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Red John Pumped Storage Hydro Scheme

Volume 5, Appendix 11.2: Landscape Assessment

ILI (Highlands PSH) Ltd.

November 2018

Quality information

Prepared by	Checked by	Verified by	Approved by
Robert Hewitt	Ruth Mauritzen	Ruth Mauritzen	Catherine Anderson
Senior Landscape Architect	Associate Director	Associate Director	Associate Director

Revision History

Revision	Revision date	Details	Authorized	Name	Position
1	November 2018	Submission	CA	Catherine Anderson	Associate Director

Distribution List

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Table of Contents

Tables

Appendix 11.2 Landscape Assessment

11.1 Introduction

11.1.1 This Appendix should be read in conjunction with Chapter 11: Landscape and Visual, Section 11.4 Baseline Environment (Volume 2) and Figures 11.1-11.4 (Volume 3). All landscape and visual mitigation is embedded and described in Chapter 3: Evolution of Design and Alternatives (Volume 2) and Appendix 3.2 Landscape and Ecology Mitigation Plan (LEMP). All effects identified in the table below are therefore residual.

11.2 Landscape Assessment

11.2.1 This appendix provides a detailed assessment of the significance of effects on landscape receptors at each of the assessment phases: Construction, Operation (year 1) and Operation (year 15). The assessment is set out in the following tables:

- Table 11.1 Landscape Designations
- Table 11.2 Broad Steep-Sided Glen
- Table 11.3 Farmed and Wooded Foothills
- Table 11.4 Flat Moorland Plateau with Woodland
- Table 11.5 Rocky Moorland Plateau
- Table 11.6 Rocky Moorland Plateau with Woodland

Table 11.1 Landscape Designations

Importance of the Site / Special Qualities	Comment
Aldourie Castle GDL	
The Aldourie Castle designed landscape is comprised of a picturesque, multi-phase castle, gardens and parkland with a fine tree collection and is considered to be of outstanding scenic value. Vistas to the Castle are presented on the approach along the main entrance drive which extends westwards off the B862. The parkland extends to the south and east of the Castle. Its north side is sheltered by a tree belt which stretches north-westwards from the public road to the loch, enclosing the kitchen garden, burial ground and arboretum. The easternmost park is bounded on its west by a section of the main drive leading to the kitchen garden, while its southern boundary is defined by the Dobhrag Burn, with fields to the south of the burn. West of the drive the parkland extends to the front of the Castle and then around to the south-east. Tree-clumps and specimen trees form the parkland and channel views across from the drive to the Castle and Loch.	Intervisibility of construction activities within the Development Site would be restricted to small portions of estate parkland at the eastern extents of this GDL. During construction, temporary effects on the setting of this GDL would therefore be limited to these areas of the parkland where the scale and intensity of forestry clearance operations and the movement of plant on the cleared hillside would appear within the wider landscape setting to the east of the GDL. However the majority of the landscape setting and framed vistas from the Castle would remain intact. At year 1 of operation the expanse of cleared forestry and the introduction of the Embankment would be visible from eastern parts of the estate parkland but would have limited influence on the setting, with the overall landscape setting and framed vistas from the Castle remaining intact. At year 15 of operation the Headpond and Embankment would be integrated into the landscape and would have little bearing on the landscape setting and framed vistas experienced from the Castle.
Loch Duntelchaig and Loch Ness SLA	
The Dramatic Glen	
The imposing steep-sided landform trench, formed by a large strike-slip fault which slices through the centre of the Highlands, creates a dramatic linear landscape which is relatively easily to access and readily appreciated. The very striking profile of the glen is typically best appreciated from either end, or from the water, although good views are also obtained from elevated viewpoints upon the loch-side ridges and hill tops.	Construction activities would be visible on the eastern slopes of the glen extending from the loch shore part way up the hillside and would be particularly noticeable from elevated locations on the opposite side of the loch. At year1 of operation the largescale removal of forestry, required to facilitate the Development, extending from the loch shore up the hillside to the moorland plateau. However, at year 15 of operation the Development would be well integrated into the landscape and the overall quality and impression of the landscape would remain intact.
The steep sided slopes of the glen are often deeply incised by watercourses, including the notable Falls of Foyers. These slopes are also flanked by a diverse mix of woodland and forests and form an open smooth moorland skyline ridge.	The Development would not affect these watercourses or associated characteristics.

Importance of the Site / Special Qualities	Comment
Strong contrasts exist between the northern and southern slopes in terms of access, activity and settlement which are all considerably more limited on the south side of the loch, reflecting the variations in access, slope, aspect and microclimate.	The scale and intensity of construction operations would noticeably increase the sense of activity on a small section of the southern slopes of the loch. At year 1 of operation the Development would result in a slight increase in the sense of activity at the Tailpond and Headpond. However, at year 15 of operation the Development would be well integrated into the landscape and would have little bearing on this special quality.
There are distinctive views of grand proportions and long vistas along a vast expanse of the loch, with the detail of foreground features gradually diminishing to distant silhouettes.	Construction activities at the loch shore and on the hillside would distract from the scenic quality of the vivid scenes and long vistas. However once in operation the Development would have little bearing on this special quality.
Atmospheric mists and banks of low cloud often linger over Loch Ness and enhance its dramatic character. Limited visibility during these conditions may reinforce the myth of the monster which is responsible for the many visitor attractions and facilities in Drumnadrochit.	Construction activities on the loch shore would in part disrupt the dramatic character experienced from attractions where views across the loch are integral to the experience. Operations on the loch and loch shore would be particularly disruptive. However once in operation the Development would have little bearing on this special quality.
Urquhart Castle is a prominent focus along the loch, occupying a magnificent situation on an irregular headland of rock jutting out into the loch and commanding splendid views up and down the Great Glen.	The scale and intensity of construction activities would distract from the well composed vistas up the Great Glen experienced from Urquhart Castle. At year 1 of operation the Development would be discernible from Urquhart Castle but would not disrupt the primary focus of views across the loch. At year 15 the Development would result in little perceptible change to this special quality.
The landscape is typically experienced from the B852, B851 and the A82. From these routes, however, the loch is viewed at an oblique angle and thus these do not reveal the striking 'v' shape of the glen that is visible at either end. High numbers of walkers and cyclists also view the landscape from the Great Glen Way, while others see it from a high number of boats on the loch, some travelling the length of the Caledonian Canal. From elevated locations along the glen, it is easier to appreciate the simple line, large scale and great expanse of the loch although, even from these places, it is typically difficult to see all of the loch in one view due to its great length. It is also difficult to perceive the scale of the landscape due to a lack of size indicators. From elevated viewpoints, the glen can be seen within its context of a landscape of elevated plateaux and hills.	The scale and intensity of construction activities would be uncharacteristic and introduce incongruent elements noticeable from these routes and elevated locations. The contrasting scale of construction activity on the loch shore would be particularly apparent from sections of the A82. At year 1 of operation the Development would have some bearing on each of these routes and from elevated areas along the glen. The Development would introduce a new feature within the elevated moorland plateau, however, the Headpond would not alter the sense of scale experienced from across the glen. By year 15 of operation the Development would be well integrated into the landscape and would have little bearing on this special quality.

Importance of the Site / Special Qualities	Comment
Most of the hills and high points along the enclosing ridges are indistinct in character, however Meal Fuar-mhonaidh is one example of a distinct hill peak, nearly 700m high, it stands out as a landmark clearly visible from both ends of the loch, and is even prominent in views southwest from the castle in Inverness. Meall Fuar-mhonaid is a good vantage point from which to appreciate the massive scale and alignment of the Great Glen fault within a backcloth of the Monadhliath massif to the south and the Balmacann and Affric mountain interior to the north west, both areas which possess wildness qualities.	Forestry clearance operations may be perceptible in distant views from Meall Fuar-mhonaid. However once in operation the Development would result in little perceptible change to this special quality.
Contrasting Intimate Plateau	
An undulating moorland plateau of rocky knolls flanked by small-scale woods and forests, patches of pastures and sporadic farmsteads, and interspersed with a sequence of tranquil lochs, that creates an intimate mix of landscape elements of changing visual interest.	The scale and intensity of construction activity at the Headpond would noticeably contrast with the intimate balance and mix of high quality landscape features comprised of the undulating moorland plateau of rocky knolls, small-scale woods and forests, sequence of tranquil lochs, pastures and sporadic farmsteads. At year 1 of operation the extent of forestry removal would result in a noticeable change to the landcover. The Embankment structure and Headpond would contrast with the intimate balance and mix of high quality landscape features, although it would not be dissimilar to other large waterbodies including Loch Duntelchaig. The Landscape Embankment would further help to integrate the Headpond and Embankment into the wider plateau landscape by softening the steeper engineered slopes. At year 15 of operation the reinstatement woodland would help to integrate the Headpond and Embankment into the landscape. The composition of the reinstated woodland would also improve the balance and scenic quality of the landscape.
Historic Landscape	
Achculin, accessed from Balchraggan by a small track, is a well preserved depopulated township that is now a scheduled monument.	The Development would have no bearing on the scheduled monument.
The eastern shore of Loch Ness incorporating Loch Duntelchaig, Loch Ashie and Loch Ruthven were clear foci of intensive prehistoric activity. Numerous roundhouses and field systems, interspersed with ritual and burial monuments such as burial cairns, burnt mounds and standing stones proliferate in this area; 3 crannogs are located on Loch Ruthven.' (Ref 11.1)	The construction of the Headpond may result in the loss of some areas of local heritage value associated with assets near Loch Ashie. Refer to **Chapter 13: Archaeology and Cultural Heritage** Section 13.5 for further detail.

Table 11.2 Broad Steep-Sided Glen

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Value: **High** Susceptibility: The dramatic steep-sided landform of the Great Glen combined with the open and exposed expanse of Loch Ness results in a landscape with very little capacity to accommodate the Development. Therefore susceptibility to change is considered to be **High**. Landscape Sensitivity: Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be **High**	Construction: Construction activities would fall within this LCT and as such there would be physical changes to the fabric of this landscape. The scale of forestry clearance operations would result in a noticeable change extending from this LCT into the neighbouring landscape. Construction activity associated with the Tailpond and Temporary Access Tracks would result in the introduction of large temporary structures including the Cofferdam and Temporary Jetty at the shore of Loch Ness. Construction activity would also include the transport and loading of barges and other vessels on the loch itself. In addition, the construction activities at the Temporary Compound (3) including the storage and transport of materials, movement of plant and earthworks would occupy a small area on the steeply sloping hillside. Together these components and construction activities would be noticeable and uncharacteristic elements in the landscape. The scale and intensity of movement of cranes, construction plant, earthworks and the storage of materials along with lighting within a largely un-lit landscape would be uncharacteristic and introduce incongruent elements that would substantially diminish the remote qualities of the eastern sides of the loch. The aesthetic and perceptual qualities of this landscape would be reduced by the scale and extent of construction activity. Overall construction activity would affect a substantial proportion of this LCT within the study area resulting in a **Medium** magnitude of change. The magnitude of change, assessed alongside the sensitivity would result in a **Moderate Adverse** effect, which is considered **significant**.	**Moderate Adverse (Significant)**

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Broad Steep Sided Glen (cont.)	Operation (Year 1): The removal of forestry would be a noticeable physical change to the landcover across a small part of this LCT. The Tailpond Inlet / Outlet Structure, Permanent Compounds (1 and 2) and buildings including the Battery House and Substation would be located within this LCT. Whilst the Headpond is located immediately adjacent in the flat moorland plateau with woodland LCT, it would have a noticeable bearing on the character of this LCT. Together, the Development would introduce a series of uncharacteristic elements within the landscape and would change some of the key characteristics. The loss of semi-natural and ancient woodland along the loch edge would disrupt the sequential movement experienced throughout this LCT. Furthermore, the Development would contrast with the more remote character experienced along the eastern side of Loch Ness. Overall the Development would affect some of the key characteristics and special qualities of the Loch Ness and Loch Duntelchaig SLA across a substantial portion of this landscape. Taking all of this into account the magnitude of change is considered to be **Medium**. The magnitude of change, assessed alongside the sensitivity would result in a **Moderate Adverse** effect, which is considered **significant**.	**Moderate Adverse (Significant)**
	Operation (Year 15): The establishment of native broadleaf woodland would reinstate large areas of former coniferous plantation and re-stock the existing pockets of semi-natural woodland. This would reinforce the character and pattern of semi-natural and ancient woodland that extends up the loch edge and would improve the visual and seasonal diversity that contrasts with the coniferous and moorland backdrop of the LCT. The Development would be largely integrated into the landscape and the presence of the Valvehouse, Control Building and Workshop at the Tailpond and the Inlet / Outlet Structure would not be entirely incongruent within this LCT. The Headpond would have less bearing on the setting of this LCT at year 15 as the native broadleaf woodland would have established. The reinstatement woodland would largely integrate the Development into the eastern side of the loch and help to restore the sense of remoteness experienced. The reinstatement native broadleaf woodland would not compromise the established balance of features created between the improved pasture, surrounding woodland and moorland. The overall impression of the character and quality would remain largely intact, therefore the magnitude of change is considered to be **Low**. The magnitude of change, assessed alongside the sensitivity would result in a **Minor Adverse** effect, which is not considered significant.	**Minor Adverse**

Table 11.3 Farmed and Wooded Foothills

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Value: **Medium** Susceptibility: The existing large-scale waterbodies create a strong central emphasis to the landscape which affords some capacity to accommodate the Development. However, this landscape offers recreational opportunities and a sense of remoteness which makes it somewhat more susceptible. Taking this into account, landscape susceptibility to change is **Medium**. Landscape Sensitivity: Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be **Medium**.	Construction: Intervisibility between the Development and this LCT is limited to flat expanses across Loch Duntelchaig and the slopes of the foothills. Therefore large swathes of this LCT to the south and east would not be affected. Construction activities would be located in the neighbouring LCT and therefore effects on the Farmed and Wooded Foothills LCT would be limited to its northern setting. Construction activity associated with the Headpond and Embankment would include forestry clearance operations, large-scale earthworks, storage of materials, presence of lighting and the movement of construction plant. Whilst not entirely incongruous, forestry clearance operations would be of a scale that would have a strong influence on the setting and sense of remoteness experienced within the northern parts of this LCT. Overall construction activity would result in a partial change to the perceptual and aesthetic quality of this LCT. However, the balance of high quality landscape components and areas of greater scenic quality would remain unaffected. The magnitude of change is therefore considered to be **Low**. The magnitude of change, assessed alongside the sensitivity would result in a **Minor Adverse** effect, which is not considered significant.	**Minor Adverse**
	Operation (Year 1): Given the relatively limited intervisibility between the Development and this LCT described above at construction, large swathes of this LCT to the south and east would not be affected. The removal of coniferous plantation and semi-natural woodland in the neighbouring LCT and the introduction of the Headpond, Embankment, Permanent Access Track and Permanent Compound (4) would have a bearing on the northern setting of this LCT. The Headpond would not be entirely uncharacteristic due to the presence and scale of other large waterbodies within the immediate context. Overall the Development would result in a partial change to the aesthetic quality to part of this LCT however, the overall balance of characteristics would not be altered. The magnitude of change is considered to be **Low**. The magnitude of change, assessed alongside the sensitivity would result in a **Minor Adverse** effect, which is not considered significant.	**Minor Adverse**

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Farmed and Wooded Foothills (cont.)	Operation (Year 15): Once the introduction of native broadleaf woodland has established, the Development would be more integrated into the landscape and therefore further limit the scale and extent of change to the perceptual and aesthetic quality of this LCT. The Development would not alter the overall impression and balance of characteristics which would remain intact. Therefore the magnitude of change would be **Very low**. The magnitude of change, assessed alongside the sensitivity would result in a **Negligible** effect, which is not considered significant.	**Negligible**

Table 11.4 Flat Moorland Plateau with Woodland

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Value: **Medium** Susceptibility: This LCT is considered to have some capacity to accommodate the Development without affecting the overall integrity. The vast scale of coniferous plantations combined with the open moorland plateau and large water bodies within this landscape help to reduce the susceptibility. Taking this into account, landscape susceptibility to change is **Medium**. Landscape Sensitivity: Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be **Medium**.	Construction: Construction activity would be located within this LCT and would therefore result in physical changes to the fabric of the landscape. Construction activity would be associated with the Headpond and Temporary Compounds, C1064 Realignment and Temporary Access Track. Construction activity would include forestry clearance operations, movement of construction plant and vehicles, earthworks and storage of materials. The scale of this construction activity would result in a noticeable and uncharacteristic change across a large extent of this LCT and would diminish the perceptual and aesthetic quality of the landscape. The magnitude of change is considered to be **Medium**. The magnitude of change, assessed alongside the sensitivity would result in a **Moderate Adverse** effect, which is considered **significant**.	**Moderate Adverse (Significant)**
	Operation (Year 1): At year 1 of operation the introduction of the Headpond, Embankment, Permanent Compound (4), re-aligned C1064 and Permanent Access Track would result in a noticeable change to the physical fabric of this LCT. The scale and extent of forestry removal would also result in a noticeable change to the landcover and overall impression of the landscape. However, the introduction of the Headpond would not be dissimilar to other large waterbodies found in this landscape. The re-aligned C1064 would retain a similar character to the existing road and would be well integrated into the landscape. However, the Embankment, Headpond Inlet / Outlet Structure and associated components would be a noticeable addition and somewhat incongruous to the scale and pattern of the landscape. The Landscape Embankment would help to integrate the Headpond and Embankment into the wider plateau landscape by softening the steeper engineered slopes. Despite the scale and somewhat uncharacteristic nature of the Development many key characteristics of the landscape would remain intact. Taking this into account the magnitude of change is considered to be **Medium**. The magnitude of change, assessed alongside the sensitivity would result in a **Moderate Adverse** effect, which is considered **significant**.	**Moderate Adverse (Significant)**
	Operation (Year 15): Reinstatement native broadleaf woodland would help to integrate the Headpond and Embankment into the landscape. Furthermore, the species composition of the woodland would improve the overall balance and scenic quality of the landscape. The Development would not alter the overall impression and character of this LCT therefore the magnitude of change is considered to be **Low**. The magnitude of change, assessed alongside the sensitivity would result in a **Minor Adverse** effect, which is not considered significant.	**Minor Adverse**

Table 11.5 Rocky Moorland Plateau

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Value: **Medium** Susceptibility: The attributes that contribute to the character of this LCT afford some capacity to accommodate the Development without effecting the overall integrity. This LCT is located on the opposite side of Loch Ness to the Development Site and affords a degree of separation which somewhat reduces the susceptibility. Taking this into account, susceptibility to change is **Medium.** Landscape Sensitivity: Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be **Medium**.	Construction: Intervisibility between the Development Site and this LCT is limited to the eastern slopes at the periphery of this landscape and therefore potential effects are limited. Construction activity would be located in the neighbouring LCTs on the opposite side of Loch Ness and effects would be restricted to the eastern setting. The scale and intensity of construction activity would include large-scale forestry clearance operations, the movement of large-scale construction plant and the introduction of temporary structures at the Tailpond and Temporary Jetty. Overall construction activity would partially reduce the sense of remoteness experienced from a small part of this LCT however, the majority of the key characteristics would be unaffected. Taking this into account the magnitude of change is considered to be **Low**. The magnitude of change, assessed alongside the sensitivity would result in a **Minor Adverse** effect, which is not considered significant.	**Minor Adverse**
	Operation (Year 1): Given the limited intervisibility with the Development Site, effects would be limited to the peripheral eastern slopes of this LCT. The introduction of the Development would result in little perceptible change to the key characteristics and overall integrity of this LCT. Therefore the magnitude of change is considered to be **Very low**. The magnitude of change, assessed alongside the sensitivity would result in a **Negligible** effect, which is not considered significant.	**Negligible**
	Operation (Year 15): At year 15 of operation once the native broadleaf woodland has established, the Development would result in little discernible change to the key characteristics and overall integrity of this LCT. Therefore the magnitude of change is considered to be **Very low**. The magnitude of change, assessed alongside the sensitivity would result in a **Negligible** effect, which is not considered significant.	**Negligible**

Table 11.6 Rocky Moorland Plateau with Woodland

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Value: **Medium** Susceptibility: This landscape has the capacity to absorb change without unduly affecting the overall integrity of this LCT. The vast scale and open nature of this landscape, combined with the large-scale coniferous plantations and clearance operations reduce the susceptibility which is considered to be **Low.** Landscape Sensitivity: Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be **Low**.	Construction: Construction activity would be located in the Neighbouring LCTs and on the opposite side of Loch Ness and as such, effects would be limited to the setting and perceptual qualities of this LCT. Whilst forestry clearance operations are not uncommon, the scale of operations required to facilitate the Development would have a bearing on the setting of this LCT. Construction activity associated with the Tailpond and Headpond would include the movement and loading of large-scale plant, the introduction of Temporary Access Tracks, Temporary Compounds and buildings, earthworks and storage of materials and the presence of lighting. Together, the scale and intensity of construction activity would be an incongruous addition on the setting and would noticeably reduce the relative sense of remoteness and the aesthetic quality across eastern and elevated parts of this LCT. Overall construction activity would result in a partial change to the eastern setting of this LCT however, the majority of the key characteristics and overall integrity of the LCT would remain intact. Therefore the magnitude of change is considered to be **Low**. The magnitude of change, assessed alongside the sensitivity would result in a **Minor Adverse** effect, which is not considered significant.	**Minor Adverse**
	Operation (Year 1): The Development would be located in the Neighbouring LCTs and on the opposite side of Loch Ness and as such effects would be limited to the setting and perceptual qualities of the eastern elevated plateaus of this LCT. The removal of forestry and the introduction of the Headpond waterbody would not be entirely incongruous with the setting that defines the setting of this LCT to the east. Overall there would be little perceptible change to the quality and characteristics of this LCT. Therefore the magnitude of change is considered to be **Very low**. The magnitude of change, assessed alongside the sensitivity would result in a **Negligible** effect, which is not considered significant.	**Negligible**
	Operation (Year 15): Effects on this LCT at year 15 would be similar to those at year 1 of opening. Once native broadleaf woodland has established the Development would be further integrated into the landscape and would have little bearing on the setting and perceptual quality of this LCT. All of the key characteristics of this LCT would remain intact, therefore the magnitude of change is considered to be **Very low**. The magnitude of change, assessed alongside the sensitivity would result in a **Negligible** effect, which is not considered significant.	**Negligible**

11.3 References

Ref 11.1 Horner and Maclennan with Mike Wood (2011). Assessment of Highland Special Landscape Areas.

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