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Red John Pumped Storage Hydro Scheme

Planning Statement

ILI (Highlands PSH) Ltd

November 2018

Quality information

Prepared by	Checked by	Verified by	Approved by
Siobhan Wolverson	Fraser Blackwood	Catherine Anderson	David Ritchie
Senior Planner	Associate	Associate Director	Associate Director

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Distribution List

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Glossary

Abbreviation	Description	Abbreviation	Description
AOD	Above Ordnance Datum	NPF3	National Policy Framework 3
CAR	The Water Environment (Controlled Activities) (Scotland) Regulations 2011	NTS	Non-technical Summary
CARES	Community & Renewable Energy Scheme	PAC	Pre-application Consulation
CEMP	Construction Environment Management Plan	PAN	Planning Advice Note
EIA	Environmental Impact Assessment	PSH	Pumped storage hydro
EU	European Union	s36	Section 36 of the Electricity Act
GHG	Greenhouse gas	SAC	Special Area of Conservation
GWh	Gigawatt hours	SEPA	Scottish Environment Protection Agency
ha	Hectares	SNH	Scottish Natural Heritage
HwLDP	Highland-wide Local Development Plan	SPA	Special Protection Area
IMLDP	Inner Moray Firth Local Development Plan	SPP	Scottish Planning Policy
INNS	Invasive non-native species	SSSI	Site of Special Scientific Interest
IPCC	Intergovernmental Panel on Climate Change	THC	The Highland Council
km	Kilometre	The Act	The Electricity Act 1989
LNCS	Local Nature Conservation Sites	The EIA Regulations	The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
MW	Megawatt	The Planning Act	The Town and Country Planning (Scotland) Act 1997
MWh	Megawatt hour	The Reservoir Act	The Reservoirs (Scotland) Act 2011
NGR	National grid reference	TPO	Tree Preservation Order
NNR	National Nature Reserve	TWh	Terawatt hours

Executive Summary

This Planning Statement supports a Section 36 ('s36') application under the Electricity Act 1989 for consent to construct and operate the Red John Pumped Storage Hydro (PSH) Scheme ('the Development'), which includes a request for deemed planning consent.

The purpose of this Planning Statement is to focus on how the Development responds to local and national planning policy; although a wider remit is established to detail the legislation and consents relevant to proposed PSH schemes, in addition to the nationally and internationally recognised need for, and benefits of, PSH.

Sites possessing suitable technical characteristics for PSH schemes are rare and the Development Site was carefully selected following a Scotland-wide review of PSH conducted by ILI (Highlands PSH) Ltd ('the Applicant'). From this early stage of site selection, national and local policy aspirations relating to environmental protection and opportunities for environmental enhancement were taken into account alongside suitable technical characteristics. The Development Site compared favourably to other potential sites providing the technical characteristics required by a PSH scheme whilst also avoiding environmental constraints or providing opportunities to mitigate impacts on them as far as possible. .

Since site selection, the Development has progressed through many stages of design, with feedback from statutory consultees and the community leading some of the key changes to make the final design the optimal solution in regards to potential environmental and social impacts, as well as in land-use planning policy terms. For example, the Environmental Impact Assessment (EIA) Scoping Opinion led to the proposed construction of an entirely new Headpond, despite the resulting requirement to realign the C1064 and the effects on undesignated archaeological assets and ancient woodland. This was because it was assessed as the most favourable headpond option by statutory consultees, considering especially ecology, archaeology, water quality and water resources.

In regards to the need for PSH, it is supported at an international level by organisations such as the Intergovernmental Panel on Climate Change (IPCC) and European Union (EU). Amongst the number of identified benefits, the technology can contribute to all three goals of the World Energy Council's (2018) Energy Trilemma, which are used to define energy sustainability. These goals relate to reduced energy prices, cleaner energy generation, and improved energy security.

PSH schemes are additionally supported at a national level and have been identified as 'national development' though National Policy Framework 3 (NPF3; Scottish Government, 2014a), which formally establishes the need for this development type in Scotland. The Scottish Energy Strategy (Scottish Government, 2017a) supports the development of new PSH schemes in Scotland in the 2020s.

Through drawing on the results of the EIA which is being submitted alongside this Planning Statement as part of the s36 application, few significant environmental effects are considered likely and planning policies are largely complied with. This reflects that throughout the design of the Development, due consideration was given to potential socio-economic effects and the environment, which has resulted in a large number of embedded mitigation measures, with some additional mitigation being designed to further reduce the potential effects of the final design.

Detailed analysis of the significant effects in regards to planning policy are the focus of section 5 of this Planning Statement, with a number being found acceptable in planning terms, on balance.

Reasons include (but are not limited to): that the overall conservation status of the species would not be adversely affected (as with Atlantic salmon and lamprey); that the likely effects on the landscape and visual environments would largely reduce over time as planting schemes mature; and that the provision of archaeological excavation / watching brief mitigation would allow for the recording and study of archaeological assets of which there are uncertainties.

Those outstanding significant effects are in regards to:

- The removal of Ancient, semi-natural woodland, which despite the proposed enhancement and mitigation measures to plant 214.4 ha of native broadleaved and mixed native woodland across the site, have a diversity which has been established over hundreds of years and so cannot be recreated (relevant to Policies 28, 52, 57, 60 and 67 of the Highland-wide Local Development Plan (HwLDP));
- The removal of long-established woodland of plantation origin, for similar reasons as to the loss of Ancient woodland (relevant to Policies 52 and 57 of the HwLDP); and,
- The long-term visual effect on areas, including roads and Core Paths, closest to the Development, as landscape planting would never be able to completely hide a development such as this when in close proximity to it (relevant to Policies 28, 67, 77 and Onshore Wind Energy Supplementary Guidance).

The overall environmental effects of this Development therefore have to be balanced. Although 8.7 ha of Ancient semi-natural woodland and 134.7 ha of long-established woodland of plantation origin would be felled for the construction of this Development, the overall area of native woodland would increase by 281 ha as a result of the Development, including the likely significant beneficial effect of planting 4.3 ha of juniper woodland. 92.75% of the Ancient woodland within the red line boundary would also not be affected notwithstanding the benefits on ancient woodland from improved fencing once the Development is operational.

The Development would additionally have key local and national economic and social benefits, including a significant beneficial impact on the local economy during construction. It would also tie in with the Highland Council's (THC's) vision for the Highland economy, with energy being a key sector recognised in HwLDP for providing opportunities in economic development and employment creation.

Taking into account the careful siting and design of the Development, as well as the national requirement for an increase of PSH in Scotland, and the many positives of the Development identified throughout the Planning Statement and EIA, it is not considered that the environmental or social effects of the Development would be significantly detrimental overall, respecting the aspirations of national and local planning policies.

1 Introduction

1.1 Introduction

1.1.1 This Planning Statement has been prepared by AECOM on behalf of ILI (Highlands PSH) Ltd (the 'Applicant'), to support a Section 36 ('s36') application under the Electricity Act 1989 ('the Act') for consent to construct and operate the Red John Pumped Storage Hydro (PSH) Scheme (hereafter referred to as 'the Development').

1.1.2 The Development is situated on Ashie Moor, Highland, approximately 14 kilometres (km) south-west of Inverness. It is centred on national grid reference (NGR) NH 60169 33087. The Development Site comprises an area of 950 hectares (ha) and straddles the watershed between the River Ness and River Nairn water catchments.

1.1.3 The Development will contribute towards a flexible and resilient future energy network and power supply, which is a key Scottish Government goal (Scottish Government, 2017a). Upon operation, the Development will have an installed electrical generation capacity in excess of 50 megawatts (MW).

1.1.4 PSH is a mature energy storage technology that was first installed towards the end of the 19th century and is now the most developed large-scale energy storage technology currently available. It is considered to have low levels of technological risk compared to other energy storage technologies and can react almost immediately to demands for electricity. Although not a renewable energy technology itself, PSH can complement renewables and reduce potential issues with variability caused by a network with reliance on renewables (Scottish Renewables, 2016; IRENA, 2015) and so permit greater penetration of intermittent renewables.

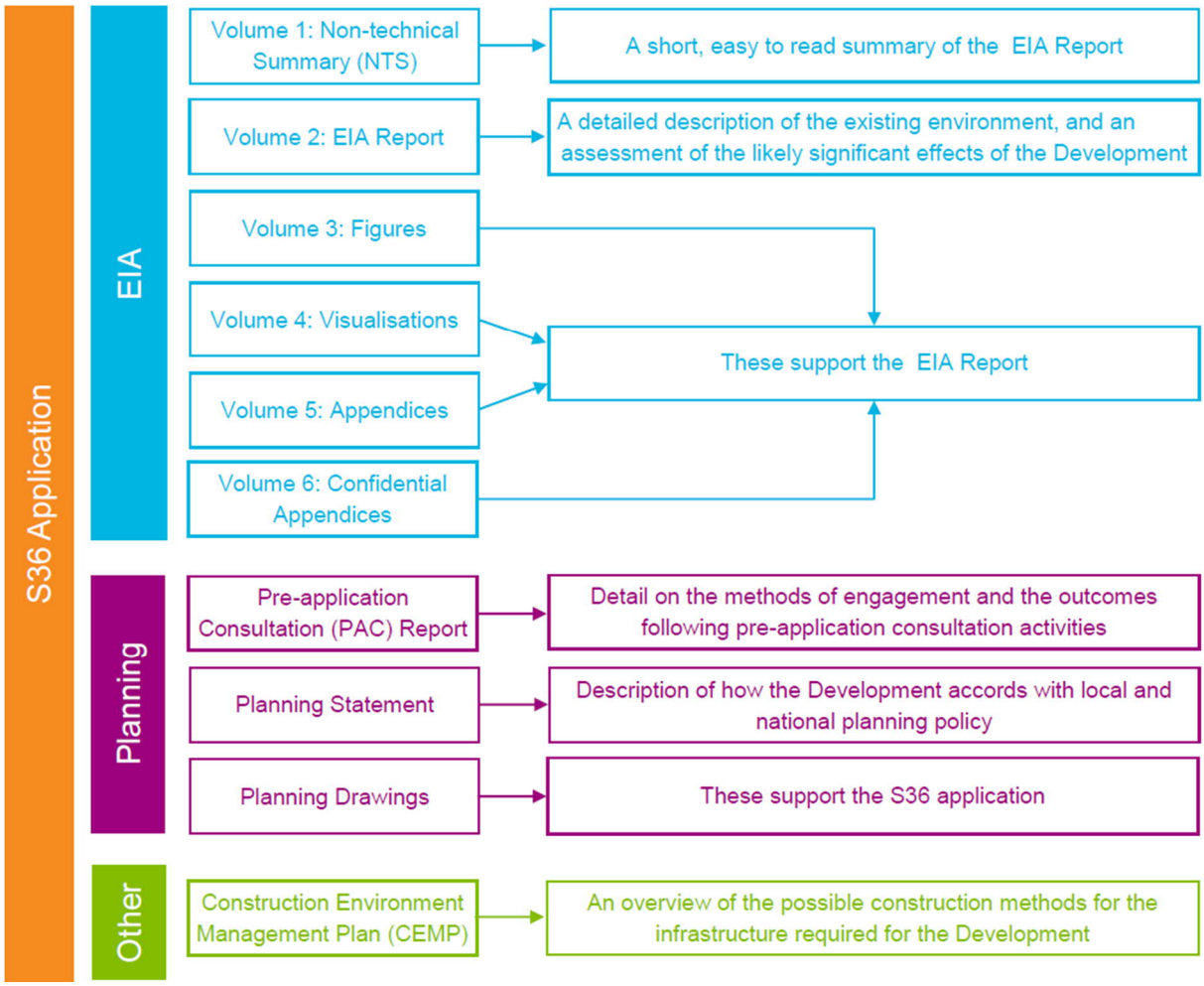
1.2 Purpose of Planning Statement

1.2.1 As per the Scottish Government Energy Consents and Deployment Unit's *Good Practice Guidance* (2013), the purpose of this Planning Statement is to describe how the Development responds to local and national planning policy.

1.2.2 The Planning Statement is one of the key documents of this s36 application, as illustrated through Insert 1.1. The Environmental Impact Assessment (EIA) Report and other relevant accompanying documents will be referenced throughout where they provide more detailed information that is not essential to repeat for the purposes of this Planning Statement.

1.3 Structure of Report

1.3.1 The focus of this Planning Statement will therefore be on how the Development responds to national (section 4) and local (section 5) planning policy. Prior to this however, the route to consent for the Development will be explained (section 2) and consideration will be given to the overall need for PSH, as recognised through international and national legislation and guidance (section 3).



Insert 1.1 Key Documents for S36 Application

2 Route to Consent

2.1 Introduction

2.1.1 This Chapter provides further detail on the Development, the planning history of the Development Site and the key legislation relevant to the consenting and licensing process.

2.2 Development Description

2.2.1 The location of the Development Site in the context of the surrounding area is displayed in Figure 2.1 Location Plan whilst Figure 2.2 Development Site provides a detailed illustration of the existing Development Site.

2.2.2 The application is to construct, operate a PSH scheme with an installed generation capacity in excess of 50 MW. As shown through Figure 2.3 Development Layout, the Development comprises the following component parts:

- Above ground components:
  - Headpond (comprises the upper waterbody; the embankment retaining the water in the Headpond; the landscape embankment to naturalise the Headpond; and the inlet / outlet structure largely within the embankment where the waterway exits the Headpond and which will house the mechanical equipment. Where visible on top of the embankment, this inlet / outlet structure will be stone clad or in a suitable material to be agreed with the Highland Council (THC));
  - Tailpond (comprises the lower waterbody (i.e. a small area of Loch Ness), with a partially submerged inlet / outlet structure where the waterways enter the loch; a permanent and temporary jetty for maintenance access to the inlet / outlet structure; a temporary cofferdam that will encircle the required Tailpond area and be pumped dry during construction of the inlet / outlet structure; and a temporary pier to build the cofferdam);
  - Four temporary construction compounds (for equipment and material storage, tunnel access, a site office, and welfare facilities);
  - Newly formed access to the Development Site from the public transport network;
  - Access tracks (both temporary and permanent, for movement around the Development Site); and,
  - Realignment of the public road (the C1064, which currently routes through the Headpond);
- Below ground components:
  - Waterways (a closed loop system for water transfer (consisting of a high pressure tunnel to the power cavern and a low pressure tunnel between the power cavern and Tailpond inlet / outlet structure), a spillway for draining excess water from the Headpond, also containing a scour pipe for scouring and draining in an emergency, and surge shafts as in-built safety features);
  - Power cavern, incorporating the powerhouse (containing reversible pump turbines) and transformer gallery (containing the transformers); and,

– Access tunnels.

2.2.3 Separate to the s36 application, there will also be a grid connection for the Development, which is likely to be underground electrical cables, for exporting electricity to the Knocknagael Substation, approximately 7 km north-east. This is not the subject of this application.

2.3 Site Development

2.3.1 Sites possessing suitable characteristics for PSH schemes are rare and the Development Site was carefully selected following a Scotland-wide review of PSH conducted by the Applicant. From this early stage of selection, policies relating to environmental protection were taken into account, with the Development Site comparing favourably to other potential sites by directly avoiding certain sensitive features, such as National Parks and European designated sites.

2.3.2 Since site selection, the Development has progressed through many stages of design, with feedback from statutory consultees and the community leading some of the key changes to making the final design acceptable in regards to environmental and social impacts, as well as in planning terms. This process is detailed in full through Chapter 3: Evolution of Design and Alternatives (EIA Report Volume 2), however to summarise:

- Design I: Pre-feasibility – A PSH Scheme utilising Loch Ness and Loch Duntelchaig identified; site location previously considered for the development of a hydro scheme;
- Design II: Feasibility – Concern raised regarding the spread of invasive non-native species (INNS) from Loch Ness (tailpond) to Loch Duntelchaig (headpond); Lochan an Eoin Ruadha and Loch na Curra considered as alternatives to the latter;
- Design III: Scoping – A high level environmental assessment was undertaken, identifying the environmental and social sensitivities in the area. As a result, two alternative designs were created, each with a different headpond option. Embedded mitigation measures were also built into the designs, such as ‘closed loop’ systems to ensure no cross-catchment transfer of water, which reduces the risk of the operational transfer of invasive non-native species (INNS);
- Design IV: Post Scoping – Following feedback from the Scoping Opinion and further consultation with Scottish Environment Protection Agency (SEPA), THC and Scottish Natural Heritage (SNH), the option to construct a new headpond was selected and amendments made to the design of the Development;
- Design V: Post Public Consultation – Comments and feedback from the local community and the landowner, further detail of which is provided in the PAC Report and Appendix 4.4: Consultation Tracker (EIA Report Volume 5), led to additional design amendments. This included realigning Core Paths and other local paths, and removing plans for visitor centres or recreational areas in favour of reinstating construction compounds to retain the tranquillity of the area;
- Design VI: Design Refinement – The design was refined following a design day involving environmental technical specialists. During this process, engineering requirements and environmental constraints were thoroughly analysed, and resulting changes included incorporating the spillway inlet into the headpond inlet / outlet structure, which removes the requirement for a spillway tower with a height of up to 20 m. This design was submitted with the Gate Check Report; and,

- Design VII: Section 36 Submission Design – Relates to the Development as submitted with this s36 application and includes minor changes relating to adjustments to the red line boundary, the underground arrangement of the power cavern, above ground access tracks near the compounds, and a roof on the tailpond inlet / outlet structure to limit visibility.

2.3.3 Environmental, social and planning considerations have therefore heavily influenced the design of the Development since project inception and this is apparent through the results of the EIA, which identify a limited number of significant environmental effects for project of this size, as well as the planning policy analysis within this Planning Statement (see especially the detailed analysis of the remaining significant effects in regards to planning policy in section 5).

2.4 The Electricity Act 1989

2.4.1 As a PSH Scheme, the Development is classified as a generating station, which requires consent from Scottish Ministers to operate under s36 of the Act as it will have a capacity of more than 50 MW.

2.4.2 The following Schedules of the Act are also applicable:

- Schedule 8:
  - Sets out the key requirements for an application for consent. This includes that a site map should be provided, illustrating the location of where any generating station is proposed (see Figure 2.3 Development Layout;
  - Ensures that the relevant local planning authority (LPA) will be involved in the application for consent (in this instance, The Highland Council (THC)). Notice is served to the LPA as part of the application process and an opportunity is provided for the Authority to submit their appraisal of the project; and,
  - Provision is also given to other consultees and members of the public to submit comments on the proposal.
- Schedule 9:
  - Concerned with the preservation of amenity and fisheries. In particular this ensures that natural beauty, flora, fauna and geological or physiographical features of special interest, as well as sites, buildings and objects of architectural, historic or archaeological interest are taken into account when determining a s36 application for the purpose of conservation and protection. Reasonable mitigation should also be adopted in regards to a proposed development and these features. These topics are referred to in section 5 and in detail through the EIA Report.

2.5 Town and Country Planning (Scotland) Act 1997 (as amended)

2.5.1 Section 57(2) of the Town and Country Planning (Scotland) Act 1997 (‘the Planning Act’), as amended by the Planning etc., (Scotland) Act 2006, states that Scottish Ministers can, on granting s36 consent, give a direction for planning permission to be deemed granted (subject to any conditions specified in the direction).

2.5.2 This application to Scottish Ministers for the Development therefore requests deemed planning permission in addition to s36 consent.

2.5.3 Due to the regulatory consenting process for s36 applications, the Planning Act is not fully engaged beyond Section 57(2) and therefore primacy is not given to, for example, the local development plan (Section 25) or Pre-Application Consultation (PAC) (Sections 35A-C). Nevertheless, the local development plan is a material consideration for Scottish Ministers who take the response from the LPA into account when determining s36 applications. In addition, PAC has taken place for the Development as detailed in the submitted PAC Report.

2.6 The Electricity Works (EIA) (Scotland) Regulations 2017

2.6.1 The Electricity Works (Environmental Impact Assessment (EIA)) (Scotland) Regulations 2017 ('the EIA Regulations'), apply to s36 applications under the provision of Section 2(a).

2.6.2 This Development requires an EIA under Schedule 2(1) of the EIA Regulations, as it will have an installed capacity of more than 50 MW and is considered likely to have potentially significant effects on the environment; it is therefore considered an 'EIA development'.

2.6.3 Section 3 of the EIA Regulations stipulates that s36 consent cannot be granted by Scottish Ministers for an EIA development unless an EIA has been conducted for that development and the environmental information is taken into account by the Scottish Ministers.

2.6.4 The EIA conducted for the Development has been designed to comply with the EIA Regulations, as is further detailed in the EIA Report (see Chapter 4: Approach to EIA (EIA Report Volume 2) especially).

2.7 Planning History

2.7.1 Outside the Scoping Opinion issued for this Development (reference: 17/04775/SCOP), there are no records of previous planning applications covering the Development Site, with the exception of much smaller applications within the wider boundary, such as in regards to dwelling houses and the installation of an underground water main (Highland Council, 2018).

2.8 Licences and Consents

2.8.1 The licences and consents detailed below will be required to construct and operate the Development.

S36 Consent and Deemed Planning Permission

2.8.2 As described in sections 2.4 and 2.5 of this Planning Statement.

Generation Licence

2.8.3 Section 6, paragraph (1) (a) of the Act, determines that a Generation Licence is required to generate a supply of electricity from Ofgem (via its governing body, the Gas and Electricity Markets Authority).

2.8.4 This application is subject to a fee and a decision is granted within 45 working days (Ofgem, 2013). The Applicant is in the process of obtaining this.

Compulsory Acquisition of Water Rights

2.8.5 Schedule 5 of the Act states that where a person who holds a Generation Licence as per Section 6 (1) (a), they may be authorised by order by the Scottish Ministers "*to abstract and divert from any watercourse or loch and to use such water as may be necessary for the*

purposes of constructing or extending a generation station wholly or mainly driven by water and of operating that generating station after such construction or extension; but he shall do as little damage as possible in the exercise of the powers conferred by the authorisation and shall make compensation for any damage done in the exercise of those powers."

2.8.6 The order may contain a number of provisions regarding factors including: public health; the characteristics of the watercourse or loch (flow or water level); the use or potential future use of the watercourse or loch (industrial purposes or public undertakings, such as fishing, water supply, agriculture, transport and navigation); and the effect of land drainage, alteration of water flow in a watercourse, or level of water in a loch. The rights of riparian owners, land owners or salmon fisheries owners will also be protected as far as practicable.

2.8.7 Scottish Ministers will also consider the responsibilities of SEPA in regards to the protection of the water environment, especially the circumstances in which water may be taken and the quantity of compensation water to be provided. Part 1 of the Water Environment and Water Services (Scotland) Act 2003 is additionally taken into consideration.

2.8.8 This is linked to the necessary authorisation under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 ('CAR'), (issued and controlled by SEPA) where the conditions of this order and the CAR authorisation should not differ and if this is the case, the order should be treated as modified to the extent it would be consistent with the CAR authorisation.

2.8.9 It is intended that an application for the Compulsory Acquisition of Water Rights will be addressed shortly after the s36 application is submitted.

CAR Authorisation

2.8.10 CAR authorisation is required from SEPA to control the impacts of activities which may have a significant effect on the water environment, such as water abstraction in a PSH Scheme (SEPA, 2018). An application will be prepared for the Development shortly after the s36 application is submitted.

2.8.11 Related to this, paragraph (5) (a) of s36 of the Act refers to Scottish Ministers obtaining and having regard to the advice of SEPA on matters relating to the protection of the water environment prior to granting consent for a generating station with which a controlled activity, as defined by CAR, will be conducted.

Reservoir Registration

2.8.12 Part 1 of the Reservoirs (Scotland) Act 2011 ('the Reservoir Act') requires all reservoirs determined to be controlled reservoirs under Sections 1 and 2 of the Act (such as one capable of holding 10,000 cubic metres or more) to be registered with SEPA in order for the risk of an uncontrolled release to be assessed. SEPA also have a number of powers through the Reservoir Act, including enforcement.

2.8.13 The Reservoir Act additionally regulates the construction of reservoirs, with a system of inspections, reports and certificates being overseen by an appropriately qualified engineer from a panel approved by Scottish Ministers. On operation, there will also be supervision and periodic inspection.

3 The Need for Pumped Storage Hydro

3.1 Introduction

3.1.1 Through the provision of energy storage, PSH can be a key contributor to a flexible electricity system. It operates through the use of two water reservoirs. During periods of low electricity demand when the cost of electricity is reduced, water is pumped from the Tailpond to the Headpond. Then, when demand is high and electricity required, water is released from the Headpond back to the Tailpond, where it passes through turbines which generate electricity. Although not a renewable energy technology itself, it can complement renewables and reduce potential issues with variability caused by a network with reliance on these technologies (Scottish Renewables, 2016). This is because one of the challenges presented by renewables is that they operate in conditions suitable to them (e.g. wind / daylight) and not necessarily when there is network demand for the electricity they produce. PSH therefore helps to address this imbalance, resulting in a more flexible and resilient energy system.

3.2 International Support

3.2.1 Energy storage is recognised as important by the European Union (EU) in regards to energy security and supporting the development of further renewable technologies. It is valued in reducing the cost of energy imports, improving energy system efficiency and lowering overall prices by better integrating variable renewables. As the most common, PSH is currently the principal energy storage technology (European Commission, 2018).

3.2.2 The EU's proposed revision of the Renewable Energy Directive 2009/28/EC (European Commission, 2016) establishes a policy for renewable energy across the EU, including setting an overall target of 20% of the total energy produced being from renewables by 2020 through a reliance on legally binding national targets. This policy exists due to the importance of renewables in reducing greenhouse gases (GHGs), contributing towards sustainable development, protecting the environment and improving health. Linked to this, and an imperative factor in facilitating the renewable targets, the Directive supports the use of energy storage systems as a means to strengthen renewable energy production.

3.2.3 Through their summary targeted at policy makers, the Intergovernmental Panel on Climate Change (IPCC, 2011) recognises that without complementary flexible generation and operation, maintaining system reliability with increasing sources of renewable energy may become more challenging and costly. However, a varied complementary system, which includes energy storage technologies, such as storage-based hydropower, is a solution to this.

3.3 National Support

3.3.1 The Scottish Government published an updated Climate Change Plan in February 2018, as part of the statutory duty of Scottish Ministers under Section 35 of the Climate Change (Scotland) Act 2009. This recognises climate change as one of the greatest global threats and sets a number of targets, including the decarbonisation of Scotland's electricity system.

Emissions reductions of 28% from the electricity sector are sought by 2032, which will be facilitated by a combination of factors, including increased energy storage. It states that "*PSH is a proven technology that can deliver flexibility at scale… Further investment in PSH will greatly enhance the flexibility and resilience of our electricity network and power supplied*."[1]

3.3.2 The Scottish Government's Energy Strategy (2017a) additionally includes three policy proposals relevant to PSH to:

- support investment in new PSH through collaboration;
- secure the maximum benefits from increasing the flexibility of the electricity network; and,
- support the innovation and deployment of storage technologies and capacity.

3.4 Benefits of Pumped Storage Hydro

3.4.1 The key challenges of energy sustainability are identified through the World Energy Council's (2018) Energy Trilemma. In response, the key benefits of PSH are that it addresses each challenge of the Trilemma, as further detailed through Insert 3.1.

Insert 3.1: Energy Trilemma and Key Benefits of PSH

Energy Challenges	PSH Benefits
	• At present, PSH is one of the only technologies to provide cost-effective storage for large amounts of electricity over multiple days; • It can also help with network congestion through storing excess generation for use when demand is high; • For long discharge periods, PSH is the most economic storage technology and therefore can contribute to the security of energy supply; • PSH can additionally reduce the wear and tear on conventional power plants, thereby reducing operating costs. This is due to the flexibility and quick reaction times of PSH, which allows conventional plants to be run in a steadier mode, as the stress of ramping and cycling from reacting to variability is smoothed; and, • It can put pressure on wholesale electricity prices and potentially result in savings lower electricity bills for the consumer.
	• It can lead to less of a dependence on fossil fuels (local and imported) and reduce the need to import electricity from interconnectors from other markets; • Energy storage has been identified as being essential to the economic and environmental goals of Scotland becoming an exporter of renewable energy; and, • Renewable electricity produced when demand is low can be used to pump the water from the Tailpond to the Headpond and store it for later use when demand is high, thereby avoiding the waste of low carbon electricity and reducing the need for non-renewable electricity sources (with knock-on reductions in carbon emissions).

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- PSH supports renewables integration to the grid, helping to create a flexible and more resilient energy system;
- There are lower levels of technological risk with PSH compared to other storage technologies;
- PSH is a proven technology, the first PSH were installed towards the end of the 19th century and it is now the most developed large-scale energy storage technology currently available globally;
- It has a long life time compared to renewables and baseload facilities, requiring little maintenance;
- PSH can react quickly to demands for electricity, starting up almost immediately. For example, Dinorwig in north Wales was built to provide rapid response to sudden demands for electricity. It can generate 1728 MW of power within 12 seconds to stabilize demand on the National Grid. Popular TV programmes, sporting events and other occasions are monitored to react to sudden surges of demand for electricity.

Sources: Scottish Renewables (2016); IRENA (2015); World Energy Council (2018), Scottish Government (2013a) and ICE (2018)

3.4.2 In regards to the benefits of the Development in particular, it has been established through Chapter 14: Socio-economics and Tourism (EIA Report Volume 2) that there would be a beneficial impact on the local economy from the Development, especially during construction where this benefit would be significant. Factors taken into account included spend on accommodation and food for construction workers.

3.4.3 The Development would also build on the local expertise being developed through the presence of two hydro schemes in the locality, as well as the proposed 1500 MW pumped storage scheme located to the south-west of Laggan Locks near Loch Lochy.

3.5 Contributions of the Development

3.5.1 The Applicant strongly believes in the concepts of community ownership and community benefit. When local communities are stakeholders in the projects they are hosting, the benefits can be much more tangible. To this end, at the very first community meeting hosted in Dores in September 2017, there was a representative from the Community and Renewable Energy Scheme (CARES) team at Local Energy Scotland to talk through the benefits offered by the Development and provide assistance to guide communities through the process. Engagement has continued with Dores and Essich Community Council, and Heads of Terms were signed with them in September 2018. This set out in writing the basic principles to be followed when agreeing future ownership and benefit levels. With the operation of the project likely to be a number of years away, and no underlying subsidy such as Feed-in Tariffs providing certainty on revenue streams, it was agreed this was an appropriate first step.

3.5.2 In addition, the EIA process has identified other opportunities for community benefit, such as improved recreational routes, signage, educational information and the potential to leave certain loch side components in situ to increase aquatic recreational activities.

3.5.3 As the project develops and greater surety of its operating revenues is obtained, the Applicant will continue to work closely with the community council to agree a final package of benefit to the local area.

4 Assessment of National Policy

4.1 Introduction

4.1.1 The Scottish Government sets out their vision for future development in Scotland through two connected publications, National Policy Framework 3 (NPF3) and Scottish Planning Policy (SPP). This vision centres on:

1. A successful sustainable place;
2. A low carbon place;
3. A natural resilient place; and,
4. A connected place.

4.1.2 NPF3 and SPP will both be explored further below, with a focus on their bearing on the Development.

4.1.3 Relevant Scottish Government Planning Advice Notes (PANs) will additionally be examined within this chapter.

4.2 National Policy Framework 3 (Scottish Government, 2014a)

4.2.1 NPF3 is a long-term strategy for the direction of development and infrastructure investment in Scotland, as identified by the Scottish Government for the purpose of economic and sustainable growth.

4.2.2 Within NPF3, national developments are identified which formally establish the need for a specific development or development type. One of the 14 developments identified is PSH at new or existing sites throughout Scotland that would exceed 50 MW. Further details in regards to this, alongside the statement of need, are displayed in Insert 4.1.

4.2.3 Due to it being a PSH scheme exceeding 50 MW, the Development is therefore classified as a ‘national’ development and can be considered in principle to reflect the Scottish Government’s vision for the future use of land and energy mix in the country.

4.2.4 As the PSH national development category is not location specific, a site-specific case for every compatible development must be made. Therefore, within this Planning Statement, the site-specific case for the Development is built through reference to all relevant planning policies, including NPF3.

4.2.5 Energy is recognised as one of the three key economic sectors in Inverness alongside tourism and life sciences. The Development’s location approximately 14 km south-west of Inverness and its purpose of energy generation therefore relates to the economy of the city.

4.2.6 Linked to this is also the aim in NPF3 for a focus of new low carbon and renewable technologies in rural areas, which would apply to the Development as a valuable energy storage tool to support the further development of renewables.

5. STATEMENT OF NEED AND DESCRIPTION – Pumped Hydroelectric Storage

1 – Location: Throughout Scotland.

2 – Description of Classes of Development: Development for pumped hydroelectric storage which would be or exceed 50 megawatts consisting of:

a. new and/or expanded and/or refurbished water holding reservoir and dam.
b. new and/or refurbished electricity generating plant structures or buildings.
c. new and/or expanded and/or refurbished pump plant structures or buildings.
d. new and/or expanded and/or refurbished water inlet and outlet pipework.
e. new and/or refurbished substations and/or transformers directly required for the pumped hydroelectric schemes which fall within the description.
f. new and/or replacement transmission cables directly linked to the pumped hydroelectric schemes which fall within the description.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (f) is designated a national development.

4 – Need: These classes of development are needed to support the strategic role of pumped hydroelectric storage within our electricity network by increasing the capacity through new or expanded sites. This promotes security of electricity supplies and will help to balance electricity demand with intermittency of some types of generation.

Insert 4.1 Excerpt from NPF3 of the Statement of Need and Description for PSH[2]

4.2.7 PSH is identified in NPF3 as a technology able to support the diversification of energy supplies and reduction of carbon emissions. In addition to balancing electricity demand as identified in Insert 4.1, it also helps to balance electricity supply when a much greater proportion of electricity is generated by renewable energy.

4.2.8 In principle, the Development is therefore strongly supported by NPF3 as PSH is seen as important element to future energy mix. It is also broadly appropriate to its location near Inverness, tying in with one of the three key economic sectors in the city.

4.3 Scottish Planning Policy (Scottish Government, 2014b)

4.3.1 SPP is non-statutory, yet as guidance issued by Scottish Ministers under Section 3 (d) of the Planning Act, planning authorities must have regard to it and it is therefore a material consideration in the determination of planning applications.

4.3.2 The vision of NPF3 is shared in SPP (see paragraph 4.1.1), which works alongside the long-term strategy of NPF3 to set out Scottish Government policy on nationally important land use planning matters and promote consistent policy across Scotland. It provides direction for the preparation of development plans, the design of development and the determination of planning applications and appeals.

4.3.3 In regards to the vision of ‘a low carbon place’, SPP aims to detail how this can actually be delivered, it states:

[2] Page 73

"*By seizing opportunities to encourage mitigation and adaptation measures, planning can support the transformational change required to meet emission reduction targets and influence climate change. Planning can also influence people's choices to reduce the environmental impacts of consumption and production, particularly through energy efficiency and the reduction of waste*."[3]

4.3.4 In regards to energy storage projects, Paragraph 156 of SPP refers to these being amongst the national priorities for energy infrastructure improvement. Alongside generation, transmission and distribution networks, these should address cross-boundary issues and be supported through strategic development plans to support the transition to a low carbon economy.

4.3.5 Paragraphs 167 and 168 reiterate the above and voice the government's support for energy storage schemes in general due to their ability to support the development of renewable energy and maintain the stability of the electricity network. These paragraphs also state that development plans should identify areas capable of accommodating a range of energy storage projects and which may benefit from energy storage capabilities due to their weak or lack of connection to the national electricity network.

4.3.6 SPP additionally sets out policy guidance in relation to the protection and conservation of the historic and natural environments, green networks and aquaculture, in addition to considerations of flood risk. These will be taken into consideration in more detail through the examination of the local development plan in Chapter 5 and through the EIA Report.

4.3.7 SPP therefore repeats the Scottish Government's support to the principle of PSH that is voiced in NPF3. PSH is regarded as an important element of the future, low carbon energy mix and a positive influence to the economy, with the planning system viewed as a platform to implement transformational energy change.

4.4 Scottish Energy Strategy (Scottish Government, 2017a)

4.4.1 This sets out a vision for Scottish energy until 2050, of "*a flourishing, competitive local and national energy sector, delivering secure, affordable, clean energy for Scotland's households, communities and businesses.*"[4] Three core principles guide this vision:

- A whole-system view;
- An inclusive energy transition; and,
- A smarter local energy model

4.4.2 As part of the whole system view principle, two targets are set for 2030:

- *The equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied from renewable sources*; [*and,]*
- *An increase by 30% in the productivity of energy use across the Scottish economy*.[5]

4.4.3 Low carbon energy storage is recognised as an important source of flexibility for the principle of a smarter local energy model. The majority of our storage is currently in fossil fuels, although the size of coal and rough gas storage has fallen since, fossil fuel stores in 2014 amounted to hundreds of terawatt hours (TWh), in comparison to PSH at around 30 gigawatt hours (GWh). In order to develop new sources of flexibility and further decarbonise the Scottish energy system, new low carbon storage facilities are required.

[3] Paragraph 19, page 7
[4] Pages 8 and 14
[5] Page 9

4.4.4 Within this strategy, 'scenario 1: an electric future' is examined which is based on the premise of electricity generation accounting for around half of all final energy delivered in 2050, with the sustained growth of renewable energy technologies, climate change targets being met and increasing numbers of electric vehicles. In order to achieve this in part, existing PSH are maintained and new PSH are developed in the 2020s, with widely integrated electrical energy storage across the network.

4.4.5 Investment in new PSH is seen as important to the security and flexibility of the Scottish network. The economic and industrial value of these schemes is recognised, with an intention for the Scottish Government to work with both developers and the UK Government to find a fair and reasonable solution to reducing risks and removing barriers to PSH.

4.4.6 The Scottish Energy Strategy therefore reinforces earlier Scottish Government support for the principle of PSH identified in NPF3 and SPP and presents more detailed targets, with an ideal scenario identified where a number of new PSH schemes are installed in the 2020s.

4.5 Planning Advice Notes

Energy Storage (Scottish Government, 2013a)

4.5.1 This PAN focuses on providing advice to planning authorities by highlighting areas of focus. This includes allocating land for energy storage facilities and taking certain actions to promote energy storage at various stages in the planning process, such as encouraging applicants to consider opportunities for storage at the pre-application stage for renewable energy proposals.

4.5.2 When preparing local planning policies, safeguards in regards to design, public health, access, grid, security fencing and decommissioning issues should be provided for.

4.5.3 PSH is not a focus of the PAN, although it is recognised as the most mature storage technology, with others not available for widespread use due to being in development or not yet market-ready. However, a clear supporting statement for energy storage is set out:

"*A clear case has been made that if the energy sector is to maximise environmental, economic and social benefits, renewable energy will need to be linked to energy storage. Energy storage technologies can counteract intermittency associated with certain energy supplies, can ensure excess power is not lost at times of high production, can provide energy on demand off-grid in a variety of ways. Oversupply is likely to become more prevalent the closer Scotland gets to realising its 100% electricity from renewables target. It is also expected that energy storage will be essential if Scotland is to realise its ambition to become a renewable energy exporter and to attract the economic advantages of ensuring that the energy storage supply chain locates in Scotland*."

Hydro Schemes (Scottish Government, 2013b)

4.5.4 The guidance issued to planning authorities on hydro development through this PAN is inclusive of PSH schemes. It is stated that due to hydro power utilising an abundant resource (water) and playing a vital role in renewable energy production, including balancing supply and demand and providing grid back-up, emphasis will be on supporting it for schemes that can make a significant contribution whilst having minimal adverse effects on the water environment.

4.5.5 Typical considerations for hydro schemes include:

- Landscape and visual impacts: Through the careful siting of components, new planting and/or land re-profiling, schemes could be well integrated or partly concealed in the landscape. The design and materials used in built elements, access tracks, pipes and powerlines are key considerations;
- Habitats and species: As part of the EIA, impacts on a wide range of biodiversity (aquatic and terrestrial ecosystems, habitats and species), in particular on the quality, quantity, temperature and flow rates of water, sediment transportation, migratory fish and freshwater pearl mussels, should be assessed. The ecological status of the water environment is another important consideration. The potential of natural heritage benefits from hydro schemes are also recognised, including habitat creation and/or enhancement, fish re-stocking, bankside planting and potentially the increase in dissolved oxygen levels from some types of turbine;
- Social and economic considerations; and,
- Mitigation: The examples provided are reducing landscape impacts, providing opportunities for access and recreation, improving water quality and fish stocks, and reducing impacts on amenity from construction and traffic.

Rural Diversification (PAN 73)

4.5.6 Sets out advice to planning authorities on assisting rural diversification projects. Successful rural business examples include a small-scale hydro which, following detailed environmental assessment, was approved and produces energy for more than 3,000 people.

Environmental Impact Assessment (1/2013)

4.5.7 Rather than providing technical guidance, this PAN provides guidance on how EIA can be integrated by planning authorities into development management and advice to developers on creating more efficient and effective EIA.

4.5.8 Three key principles of integration, proportionality and efficiency are set out through the document.

Planning for Natural Heritage (PAN 60)

4.5.9 The aim of this PAN is to ensure natural heritage issues are addressed by planning authorities and developers in positive and creative ways. Key topics considered include landscape, biodiversity, earth heritage, access and recreation, local designations, greenspace, opportunities to improve the environment, and the siting and design of new development.

Conclusion of PANs

4.5.10 The Development's environmental impact is assessed in full in the EIA which accompanies this Planning Statement. In order to avoid repeat, the guidance issued in the listed PANs is not specifically assessed within this section of the Statement, as it largely addressed through analysis of Local Policy (see section 5).

5 Assessment of Local Policy

5.1 Introduction

5.1.1 Although primacy is not given to the local development plan in s36 applications such as the Development, this remains a material consideration for Scottish Ministers and so will be considered in full within this section.

5.1.2 There are two local planning policy documents covering the Development Site:

- The overarching approach is contained within the Highland-wide Local Development Plan (HwLDP; 2012), which presents a growth strategy for the Highlands based on sustainability, economic development and safeguarding of the environment; and,
- The Inner Moray Firth Local Development Plan (IMLDP; 2015)), which is designed to complement the HwLDP and provide a framework for housing, business, industry and infrastructure development.

5.1.3 The policies presented within the HwLDP are more relevant to the Development than the IMLDP, which focusses on settlements in the area and the provision of services for these settlements. It is recognised however, that the closest village to the Development, Dores, is referenced in the IMLDP, where it is noted among other factors that the setting of the village, particularly in regards to its vista of Loch Ness, is to be protected.

5.1.4 Notwithstanding the above, this analysis will therefore primarily focus on the relevant policies within the HwLDP.

5.2 Overview of Approach to Local Policy Analysis

5.2.1 The local policy assessment for this Planning Statement has been based on the results of the EIA Report (Volume 2). As detailed at the start of each technical chapter within the EIA Report, planning policy was a key consideration in determining the significance of receptors and therefore the overall acceptability of the Development, with each technical team aware of the planning framework and land use aspirations for the area.

5.2.2 The Development has been sited and designed with the full involvement of the technical disciplines as it has matured from initial project conception to the submission of this s36 application. Feedback from key consultees such as THC, SEPA, SNH and the public has also led to a number of design refinements. The environmental and social effects of the Development, as well as its conformity with planning policies, have therefore been instrumental to the scheme's design. Section 2.3 of this Planning Statement illustrates this further through summarising the key design stages of the Development, with additional detail provided in Chapter 3: Evolution of Design and Alternatives (EIA Report Volume 2).

5.2.3 In regards to the approach for the local policy assessment within this Planning Statement, an overview of each topic scoped into the EIA and whether it complies with the relevant local policies has been provided in Table 5.1.

5.2.4 The majority of policies within the HwLDP have been excluded from this assessment as they are not applicable. For example, a number specify development plans for particular areas of Highland unrelated to the Development, and some others relate to residential, retail or agricultural developments. There has therefore been a focus on only those which are directly relevant to the Development and its potential effects.

5.2.5 In regards to the policy assessment summarised through Table 5.1, a traffic light system has been used as follows:

- Grey: the policy listed is not relevant to the EIA topic;
- Green: no significant effects have been identified in relation to the listed policy and the Development has been assessed as complying with that policy. This is based on the conclusions of the EIA topic chapters, including the additional mitigation measures proposed. Where a topic and corresponding policy have been highlighted green and compliant, no further policy analysis will take place in the remainder of the Planning Statement; and,
- Orange: the EIA topic chapter has identified a significant effect that may result in the Development being contrary to policy. Further assessment is therefore conducted in the proceeding sections.

5.2.6 Prior to the policy analysis structured on the relevant EIA topic, local policy in regards to PSH more generally will be considered.

Table 5.1 Overview of Local Planning Policy Analysis

Relevant HwLDP Policy	Chapter Number and Topic Heading (EIA Report Volume 2)											
	5. Geology and Ground Conditions	6. Terrestrial Ecology	7. Aquatic Ecology	8. Ornithology	9. Flood Risk and Water Resources	10. Water Environment	11. Landscape and Visual	12. Forestry	13. Archaeology and Cultural Heritage	14. Socio-economics and Tourism	15. Traffic and transport	16. Noise and Vibration
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Source: EIA Report (Volume 2)

5.3 Pumped Storage Hydro

5.3.1 There are no specific local planning policies relating to PSH in the HwLDP, however as the Development is linked to renewable energy generation through its ability to reduce potential issues with variability, and due to it sharing similar features to other types of renewable energy technologies, policies relating to renewable energy are considered valid in regards to this policy assessment.

Policy 28: Sustainable Design

5.3.2 Sustainable development and climate change must be taken into consideration in the design of all development under this policy. Of relevance to PSH, this policy includes reference to the assessment of developments based on:

- The ability to demonstrate sensitive siting, high quality design in keeping with the local character and the use of appropriate materials.

5.3.3 It has been established through this Planning Statement (see especially section 2.3) that the siting and design of the Development have been carefully selected and refined taking environmental and social effects, as well as planning policy, into account throughout the multi-stage design process. This has resulted in a PSH scheme which does not have an overall detrimental effect despite its scale.

5.3.4 As part of this process, appropriate materials have been selected taking into account local amenity and character. These are detailed in full in Chapter 2: Project Description (EIA Report Volume 2) and include the proposal to clad the housing for the mechanical building on the embankment, and the valve house containing the mechanical equipment for operating the gate within the low-pressure tunnel, in natural stone (subject to agreement with THC).

5.3.5 Sensitive siting and high quality design with the use of appropriate materials have therefore played a central role in the design of the Development, demonstrating compliance with Policy 28.

Policy 67: Renewable Energy Developments

5.3.6 The Council will consider:

- how well-related the source of the resources needed for the operation of a proposal is to a development;
- the contribution of a proposal to generation targets;
- the effects of a development on the local and national economy;
- whether a proposal will impact the airport, defence or emergency service operations;
- the effects on communication installations, radio and TV reception; and,
- a proposal's effect on various environmental matters.

5.3.7 The primary renewable resource for the Development is water, and therefore its location next to an existing water body (Loch Ness) which will be used as the Tailpond is appropriate for the technology.

5.3.8 The Development's contributions would centre on providing support to the grid and smoothing out any variability, effectively balancing peaks and troughs. It would also help to meet the overall targets of the Scottish Government to increase PSH capabilities within Scotland in order to support the continued expansion of renewable energy developments and increase the likelihood of a low carbon future (see section 4.4 especially).

5.3.9 Linked to the above, the Development is expected to have a positive impact on the local and national economy. This is especially the case during construction, where a significant positive beneficial effect on the local economy was identified in the assessment of the Development's socio-economic impacts (see Chapter 14: Socio-economics and Tourism (EIA Report Volume 2).

5.3.10 The Development would also tie in with THC's vision for the Highland economy, with energy being a key sector recognised in HwLDP for providing opportunities in economic development and employment creation. Closely linked to this, is the identification of energy as one of the three key economic sectors in Inverness, the closest city to the Development.

5.3.11 The Government's Scottish Energy Strategy (2017) additionally references the intention to generate a surplus of renewable energy in Scotland helped by storage technologies such as PSH, which could then be sold to other countries with a deficit.

5.3.12 For clarity, the Development is not likely to affect any airport, defence site, emergency service operation, communication facility, or radio or TV reception.

5.4 Terrestrial Ecology

5.4.1 Significant effect was established as likely on:

- Ancient semi-natural broadleaved woodland.

5.4.2 A Permanent Moderate Adverse effect of the Development would be due to the loss of 8.7 ha of this woodland as a result of felling and construction, which may also result in the loss of some of the highly localised bird's-nest orchid species.

5.4.3 Proposed mitigation involves replanting native tree species on completion of construction works on a total area within the site of 281 ha. However, as it can take hundreds of years for newly planted forest to acquire the diversity of Ancient semi-natural woodland, the residual effect is still considered to be Permanent Moderate Adverse and significant following the implementation of this mitigation.

5.4.4 The loss of the Ancient semi-natural broadleaved woodland is therefore the only habitat where construction of the Development would lead to an Adverse Significant Effect which cannot be avoided. The loss would equate to 7.25% of the Ancient semi-natural woodland within the red line boundary, however improved management from the exclusion of deer from the ancient woodland will increase the quality of the woodland.

Policy 28: Sustainable Design

5.4.5 Sustainable development and climate change must be taken into consideration in the design of all development under this policy. Of relevance to terrestrial ecology, this policy includes reference to the assessment of developments based on:

- Impact on habitats and species, including pollution and discharges, particularly within designated areas.

5.4.6 If developments are likely to have significant adverse effects, they can only be supported in three circumstances: "*if no reasonable alternatives exist, if there is demonstrable, over-rising strategic benefit, or if satisfactory overall mitigating measures are incorporated*."

5.4.7 Chapter 3: Evolution of Design and Alternatives (EIA Report Volume 2) details the range of alternatives considered for the Development prior to the selection of the current site, which is considered the optimum design solution and provided with robust more-than-satisfactory mitigation.

5.4.8 The benefits of PSH are additionally set out within this Planning Statement in section 3. Combined with the thorough research into alternatives as per Chapter 3 of the EIA, the national benefit from a well-designed PSH such as the Development is evident.

5.4.9 As referenced above and in more detail in Chapter 6: Terrestrial Ecology (EIA Report Volume 2), mitigation and enhancement measures have been designed to reduce the loss of the Ancient woodland; however due to the nature of this ecological asset, replanting would not be able to mimic the lost environment. Nevertheless, this loss has been weighed against the overall environmental impact of the Development and is not considered a decisive factor.

Policy 60: Other Important Habitats and Article 10 Features

5.4.10 This regards safeguarding or promoting the creation of Article 10 Features, which are landscape features used for the movement of wild flora and fauna, that may be linear, continuous or habitat 'stepping stones'. This includes Ancient woodland.

5.4.11 It is stated that "*the Council will use conditions and agreements to ensure that significant harm to the ecological function and integrity of Article 10 Features and Other Important Habitats is avoided. Where it is judged that the reasons in favour of a development clearly outweigh the desirability of retaining those important habitats, the Council will seek to put in place satisfactory mitigation measures, including where appropriate consideration of compensatory habitat creation*."

5.4.12 This Development is a national development with an established need as per NPF3 and would have a number of benefits as set out in section 3.4. A number of alternatives have been considered (see Chapter 3: Evolution of Design and Alternatives (EIA Report Volume 2)) which have resulted in a Development which would have limited impact on the environment overall, with this significant effect on Ancient semi-natural broadleaved woodland being the only adverse significant effect on terrestrial ecology. As detailed, mitigation measures are proposed including compensatory habitat planting, complying with Policy 60.

Policy 67: Renewable Energy Developments

5.4.13 One of the elements considered as to whether a renewable energy development (or equivalent, as is the case here), is suitable is whether it will have any significant effects on species and habitats. If a development is considered significantly detrimental overall, it would not be supported (in a similar manner to Policy 28).

5.4.14 Whilst affecting 7.25% of the Ancient semi-natural woodland within the red line boundary, there are no other likely adverse significant effects on terrestrial ecology from the construction, operation or decommissioning of the Development. It would also have some beneficial effects, such as planting 4.3 ha of W19 juniper woodland on suitable areas within Ashie Moor and exclusion of deer, which would have a Permanent Moderate Beneficial effect on juniper. It is therefore not considered to be significantly detrimental overall and so is not reasoned to be contrary to Policy 67.

5.5 Aquatic Ecology

5.5.1 Significant effects were established as likely on:

- Atlantic salmon;
- Lamprey; and,

- Other fish species.

5.5.2 On Atlantic salmon and lamprey, a Major Temporary Adverse effect would be caused by construction of the cofferdam. A Moderate Temporary Adverse effect from the same construction activity is likely on the other fish species.

5.5.3 Specifically, these effects would cause: direct mortality or physical injury through construction, piling and de-watering activities; physical injury as a result of piling noise; and avoidance reaction by salmon, potentially disrupting the migratory pathway.

5.5.4 Mitigation measures include:

- There should be a 'soft start' to piling works to deter fish from the immediate area where physical injury may occur;
- Avoidance of key migratory seasons;
- Works in Loch Ness should be carried out under the supervision of an Aquatic Ecological Clerk of Works (ECoW); and,
- A fish rescue will be required during de-watering of the cofferdam, as it is highly likely that fish will congregate in these sheltered areas during construction and then become trapped as the cofferdam is sealed.

5.5.5 Nevertheless, even with the implementation of these mitigation measures, the residual effect is likely to be Moderate Temporary Adverse for all three species and therefore significant whilst construction is occurring. However this is a precautionary approach, and whilst this effect is considered significant in EIA terms, ECoW supervision and the appropriate timing of the works proposed, actual injury or mortality is considered likely to be very low.

Policy 28: Sustainable Design

5.5.6 Sustainable development and climate change must be taken into consideration in the design of all development under this policy. Of relevance to aquatic ecology, this policy includes reference to the assessment of developments based on:

- Impact on species, and freshwater and marine systems, including pollution and discharges, particularly within designated areas.

5.5.7 If developments are likely to have significant adverse effects, they can only be supported in three circumstances: "*if no reasonable alternatives exist, if there is demonstrable over-rising strategic benefit, or if satisfactory overall mitigating measures are incorporated*." The former two circumstances have been referenced in section 5.4 and will not be revisited.

5.5.8 Whilst the Development would have a likely significant effect on Atlantic salmon, lamprey and other fish species, freshwater and marine systems are not considered at risk. The analysis of Policies 58, 59 and 67 demonstrates that the effect on these fish species are temporary, being limited to cofferdam construction only. In addition, with the mitigation measures proposed there will be no overall detrimental impact to the natural populations of these species in Loch Ness and so on balance, the Development is not contrary to Policy 28.

Policy 58: Protected Species

5.5.9 This policy is designed to protect European Protected Species (in this case, Atlantic salmon and lamprey) from development which is likely to have an adverse effect, including a cumulative effect. There would only be certain circumstances where this type of development would be permitted:

- No satisfactory alternatives;
- It is required for certain matters of overriding public interest; and,
- There would be maintenance of the population of the species concerned at a favourable conservation status in their natural range.

5.5.10 Chapter 3: Evolution of Design and Alternatives (EIA Report Volume 2) details the range of alternatives considered for the Development prior to the selection of the current site, which is considered the only satisfactory option.

5.5.11 PSH projects are designed to complement the expansion of renewable energy technologies, provide support to the energy network and have a number of other benefits which are referenced in section 3. They have also been identified as a national development through NPF3, as PSH is regarded as an important element to the future low carbon energy mix and a positive influence to the economy (see section 4.2). The Development can therefore be considered as a matter of overriding public interest.

5.5.12 Lastly, although a Moderate Temporary Adverse effect has been established on Atlantic salmon and lamprey due to the cofferdam construction, this would not impact the conservation status of either species, which would maintain a favourable conservation status in their natural range. This is because the effects from construction, piling and de-watering activities would be addressed by limiting the timing of works via a CAR licence to avoid the migration season.

5.5.13 It has therefore been established that Policy 58 would be complied with in regards to Atlantic salmon and lamprey.

Policy 59: Other Important Species

5.5.14 This policy ensures that, where not already protected through legislation or nature conservation designations, other important species are taken into consideration when determining a proposal. This includes other fish species, which are a community of fish species supported by Loch Ness, including the priority species Arctic char, European eel and Brown trout.

5.5.15 This policy states that conditions and agreements would be used by THC to ensure any detrimental effect on these species is avoided.

5.5.16 The proposed mitigation as described above would not prevent a significant effect on other fish species, however this would be temporary and would not have an adverse impact on the overall population numbers of other fish species in Loch Ness. A detrimental effect is therefore not likely and so it is considered that there would be no requirement for additional conditions and agreements beyond the proposed mitigation. Policy 59 would therefore be complied with in regards to other fish species.

Policy 67: Renewable Energy Developments

5.5.17 One of the elements considered as to whether a renewable energy development (or equivalent, as is the case here), is suitable is whether it will have any significant effects on aquatic ecosystems and fisheries.

5.5.18 Chapter 7: Aquatic Ecology (EIA Report Volume 2) establishes that the Development will have limited significant effects on the overall aquatic ecology. There would also be no significant effects on any species or habitats during the operation or decommissioning of the Development, including no cumulative or intra-relationship effects.

5.5.19 A consideration of this policy is whether proposals "*are located, sited and designed such that they will not be significantly detrimental overall, either individually or cumulatively with other developments*". As the significant effects on Atlantic salmon, lamprey and other fish species during construction would be temporary and would have no long-term effects on the fish populations identified, it is not considered that this Development would be significantly detrimental overall and therefore it complies with Policy 67 and can be supported.

5.6 Landscape and Visual Impact Assessment

5.6.1 Significant effect was established as likely on:

- Loch Ness and Loch Duntelchaig Special Landscape Areas (SLA);
- Broad Steep-Sided Glen Landscape Character Type (LCT);
- Flat Moorland Plateau with Woodland LCT; and
- Visual impact.

5.6.2 Two special qualities of the SLA – Dramatic Great Glen and Contrasting Intimate Plateau – were found to be significantly affected by the Development during both its construction and year 1 of operation. This is largely due to the scale and intensity of activities contrasting with landscape qualities during construction; and the result of tree removal, the visibility of completed construction works and a sense of activity disrupting the landscape in year 1 of operation.

5.6.3 In contrast, by year 15 of operation the Development would no longer effect the special qualities of the SLA as it would be well integrated, benefitting from enhancement through reinstated broadleaved woodland.

5.6.4 Significant effects were similarly established on the two LCTs listed above during construction and year 1 of operation. By year 15 of operation, no significant effects were considered likely.

5.6.5 Chapter 11: Landscape and Visual (EIA Report Volume 2) additionally considered the results of the effect of the Development in regards to landscape and visual impact through eleven viewpoints, a summary of the results of this assessment is shown through Table 5.2.

Table 5.2 Summary of Development Effects from Eleven Viewpoints

Landscape Character Types	Significance of Development's Effect		
	Construction	Operation (Year 1)	Operation (Year 15)
Viewpoint 1: Minor road adjacent to Ach-Na-Sidhe B & B	Significant	Significant	Significant
Viewpoint 2: Abriachan	Significant	Significant	Not Significant
Viewpoint 3: Lochend	Significant	Not Significant	Not Significant
Viewpoint 4: Minor road to the north-east of Loch Duntelchaig (Trail of the Seven Lochs)	Significant	Significant	Not Significant
Viewpoint 5: Trail of the Seven Lochs between Loch Duntelchaig and Loch a' Choire	Significant	Significant	Not Significant
Viewpoint 6: Creag nan Clag	Significant	Not Significant	Not Significant
Viewpoint 7: Carn na Leitire (near The Great Glen Way)	Significant	Not Significant	Not Significant

Landscape Character Types	Significance of Development's Effect		
	Construction	Operation (Year 1)	Operation (Year 15)
Viewpoint 8: Watercraft on Loch Ness	Significant	Not Significant	Not Significant
Viewpoint 9: Urquhart Castle	Significant	Not Significant	Not Significant
Viewpoint 10: Layby on A82	Significant	Significant	Not Significant
Viewpoint 11: Local road near Caisteal an Dunriachaidh	Significant	Significant	Significant

Policy 28: Sustainable Design

5.6.6 Sustainable development and climate change must be taken into consideration in the design of all development under this policy. Of relevance to landscape and visual, this policy includes reference to the assessment of developments based on:

- Impact on individual and community residential amenity; and,
- Impact on landscape and scenery, particularly within designated areas.

5.6.7 If developments are likely to have significant adverse effects, they can only be supported in three circumstances: "*if no reasonable alternatives exist, if there is demonstrable over-rising strategic benefit, or if satisfactory overall mitigating measures are incorporated*." The former two circumstances have been referenced in section 5.4 and will not be revisited.

5.6.8 The analysis presented for Policies 57, 61 and 67, as well as the associated Supplementary Guidance, will further detail the significant effects of the Development. As a result, it is evident that the temporary effects are to be expected with a development of this size whilst it is constructed and before it assimilates into the environment; and the long-term visual effects will only be significant in close proximity to the Development, which is also to be expected for a PSH scheme such as this. As a result, on balance and considering the other landscape and visual policies which are complied with, Policy 28 is complied with in regards to this topic area.

Policy 57: Natural, Built and Cultural Heritage

5.6.9 It must be demonstrated that features of local or regional importance - National Scenic Areas and wild areas - will not be unacceptably impacted by a development.

5.6.10 Developments should not compromise features of national importance - SLAs, Settlement Settings and Views over Open Water. Where there may be any significant adverse effects, these must both be clearly outweighed by social or economic benefits of national importance, and the development should support communities in fragile areas which struggle with population and services.

5.6.11 Of those features covered by this policy, only Loch Ness and Loch Duntelchaig SLA was identified as being likely to be significantly affected by the Development. It was not considered that there were any additional mitigation measures which could be implemented to reduce this effect further than the mitigation which is embedded into the design.

5.6.12 In regards to the social or economic benefits of national importance from the Development, these have been established within this Planning Statement in regards to the need and many benefits of PSH (section 3) and the identification in NPF3 that these projects are considered national developments (section 4.2). Whilst construction and deforestation will

lead to a significant effect on two qualities of the SLA during construction works and for the first few years of operation until the replanting takes effect; this would only affect a small proportion of the extensive SLA and would be unlikely to have a detrimental effect on the enjoyment of the area. The effects would also only be temporary as areas of suitably planted broad leaved forestry would establish and grow.

5.6.13 Energy is recognised as one of the three key economic sectors in Inverness alongside tourism and life sciences. The Development's location approximately 14 km south-west of Inverness and its purpose of energy generation therefore relates to the economy of the city and, whilst not a fragile area, would support the community through local employment and economic spend (see Chapter 14: Socio-economics and Tourism (EIA Report Volume 2)).

5.6.14 The Development is therefore not considered contrary to Policy 57 due to the benefits outweighing the effects on the SLA, including economic support for the community.

Policy 61: Landscape

5.6.15 The landscape characteristics and special qualities as identified in the Landscape Character Assessment should be taken into the consideration of the design of a development, with the potential for landscape enhancement considered if possible.

5.6.16 As established above, two LCTs out of the five assessed: Broad Steep-Sided Glen and Flat Moorland Plateau with Woodland, were identified within Chapter 11: Landscape and Visual (EIA Report Volume 2) as having a likely significant effect from the Development. No additional landscape enhancement measures or mitigation measures were identified in addition to those embedded into the design (and detailed in Chapter 11 of the EIA) to reduce these identified effects further.

5.6.17 Whilst this policy states that these effects on LCTs should be taken account of in decision making, the adverse effects identified will not be long-term and will be reduced to not significant once measures such as the replanting has taken effect and established. As this is a temporary effect on a small portion of the overall landscape character, there would be sufficient grounds for support of the Development in relation to Policy 61.

Policy 67: Renewable Energy Developments

5.6.18 Subject to other policy considerations, a development would be supported if it would not have significant individual or cumulative effects on the:

- surrounding area in regards to visual impact;
- surrounding area in regards to impact on the scale of the landscape and the landscape character;
- amenity at sensitive locations, including residential properties, work places and recognised visitor sites; and,
- visual intrusion on any regularly occupied buildings and their associated grounds.

5.6.19 As established above, a likely significant effect was identified on one SLA and two LCTs considered within the landscape and visual assessment; however none of these were long-term and there would also be no cumulative or intra-relationship effects from the construction and operation of the Development.

5.6.20 A number of significant effects were identified on eleven representative viewpoints assessed within the EIA. These established significant effects for all eleven during construction of the Development largely due to disruption and deforestation, reducing to six viewpoints being significantly affected at year 1 of operation, to only two at year 15 (see Table 5.2).

5.6.21 As with the effects on landscape character, these effects on views are mostly temporary and reduce as the Development integrates into the landscape. By year 15, significant visual effects from residential settlements would be limited to individual properties in close proximity to the Development, although the native broadleaved woodland would partially reduce the scale of vertical change experienced in views north towards the Embankment and the Headpond Inlet / Outlet Structure. There would also be remaining adverse effects experienced by road users of the local road network in close proximity to the Development, particularly the C1064. The vertical scale of the Embankment would be partially reduced by the reinstated woodland, however would remain a contrasting feature in views. The presence of the Headpond Inlet / Outlet Structure would also remain a noticeable and discordant feature in the view.

5.6.22 Whilst these significant visual effects remain at proximity to the Development even at year 15 of operation, this is to be expected with any project of a scale to that proposed, which cannot be completely hidden in the landscape despite the extensive mitigation and enhancement measures which have been designed. The need for PSH nationally must therefore be considered, along with the local and national economic and social benefits (see sections 3 and 4.2).

5.6.23 Taking into account the above and the many positives identified through Chapter 11 of the EIA, it is not considered that this Development would be significantly detrimental overall and it therefore complies with Policy 67.

Onshore Wind Energy Supplementary Guidance

5.6.24 Highland Council advised that elements of this guidance are relevant to the Development even though it is a PSH scheme and not an onshore wind proposal (Highland Council Scoping Opinion consultation response, reference: 17/04775/SCOP). This particularly regards the key views, routes and gateways identified in the landscape appraisal.

5.6.25 These key views, routes and gateways were investigated through the landscape assessment in the EIA Report Volume 2 (Chapter 11) and have been summarised in the analysis above. No additional considerations raised by this more detailed guidance would lead to other adverse significant effects on the landscape and visual environment.

5.7 Forestry

5.7.1 Significant effect was established as likely on:

- Ancient semi-natural woodland; and,
- Long-established woodland of plantation origin.

5.7.2 The construction of the Development would lead to the felling of 8.7 ha of Ancient semi-natural woodland and 103.7 ha of long-established woodland of plantation origin. There would additionally be 6.5 ha of landscape felling and 24.5 ha of thinning / small clear fell of long established woodland (totalling 134.7 ha of long established woodland felling).

5.7.3 Mitigation for this loss is detailed in the restocking plan (Figure 10.6, EIA Report Volume 3), which includes areas of on-site compensatory planting. The principles of the restocking plan are detailed within Chapter 12: Forestry (EIA Report Volume 2), and include enhancing native woodland, removing invasive species, enhancing juniper habitat and creating new native woodland to improve habitat connectivity. The area of native woodlands would increase by 281 ha (which, when also considering the loss of mixed, commercial woodlands as a result of the Development, would lead to a net loss of 12.1 ha of woodland).

5.7.4 Off-site compensation planting would be undertaken in order to comply with the Scottish Government's Control of Woodland Removal Policy. This would be required by legal agreement attached to any planning consent.

Policy 52: Principle of Development in Woodland

5.7.5 This policy aims to protect woodland. Where woodland is not protected through a development proposal, this will only be supported if the public benefit is significant and clear, compensatory planting would also be required for woodland removal.

5.7.6 Where there is an effect on inventoried woodland, designated woodland or other important features as identified in the Trees, Woodland and Development Supplementary Guidance, there is a stronger presumption against the development.

5.7.7 As detailed, compensatory planting is proposed to mitigate woodland felling for the Development.

5.7.8 The public benefit of this Development is established through section 3 (The Need for Pumped Storage Hydro) and through the support of PSH schemes more generally, such as through PSH being considered a national development in NPF3 (section 4.2).

5.7.9 The effect of the Development on Ancient woodland is assessed in more detail through Chapter 6: Terrestrial Ecology (EIA Report Volume 2) and section 5.4 above. It is recognised that the diverse qualities of Ancient woodland develop over hundreds of years and so replanting does not mimic the lost environment. Whilst the avoidance of the loss of 7.25% of the Ancient semi-natural woodland within the red line boundary would be preferred plus the exclusion of deer, the overall environmental effects of the Development require to be considered. Despite this loss, the assessment led to the Development Site and the Development's design being the most suitable when considering all effects (see section 2.3 above and Chapter 3: Evolution of Design and Alternatives (EIA Report Volume 2)).

5.7.10 On balance, when weighing the benefits of the Development, its overall environmental effects and the mitigation which is part of this proposal, the lack of full compliance with this policy should not lead to its refusal.

Policy 57: Natural, Built and Cultural Heritage

5.7.11 It must be demonstrated to the satisfaction of the council that features of local or regional importance - Inventoried Ancient Woodland, Long Established Semi-natural Woodland and Tree Preservation Orders (TPOs) - will not be unacceptably impacted by a development.

5.7.12 Developments should not compromise features of national importance - Amenity Trees/ woodlands, Inventoried Long Established Plantation Origin Woodland and Other Woodlands on Roy Maps. Where there may be any significant adverse effects, these must both be clearly outweighed by social or economic benefits of national importance, and the development should support communities in fragile areas which struggle with population and services.

5.7.13 The analysis presented for Policy 52 above is relevant to Policy 57 as in regards to forestry, the two policies are very similar.

5.8 Archaeology and Cultural Heritage

5.8.1 Significant effect was established as likely on:

- Caisteal an Dunriachaidh fort Scheduled Monument;

- Enclosures and clearance cairns in Dirr Wood (local / regional archaeological assets);
- Loch Ashie Cairnfield (local / regional archaeological asset);
- Loch Ashie field system (local / regional archaeological asset); and,
- Wester Drumashie Farm (local / regional archaeological asset).

5.8.2 In regards to the Scheduled Monuments, Caisteal an Dunriachaidh fort is located to the south-west of the Headpond in an area of open moorland and is situated on one of the highest points of land on Ashie Moor. As such, it is a local focal point with outward views to the north, east and west (taller hills to the south impede views in this direction). Setting therefore contributes to its significance.

5.8.3 The assessment in Chapter 13: Archaeology and Cultural Heritage (EIA Report Volume 2) found that there would be a significant effect on the setting of this Scheduled Monument from the Development due to the introduction of a new area of high ground to the north- east through the construction of the Headpond. However, the impact of this high ground was assessed as low, as the loss of views outwards from the monument would be limited and the most important outward views from the fort are assumed to be over its immediate surroundings and Ashie Moor, not over the wider landscape which encompasses the Headpond. In addition, from the lower area of Ashie Moor adjacent to the monument, from where the latter is prominent in the skyline, the area of Ashie Moor above 270 m Above Ordnance Datum (AOD) would be increased and the mechanical equipment building on top of the Headpond would be visible. Nevertheless, the key contribution of the monument's setting over Ashie Moor and immediate surrounds would not be significantly diminished. The high significance (heritage value) of Caisteal an Dunriachaidh fort is therefore the key reason the assessment concluded a significant effect, with the overall effect from the Development considered limited.

5.8.4 In regards to the four groups of local / regional archaeological assets identified above, the construction phase was also the only phase of the Development found to impact these assets and their settings, with operational and decommissioning phases found to have no effect. Additionally, no inter- and intra-cumulative effects were established. This was due to the partial or total loss of the assets during construction.

5.8.5 Additional mitigation was identified within the EIA for an archaeological excavation and / or watching brief if remains survive, nevertheless the residual effect was still considered significant.

Policy 28: Sustainable Design

5.8.6 Sustainable development and climate change must be taken into consideration in the design of all development under this policy. Of relevance to archaeology and cultural heritage, this policy includes reference to the assessment of developments based on:

- Impact on cultural heritage, particularly within designated areas; and,
- Whether it has been sensitively sited, considering the historic environment.

5.8.7 If developments are likely to have significant adverse effects, they can only be supported in three circumstances: "*if no reasonable alternatives exist, if there is demonstrable over-rising strategic benefit, or if satisfactory overall mitigating measures are incorporated*." The former two circumstances have been referenced in section 5.4 and will not be revisited.

5.8.8 As established, the construction of the Development would have a visual effect on the setting of a Scheduled Monument and an impact on a number of archaeological assets due

to their potential removal. These issues are explored in detail through Policy 57 below, as well as the relevant Supplementary Guidance and so will not be repeated here. In conclusion however, the Development would not have an overall detrimental effect on cultural heritage and archaeology and therefore would comply with Policy 28.

5.8.9 Furthermore, the careful site selection and many stages of design refinement which have resulted in the Development are summarised in section 2.3 of this Planning Statement. As an example, this included feedback from a range of consultees from the Scoping Opinion whose feedback led to the proposal to construct a new headpond despite the loss of archaeological assets, as on balance, this was the most favourable design option.

Policy 57: Natural, Built and Cultural Heritage

5.8.10 It must be demonstrated that features of local or regional importance - Category B and C(S) listed buildings, Sites and Monuments Record Archaeological Sites, Archaeological Heritage Areas, Conservation Areas - will not be unacceptably impacted by a development.

5.8.11 Developments should not compromise features of national importance - Scheduled Monuments, Category A listed buildings, Inventoried Gardens and Designed Landscapes. Where there may be any significant adverse effects, these must both be clearly outweighed by social or economic benefits of national importance, and the development should support communities in fragile areas which struggle with population and services.

National Importance

5.8.12 Caisteal an Dunriachaidh fort Scheduled Monument is the only asset of national importance identified as having a likely significant effect from the Development. In order to be acceptable as per Policy 57, the effect on this monument must be outweighed by social, environmental or economic benefits of national importance.

5.8.13 As established in paragraph 5.8.3, the impact from the Development on this monument is considered low, yet the high heritage value of the asset led to the conclusion that there would be a significant effect. The reason for the assessment of a low impact centred on the key contribution of the Scheduled Monument, its prominence in the local landscape, remaining as a valued heritage asset, despite the construction of the Development. The overall effect from the Development was therefore assessed as limited.

5.8.14 In addition, the key finding from the EIA and this Planning Statement is that there would be no detrimental environmental effect overall from the Development, due largely to the siting, design development and embedded mitigation which has been built into the project from the beginning. Only the remaining significant effects are focussed on within this policy analysis.

5.8.15 The Development is also expected to have a positive impact on the local and national economy, for example with significant positive beneficial effects on the local economy through construction (see Chapter 14: Socio-economics and Tourism (EIA Report Volume 2)); by relating to the Scottish Government's economic vision for the energy sector in Inverness (NPF3) and selling surplus renewable energy outside of Scotland (Scottish Energy Strategy); as well as through THC's own vision for the Highland economy, with energy being a key sector. The social and economic benefits of local and national importance of the Development therefore clearly outweigh these limited overall effects on Caisteal an Dunriachaidh fort Scheduled Monument.

Local and Regional Importance

5.8.16 The total number of local / regional archaeological assets recorded within the study area was 178 (187 when including national assets). With 13 assets (or four groups of assets), receiving a significant effect from the construction of the Development due to partial or total loss which cannot be mitigated. Nevertheless, although significant, the loss of these features is not considered unacceptable for the reasons set out in Table 5.3.

Table 5.3 Reasons for Acceptable Partial / Total Loss of Local / Regional Archaeological Assets

Receptor	Further Description	Reason for Acceptability of Partial / Total Loss
22, 98, 101, 122, 125, 126, 140, 146, 151 & 153 – Enclosures and clearance cairns in Dirr Wood	All appear to relate to post-medieval agricultural land use and management. Assets have archaeological and historical significance as their study and / or excavation could provide information linked to post-medieval land use and settlement.	• Archaeological excavation / watching brief mitigation will allow assets to be studied further and new information may be learned and recorded; • Assets additionally common throughout many upland regions of Scotland and are considered to have low heritage value.
56 – Loch Ashie Cairnfield	Possibly date to the prehistoric period. Many features thought not to survive following intensive forestry plantation, supported by records from examination in 1973. Any remains that do survive will have archaeological value as their study could provide further information linked to the development or settlement of the area.	• Archaeological excavation / watching brief mitigation will allow assets to be studied further and new information may be learned and recorded; • Construction of the Headpond will result in the loss of a small percentage of the area where the assets are thought to survive and remains may not actually be affected as their precise location are unknown; • Any assets that do survive and are affected by construction would represent a small percentage of the assets; • Assets additionally common throughout many upland regions of Scotland and are considered to have low heritage value.
63 – Loch Ashie field system		
172 - Wester Drumashie Farm	Recorded on historic mapping, very little now survives of this farm, and it is thought that most may have been destroyed by forestry activities. Any remains that might survive would have archaeological and historical significance linked to the information the asset could provide about settlement activity and agriculture in the area.	• Archaeological excavation / watching brief mitigation will allow asset to be studied further and new information may be learned and recorded; • Asset additionally common in Scotland and is considered to have low heritage value.

Source: Chapter 13: Archaeology and Cultural Heritage (EIA Report Volume 2) and Appendix 13.1: Known Archaeology (EIA Report Volume 5) which provides a numbered list of all archaeological assets within the search area.

5.8.17 As the loss of the local / regional archaeological assets is not considered unacceptable, the Development would comply with Policy 57 in this regard.

Policy 67: Renewable Energy Developments

5.8.18 One of the elements considered as to whether a renewable energy development (or equivalent, as is the case here) is suitable, is whether it will have any significant effects on natural, built and cultural heritage features.

5.8.19 The analysis for Policy 57above examines the effect of the Development on cultural heritage features and has found that there is a significant, although acceptable effect on four groups of archaeological assets and a limited effect on the setting of a Scheduled Monument. Policy 67 is therefore complied with in this regard.

Historic Environment Strategy Supplementary Guidance (Highland Council, 2013a)

5.8.20 This is a material consideration when proposals for development are being considered and through it a number of Strategic Aims are set out for the Highland Council area. Those relevant to the Development are addressed in Table 5.4.

Table 5.4 Assessment of Relevant Strategic Aims

Strategic Aim	Assessment
1. To ensure that future management strategies, proposals and decisions affecting the historic environment are based on a thorough understanding of the special features of the heritage assets and associated archaeology, history and architecture of the Scottish Highlands.	A thorough assessment of the historic environment was undertaken as part of the EIA and it was determined that the Development would have a significant effect on the setting of a Scheduled Monument and four groups of archaeological assets. However, it was established that the key contribution of the Scheduled Monument was on the setting over Ashie Moor and immediate surrounds, which the Development would only have a limited overall impact on. In regards to the archaeological assets, all would be investigated and recorded as part of the mitigation strategy. They are also all common features in either upland Scotland or Scotland more generally. The known history of the Sottish Highlands would therefore be documented and could be better understood despite the partial or full loss of these assets.
2. To ensure that the historic environment is enhanced, protected and promoted and is recognised as the foundation for encouraging high quality and appropriate development to meet the future social and economic needs of the local communities with the Highlands.	The Development would ultimately help to serve future energy needs and provide energy security. Although the setting of a Scheduled Monument would be affected, there would only be a limited impact on its key contribution of being prominent in the local landscape. In addition, four groups of heritage assets would be partially or fully lost as a result of its construction, however these would be documented which may lead to further understanding of the heritage of the area.
3. To ensure that the historic environment is recognised as a key driver for economic growth and regeneration.	No key historic environment asset which could improve economic growth and regeneration would be significantly affected by the Development, taking into account the likely limited overall effect on the setting of the Scheduled Monument.
6. That listed buildings within Highland are protected from harmful developments, including extension and alteration, which may affect their special architectural and historic interest or their setting and that there is a presumption against the demolition of listed buildings.	It was ascertained that no listed buildings or their settings would be likely to be affected by the Development.
13. That scheduled monuments - and their setting - within Highland	The setting of a Scheduled Monument was found to be affected by the Development, however the actual impact of the

Strategic Aim	Assessment
are protected from harmful developments which may affect their national importance.	Development was found to be limited, with the key feature of the monument (its prominence in the local landscape) remaining as such.
14. That all designed landscapes within Highland are protected from harmful developments which may affect their integrity.	The Development would not affect the integrity of any designed landscape.
16. To ensure that the importance of non-designated archaeological sites and landscapes and their settings are understood and wherever possible are protected from harmful developments.	Of the 178 non-designated archaeological assets within the study area, 13 (or 4 groups) would be partially or fully lost due to the Development. The archaeological excavation / watching brief proposed would provide a means to officially document these before their removal and there would not be a significant impact on the remaining 165 assets in the study area.
17. To ensure no asset or its setting is lost or altered without adequate consideration of its significance and of the means available to preserve, record and interpret it in line with national and local policy and Highland Council's Standards for Archaeological Work.	Consideration of significant effects on four groups of assets to be partially or fully removed has been undertaken and the results provided through the EIA. The mitigation measures proposed would ensure the known archaeological assets, alongside potentially unrecorded assets, removed during construction would be recorded in line with policy and guidance.
18. To maintain a database of all known sites and landscapes in Highland for the purpose of future protection, preservation, interpretation, education and promotion, to identify and add new sites to the record and enhance information held for sites already known.	The archaeological excavation / watching brief would look to improve information on existing records and there would be a potential for the recording of new sites.
25. To record, protect, promote and seek improvement for all natural features which make a valuable contribution to the historic environment.	No natural feature affected by the Development was found to have a valuable contribution to the historic environment.
26. To ensure that management of the historic environment is based on considered judgement of how best to protect and enhance its importance and value	The majority of the historic environment would not be significantly affected by the Development. The site selection and design of the Development was the result of a considered assessment of the historic environment, with the overall impact of the Development assessed as not detrimental. This includes the limited impact on Caisteal an Dunriachaidh fort Scheduled Monument, as well the four groups of archaeological assets which may be removed during construction, because the archaeological excavation / watching brief would allow documentation and provide further information.
27. To promote and advocate best practice in heritage protection in the Highlands through the planning process	

Source: Highland Council (2013a) and Chapter 13: Archaeology and Cultural Heritage (EIA Report Volume 2)

5.9 Socio-economics and Tourism

5.9.1 Significant effect was established as likely on:

- Access; and,
- Visual impacts on Core Paths and Long Distant Routes.

5.9.2 In regards to access, this is recognised through Chapter 14: Socio-economics and Tourism (EIA Report Volume 2) as a general effect during construction, with areas of the Development Site closed to public access for health and safety reasons. Due to the regional importance of access in the Highland region and the length of the construction period, these access restrictions are therefore considered significant, even with proposed mitigation in the form of implementing a CTMP and CEMP to manage traffic and reduce effects to amenity.

5.9.3 The significant visual effects of the Development during construction and operation (years 1 and 15) were identified within Chapter 11: Landscape and Visual (EIA Report Volume 2) and referenced in section 5.6 above. This predicted significant effect concerned all viewpoints during construction, reducing to six viewpoints at year 1 of operation, to only two at year 15 in areas close to the Development (see Table 5.2). This predicted visual effect therefore impacts Core Paths, especially those closest to the Development Site, as well as Long Distance Routes.

Policy 67: Renewable Energy Developments

5.9.4 One of the elements considered as to whether a renewable energy development (or equivalent, as is the case here), is suitable is whether it will have any significant effects on:

- the amenity of users of any Core Path or other established public access for walking, cycling or horse riding;
- tourism and recreation interests; and,
- land and water based traffic and transport interests.

5.9.5 Diversion routes would be installed for all Core Paths and Long Distant Routes to prevent significant effects on the routes themselves, which are further referenced in more detail in the analysis of Policies 77 and 78 below. However, the amenity of users would likely be affected by the Development, as established through the landscape and visual assessment within the EIA and section 5.6 above.

5.9.6 This effect would be highest during construction and would reduce throughout operation as the Development integrated into the environment, although it would remain significant on those paths closest to the Development. Whilst user amenity in the area would improve as planting becomes established, the Development cannot be completely hidden in the landscape despite the extensive mitigation and enhancement measures which have been designed. The need for PSH nationally must therefore be considered, along with the local and national economic and social benefits (see sections 3 and 4.2).

5.9.7 Taking into account the above and the many positives of the Development identified throughout the EIA, it is not considered that it would be significantly detrimental overall and therefore it would comply with Policy 67.

Policy 77: Public Access

5.9.8 A feature will either have to be retained and maintained / enhanced, or provision for a suitable alternative provided, if a proposed development has an effect on a Core Path or access point to water, or where it significantly affects wider access rights. The judgement for suitability is based on retaining at least the same level of attractiveness, safety, convenience and damage or disturbance to species or habitats.

5.9.9 An Access Plan is also required for Major Development.

5.9.10 The effect of the Development on Core Paths is largely assessed through Chapter 14: Socio-economics and Tourism (EIA Report Volume 2), with additional detail being provided

through Appendix 14.3 Outline Access Management Plan (EIA Report Volume 5) and Chapter 11: Landscape and Visual (EIA Report Volume 2).

5.9.11 Of all the recreational routes considered within the study area of the EIA, partial closures were identified on two Core Paths within the red line boundary during the construction and operation of the Development:

- Kindrummond to Dirr Wood (IN12.04); and
- The Drumashie Moor (IN12.05)

5.9.12 Diversions have been designed for both of these Core Paths to ensure continued access rights throughout construction, operation and decommissioning.

5.9.13 In regards to the suitability of the diverted routes, Chapter 14 of the EIA recognises that there will be some loss of amenity on paths close to pre-construction and construction works. Nevertheless, these diverted route paths have been designed to ensure they are well matched to the original paths in regards to views experienced and convenience. In addition, no significant effect on ecology is identified through the EIA.

5.9.14 The Outline Access Plan in Appendix 14.3 identifies that the construction contractor when appointed, would be required through consultation with the local community and relevant stakeholders to determine material type to be used on the diverted routes and the signage provided. A Health and Safety Plan (HASP) would also be prepared.

5.9.15 The key influence as to the suitably of the diverted Core Paths is therefore the visual impact, which, as established in the landscape and visual assessment, would be temporarily altered during construction works and the early years of operation until the Development better integrates with the environment; except where a path comes in close proximity to the Development, where the visual effect would remain throughout operation.

5.9.16 Nevertheless, whilst there would be an impact on the amenity of these two Core Paths, the provision for suitable alternatives would be provided, which would be safe, convenient and not have a significant ecological effect. The amenity of the immediate area surrounding the Development would be altered due to the installation of a PSH scheme, however with only a small area of the slopes of Loch Ness being affected, Policy 77 would be complied with.

Policy 78: Long Distance Routes

5.9.17 This policy is intended to safeguard and seek the enhancement of Long Distance Routes and their settings, with due regard to any resulting impact on natural heritage.

5.9.18 Four Long Distance Routes have been identified through Chapters 11 (landscape and visual) and 14 (socio-economic and tourism) of the EIA: South Loch Ness Trail, Trail of the Seven Lochs, the Great Glen Way and the Great Glen Canoe Trail.

5.9.19 The South Loch Ness Trail and Trail of the Seven Lochs would both be partially closed during construction, however would be reopened again during operation. As a result, diversion routes are proposed during construction to allow continued access throughout the duration of construction. The routes are therefore safeguarded.

5.9.20 The Great Glen Way and the Great Glen Canoe Trail were both assessed as having no direct physical impact as a result of the Development.

5.9.21 The socio-economic analysis therefore did not identify a significant effect from the Development on these routes, however effects on the setting were assessed through the landscape and visual analysis. Visualisations were produced from representative viewpoints, a number of which covered these Long Distance Routes:

- Viewpoints 4 and 5 (Trail of the Seven Lochs);
- Viewpoint 7 (near the Great Glen Way); and,
- Viewpoint 8 (representing watercraft on Loch Ness, including the Great Glen Canoe Trail)

5.9.22 As established in section 5.6 and Table 5.2, significant visual effects from the Development were considered likely during construction for each of these representative viewpoints. The effect would become not significant on Viewpoints 7 and 8 at Year 1 of operation, and not significant on all viewpoints on year 15 of operation.

5.9.23 In the longer term, the setting of these Long Distance Routes would therefore be safeguarded as per the requirements of Policy 78, with a shorter term effect during construction and the early years of operation largely due to disruption and deforestation. Nevertheless, this temporary effect would impact only a section of each route and the proposed replanting strategy may lead to enhancement once vegetation becomes established.

6 Summary and Conclusions

6.1.1 The purpose of this Planning Statement has been to focus on how the Development responds to local and national planning policy, although the document's scope was widened to detail the legislation and consents relevant to proposed PSH schemes, in addition to the widely recognised need for, and benefits of, PSH.

6.1.2 It has been established that PSH schemes have been identified as national development though NPF3 (Scottish Government, 2014a), formally emphasising the recognised need for the further development of this technology in Scotland. This is because PSH is a technology which can support the diversification of energy supplies, a reduction in carbon emissions, and which can help balance both the supply and demand of electricity when a greater proportion of it is generated by renewable technologies.

6.1.3 The Scottish Government (2014b) regard PSH as an important element to the future, low carbon energy mix and a positive influence on the economy, with the Scottish Energy Strategy (Scottish Government, 2017a) presenting ideal targets for a number of new PSH schemes to be installed in the 2020s.

6.1.4 PSH is also supported at a wider, international level, by organisations such as the IPCC and EU. Amongst the number of benefits identified**Error! Reference source not found.**, the technology can contribute to all three goals of the World Energy Council's (2018) Energy Trilemma, which is used to define energy sustainability. These are in relation to reduced energy prices, cleaner energy generation, and improved energy security.

6.1.5 This Planning Statement forms part of the s36 application for the Development, which includes a request for deemed planning consent (see sections 2.4 and 2.5). Primacy is therefore not given to the local development plan, however as it is a material consideration for Scottish Ministers, a detailed assessment was provided of the HwLDP in section 5. This also provides a useful structure on which to assess the outcomes of the EIA Report more generally.

6.1.6 The findings have shown that the Development has been sited and designed to minimise its effects on the environment as much as possible for a project of this size. Sites possessing suitable characteristics for PSH schemes are rare and the Development Site was carefully selected following a Scotland-wide review of PSH conducted by the Applicant. From an early stage of site selection, national and local policy aspirations relating to environmental protection and opportunities for environmental enhancement were taken into account alongside suitable technical characteristics. The Development Site compared favourably to other potential sites providing the technical characteristics required by a PSH scheme whilst also avoiding environmental constraints or providing opportunities to mitigate impacts on them as far as possible.

6.1.7 Since site selection, the Development has progressed through many stages of design, with feedback from statutory consultees and the community leading some of the key changes to make the final design acceptable in regards to environmental and social impacts, as well as in planning terms.

6.1.8 The policy analysis in section 5 focussed on the few identified significant environmental effects following consideration of proposed mitigation and enhancement, as identified in Volume 2 of the EIA Report.

6.1.9 Of those considered, a number were assessed as acceptable in planning terms. Reasons include (but are not limited to): that the overall conservation status of the species would not be adversely affected (as with the Atlantic salmon and lamprey); that the likely effects on the landscape and visual environments would largely reduce over time as planting schemes matured; and that the provision of archaeological excavation / watching brief mitigation would allow for the recording and study of archaeological assets of which there are uncertainties.

6.1.10 Those outstanding significant effects were in regards to:

- The removal of Ancient, semi-natural woodland, which despite the proposed enhancement and mitigation measures to plant 281 ha of native woodland (see both Appendix 3.2: Outline Landscape and Ecology Management Plan **(**EIA Report Volume 5) and Figure 10.6: Restocking Plan (EIA Report Volume 3)) have a diversity which has been established over hundreds of years and so cannot be recreated (relevant to Policies 28, 52, 57, 60 and 67 of the HwLDP);
- Exclusion of deer to improve management;
- The removal of long-established woodland of plantation origin, for similar reasons as to the loss of Ancient woodland (relevant to Policies 52 and 57 of the HwLDP); and,
- The long-term visual effect on areas, including roads and Core Paths, closest to the Development, as landscape planting would never be able to completely hide a development such as this when in close proximity to it (relevant to Policies 28, 67, 77 and Onshore Wind Energy Supplementary Guidance).

6.1.11 The overall environmental effects of this Development therefore have to be balanced. Although 8.7 ha of Ancient semi-natural woodland and 134.7 ha of long-established woodland of plantation origin would be felled for the construction of this Development, the area of native woodland would increase by 281 ha as a result of the Development, including the likely significant beneficial effect of planting 4.3 ha of juniper woodland. 92.75% of the Ancient woodland within the red line boundary would also not be affected.

6.1.12 The Development would additionally have key local and national economic and social benefits, including a significant beneficial impact on the local economy during construction. It would also tie in with the Highland Council's (THC's) vision for the Highland economy, with energy being a key sector recognised in HwLDP for providing opportunities in economic development and employment creation. Closely linked to this, is the identification of energy as one of the three key economic sectors in Inverness, the closest city to the Development, by the Scottish Government through NF3.

6.1.13 Taking into account the careful siting and design of the Development, consideration of the national requirement for an increase of PSH capacity in Scotland and the many positives of the Development identified throughout the Planning Statement and EIA, it is not considered that its environmental or social effects would be significantly detrimental overall, respecting the aspirations of national and local planning policies.

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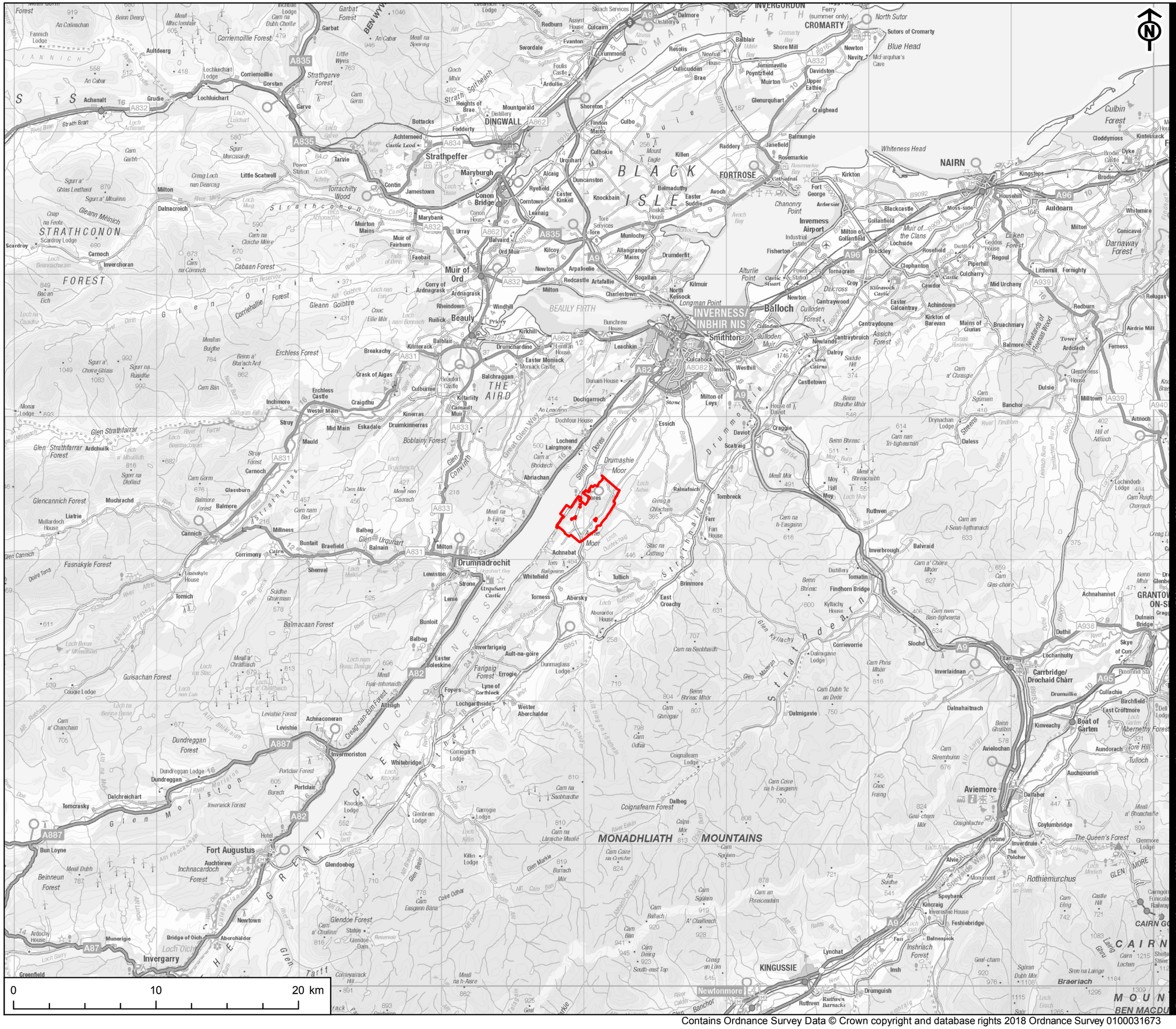
Project Management Initials: CA Designer: LC Checked: SY Approved: CS



AECOM

PROJECT
RED JOHN PUMPED STORAGE HYDRO

CLIENT
ILI (Highlands PSH) Ltd.

KEY
Development Site boundary

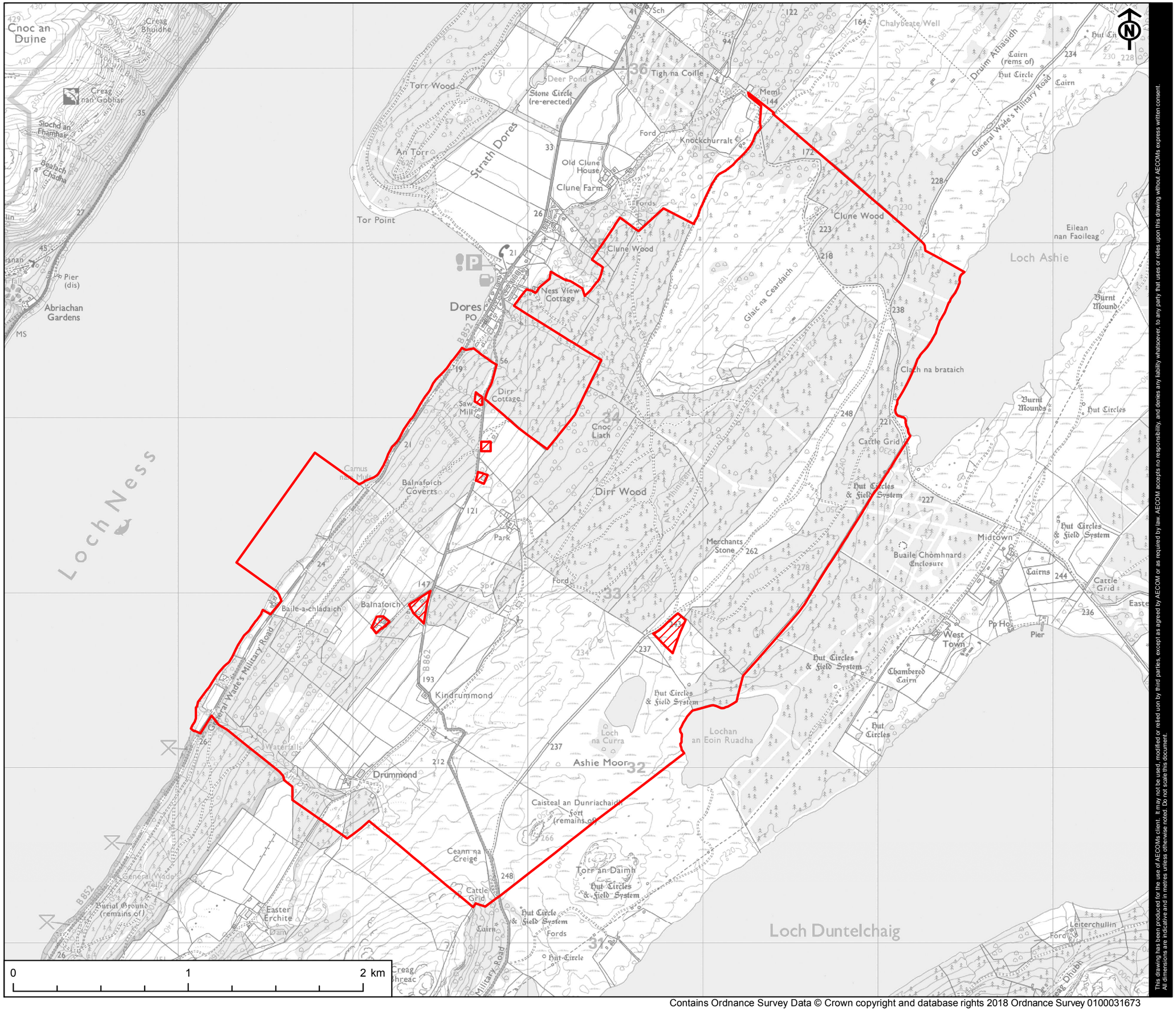
TITLE
FIGURE 2.1
SITE LOCATION PLAN

REFERENCE
RJ_181109_PS_2.1_v1

SHEET NUMBER
1 of 1

DATE
09/11/18

Project Management Initials: CA Designer: LC Checked: SY Approved: CS



Scale @ A3 1:20,000

AECOM

PROJECT
RED JOHN PUMPED STORAGE HYDRO

CLIENT
ILI (Highlands PSH) Ltd.

KEY
- Development Site boundary
- Excluded from Development Site boundary

TITLE
FIGURE 2.2
THE PROPOSED DEVELOPMENT SITE

REFERENCE
RJ_181109_PS_2.2_v1

SHEET NUMBER
1 of 1

DATE
09/11/18

Project Management Initials: CA Designer:AW Checked:DL Approved: CA

Temporary Access Road
Public Road Road Crossing 2
Spillway Pipe
Compound 3
Cofferdam (Temporary)
Silt Curtain (Temporary)
Inlet / Outlet
Spillway Outfall
Compound 2
Public Road Crossing 1
Low Pressure Tunnel
High Pressure Tunnel
Power Cavern
Construction Tunnel
Access Tunnel
Tunnel Portals
Compound 1
Indicative Re-alignment of Public Road
Security Fence
Embankment Boundary
Landscape Embankment
Headpond Embankment
Access Ramp
Headpond Access Road on Embankment Crest
Security Fence
Headpond Inlet Structure
Compound 4
Public Road Crossing 4
Public Road Crossing 3

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Filename: C:\PWWORKING\AECOM_DS03_UK\DAVID.LEE5@AECOM.COM\D0112128\FIGURE 2.3.DWG

AECOM

PROJECT
RED JOHN PUMPED STORAGE HYDRO

CLIENT
ILI (Highlands PSH) Ltd.

KEY

- Development Site Boundary
- Public Road - Permanent Realignment
- Access Road - Permanent
- Access Road - Temporary
- Access Tunnel
- Construction Tunnel
- High Pressure Tunnel
- Low Pressure Tunnel
- Tunnel Access Portal
- Power Cavern (Underground)
- Spillway Pipeline (Underground)
- T/P Temporary Construction or Permanent Compounds
- Area Excluded From Development Site Boundary

NOTES

1. All dimensions are indicative and in metres unless otherwise noted. Do not scale.
2. All levels in metres and reduced to ordnance datum unless otherwise noted.

TITLE
FIGURE 2.3
THE DEVELOPMENT LAYOUT

REFERENCE
RJ_181004_EIA2.3_v1

SHEET NUMBER	DATE
1 of 1	04/10/18

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