In my view the viewer sensitivity here is high and the magnitude of effect is also high, a very localized but significant adverse effect</p>	<p>significant adverse L&V impact. This impact would be experienced over a small area but it would be persistent and long term. This impact could be substantially reduced by relocating the intake.</p> <p>An intake downstream of the falls (if feasible in terms of levels) would be visible from the bridge but at a greater distance and from the up-stream side where the structure is simpler and the water-level constant.</p> <p>An intake beneath the bridge, the bridge being temporarily removed and reconstructed above the intake.</p> <p>An intake upstream from the proposed location, out of sight from the bridge would be reduce the L&V impacts associated with the intake but the challenges associated with getting the pipeline sensitively routed and restored and reinstated would be greater.</p> <p>Alternative options may have been explored but have not been presented in the ES.</p>
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	<p>construction area would have significant, adverse localised effects on landscape character especially small scale features that impossible to recreate (this would be significant in the short, medium and longer term)</p>		<p>In the event that the scheme is approved with the intake in this location the following measures would help to reduce the intrusion of the intake.</p> <p>Reduce reflectivity, reflect natural forms and encourage rapid colonisation of concrete surfaces by using structured and textured form work when pouring concrete.</p> <p>Or use stone facing - but great care required in getting the scale and appearance of stonework suited to the location. An experienced stoneworker should be employed.</p> <p>Look at simplifying the plunge pool/dewatering arrangements</p> <p>Remove upstanding handrails</p> <p>Screen sluice control and telemetry/level sensor box</p> <p>Finish intake chamber below ground level if possible, restore and reinstate ground above leaving only the chamber hatch visible.</p>
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			<p>Planting between the bridge and the intake on the north side of the river to partially screen and deflect the view. Scope for planting is however limited by rocky ground.</p> <p>Compensation</p> <p>To compensate for non-mitigable landscape impacts I would recommend enhancing the landscape in the vicinity of the intakes by reducing deer pressure/planting and protecting trees on the eroded and unstable glacial-fluvial slopes (more detail), planting native broadleaves to enhance the conifer woodland edges</p>
<p>Secondary intake</p> <p>Small structure 1263cm wide intake, coanda screen with sump beneath leading to low-pressure pipeline. Tied into surrounding terrain with boulders in concrete. Joins system at primary intake chamber.</p> <p>This intake is in an area of accumulated fluvial-glacial material with</p>	<p>Small scale, low lying structure.</p> <p>Will be made more obvious during construction phase.</p> <p>Concern re stream bank stability/mobility of glacial-fluvial materials and risk of wash-out around concrete 'tie-ins' once intake constructed.</p> <p>Evidence further downstream of major washouts though likely</p>	<p>Low-lying but possible visible from the footpath.</p> <p>Sensitivity medium, magnitude low. No significant adverse visual impact in longer term.</p>	<p>Level of impact dependent on good fit, stable soils and vegetation and no wash-outs. Evidence of high quality restoration and reinstatement to stabilize soils and vegetation disturbed during and post construction with possible use of geogrid or other earth strengthening techniques required.</p> <p>See compensation measures above.</p>

<p>little evident bedrock.</p> <p>Assume no permanent constructed access required to intake.</p> <p>No details in CMS</p>	<p>exacerbated by deer pressure.</p> <p>Sensitivity medium/low, magnitude low (post construction). No significant landscape impact in the medium to long term</p>		
<p>Penstock and access tracks to intakes</p> <p>Secondary intake (dimensions of pipe not given) route of 150m alongside existing track and across bridge to join at primary intake</p> <p>The penstock is 1km long and the side link to secondary intake about 150m. The route of the proposed pipelines are shown on drawings HF0283 I- MAP05 I to I0.</p> <p>Pipeline from primary intake 500 mm HDPE pipe from primary intake approx. 160m across open ground and through edge of conifer wood to join existing track through conifer woodland.</p> <p>Permanent access to intake will be along this existing track.</p> <p>There are no x-sections through the penstock construction corridor and no typical</p>	<p>Some trees will need to be felled along the route and for pipe welding area and other trees may be destabilized in the conifer woodland.</p> <p>Despite the rolling approach to construction and restoration of access tracks there will be a prominent linear feature of some 4m width across the landscape for the construction period and on the open heathery area south of the woodland restoration and reinstatement may be slower. The sensitivity of the landscape along the pipeline will range from low to high (on the slopes down to turbine house). The magnitude of effect in the construction period will be high and the impact significant. Providing careful</p>	<p>Almost all Parts of the access and pipeline will be visible during construction from the public roads and footpaths.</p> <p>Visual sensitivity low to high (though rerouting of paths during construction).</p> <p>Significant visual impact in the short term. Minor in the longer term.</p>	<p>Adverse long term impacts will be avoided by high quality restoration and reinstatement. The rolling approach to construction and restoration will help to reduce the risk of poor reinstatement associated with long term storage of materials.</p> <p>Cross sectional details for pipeline corridor and access track and restored levels and vegetation reinstatement required at intervals along the route. Details of drainage required.</p> <p>Reinstatement of access track to include vegetated sides and central strip.</p> <p>Details for vegetation and soils management during construction required in CMS.</p> <p>Details for restoration/reinstatement of dry stone dyke at road</p>

<p>access track cross section, Though described page 15 of ES as 1.4m deep trench and 1m wide. To safely excavate this without formwork in these soils, the trench could in places be 3m or more wide plus access for construction means a cons corridor of 5m shown on the drawings may well be insufficient.</p> <p>Close to the turbine house the pipeline is shown as being covered, in embankment.</p> <p>Pipe welding area in woodland.</p> <p>Construction compound on improved field by roadside</p>	<p>removal, storage and replacement of soils and turfs the magnitude of effect in the long term is likely to be low, leading to a minor level of impact.</p> <p>The finished shape of the covered section of pipeline will be crucial to reducing the impact of the turbine house and surrounds</p>		<p>crossing.</p> <p>Mitigatory tree planting in pipe welding area and along the edges of the access track required.</p> <p>Mitigate the landscape and visual impacts of new access track to power house by planting of trees (encouraging regeneration in enclosures to match existing groups of trees - there are already aspen within the grass sward). This will create an enhanced landscape setting for the track and in the long term.</p> <p>Cross sectional details and plans required for pipeline/turbine house.</p> <p>Details of construction compound preparatory works and restoration and reinstatement required in CMS.</p> <p>The CMS should contain contingency measures should excavations reveal the pre-existing pipeline.</p>
<p>Turbine House and tail race</p> <p>The proposed turbine house is block and timber clad structure with profile sheeting roof with a footprint</p>	<p>The form of the turbine house is designed to reduce the landscape and visual impact. The general form reflects that of other small buildings on the estate and a</p>	<p>The building and outfall channel will be clearly visible to those who venture along the access</p>	<p>Mitigate prominence of building and associated structures in views from public locations by;</p> <p>Siting the building tight in to the base of the natural slope so that it does not</p>

<p>roughly the same as a garage (no details) Check alignment and integration with landform, and aspect.</p> <p>The building is accessed via entrance doors on the south</p> <p>External pigging point and concrete slab</p> <p>The outfall is via a buried pipe to a screen and an open outfall channel of some 10m to 12m back into the corriemulzie burn</p>	<p>building in itself need not, in this location, have a significant landscape impact. However the construction of the turbine house combined with the covered section of pipeline, outfall and access track and turning area, will have a significant short term landscape impact and the turbine house could have a longer term impact if overly prominent in the wider landscape.</p> <p>concrete pigging point and H-pole transformer</p>	<p>track.</p> <p>The visual prominence and impact of the turbine house in views from the public road and footpaths will relate to the nature of the finish on the building, and the extent to which the surrounding area is vegetated.</p>	<p>extend on to flood plain, Including the pigging chamber and concrete pad inside the building to reduce visual clutter.</p> <p>Any hard standing or turning area to be vegetated geogrid or similar.</p> <p>Green roof for building to be investigated. If monopitch, slope to reflect slope of hill behind.</p> <p>Compensation -Removal and reinstatement of the former hydro powerhouse to reduce the clutter of infrastructure.</p> <p>Mitigate combination of landscape and visual impacts by integrated landform restoration and vegetation reinstatement and additional tree planting. Tree planting to be in small enclosures to match existing pattern and to be arranged so as to provide partial screening in views from east especially from the car park on the Linn of Dee road.</p> <p>Redesign outfall so handrail not required.</p>
<p>Transformer and</p>	<p>The buried line will</p>	<p>overhead H</p>	<p>Include transformer</p>

<p>Grid connection Buried line from an H pole. No explanation of why it has to be on an H-pole</p>	<p>have negligible impact in this landscape overhead H pole would increase the landscape impact of the turbine house and surrounds considerably</p>	<p>pole would increase the visual impact of the turbine house and surrounds considerably</p>	<p>inside building or immediately at western end.</p>
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Concluding Advice:

(This should consist of a brief summary of the key points that have been considered by the internal specialist in their area of expertise)

This proposed hydro scheme is in the vicinity of a pre-existing scheme, the remnants of which are still evident within the landscape. In principle a small hydro proposal here ought to be able to meet the landscape policy tests in the Local Plan and the NPPP, however there is a general lack of detail on matters that could make the difference between significant and non-significant impacts. In particular the location of the primary intake is an issue. The location of intake is a small but very scenic a 'gem' of a location in the NSA and National park. Should it not be possible to move the location of the intake then it is likely that this component of the scheme would fail to complement and enhance the landscape character of this small part of the NP.

Considerable detail is required in respect of the various component parts of the scheme and I would advocate that the majority of this should be secured prior to the application being considered by the committee.

Advice: (Place an 'X' in box and elaborate where necessary)

<p>X</p>	<p>Further information is required (see in red above)</p>
	<p>The development raises no issues in relation to INSERT e.g. landscape</p>
	<p>The development could have a major localised impact on landscape character, but has the potential to be addressed by ensuring a high quality of restoration and reinstatement.</p>
<p>x</p>	<p>In the event of planning permission being granted, conditions are required to address some design elements and the detail of landscape restoration and reinstatement.</p>
	<p>The development raises issues in relation to INSERT e.g. ecology, that are not capable of resolution.</p>
<p>x</p>	<p>The development has potential for a positive impact on landscape</p>

Further detail in support of advice: (please continue on additional page where necessary)

I would advise that the following are addressed prior to works being undertaken
See above

In addition to the areas referred to in red in the table above I would recommend that the applicant consider the creation of a viewing platform for the Linn of Corriemulzie

falls (Royal Engineers?) as compensation for intake impacts.