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**Appendix 9.F: Assessment of Effects on Visual Amenity**

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## Introduction

In accordance with the third edition of 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3), the LVIA, contained in Chapter 6, assesses the visual impact of the Revised Consented Development on public views and public visual amenity. This Residential Visual Amenity Assessment (RVAA) goes a stage beyond the LVIA by assessing the visual impact of the Revised Consented Development on private views and private visual amenity, and has been prepared, as far as is possible, in accordance with the Landscape Institute's Technical Guidance Note 02/19 'Residential Visual Amenity Assessment' (TGN 02/19). This guidance sets out the steps to be followed when undertaking an RVAA and highlights how it should be informed by the principles and processes of GLVIA3. The purpose of the RVAA is to identify those properties where the effect of the Revised Consented Development leads to the 'Residential Visual Amenity Threshold' being reached or, in other words, where the effect is of such a nature and/ or magnitude that it potentially affects living conditions so as to give rise to an 'overbearing' or 'overwhelming' magnitude of effect.

This RVAA assesses the likely effects of the Revised Consented Development on the visual component of residential amenity relating to individual properties within a localised study area. The term 'residential amenity' refers to the living conditions at a house, including its gardens and domestic curtilage, which are commonly interpreted to include visual amenity, noise amenity and other factors such as shadow flicker. In a RVAA, such as this, OPEN addresses only the visual amenity aspect of residential amenity, as this is its area of expertise. Effects from noise and shadow flicker are assessed separately in the EIA Report.

The purpose of this RVAA is to inform the planning process. It is in this context that TGN 02/19 makes the following statement: *"It is not uncommon for significant adverse effects on views and visual amenity to be experienced by people at their place of residence as a result of introducing a new development into the landscape. In itself this does not necessarily cause particular planning concern. However, there are situations where the effect on the outlook / visual amenity of a residential property is so great that it is not generally considered to be in the public interest to permit such conditions to occur where they did not exist before."*

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## Approach

The approach set out in TGN 02/19 is based on the four following Steps:

**Step 1:** Definition of the study area and scope of the assessment, informed by the description of the Revised Consented Development, defining the study area extent and scope of the assessment with respect to the properties to be included.

**Step 2:** Evaluation of baseline visual amenity at properties to be included, having regard to the landscape and visual context and the potential influence of the Revised Consented Development.

**Step 3:** Assessment of likely change to visual amenity of included properties in accordance with GLVIA3 principles and processes.

**Step 4:** Further assessment of predicted change to the visual amenity of properties where a judgement in relation to the Residential Visual Amenity Threshold is required.

### Step 1 Definition of Study Area and Scope of the Assessment

Step 1 involves defining the extent of the Study Area and establishing the scope of the assessment. In respect of defining the extent of the study area, TGN 02/19 gives the following advice (Paragraphs 4.6 and 4.7):

*"Over the last few years a large number of RVAA's have been prepared, especially relating to wind energy proposals. Local Planning Authorities (LPA) have frequently requested 'study areas' of up to 3 or even 5 km. The logic for these (exceptionally) large study areas was based on certain findings of LVIA's which identified significant visual effects from 'settlements' or from clusters of residential properties within this range. This fails to recognise that RVAA is a stage beyond LVIA. Consequently, many RVAA's, including those of windfarms with large turbines (150m and taller), have included disproportionately extensive study areas incorporating too many properties. This appears to largely be based on the misconception that if a significant effect has been identified in the LVIA adjacent to a property at 2.5km it will also potentially lead to reaching the Residential Visual Amenity Threshold. When assessing relatively conspicuous structures such as wind turbines, and depending on local landscape characteristics, a preliminary study area of approximately 1.5 to 2km radius may initially be appropriate in order to begin identifying properties to include in a RVAA."*

In respect of the Revised Consented Development there are no residential properties within the larger recommended Study Area of 2 km. This would suggest that, in line with TGN 02/19, the potential for the Revised Consented Development to give rise to effects that

would reach the 'Residential Visual Amenity Threshold' is unlikely and suggests that a detailed RVAA is not required.

Prior to the submission of the 2014 Further Environmental Information (FEI) for Limekiln 1, the Reporter asked for wirelines to be produced by the Applicant for the four closest properties to the site, namely Loanscorribest (2km); Borlum House (2.1km); Blarmore (2.1km) and Achins (2.4km). Furthermore, the Applicant offered to prepare wirelines for any other nearby residential properties which third parties requested. As a consequence of this offer, a total of nine requests were received from third parties by the Applicant (in addition to the four by the Reporter).

The overall list of properties for which wirelines were requested comprises the following:

- Loanscorribest;
- Borlum House;
- Creag Leathan;
- Milton Cottage;
- Achins;
- Isauld Lodge, Reay
- Isauld Cottage, Reay
- Birkness, Reay;
- 10 The Terrace, Reay;
- Kinkell, Reay;
- Sandydene, Reay;
- The Cottage, Reay;
- Rathlin, Shebster; and
- Zalushki, Reay.

In the absence of the Landscape Institute's TGN 02/19, at the time of writing for the Limekiln 1 Residential (Visual) Amenity Survey (RVAS) as part of the 2014 FEI and the Limekiln 2 (RVAS) as part of the 2016 EIA Report and update for the 2017 SI, there was no formal guidance on assessing the effects of development on residential visual amenity. A RVAS was carried out to cover the four closest properties and the nine additional properties, where residents had requested their property be surveyed. In the previous RVASs, no unacceptable visual effects were identified, in terms of being 'overbearing' or 'dominant'. This finding was supported in the Reporters' 2014 Report and Scottish Minister's Decision for Limekiln 1, where the Reporters found at paragraph 3.64 that:

*"3.64 We recognise that to some extent the assessment of visual impacts on residential amenity has to be subjective, and that some residents are likely to be more sensitive to change than others. In that regard though, we note that the applicant has ascribed a high sensitivity to all properties assessed. We conclude overall that no residential properties*

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*would experience overbearing or visually dominant visual effects to the extent that residential amenity would be unacceptably affected. In reaching this conclusion, we take support from the fact that the council has not disputed the applicant's residential amenity conclusions."*

In the more recent Reporters' 2018 Report on Limekiln 2, a similar conclusion was presented by the Reporters at paragraph 9.15;

*"9.15 We are satisfied that there is no prospect of the development having an overbearing effect at any residential property, given the nearest properties are over 2 kilometres away. 'Achins' and 'Borlum House' would experience the greatest effects upon outlook, but we are satisfied that both properties would continue to benefit from a high level of visual amenity overall, and no property would be affected to an extent that residential amenity would be materially reduced."*

Despite there being no residential properties located within the recommended 2 km outer limits for an RVAA Study Area, and the fact that through previous reviews of the respective RVASs it was agreed that effects would be acceptable, an update to the RVAS is presented in this Appendix 9.F to ensure consistency between the submissions and provide a basis for comparison between these submissions in light of the incremental increase to the dimensions of the proposed turbines. The original 14 properties form the basis of the assessment, while the approach has been updated to reflect the guidance on RVAA presented in TGN 02/19. The 14 properties have been identified using AddressBase Plus data and are shown in conjunction with the ZTV in **Figure 9.117**. These are individually numbered and listed in this figure.

## **Step 2 Evaluation of Baseline Visual Amenity at Properties**

Step 2 involves carrying out an evaluation of the baseline visual amenity at the properties, through a combination of desk study and field work. The key considerations of this evaluation are set out in TGN 02/19 as follows:

*"The nature and extent of all potentially available existing views from the property and its garden / domestic curtilage, including the proximity and relationship of the property to surrounding landform / landcover and visual foci. This may include primary / main views from the property or domestic curtilage as well as secondary / peripheral views; and Views as experienced when arriving or leaving the property, for example from private driveways / access tracks."*

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The Applicant contacted each of the parties who requested wirelines in 2014 (in addition to those listed within the Committee Report at that time) and sought permission to visit their respective properties for the purpose of selecting the most relevant location as a viewpoint. The owner of Achins declined the opportunity for a wireline to be produced and this property was not inspected at close range as a result. Additionally, as Blarmore is a derelict building and not inhabited, a wireline has not been produced for that location.

In the course of preparing the original RVAS, the assessor arranged to inspect the visual amenity of each of the residential receptors where possible, from its garden ground to take photographs for illustration purposes and to help inform an opinion as to whether its visual amenity is likely to be significantly affected by the Revised Consented Development. The assessment has regard to the principal outlook from the front of each property (where visible) as well as other characteristics such as areas of garden ground that are likely to be affected. The assessment attaches less weight to views from upper floor windows in houses compared with principal rooms, an approach which is reflected in the GLVIA3.

RVAA sheets (which are included in this Appendix) have been prepared for all 14 properties. These assessment sheets record the likely visual effects resulting from the Revised Consented Development. Wirelines are also presented in **Figures 9.101 to 9.114** of Volume 2 of the EIA Report to illustrate the theoretical visibility of the Revised Consented Development. These are produced with a 53.5-degree horizontal field of view, as are required to illustrate the full theoretical visibility of the Revised Consented Development from each property.

It is important that the limitations of wireline production are understood by people who may use them as they can easily be misinterpreted. A wireline is computer generated image which is based on a three-dimensional terrain model of the landform, derived from Ordnance Survey digital height data, into which the proposed wind turbines and the viewpoint is located. The model does not purport to indicate anything other than bare ground landform and therefore seeks to provide a worst case impression of the potential visual effect of the Revised Consented Development, from the specific viewpoint.

The model does not show localised or subtle, small-scale landforms, such as roadside embankments, nor does it indicate the screening effects arising from buildings, walls and other structures in the landscape. Equally, the model does not account for any woodland or vegetation that may in reality reduce the degree of theoretical visibility apparent in the wireline.

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### **Step 3 Assessment of Likely Change to Visual Amenity**

Step 3 involves carrying out an assessment of the likely change to the visual amenity of properties by applying the process of assessment advocated by GLVIA3, in which the sensitivity of the receptor is combined with the magnitude of change which will arise as a result of the Revised Consented Development, to determine whether the effect will be significant or not. The aim of Step 3 is to identify those properties with potential to reach the Residential Visual Amenity Threshold and therefore require further assessment in Step 4. This will only occur where a high magnitude of change is assessed for a property, as the Residential Visual Amenity Threshold reflects those effects that are in the upper most range of magnitude, where effects may become overwhelming or overbearing.

OPEN's methodology assumes that all occupiers of local residential properties within the RVAA will have a high sensitivity. OPEN attaches less weight to views from upper floor rooms in houses compared with ground floor principal rooms; an approach which is reflected in GLVIA3 (paragraph 6.36). The assessment of magnitude of change which will arise from the Revised Consented Development is determined by the factors influencing magnitude of change on views, the potential change to the outlooks from each property, as well as other factors, such as areas of garden ground or access roads to properties, that are likely to be affected. The key considerations of this assessment are set out in TGN 02/19 as follows:

*"Distance of property from the development having regard to its size, scale and location on relative to the property (e.g. on higher or lower ground);*

*Type and nature of the available views (e.g. panoramic, open, framed, enclosed, focused etc.) and how they may be affected, having regard to seasonal and diurnal variations.*

*Direction of view and aspect of property affected, having regard to both the main, primary and peripheral and secondary views from the property;*

*Extent to which the development and landscape changes would be visible from the property, or parts of it, having regard to views from principal rooms, the domestic curtilage (i.e. garden) and the private access route, taking into account seasonal and diurnal variations;*

*Scale of change in views having regard to such factors as the loss or addition of features and compositional changes including the proportion of view occupied by the development, taking account of seasonal and diurnal variations;*

*Degree of contrast or integration of new features or changes in the landscape compared to the existing situation in terms of form, scale and mass, line, height, colour and texture, having regard to seasonal and diurnal variations;*

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*Duration and nature of the changes, whether temporary or permanent, intermittent or continuous, reversible or irreversible etc.; and*

*Mitigation opportunities - consider implications of both embedded and potential further mitigation."*

**Appendix 9.A:** LVIA Methodology provides a full description of the criteria that contribute to magnitude of change on views and a description of the magnitude ratings used in this assessment. Justifiable differences in magnitude of change assessed in the RVAA may occur when compared to magnitude of change assessed for LVIA viewpoints, depending on the context of the view and the magnitude criteria considered material for each receptor.

The significance of the effect on residential visual amenity experienced at each property is dependent on the factors considered in the sensitivity and the magnitude of change resulting from the Revised Consented Development. These judgements on sensitivity and magnitude are combined to arrive at an overall assessment as to whether the Revised Consented Development will have an effect on residential visual amenity that is significant or not significant. The assessment process - the evaluation of magnitude of change and the significance of the effect - is described on the RVAA sheets for each property in this Appendix.

#### **Step 4 Judgement of Residential Visual Amenity Threshold**

Step 4 of the RVAA is described as follows in TGN 02/19 (Paragraphs 4.17 to 4.20):

*"The final step of RVAA involves a more detailed examination of the predicted effects on the visual amenity at those properties identified for further assessment in the previous step. There is an important distinction between this concluding step of RVAA and the preceding one. In Step 3 the assessor has reached a conclusion with respect to magnitude and (EIA) significance of visual effect, and the change in visual amenity at the property. In this final step, and only for those properties where the largest magnitude of effect has been identified, a further judgement is required. This concluding judgement should advise the decision maker whether the predicted effects on visual amenity and views at the property are such that it has reached the Residential Visual Amenity Threshold, therefore potentially becoming a matter of Residential Amenity."*

The key point regarding Step 4 is that the judgement required in this final, concluding step goes beyond the assessment undertaken in Step 3 which is restricted to judging the magnitude and significance of visual effect.

The difference between significant visual effects and those at the 'Residential Visual Amenity Threshold' which might be considered to have an overbearing effect on residential visual

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amenity, has evolved through Public Local Inquiry (PLI) decisions over the past decade. The factors considered in such an assessment are widely recognised by professional Landscape Architects and decision makers and are often referred to as 'the Lavender Test' after the Inspector who first developed the concept. The factors considered in the so called 'Lavender Test' requires a level of visual effect to arise which is greater than a significant visual effect in EIA terms. In TGN 02/19 this is referred to as the Residential Visual Amenity Threshold.

The degree of effect must be to such a degree that a property would become widely regarded as an unattractive place in which to live. This public interest test therefore has a higher threshold than 'significant' in EIA terms. This approach is commonly applied to the assessment of visual effects on residential amenity. The approach has been refined through decisions for Inquiries and Appeals into wind farm applications across the United Kingdom and recognises that, given no person is entitled to a view in law, it is not sufficient for a property to simply sustain a significant visual effect for its residential amenity to be unacceptably harmed. For residential visual amenity to be harmed a higher threshold requires to be triggered, whereby the turbine(s) are at such proximity to a house, or in such number, that they lead to an overwhelming or overbearing effect on the property to the extent that it becomes an unattractive place in which to live. Where this occurs the matter affects the public interest as such an outcome could be considered to harm the provision of good housing stock.

The Step 4 assessment is included on the assessment of each of the relevant properties in this RVAA, where they are assessed as having a 'High' magnitude of change in the Step 3 assessment i.e. those that are in the upper most range of magnitude, where a further 'threshold' judgement is required. Where this RVAA identifies any properties at the Residential Visual Amenity Threshold in Step 4, this does not imply an unacceptable effect, as any finding of acceptability requires to be undertaken as part of the wider planning balance. The 'threshold' acts to identify those properties where a predicted change to residential visual amenity is of such magnitude that it should be weighed in the planning balance, along with other EIA effects.

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### **RVAA Survey Sheets for Properties between 2 km and 2.5 km**

Residential Amenity Receptors between a minimum distance of 2 km and 2.5 km of the Revised Consented Development.

- Loanscorribest (2.03 km to nearest turbine)
- Borlum House (2.51 km to nearest turbine)
- Creag Leathen (vacant/ semi-derelict) (2.41 km to nearest turbine)
- Milton Cottage (2.50 km to nearest turbine)
- Achins (2.80 km to nearest turbine)

The RVAA survey sheets for these five properties are set out below, their locations are shown in **Figure 9.117** and associated wirelines are presented in **Figures 9.118** to **9.122**.

<b>1 LOANSCORRIBEST, REAY</b>					
Property Name: Loanscorribest		OS Grid Reference: 298525E 963978N			
No. of turbines theoretically visible: <b>7</b>		No. of turbine hubs theoretically visible: <b>2</b>			
Distance to nearest visible turbine: <b>2.03km</b>					
Field of view theoretically affected by Revised Consented Development: <b>14.9 Degrees</b>					
View direction: SSW 187 degrees		Viewpoint Reference: <b>Figure 9.118</b>			
<p><b>Property description:</b> Loanscorribest comprises a two storey farmhouse and closely related outbuildings located at the end of a long private track which joins the A836 near Isauld. The main area of garden ground is to the east of the house, extending to the Achvarasdal Burn, although the house is approached from the north west through farmland. The garden contains a number of mature trees. There is some existing visibility from the garden of the Baillie Hill Wind Farm at approximately 3.5 km distance. The main orientation of the property is north east/south west although direct views to the south are partially concealed by intervening outbuildings which form a courtyard on the west side of the house. Loanscorribest is the closest property to the Revised Consented Development.</p>					
<p><b>Existing views and visual amenity:</b> The principal outlook from the property is to the east across its garden ground which is contained by trees. The track accessing the property has open views towards the Revised Consented Development site which is concealed by Creag Leathan which forms a notable landform feature to the south. Outbuildings conceal direct views from the west side of the house at ground level but upper floors may have views across the top of these.</p>					
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 7 wind turbines, including 2 turbine hubs and 2 blade tips. In reality this will be reduced by the presence of the coniferous plantation in the foreground, such that only four blades or tips will be visible. The principal visual effect will be on the approach to the property with very limited effects on the main outlook from the house and garden itself. The separation distance of over 2 km, limited actual visibility and low magnitude of change means that the effect would not lead to an overbearing or dominant visual impact at the property, and it would not become widely regarded as an unattractive place in which to live.</p>					
Magnitude of change		High	Med	<b>Low</b>	Neg
Significance of visual effect		Significant		<b>Not significant</b>	

<b>2 BORLUM HOUSE, REAY</b>				
Property Name: Borlum, Reay		OS Grid Reference: 297169E 964105N		
No. of turbines theoretically visible: <b>13</b>		No. of turbine hubs theoretically visible: <b>12</b>		
Distance to nearest visible turbine: <b>2.51km</b>				
Field of view theoretically affected by Revised Consented Development: <b>34.2 Degrees</b>				
View direction: SSE 163 degrees		Viewpoint Reference: <b>Figure 9.119</b>		
<p><b>Property description:</b> Borlum is a two storey house set in an elevated position at the end of a long private track connecting to the centre of Reay village. The house has an open setting with a walled garden located to the east, accessed from a loose courtyard arrangement of buildings to the rear. The property includes a number of stone outbuildings to the south east and further walled field enclosures. Limekiln Forest comes to within 800 metres of the rear of the property.</p>				
<p><b>Existing views and visual amenity:</b> Borlum faces north-west with dramatic sea views overlooking Reay and Sandside Bay. The Dounreay Nuclear Power Plant forms a notable, if oblique, feature in views to the north. The Dounreay electricity transmission line crosses the access to the property and forms a prominent detractor across the open views north. From the rear of the property views are contained to the south-east by rising ground on Borlum Rock, but with more open views across Limekiln Forest being apparent to the south. Baillie Hill Wind Farm is visible to the north-east of the house at 4.8 km.</p>				
<p><b>Likely visual effect from The Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 13 wind turbines, with 12 showing hubs and one blade tip. The remaining turbines are hidden from view behind Borlum Rock. The principal visual effect will arise from the rear of the property and from the access which takes visitors around to the back of the house. Effects from the walled garden and front of the house will be limited. Notwithstanding the high magnitude of change assessed, the separation distance of over 2 km, narrow field of view affected (34.2 degrees) and location of Revised Consented Development relative to principal outlook means that the effect would not lead to an overbearing visual impact at the property, and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	<b>High</b>	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

<b>3 CREAG LEATHAN, REAY</b>				
Property Name: Creag Leathan		OS Grid Reference: 297691E 964235N		
No. of turbines theoretically visible: <b>10</b>		No. of turbine hubs theoretically visible: <b>2</b>		
Distance to nearest visible turbine: <b>2.41km</b>				
Field of view theoretically affected by Revised Consented Development: <b>17.0 Degrees</b>				
View direction: S 172 degrees		Viewpoint Ref: <b>Figure 9.120</b>		
<p><b>Property description:</b> Creag Leathan is a single storey, derelict house located towards the end of a minor road connecting to the A836 at Isauld. Although derelict, the house could potentially be renovated with relative ease and has been included as it is close to the site and access route for the Revised Consented Development. The house is located immediately adjacent to the minor road with a small area of former garden ground to the south west. The owner of the house has a financial interest in the wind farm development.</p>				
<p><b>Existing views and visual amenity:</b> The house faces south east across the road with long range views curtailed to a degree by the undulating landform of Borlum Rock and Creag Leathan, as well as the relatively low siting of the house itself. Baillie Hill Wind Farm is visible across intervening farmland to the east of the house at a minimum distance of 4.3 km. The amenity of the property is compromised to a small degree by its location immediately adjacent to the minor road.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 10 wind turbines and 2 hubs, with the majority of the turbines seen as blades or tips. The remaining 11 turbines are hidden from view behind Borlum Rock and Creag Leathan which provide a notable, if localised, screen to the Revised Consented Development. The principal visual effect will arise from the front of the property, the garden area to the west and from the road access to the house. The narrow field of view affected by the Revised Consented Development (17.0 degrees) reduces the magnitude of change to medium. Coupled with a separation distance of 2.3km and having regard to the cumulative visibility of Baillie Hill Wind Farm, the magnitude of the change to views from the property would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	High	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

<b>4 MILTON COTTAGE, REAY</b>				
Property Name: Milton Cottage		OS Grid Reference: 297674E 964323N		
No. of turbines theoretically visible: <b>10</b>		No. of turbine hubs theoretically visible: <b>4</b>		
Distance to nearest visible turbine: <b>2.50km</b>				
Field of view theoretically affected by Revised Consented Development: <b>16.7 Degrees</b>				
View direction: S 172 degrees		Viewpoint Reference: <b>Figure 9.121</b>		
<p><b>Property description:</b> Milton Cottage is a single storey, stone built building located close to Creag Leathan and which shares access from the minor road that joins the A836 at Isauld. The house is set back to the north from the minor road along a short drive. The house has garden ground on all sides with a narrow strip of trees along its south western side.</p>				
<p><b>Existing views and visual amenity:</b> The linear shaped house has a relatively open setting and faces north east and south west, with a particularly open aspect to the east and north. The approach to the house has visibility of the Dounreay transmission line towards Reay at approximately 600 metres distance. Views towards Borlum Rock and Creag Leathan (hill) become more noticeable when leaving the house. Baillie Hill Wind Farm is visible across intervening farmland to the east of the house at a distance of 4.2 km.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 10 wind turbines and 4 hubs, with 3 seen just as tips. The remaining 11 turbines are hidden from view behind Borlum Rock and Creag Leathan which provide a notable if localised screen to the Revised Consented Development. In reality, a substantial part of the Revised Consented Development would be concealed behind Creag Leathan house, although this would become a less apparent screen from the end of the access drive. The principal visual effect will arise from the parking/ turning area at the southern end of the house and from the road access to the house. The narrow field of view affected by the Revised Consented Development (16.7 degrees) reduces the magnitude of change to medium. Coupled with a separation distance of over 2.5 km and having regard to the orientation and siting of the house, the magnitude of the change to views would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	High	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

<b>5 ACHINS, REAY (Note: Visualisation is not from property but from footpath to SE)</b>				
Property Name: Achins, Reay		OS Grid Reference (House): 295980E 963950N		
No. of turbines theoretically visible: <b>21</b>		No. of turbine hubs theoretically visible: <b>21</b>		
Distance to nearest visible turbine: 2.80km (from house)				
Field of view theoretically affected by Revised Consented Development: <b>30.0 Degrees</b>				
View direction: SE 145 degrees		Viewpoint Ref: <b>Figure 9.122</b>		
<p><b>Property description:</b> Achins is a single storey bungalow located about 300 metres to the south of Reay, which is accessed along a track that connects to Beinn Ratha Court. A waymarked path runs along the access route to the house providing access into the Sandside Burn glen. The house has garden ground on all sides, which drops down to the Sandside Burn along its southern edge.</p>				
<p><b>Existing views and visual amenity:</b> The house face south, south east and has a relatively open setting, which includes views to Beinn Ratha. Although the garden contains some young trees, its slightly elevated position above the burn gives it some long range views to the south. The Dounreay transmission line and towers are a prominent feature in views south, crossing some 200 metres in front of the property, beyond which views include almost all of the northern edges of the Limekiln plantation. To the north the house overlooks the southern edge of Reay village. Baillie Hill Wind Farm is not a readily discernible feature at a range of 6km.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of all 21 wind turbines and 21 hubs. In reality, parts of the Revised Consented Development would be partially concealed behind the intervening forestry which extends to within 600 metres of the house. The principal visual effects will be apparent from the south facing rooms in the house and the garden ground. The Revised Consented Development would occupy a relatively small part of the overall outlook (30.0 degrees) and would sit behind and below the transmission lines. This would give rise to a medium-high magnitude of change to a part of the view. With a separation distance of over 2.8 km and having regard to the existing features in the view, the effect would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	<b>High</b>	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

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### **RVAA Survey Sheets for Properties over 2.5km**

Selected Residential Amenity Receptors over 2.5km from the Revised Consented Development.

- Isauld Lodge (3.62 km to nearest turbine)
- Isauld Cottage (3.46 km to nearest turbine)
- Birkness (3.22 km to nearest turbine)
- 10 The Terrace (3.39 km to nearest turbine)
- Kinkell (3.10 km to nearest turbine)
- Sandydene (3.33 km to nearest turbine)
- The Cottage (3.58 km to nearest turbine)
- Rathlin (3.27 km to nearest turbine)
- Zalushki (3.05 km to nearest turbine)

The RVAA survey sheets for these nine additional properties are set out below, with their locations shown in **Figure 9.117** and associated wirelines are presented in **Figures 9.123** to **9.131**.

<b>6 ISAULD LODGE, REAY</b>				
Property Name: Isauld Lodge		OS Grid Reference: 297564E 965461N		
No. of turbines theoretically visible: <b>21</b>		No. of turbine hubs theoretically visible: <b>12</b>		
Distance to nearest visible turbine: <b>3.51km</b>				
Field of view theoretically affected by Revised Consented Development: <b>28.6 Degrees</b>				
View direction: South 173 degrees		Viewpoint Reference: <b>Figure 9.123</b>		
<p><b>Property description:</b> Isauld Lodge is a two storey property located in a relatively elevated position at the end of a private drive, which connects to the A836 near Isauld. The house is set within an extensive garden which wraps around the south, west and northern sides of the house. A group of trees exists along the northern edge, with rows of conifers extending around exposed parts of the garden boundary. The house has a large glass conservatory on its south western elevation which overlooks Reay Golf Course.</p>				
<p><b>Existing views and visual amenity:</b> The principal outlook from the property is to the south west and west from the conservatory, with panoramic views of Sandside Bay and the golf course forming focal points. Views to the south and south east are more enclosed by shelter planting around the perimeter of the garden. The Dounreay transmission line detracts from views to the south, where pylons form a notable feature outside the property. Baillie Hill Wind Farm is not a conspicuous feature due to intervening screening in that direction from the garden.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 21 wind turbines with 12 hubs showing and the remaining 9 occurring as blades or tips, partially concealed behind the landform of Borlum Rock and Creag Leathan. The site survey showed that from the conservatory and parts of the garden actual visibility will also be curtailed to some degree by trees around the perimeter of the garden. The principal visual effects will be apparent from the edge of the garden through gaps in trees. The Revised Consented Development would occupy a relatively small part of the overall outlook (28.6 degrees) and would sit behind and below the Dounreay transmission line. The existing context and degree of screening in views would give rise to a medium-low magnitude of change to a part of the view. With a separation distance of over 3.6km, the effect would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	High	<b>Med</b>	<b>Low</b>	Neg
Significance of visual effect	Significant		<b>Not significant</b>	

<b>7 ISAULD COTTAGE, REAY</b>				
Property Name: Isauld Cottage		OS Grid Reference: 297819E 965349N		
No. of turbines theoretically visible: <b>21</b>		No. of turbine hubs theoretically visible: <b>15</b>		
Distance to nearest visible turbine: <b>3.46 km</b>				
Field of view theoretically affected by Revised Consented Development: <b>29.6 Degrees</b>				
View direction: South 176 degrees		Viewpoint Reference: <b>Figure 9.124</b>		
<p><b>Property description:</b> Isauld Cottage is a single/ one and a half storey property which is situated immediately adjacent to the A836 at Isauld. The house is separated from the road by a narrow strip of garden with its main garden area located to the rear of the property on the north west side.</p>				
<p><b>Existing views and visual amenity:</b> The house faces south east across the A836 Tourist Route, with Baillie Hill Wind Farm partially visible to the east at approximately 4km. The house has an open aspect with windows facing towards Limekiln forest, which is partially concealed behind the undulating profile of Borlum Rock, Creag Leathan and Creag Mhor. Beinn Ratha is visible along the road at an oblique angle. The Dounreay transmission line passes close behind the rear of the house before turning southwest around Reay. The existing amenity of the property is compromised to some degree by its proximity to the road which is a relatively busy route.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 21 wind turbines with 15 hubs showing and the remaining 6 turbines seen as blades or tips, partially concealed behind the landform of Borlum Rock and Creag Leathan. From the front of the property the full width of the Revised Consented Development would be visible across the road, albeit set back behind the foreground landform which has the beneficial effect of reducing its prominence. The Revised Consented Development would add to some cumulative visibility from Baillie Hill Wind Farm, although the separation distances would ensure that this in itself was not overbearing. The Revised Consented Development would occupy a relatively small part of the overall outlook (29.6 degrees). The open nature of views would give rise to a medium-high magnitude of change to part of the view. With a separation distance of over 3.4km, the effect would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	<b>High</b>	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

<b>8 BIRKNESS, REAY</b>				
Property Name: Birkness		OS Grid Reference: 297187E 964913N		
No. of turbines theoretically visible: <b>20</b>		No. of turbine hubs theoretically visible: <b>13</b>		
Distance to nearest visible turbine: <b>3.22 km</b>				
Field of view theoretically affected by Revised Consented Development: <b>31.4 Degrees</b>				
View direction: SSE 167 degrees		Viewpoint Reference: <b>Figure 9.125</b>		
<p><b>Property description:</b> Birkness is a one and half storey property located within Reay village, accessed directly from the A836. The house sits on ground which slopes gently to the west which means it is elevated above other parts of the settlement. The house is positioned within a large garden which affords it a high degree of containment and privacy. A large glassroom/ conservatory overlooks the garden.</p>				
<p><b>Existing views and visual amenity:</b> The main orientation of the house is towards to north west with views towards Sandside Bay. The southern garden boundary is planted up to afford shelter and this also provides a good level of screening in views towards Limekiln Forest, as evident in the baseline photo. This planting encloses a substantial area of garden ground around the house which the house overlooks. There are views to the south but they are heavily filtered. Baillie Hill Wind Farm is not apparent from the property due to its siting in the village.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 20 wind turbines, including 13 turbine hubs. In reality this will be reduced by the presence of the garden boundary planting. This will have the effect of substantially reducing the impact on the amenity of the property, to the extent that it is assessed as medium-low. The separation distance of over 3.2km, limited actual visibility and low magnitude of change means that the effect would not lead to an overbearing or dominant visual impact at the property, and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	High	<b>Med</b>	<b>Low</b>	Neg
Significance of visual effect	Significant		<b>Not significant</b>	

<b>9 THE TERRACE, REAY</b>				
Property Name: 10, The Terrace		OS Grid Reference: 296004E 964583N		
No. of turbines theoretically visible: <b>19</b>		No. of turbine hubs theoretically visible: <b>16</b>		
Distance to nearest visible turbine: <b>3.39km</b>				
Field of view theoretically affected by Revised Consented Development: <b>26.3 Degrees</b>				
View direction: SE 151 degrees		Viewpoint Reference: <b>Figure 9.126</b>		
<p><b>Property description:</b> 10 The Terrace, Reay is a single storey semi-detached house located on the northern side of the street, on the southern side of Reay village. The Terrace only has housing development on one side of the street in this specific location, which means that the property has an open aspect to the south. The property has a garden at the front and rear. The assessment of this property is representative of a number of houses on The Terrace which includes single and two storey properties.</p>				
<p><b>Existing views and visual amenity:</b> The house faces south, with longer range views available to Beinn Ratha through a gap on the opposite side of street, framed by two timber garages. Visibility is otherwise curtailed by these buildings. The front rooms of the house overlook the garden and street. The Dounreay electricity transmission line crosses the landscape to the south of the house at a range of approximately 600m and forms a discernible detractor across the narrow view southwards. Baillie Hill Wind Farm is not noticeable from the property due to its position within the village.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 19 wind turbines, including 16 turbine hubs. In reality this will be substantially screened by the garage on the opposite side of the street, although the view could be obtained by moving slightly to the right, along the street. Given the distance of over 3.4 km a precautionary assessment is made of a medium magnitude of change. The Revised Consented Development would appear to be of a comparable vertical scale to the towers of the transmission line. The context of view and magnitude of change means that the effect would not lead to an overbearing or dominant visual impact at the property, and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	High	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

<b>10 KINKELL, REAY</b>				
Property Name: Kinkell		OS Grid Reference: 297333E 964845N		
No. of turbines theoretically visible: <b>12</b>		No. of turbine hubs theoretically visible: <b>2</b>		
Distance to nearest visible turbine: <b>3.10 km</b>				
Field of view theoretically affected by Revised Consented Development: <b>18.4 Degrees</b>				
View direction: SSE 168 degrees		Viewpoint Reference: <b>Figure 9.127</b>		
<p><b>Property description:</b> Kinkell is a one and a half storey house located at the end of Keoltag Drive on the southern perimeter of the eastern part of Reay. The house has one of the most elevated positions in the settlement which gives it near panoramic outlook. The property has garden ground on all sides which rise up along its southern edge as it cuts into a localised knoll of higher ground.</p>				
<p><b>Existing views and visual amenity:</b> The elevated position of the house affords it with open, panoramic views. The property faces in multiple directions with seaward views available to the north west over Sandside Bay and with visibility of Beinn Ratha and Limekiln Forest to the west and south. Views to the south are affected at close range (c125m distance) by visibility of the Dounreay transmission line which forms an inescapable feature in the landscape immediately behind the house. Ground floor views are also likely to be screened to a greater extent than garden views by the way which the house is cut into the sloping site. The wireline is taken from the highest part of the garden.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 12 wind turbines, including 2 turbine hubs and 4 tips, occupying a field of view of 18.4 degrees. Views from the first floor of the property are likely to experience slightly greater visibility. A significant proportion of the Revised Consented Development is screened by rising ground behind the house. The principal visual effect will arise from the garden at the rear of the house where open views to the south can be gained. The narrow field of view affected by the Revised Consented Development reduces the magnitude of change to medium. Coupled with a separation distance of over 3.1 km and having regard to the existing amenity, the magnitude of the change to views would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	High	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

<b>11 SANDYDENE, REAY</b>				
Property Name: Sandydene		OS Grid Reference: 297040E 964967N		
No. of turbines theoretically visible: <b>20</b>		No. of turbine hubs theoretically visible: <b>11</b>		
Distance to nearest visible turbine: <b>3.33km</b>				
Field of view theoretically affected by Revised Consented Development: <b>30.4 Degrees</b>				
View direction: SSE 165 degrees		Viewpoint Reference: <b>Figure 9.128</b>		
<p><b>Property description:</b> Sandydene is a single storey bungalow located in the core of the settlement of Reay between the golf course and the A836 Tourist Route, from which it is accessed. The house has garden ground to the front and rear which is open in nature although a belt of mature trees is located to the south west of the garden. The house is situated a relatively low elevation.</p>				
<p><b>Existing views and visual amenity:</b> The property faces south east, overlooking an open front garden and the A836. It also has open views to the northwest across the golf course with glimpses of the sea beyond. The main rooms face the south with long range views generally curtailed by development and vegetation along the A836, although in winter partial visibility towards Borlum Rock and Limekiln Forest can be achieved.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 20 wind turbines, including 11 turbine hubs and 5 tips, occupying a field of view of 30.4 degrees. A significant proportion of the Revised Consented Development is screened by properties and vegetation on the opposite side of the A836, with the landform of Borlum Rock helping to recess the Revised Consented Development further back. The principal visual effect will arise from the front rooms and garden where heavily filtered views will reduce the magnitude of change to low. Combined with a separation distance of over 3.3 km and having regard to the screening that exists, the magnitude of the change to views would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	High	Med	<b>Low</b>	Neg
Significance of visual effect	Significant		<b>Not significant</b>	

<b>12 THE COTTAGE, REAY</b>				
Property Name: The Cottage		OS Grid Reference: 297187E 965294N		
No. of turbines theoretically visible: <b>19</b>		No. of turbine hubs theoretically visible: <b>12</b>		
Distance to nearest visible turbine: <b>3.58 km</b>				
Field of view theoretically affected by Revised Consented Development: <b>28.7 Degrees</b>				
View direction: SSE 167 degrees		Viewpoint Reference: <b>Figure 9.1129</b>		
<p><b>Property description:</b> The Cottage is a single storey stone built property located within Reay Golf Course. The house is sited within a low walled garden with evergreen vegetation around the perimeter which makes it appear well contained. The access to the property is from a track which crosses the golf course and enters the house on its south western side, which is the location chosen for the photograph, as visibility within the garden was heavily filtered by planting.</p>				
<p><b>Existing views and visual amenity:</b> The Cottage has a private and enclosed garden around the house which makes it inward looking and self-contained, with limited external visibility. The gate providing access to the house gives visitors a different impression, with open views across the golf course and Sandside Bay achieved from immediately outside the garden. This contrast means that the Revised Consented Development is unlikely to noticeably affect the amenity within the house and garden but would increase for people approaching/ leaving the property. Baillie Hill Wind Farm is discernible from the approach to the property at a distance of 4.7 km.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 19 wind turbines, seen with 12 hubs and 2 only as tips, partially concealed behind the landform of Borlum Rock, Creag Leathan and the golf course. Site survey has shown that from outside the front of the house the Revised Consented Development would be visible above the rooftops of houses within Reay, albeit set back behind the foreground landform which has the beneficial effect of reducing its prominence. The open nature of views would give rise to a medium magnitude of change to part of the view. With a separation distance of over 3.5 km, the effect would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	High	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

<b>13 RATHLIN, SHEBSTER ROAD, REAY</b>				
Property Name: Rathlin		OS Grid Reference: 300991E 964019N		
No. of turbines theoretically visible: <b>21</b>		No. of turbine hubs theoretically visible: <b>15</b>		
Distance to nearest visible turbine: <b>3.27km</b>				
Field of view theoretically affected by Revised Consented Development: <b>32.7 Degrees</b>				
View direction: SW 222 degrees		Viewpoint Reference: <b>Figure 9.130</b>		
<p><b>Property description:</b> Rathlin is a two storey house situated in a slightly elevated location next to the Shebster Road, NCR 1, 750 metres to the west of Shebster. The house forms part of a cluster of buildings including a former free church, set within well stocked garden ground which extends from the front of the house up the slope of Hill of Shebster behind.</p>				
<p><b>Existing views and visual amenity:</b> The house faces south west with long range views towards Beinn Ratha achieved through the tree cover along the edge of the front garden. Limekiln and Broubster plantations form notable feature in the view giving a near 180 degree panorama across the forests. Although close by the Baillie Hill Wind Farm is largely concealed by the hill behind the house. In summer months the extent of visibility towards the south is likely to be substantially screened by the garden planting, but open views will be gained from the garden gate and separate vehicular access to the house.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 21 wind turbines and 15 hubs, located obliquely to the right of the main outlook and partially screened by intervening landform. In reality, views from the front rooms of the house of parts of the Revised Consented Development would also be partially concealed by garden vegetation which extends around the perimeter of the garden. The principal visual effects will be apparent from the front garden looking to one side. The Revised Consented Development would occupy a relatively small part of the overall outlook (32.7 degrees) and would give rise to a medium-high magnitude of change to an oblique part of the view. With a separation distance of over 3.2km, the effect would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	<b>High</b>	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

<b>14 ZALUSHKI, REAY</b>				
Property Name: Zalushki		OS Grid Reference: 297107E 964686N		
No. of turbines theoretically visible: <b>15</b>		No. of turbine hubs theoretically visible: <b>9</b>		
Distance to nearest visible turbine: <b>3.05km</b>				
Field of view theoretically affected by Revised Consented Development: <b>32.6 Degrees</b>				
View direction: SSE 165 degrees		Viewpoint Reference: <b>Figure 9.131</b>		
<p><b>Property description:</b> Zalushki is a one and a half storey modern house set within a large open garden to the south of Reay village, accessed along the same track that serves Borlum House. The house stands on its own within a large plot with views out in all directions.</p>				
<p><b>Existing views and visual amenity:</b> The main outlook for the house is to the south where internal rooms link to an external decked area. Views across the southern edge of Reay nearby to the north, contrast with longer range views to Beinn Ratha to the south west and Borlum Rock/ Creag Leathan forming focal points to the south. Borlum House is seen on the horizon to the south. There is no notable screen planting within the garden. Baillie Hill Wind Farm is not clearly identifiable from the property. The Dounreay transmission line forms a conspicuous and inescapable feature in the landscape immediately to the south of the house.</p>				
<p><b>Likely visual effect from the Revised Consented Development:</b> The wireline indicates theoretical visibility of parts of 15 wind turbines and 9 hubs located to the right of and behind Borlum Rock and Creag Leathan. An open view towards the Revised Consented Development would be obtained from the house and garden to the south of the house, and it would also be clearly seen on the approach from the village. The Revised Consented Development would however be a relatively small element in comparison to the scale of the transmission line which would continue to dominate the foreground of the view. The Revised Consented Development would occupy a relatively small part of the overall outlook (32.6 degrees) and would give rise to a medium-high magnitude of change to the outlook. Combined with a separation distance of over 3 km and having regard to the existing amenity, the effect would not lead to an overbearing visual impact and it would not become widely regarded as an unattractive place in which to live.</p>				
Magnitude of change	<b>High</b>	<b>Med</b>	Low	Neg
Significance of visual effect	<b>Significant</b>		Not significant	

### **RVAA Summary of Findings**

The RVAA sheets in this Appendix detail the assessments for each property, which are summarised in Table 1 below. The RVAA indicates that of the 14 included properties, 10 will be significantly affected as a result of the Revised Consented Development. This does not imply that the interior spaces of all 10 properties will be significantly affected and indeed a notable number will not, owing either to the orientation of the property in a direction that differs from that of the Revised Consented Development, the absence of windows in specific elevations, or the screening effect from vegetation and/ or other built form.

Of these 10 properties assessed as having significant effects in the RVAA, none are assessed as resulting in a high magnitude of change as a result of the Revised Consented Development. Significant visual effects are assessed as arising as a result of the change in visual amenity experienced by residents in views from these 10 properties, where medium-high or medium levels of magnitude are assessed, generally where there are direct views of the Revised Consented Development either from within the interior of the property in its main elevation, or more often from its garden grounds, curtilage or main access.

The assessment found that none of the predicted significant effects on visual amenity experienced at properties have potential to reach the Residential Visual Amenity Threshold. The Revised Consented Development will not overwhelm views in all directions, nor will it be unpleasantly encroaching / inescapably dominant in the available views from any of the properties assessed. This is due to a combination of factors, such as the availability of interior views, orientation of the property, position of windows and external screening elements influencing available views, which limit effects on the overall visual amenity experienced from properties. Effects on visual amenity often arise as a result of changes to views experienced from the external gardens, access and domestic curtilage of many of the properties, which are generally more open to the views of the surrounding landscape. While residential visual amenity is therefore significantly affected when considered in terms of the overall visual amenity experienced, often the principal views from the interior of dwellings will be affected to a lesser degree.

**Table 9.F.1:1 Summary of RVAA**

<b>Property</b>	<b>Sensitivity</b>	<b>Magnitude of Change</b>	<b>Significance of Effect</b>	<b>Residential Visual Amenity Threshold reached?</b>
1 Loanscorribest	High	Low	Not significant	No
2. Borlum House	High	Medium-high	Significant	No

<b>Property</b>	<b>Sensitivity</b>	<b>Magnitude of Change</b>	<b>Significance of Effect</b>	<b>Residential Visual Amenity Threshold reached?</b>
3. Creag Leathen (vacant/ semi-derelict)	High	Medium	Significant	No
4. Milton Cottage	High	Medium	Significant	No
5. Achins	High	Medium-high	Significant	No
6. Isauld Lodge	High	Medium-low	Not significant	No
7. Isauld Cottage	High	Medium-high	Significant	No
8. Birkness	High	Medium-low	Not significant	No
9. 10 The Terrace	High	Medium	Significant	No
10. Kinkell	High	Medium	Significant	No
11. Sandydene	High	Low	Not significant	No
12. The Cottage	High	Medium	Significant	No
13. Rathlin	High	Medium-high	Significant	No
14. Zalushki	High	Medium-high	Significant	No