County Hall
Cardiff
CF10 4UW
Tel: (029) 2087 2000

Neuadd y Sir
Caerdydd
CF10 4UW
Ffôn: (029) 2087 2000

SYLWADAU HWYR

Pwyllgor PWYLLGOR CYNLLUNIO

Dyddiad ac amser y cyfarfod DYDD MERCHER, 17 EBRILL 2019, 1.30 PM

Os gwelwch yn dda gweler ynghlwm Cynrychiolaeth Atodlen hwyr a dderbyniwyd mewn perthynas â cheisiadau i gael ei benderfynu yn y Pwyllgor Cynllunio hwn

Sylwadau Hwyr 17.04.19 *(Tudalennau 1 - 46)*

Mae'r dudalen hon yn cael ei adael yn wag yn fwriadol

LATE REPRESENTATIONS SCHEDULE

PLANNING COMMITTEE – 17th APRIL 2019

PAGE NO. 32	**APPLICATION NO. 19/00165/MNR**
ADDRESS	**LAND TO REAR OF 19 FAIRWOOD ROAD, FAIRWATER**
FROM:	Mrs Cecilia McAleavey
SUMMARY:	Neighbour raises concerns regarding the following summarised reasons: i) Concerns regarding parking and turning of vehicles and impact would have upon users of Chatsworth Close ii) Concerns boundary fence will be damaged by vehicles using property iii) Applicant has breached planning laws by building larger than originally approved and Committee should not allow further construction to continue iv) Ongoing complaints regarding issues between applicant and neighbours
REMARKS:	i) The OM, Transportation raises no objections to the proposal and note that previous approval also included two parking spaces on the frontage accessed of Chatsworth Close ii) Damage to private property is a private matter and/or dealt with by the Police iii +iv) Noted, the complaints raised by neighbours are being investigated and the Planning Committee will consider the relevant planning issues raised when determining the application

PAGE NO. 44	**APPLICATION NO : 19/397/MJR**
ADDRESS:	**LAMBY WAY LANDFILL SITE, LAMBY WAY, WENTLOOG, CARDIFF, CF3 2HP**
FROM:	Applicant
SUMMARY:	The submitted drawing shows sections thought the site. These drawings have been submitted in support of the application and serve to illustrate the levels difference between the foreshore and the application site. The photograph is also supporting information that may help members appreciate the site contours.
REMARKS:	Noted Create Condition 2 (xxx): Existing Ground Topography Longitudinal Sections

A-A - LONGSECTION
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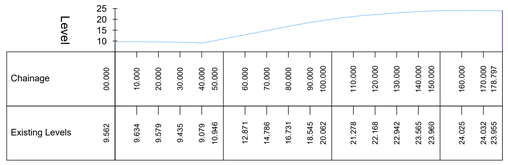

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Existing Levels	9.562	9.634	9.579	9.435	9.079	10.946	12.871	14.786	16.731	18.545	20.062	21.278	22.168	22.942	23.565	23.960	24.025	24.032	23.955

B-B - LONGSECTION
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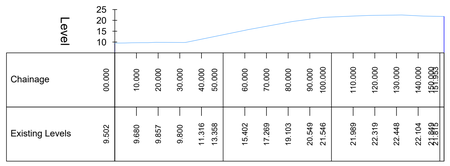

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Existing Levels	9.502	9.680	9.857	9.800	11.316	13.358	15.402	17.269	19.103	20.549	21.546	21.989	22.319	22.448	22.104	21.846

C-C - LONGSECTION
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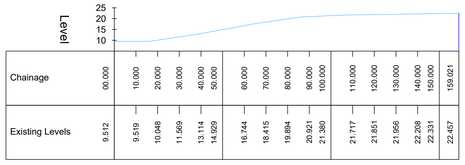

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Existing Levels	9.512	9.519	10.048	11.569	13.114	14.929	16.744	18.415	19.894	20.921	21.380	21.717	21.851	21.956	22.206	22.331	22.457

D-D - LONGSECTION
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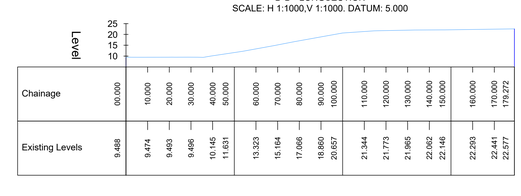

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Existing Levels	9.488	9.474	9.493	9.496	10.145	11.631	13.323	15.164	17.066	18.880	20.657	21.344	21.773	21.965	22.062	22.146	22.293	22.441	22.577

E-E - LONGSECTION
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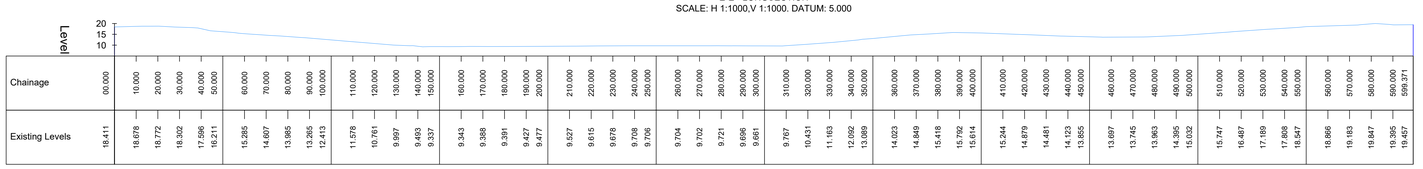

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Existing Levels	18.411	18.678	18.772	18.302	17.596	16.211	15.285	14.607	13.985	13.265	12.413	11.578	10.761	9.997	9.493	9.337	9.343	9.388	9.391	9.427	9.477	9.527	9.615	9.678	9.708	9.706	9.704	9.702	9.721	9.696	9.661	9.767	10.431	11.163	12.092	13.089	14.023	14.849	15.418	15.792	15.614	15.244	14.879	14.481	14.123	13.855	13.697	13.745	13.963	14.395	15.032	15.747	16.487	17.189	17.808	18.547	18.866	19.183	19.847	19.395	19.457

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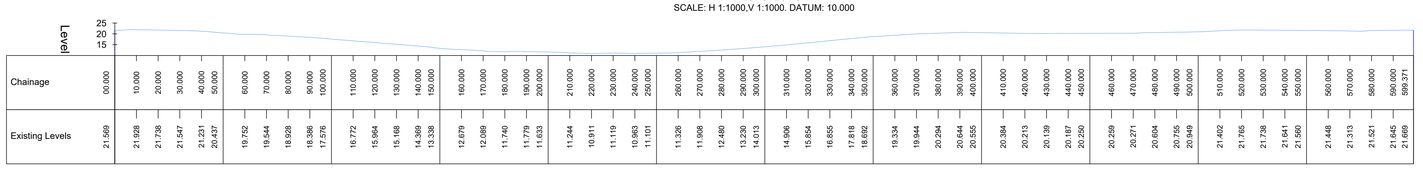

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Existing Levels	21.569	21.929	21.738	21.547	21.231	20.437	19.752	19.544	18.928	18.386	17.578	16.772	15.964	15.168	14.369	13.338	12.679	12.088	11.740	11.779	11.633	11.244	10.911	11.119	10.983	11.101	11.326	11.908	12.486	13.230	14.013	14.906	15.854	16.855	17.818	18.692	19.334	19.944	20.294	20.644	20.555	20.384	20.213	20.139	20.187	20.250	20.259	20.271	20.604	20.755	20.949	21.402	21.765	21.738	21.641	21.560	21.448	21.313	21.521	21.645	21.689

G-G - LONGSECTION
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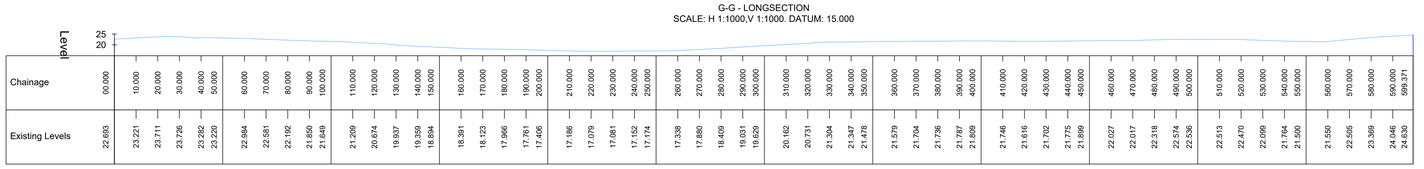

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Existing Levels	22.693	23.221	23.711	23.726	23.282	23.230	22.884	22.581	22.192	21.850	21.649	21.209	20.674	19.937	19.359	18.894	18.391	18.123	17.966	17.761	17.406	17.186	17.079	17.081	17.152	17.174	17.338	17.880	18.409	19.031	19.629	20.162	20.731	21.304	21.347	21.478	21.579	21.704	21.736	21.787	21.809	21.746	21.616	21.702	21.775	21.899	22.027	22.017	22.318	22.574	22.536	22.513	22.470	22.099	21.764	21.500	21.550	22.505	23.369	24.046	24.630

H-H - LONGSECTION
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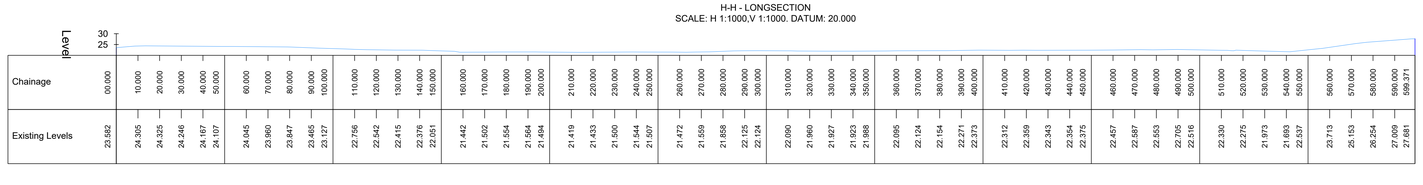

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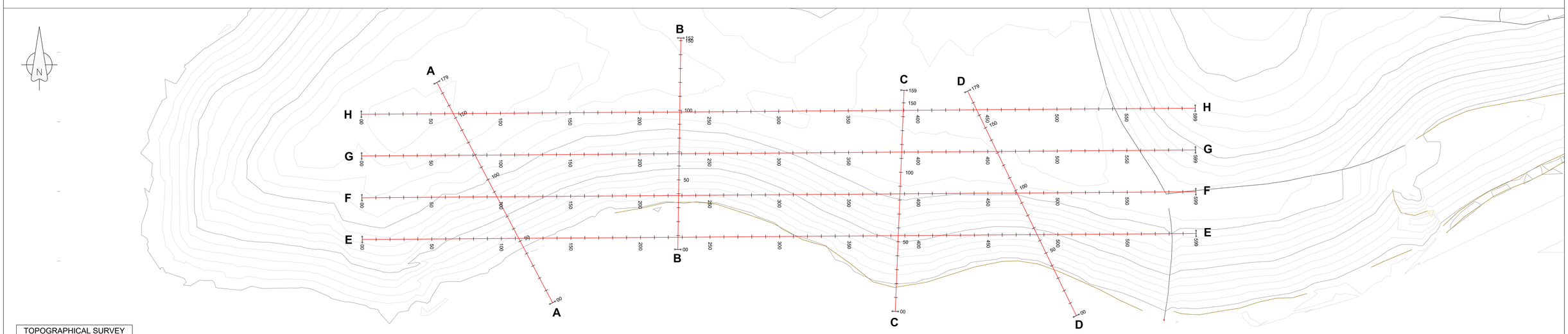
Existing Levels	23.582	24.305	24.325	24.246	24.167	24.107	24.045	23.960	23.847	23.465	23.127	22.756	22.542	22.415	22.376	22.051	21.442	21.502	21.554	21.564	21.494	21.419	21.433	21.500	21.544	21.507	21.472	21.559	21.858	22.125	22.724	22.090	21.960	21.927	21.923	21.988	22.095	22.124	22.154	22.221	22.373	22.312	22.309	22.343	22.354	22.375	22.457	22.587	22.553	22.705	22.516	22.330	22.275	21.973	21.693	22.537	23.713	25.153	26.254	27.009	27.681

EXISTING SECTIONS
1:1000 @ A1



TOPOGRAPHICAL SURVEY
1:1000 @ A1

CYNGOR SIR DINAS A SIR CAERDYDD — THE COUNTY COUNCIL OF THE CITY & COUNTY OF CARDIFF

CARDIFF CAERDYDD

DESIGN CONTRACTS AND DELIVERY
DYLUNIO CONTRACTAU A DARPARU
Andrew Gregory
DIRECTOR FOR CITY SERVICES
CYFARWYDDWR GWASANAETHAU'R DDINAS

Rev	By	Date	Description of Amendment	Chk.by	Date

Project: LAMBY WAY SOLAR FARM

Title: EXISITNG GROUND TOPOGRAPHY LONGITUDINAL SECTIONS

Checked OM | Path
Drawn AW | Project Number | Drawing Number
Scale AS SHOWN
Date APR '19
do not scale drawing except for planning application purposes

Bessemer Close, Leckwith, Cardiff CF11 8XA
Telephone 029 2078 8235 - Fax. 029 2078 8181

PAGE NO. 44	**APPLICATION NO : 19/397/MJR**
ADDRESS:	**LAMBY WAY LANDFILL SITE, LAMBY WAY, WENTLOOG, CARDIFF, CF3 2HP**
FROM:	Applicant
SUMMARY:	Has submitted an updated Statement to Inform an Appropriate Assessment in response to NRW's interim comments. The following paragraph extracts are the amended sections, together with the addendum, which is attached to the late reps: *5.2.13 Numbers of Dunlin and Redshank are of particular importance. The numbers of Dunlin recorded in this count sector (adjacent to the proposed development) represent approximately 3.5% of the total number of wintering Dunlin recorded when the SPA was designated (41,683, 5 year mean peak between 1988/9 and 1992/3) and more than 50% of Redshank numbers (2013, 5 year mean peak between 1988/9 and 1992/3). The conservation objectives contained within the regulation 33 advice for both Dunlin and Redshank require maintenance of the population such that numbers do not fall below the 5 year mean peak between 1988/9 and 1992/3. Therefore, maintenance of the Dunlin population so numbers no not fall below 41,683 individuals and maintenance of Redshank populations so that numbers do not fall below 2013 individual.* *Displacement resulting from the proposed development causing a change to the visual appearance of the Lamby Way landfill site.* *6.6.3 The information presented in the baseline (Section 5) indicates that the River Rhymney SINC, Lamby Saltmarsh SINC and adjacent estuarine habitat of the Severn Estuary provide roosting and foraging areas for SPA/ Ramsar site qualifying features, in particular important numbers of Redshank and Dunlin.* *6.6.4 Despite a detailed literature review there is very little evidence to suggest that a change in the visual appearance of a site is likely to cause displacement or disturbance to bird species (Natural England 2017). The majority of the literature cite anthropogenic factors such as noise and the visual appearance of people as more likely to cause disturbance and displacement of bird species. Nevertheless, there is potential for displacement effects on the over-wintering and passage SPA/Ramsar site qualifying bird species using the adjacent habitats due to changes in visual appearance during the construction or decommissioning phases of the project without mitigation. This could affect the integrity of the European Sites given the high numbers of Redshank and Dunlin using the adjacent Rhymney*

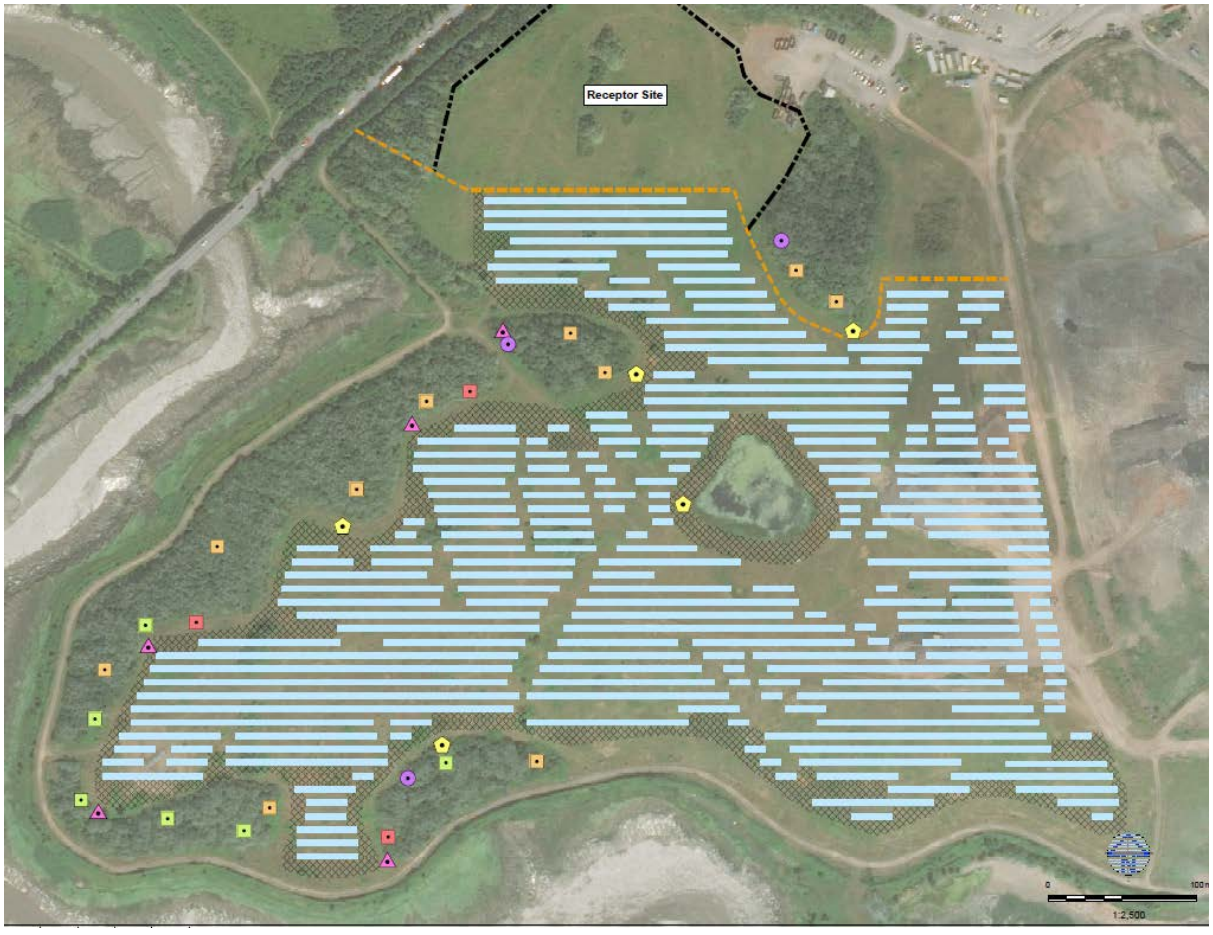
	Estuary. *6.6.5 To avoid this impact, the existing landscape planting, which provides effective screening of the proposed development from the Rhymney Estuary from the west, will be retained, maintained and enhanced for the duration of the operational phase to reduce the potential for changes in visual appearance to be noticed by bird species, reducing the potential for displacement. The retention, management and enhancement of this screening vegetation can be secured through a planning condition and will be part of the green infrastructure strategy and ecological management plan for the proposed scheme. Images 1 and 2 below show the existing landscape screening demonstrating effective screening of the proposed development from the west. Image 3 shows the escarpment and location of existing hedgerow/fencing. Further details on this area are included in an Addendum to this report provided by Cardiff Council.* *6.6.6 It is envisaged that birds will to some extent already be habituated to changes in visual appearance when the landfill was operational and subsequently capped and also due to the ongoing development* *in the local area.* *6.6.7 In addition, no construction or decommissioning works will take place during the main overwintering period (October to March) when the over-wintering and passage qualifying species associated with the Severn Estuary SPA/ Ramsar site would be present. All construction works, including site clearance and construction of the solar arrays will be completed prior to the main winter period 2019/2020. Although minor works would continue into October, the majority of the works would already be completed by this time. Decommissioning would be expected to take place during the during the summer of 2054.* *6.6.8 Taking into account the timing of works and the mitigation measures no adverse effect on the integrity of the sites is expected due to a change in visual surroundings*
REMARKS:	Noted Amend Condition 2 (xx): Statement to Inform an Appropriate Assessment, Version 3, dated April 2019 and its 'Topography and Screening' Addendum received on 12 April 2019.

PAGE NO. 44	**APPLICATION NO : 19/397/MJR**
ADDRESS:	**LAMBY WAY LANDFILL SITE, LAMBY WAY, WENTLOOG, CARDIFF, CF3 2HP**
FROM:	County Ecologist
SUMMARY:	He has undertaken and completed the Habitats Regulations Appraisal (HRA), taking into account the amendments to the applicant's 'Statement to Inform the Appropriate Assessment.' The addendum, attached to the late reps schedule, provides more information and a drawing on the profile of the escarpment, referenced in the report as already providing some visual screening for the proposed development. The HRA concludes that, based upon the planning application and supporting documents, and provided the suggested planning conditions are attached and implemented, the proposed development will not have an adverse effect upon the integrity of the Severn Estuary European Marine Sites.
REMARKS:	Noted Amend condition 4 (Green Infrastructure Statement) to read: "…and the Statement to Inform the Appropriate Assessment, Version 3, dated April 2019."

Habitats Regulations Appraisal

Severn Estuary Special Protection Area (SPA), Special Area of Conservation (SAC), and Wetland of International Importance (Ramsar Site)

Application No:	19/00397/MJR
Proposal:	Installation of a ground-mounted photovoltaic solar farm and ancillary development
Location:	Lamby Way Landfill Site, Lamby Way, Wentloog, Cardiff, CF3 2HP
DC Officer:	Tim Walter



City of Cardiff Council
April 2019

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0 Introduction
1 Stage 1 Test of Likely Significance
2 Stage 2 Appropriate Assessment
3 Conclusion
4 Consultation with Natural Resources Wales
5 References

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Table 3 SPA Vulnerabilities
Table 4 Ramsar Site Vulnerabilities
Table 5 Birds recorded in Parc Tredelerch
Table 6 Birds recorded in Cors Crychydd
Table 7 SPA/Ramsar site individual qualifying species recorded in Rhymney Estuary and Great Wharf
Table 8 Comparison of likely impacts of the project with categories of operations which may cause deterioration or disturbance
Table 9 Levels of sensitivity of Severn Estuary SAC, SPA and Ramsar site features to identified pathways for adverse effect
Table 10 Screened-in Factors
Table 11 Summary of Test of Likely Significance
Table 12 Summary of Test of Adverse Effect upon Integrity

Introduction

0.1 This planning application was identified as requiring a Habitats Regulations Appraisal in accordance with section 1.5.11 of the approved Green Infrastructure Supplementary Planning Guidance.

0.2 Under Regulation 63(1) of the Conservation of Habitats and Species Regulations 2017, referred to as the 'Habitats Regulations', a competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which…

a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and
b) is not directly connected with or necessary to the management of that site,

…must make an appropriate assessment of the implications for that site in view of that site's conservation objectives. In the light of the conclusions of the assessment, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site.

0.3 The European Sites considered here are the Severn Estuary Special Area of Conservation (SAC) and the Severn Estuary Special Protection Area (SPA).

0.4 As a matter of Welsh Government policy, Ramsar sites (sites listed under the Ramsar convention as wetlands of international importance) should be treated in the same way as SACs and SPAs, including in particular in relation to the consideration of plans and projects likely to affect them. Therefore following a procedure analogous to Regulation 63 in relation to the Severn Estuary Ramsar Site would also help ensure adherence to WG policy. For the remainder of this document these three designations will be referred to as the Severn Estuary European Marine Site (Severn Estuary EMS).

0.5 This procedure, known as a Habitats Regulations Appraisal (HRA), has been invoked because it has been identified that the current project has the potential to affect the Severn Estuary EMS and it is not directly connected with or necessary to the management of those sites.

0.6 Table 1 below sets out the main stages in undertaking a HRA. The subsequent HRA text will refer to Stage 1, Stage 2 etc as described in this table. It may not be necessary to complete all stages for all factors which may affect the designated sites.

Table 1 **Habitats Regulations Appraisal: Key Stages**	
Stage 1	
Screening for likely significant effect	▪ Describe the project being considered ▪ Identify international sites in and around the plan/ strategy area in a search area agreed with the Statutory Body Natural Resources Wales ▪ Examine conservation objectives of the interest feature(s)(where available) ▪ Review proposals and consider potential effects on European sites (magnitude, duration, location, extent) ▪ Examine other plans and programmes that could contribute to in combination effects ▪ Produce Screening Assessment
	▪ *If no effects likely – report no significant effect (taking advice from NRW if necessary).* ▪ *If effects are judged likely or uncertainty exists – the precautionary principle applies proceed to* ***stage 2***
Stage 2	
Appropriate Assessment	▪ Agree scope and method of AA with NRW ▪ Consider how project, in combination with other projects, will interact when implemented, taking into account inherent avoidance and mitigation measures (the Appropriate Assessment) ▪ Using the AA, and any conditions or restrictions which may be applied to any planning consent, undertake Integrity Test ▪ Report outcomes of HRA including mitigation measures, conditions or restrictions, and consult with NRW
	▪ If plan will not significantly affect European site proceed without further reference to Habitats Regulations ▪ *If effects or uncertainty remain following the consideration of alternatives and development of mitigations proceed to* ***stage 3***
Stage 3	
Procedures where significant effect on integrity of international site remains	▪ Consider alternative solutions, delete from plan or modify ▪ Consider if priority species/ habitats affected ▪ Identify 'imperative reasons of overriding public interest' (IROPI) economic, social, environmental, human health, public safety ▪ Notify Welsh Government ▪ Develop and secure compensatory measures

0.7 The check for likelihood of significant effects is an initial filter, and should be a relatively quick way of deciding whether the project would be likely to negatively affect the site in a significant way. The subsequent appropriate assessment stage would normally form the more in depth assessment. The term 'likelihood' is important. The test is a likelihood of effects rather than a certainty of effects. The check should only allow those projects to proceed where it is clear that any significant effect is unlikely. If there is doubt and further information is needed, it should be concluded that there is a likelihood of significant effects. In this context, and using the normal meaning of the words, "significant" effects are taken to be effects that are worthy of attention, noteworthy. A likely effect is one that is probable or well might happen. (Tyldesley, D. 2009).

0.8 In the Waddenzee case the ECJ ruled that a project should be subject to appropriate assessment **"if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site, either individually or in combination with other plans and projects**". This is an important ruling because it establishes that 'likely' should not be interpreted as 'probable' or 'more likely than not'. Rather an effect should be considered likely if it cannot be ruled out on the basis of objective information. (Tyldesley, D. 2009).

0.9 When undertaking an appropriate assessment, the competent authority should distinguish clearly between mitigation (avoidance and reduction) measures and compensatory measures. It should take account of the avoidance and reduction measures built into the project and forming part of the project as proposed or applied for (Tyldesley, D. 2009).

0.10 In considering whether it can ascertain whether the project would have an adverse effect on the integrity of the European site, the competent authority should consider whether the imposition of conditions, or other restrictions, on the project, and the way in which it would be carried out, would enable it to be ascertained that the project would not have an adverse effect on the integrity of the site. (Tyldesley, D. 2009).

0.11 The following definition of the integrity of a site has been adopted by the UK Government. The integrity of the site is "*the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified".*

0.12 The present HRA report is based upon the 'Statement to Inform an Appropriate Assessment' Version 03 dated April 2019, submitted in support of the planning application 19/00397/MJR by Arcadis Consulting (UK) Ltd.

1.0 Stage 1

1.1 Project Description (as set out in Design and Access Statement submitted in support of this application)

1.1.1 The site is situated on the eastern edge of Cardiff. To the north there is a car park and recycling plant, to the east a recently capped area of landfill (with landfill areas further beyond), to the southeast and south there is the Severn Estuary/Bristol Channel and to the southwest and west there is the Rhymney River.

1.1.2 The proposed solar project would be located on the capped and restored landfill site (approximately 19 Ha in size). The capping has been ongoing since the 1970s, with final capping completed in 1999. The site has since been restored with new grassland, woodland and ponds being created. The development focusses on the open areas of grassland and does not require the removal of the woodland areas or ponds.

1.1.3 The site clearance works will take place in April / May 2019. The solar farm will be constructed following completion of the clearance works between April / May and September / October 2019.

1.1.4 The proposed development comprises a new 8.7MW ground-mounted solar farm. The proposal includes provision for a galvanized steel mounting structure supported on surface mounted concrete pads. The solar panels (each measuring 1m x 1.67m) are fixed directly to the mounting structure and these are referred to as arrays. The arrays will not exceed 2.8m in height and the lower edge will be around 750mm above ground level (the undulating nature of the ground means this measure cannot be precise). The arrays will face due south and will be spaced between 1.6 and 6.5m apart (depending on the local topography of the site). The panels will be mounted at an angle of between 15 and 25 degrees to the sun. The existing vegetation on the site will remain and be allowed to recover post completion.

1.1.5 The proposed development also requires a number of containerised and similar structures to house high voltage electrical equipment including inverters, transformers and switchgear. Each of these will be set on a concrete raft foundation to spread the load across a wider area.

1.1.6 The panels would be set back from the boundary with the scrub adjacent to the River Rhymney, being retained. It is proposed that the Wales Coastal Path will be rerouted to pass along the northern and eastern boundaries of the site from its current alignment, which takes it inland to the east of the landfill site. In order to provide areas of open habitat, a 10 m buffer will be retained between the areas of plantation woodland around the site and the perimeter fenceline. The site will be secured using a 2.2m high security fence (agricultural timber and wire fence), with 3-4m high CCTV camera poles located at intervals inside the site and close to the fence. Access would be provided via proposed tracks which will be constructed with hardcore or via injecting cement powder into the top 300mm of the cap.

1.1.7 The installation has been designed to ensure that the existing constraints of the site are properly considered. Nothing will penetrate through the landfill cap. The existing gas management system will be retained and measures to ensure its maintenance have been included in the design including offsets around well heads, maintenance tracks, and access to maintain gas pipework.

1.1.8 Most of the equipment will be brought in by HGV trucks, with around 50 vehicles expected during the construction period. The haul route into the construction site will following the existing

Lamby Way to the north of the proposed development. Access into the construction site will also be located at the northern end of the proposed development site. There will be 5 tracks (4 for transformer stations and 1 for customer substations) across the construction site in order to install the solar farm.

1.1.9 The total construction period is expected to last 12 weeks. The deliveries will be spaced across the construction period, with typically up to 10 a day throughout the construction phase. A Construction and Decommissioning Method Statement will be produced for the proposed development.

1.1.10 During the construction period the following activities will be undertaken:

- site clearance, which will involve clearing vegetation (including a reptile translocation) and marking out the site;
- erecting the security fence, creating internal access roads, compound and crane area;
- installing the concrete foundations and the frames and mounting frames [Note: piling methods will not be used for this activity];
- affixing the panels to the mounting frames and stringing (connecting the panels together);
- trenching for the cable (designed to protect the engineering cap), and laying cables;
- pouring the concrete base for the electrical housing / cabinets (Switchgear, Transformer, Inverters etc.);
- installation of the housing / cabinets;
- erecting pole mounted CCTV cameras;
- connecting all the cables up and backfilling the cable trenches; and
- landscaping works.

1.1.11 The solar development would constitute a temporary development and would be decommissioned at the end of its operational period (approximately 35 years). The decommissioning would typically last a similar length of time and would have similar impacts as the construction phase.

1.2 Designated sites and their features

1.2.1 Severn Estuary Special Area of Conservation (SAC)

SAC Habitat Features

- Estuaries;
- Mudflats and sandflats not covered by seawater at low tide;
- Atlantic salt meadow (*Glauco-Puccinellietalia maritimae*).
- Sandbanks which are slightly covered by sea water all the time; and
- Reefs.

SAC Species Features

- Sea lamprey *Petromyzon marinus*;
- River lamprey *Lampetra fluviatilis*; and
- Twaite shad *Alosa fallax*.

1.2.2 Severn Estuary Special Protection Area (SPA)

The Severn Estuary SPA supports internationally important assemblages of wildfowl and waders during the winter months and migratory periods. These designations are based on:

- Internationally important populations of the Annex 1 species Bewick's Swan.
- Internationally important populations of regularly occurring migratory species (Gadwall, Shelduck, Redshank, Dunlin and European White-Fronted Goose).

The site also qualifies as an SPA since it regularly supports in excess of 60,000 waterfowl during the winter. The species listed on the SPA citation as forming part of the assemblage include Wigeon, Teal, Pintail, Pochard, Tufted Duck, Ringed Plover, Grey Plover, Curlew, Whimbrel and Spotted Redshank. Mallard, Lapwing and Shoveler have also been added as a result of the 1995 SPA review.

1.2.3 Severn Estuary Ramsar Site

- Estuaries
- Assemblage of migratory fish species
- Bewick's swan
- European white-fronted goose
- Dunlin
- Redshank
- Shelduck
- Gadwall
- Assemblage of waterfowl

1.3 Conservation Objectives of the Relevant Designated Sites

The Conservation Objectives of the Relevant Designated Sites are taken as set out in the following document:- Natural England & CCW (2009) *The Severn Estuary / Môr Hafren European Marine Site comprising: The Severn Estuary / Môr Hafren Special Area of Conservation (SAC), The Severn Estuary Special Protection Area (SPA), The Severn Estuary / Môr Hafren Ramsar Site. Natural England & the Countryside Council for Wales' advice given under Regulation 33(2)(a) of the Conservation (Natural Habitats, &c.) Regulations 1994, as amended*. June 2009.

1.3.1 The Conservation Objectives of the Severn Estuary SAC are:-

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- The populations of qualifying species, and,
- The distribution of qualifying species within the site.

Further information on the Severn Estuary SAC can be found at :-
http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0013030

1.3.2 The Conservation Objectives Severn Estuary SPA are:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Further information on the Severn Estuary SPA and Ramsar Site can be found at:- http://www.jncc.gov.uk/default.aspx?page=2066.

The Conservation Objectives for the features of the Ramsar site are the same as those for the homologous features of the SAC and SPA.

Further information on the Severn Estuary Ramsar Site can be found at http://www.jncc.gov.uk/pdf/RIS/UK11081.pdf.

1.4 Factors to which site features are sensitive

1.4.1 With reference to the Conservation Objectives for the features of each site, the tables below list the factors to which each feature is sensitive for issues other than harm to birds. These tables are duplicated from those set out in 'Regulation 33' advice for these sites – see references below.

Table 2 SAC Vulnerabilities

Sensitivity		Exposure		Vulnerability	
High sensitivity	○○○ ○	High Exposure	× × × ×	High vulnerability	⊗⊗⊗⊗ ⊗⊗⊗○ ⊗⊗⊗×
Moderate sensitivity	○○○	Medium Exposure	× × ×	Moderate vulnerability	⊗⊗○○ ⊗⊗× × ⊗⊗⊗
Low sensitivity	○○	Low Exposure	× ×	Low vulnerability	⊗⊗○ ⊗××× ⊗⊗× ⊗×× ⊗⊗ ⊗×
No detectable sensitivity	○	No exposure	×	No vulnerability	⊗○
?S =Insufficient information on sensitivity; ✓ = migratory fish considered to be sensitive, but insufficient information to assess level of sensitivity				Unknown vulnerability	

Categories of operations which may cause deterioration or disturbance[25]	Annex I features					Annex II species
	Estuaries	Subtidal Sandbanks	Mudflats & sandflats	Atlantic saltmeadow	Reefs	Fish[26]
Physical loss						
Removal / substratum loss	⊗⊗⊗⊗	⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗○	⊗×
Smothering	⊗⊗⊗○	⊗⊗×	⊗⊗⊗	⊗⊗⊗○	⊗⊗	⊗×
Physical damage						
Changes in suspended sediment	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗	⊗×
Desiccation & changes in emergence regime	⊗⊗○	⊗○	⊗⊗○	⊗⊗○○	⊗○	✓××
Changes in water flow rate	⊗⊗⊗×	⊗⊗○	⊗⊗⊗×	⊗⊗⊗×	⊗⊗○	✓××
Changes in wave exposure	⊗⊗⊗⊗	⊗⊗○	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗○	⊗×
Abrasion / physical disturbance (of habitats)	⊗⊗⊗×	⊗⊗×	⊗⊗⊗×	⊗⊗⊗×	⊗⊗○	✓××
Changes in grazing management	⊗⊗	Not relevant	Not relevant	⊗⊗⊗⊗	Not relevant	Not relevant
Non-physical disturbance						
Noise & visual presence	⊗××	⊗××	⊗⊗×	⊗×××	⊗×	✓×××
Toxic contamination						
Introduction of synthetic compounds	⊗⊗⊗×	⊗⊗⊗×	⊗⊗⊗⊗	⊗⊗⊗×	⊗⊗××	✓××××
Introduction of non-synthetic compounds	⊗⊗⊗×	⊗⊗⊗×	⊗⊗⊗⊗	⊗⊗⊗⊗	?S××××	✓××××
Introduction of radionuclides	?S××	?S××	?S××	?S××	?S××	✓××
Non-toxic contamination[27]						
Changes in nutrient loading	⊗⊗⊗⊗[28]	⊗⊗××	⊗⊗⊗×	⊗⊗⊗×	⊗⊗××	✓××××
Changes in thermal regime	⊗⊗⊗	⊗⊗	⊗⊗⊗	⊗⊗	⊗⊗	✓××××
Changes in turbidity[29] (light penetration)	⊗⊗×	⊗⊗×	⊗⊗×	⊗×	⊗××	✓×××
Changes in salinity	⊗⊗⊗×	⊗⊗⊗×	⊗⊗××	⊗⊗⊗×	⊗⊗××	✓××××
Changes in oxygenation	⊗⊗⊗×	⊗⊗××	⊗⊗××	⊗⊗××	⊗⊗××	✓××××
Biological disturbance						
Introduction of microbial pathogens	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗××	?S××××	✓××××
Introduction of non-native species	⊗⊗⊗○	⊗⊗○	⊗⊗○○	⊗⊗	?S××	✓××
Selective extraction of species	⊗⊗⊗×	⊗⊗	⊗⊗	⊗⊗	⊗⊗	✓××

[25] For a further explanation of each category see http://www.marlin.ac.uk/sah/baskitemplate.php?benchmarks
[26] River lamprey, sea lamprey & twaite shad
[27] All elements of non toxic contamination are interrelated and also link closely with changes in suspended sediment (physical damage)
[28] The high natural turbidity of the estuary negates these high levels with algal productivity being generally low – the estuary feature is therefore not considered vulnerable – see section 5.6.1.3.(viii)
[29] Turbidity here incorporates light penetration; suspended sediment under 'changes in suspended sediment' and its deposition under 'smothering'

Table 3 SPA Vulnerabilities

Sensitivity		Exposure		Vulnerability	
High sensitivity	OOOO	High Exposure	××××	High vulnerability	⊗⊗⊗⊗ ⊗⊗⊗O ⊗⊗⊗×
Moderate sensitivity	OOO	Medium Exposure	×××	Moderate vulnerability	⊗⊗OO ⊗⊗× × ⊗⊗⊗
Low sensitivity	OO	Low Exposure	××	Low vulnerability	⊗⊗O ⊗××× ⊗⊗× ⊗×× ⊗⊗ ⊗×
No detectable sensitivity	O	No exposure	×	No vulnerability	⊗O
?S =Insufficient information on sensitivity				Unknown vulnerability	

Categories of operations which may cause deterioration or disturbance	Internationally important populations of regularly occurring Annex 1 species		Internationally important migratory species and waterfowl assemblage		
	Intertidal mudflats and sandflats	Saltmarsh	Intertidal mudflats and sandflats	Saltmarsh	Hard substrates
Physical Loss					
Removal/substratum loss	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗⊗
Smothering	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗
Physical Damage					
Changes in suspended sediment	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗
Desiccation and changes in emergence regime	⊗⊗O	⊗⊗OO	⊗⊗O	⊗⊗OO	⊗⊗O
Changes in water flow	⊗⊗⊗×	⊗⊗⊗×	⊗⊗⊗×	⊗⊗⊗×	⊗⊗⊗×
Changes in wave exposure	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗⊗
Abrasion / physical disturbance (of habitats)	⊗⊗	⊗⊗O	⊗⊗⊗⊗	⊗⊗⊗×	⊗⊗⊗×
Grazing management	Not relevant	⊗⊗⊗⊗	Not relevant	⊗⊗⊗⊗	Not relevant
Non-physical disturbance					
Noise & visual presence	⊗⊗OO	⊗⊗⊗O	⊗⊗⊗O	⊗⊗⊗⊗	⊗⊗⊗O
Toxic contamination					
Introduction of synthetic compounds	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗×	⊗⊗⊗×
Introduction of non-synthetic compounds	⊗⊗⊗	⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗⊗	⊗⊗⊗×
Introduction of radionuclides	?S××	?S××	?S××	?S××	?S××
Non-toxic contamination					
Changes in nutrient loading	⊗×××	⊗⊗⊗×	⊗⊗⊗×	⊗⊗⊗×	⊗⊗××
Changes in thermal regime	⊗×	⊗⊗	⊗⊗⊗	⊗⊗	⊗⊗
Changes in turbidity (light penetration)	⊗××	⊗×	⊗⊗×	⊗×	⊗⊗×
Changes in salinity	⊗×××	⊗⊗⊗×	⊗⊗××	⊗⊗⊗×	⊗⊗××
Changes in oxygenation	⊗×××	⊗⊗××	⊗⊗××	⊗⊗××	⊗⊗××
Biological disturbance					
Introduction of microbial pathogens	⊗⊗××	⊗⊗××	⊗⊗⊗⊗	⊗⊗××	⊗⊗⊗⊗
Introduction of non-native species	⊗×	⊗⊗	⊗⊗OO	⊗⊗	⊗⊗OO
Selective extraction of species	⊗⊗O	⊗⊗O	⊗⊗⊗	⊗⊗⊗	⊗××

Table 4 Ramsar Vulnerabilities (as related to tables 1 & 2 above, and referring to sections and tables in Reg 33 advice (ref 12.1)).

Ramsar interest features	Relevant SAC and SPA features and supporting habitats	Reference section for advice on operations relevant to the Ramsar features
Ramsar Interest feature 1 : **Estuaries**	**SAC: Annex I habitats** Estuaries Intertidal mudflats and sandflats Atlantic Salt Meadows	Section 5.6..1 & Table 22 Section 5.6.3 & Table 22 Section 5.6.4 & Table 22
Ramsar Interest feature 2 : **Migratory fish assemblage**	**SAC : Annex II species** River lamprey *Lampetra fluviatilis*; Sea lamprey *Petromyzon marinus*; Twaite shad *Alosa fallax*	Section 5.6.6 & Table 22 Section 5.6.6 & Table 22 Section 5.6.6 & Table 22
Internationally important populations of waterfowl *Ramsar Interest feature 3:* **Bewick's swan** *Ramsar Interest feature 4:* **European white-fronted goose** *Ramsar Interest feature 5:* **Dunlin** *Ramsar Interest feature 6:* **Redshank** *Ramsar Interest feature 7:* **Shelduck** *Ramsar Interest feature 8:* **Gadwall**	**SPA : Internationally important populations of regularly occurring Annex 1 species (Bewick's swan)** SPA: **Internationally important populations of regularly occurring migratory species (same species as column to left)** **Supporting habitats** Intertidal mudflats and sandflats Saltmarsh Hard substrates	Section 5.7.1 & Table 23 Section 5.7.2 & Table 23 Section 5.6.3 & Table 22 Section 5.6.4 & Table 22
Ramsar Interest feature 9 **Internationally important assemblage of waterfowl**	SPA: **Internationally important assemblage of waterfowl** **Supporting habitats** Intertidal mudflats and sandflats Saltmarsh Hard substrates	Section 5.7.2 & Table 23 Section 5.6.3 & Table 22 Section 5.6.4 & Table 22

1.5 Baseline Environment

1.5.1 Overview

This section provides details of the ecological information gathered to inform the Stage 1 screening assessment. Reference to site-specific surveys undertaken for the project have been included, where relevant.

1.5.2 Ecological Information

1.5.2.1 The following sources of ecological information have been considered during the screening exercise:

- British Trust for Ornithology (BTO) Bird Track.
- Glamorgan Bird Club (East Glamorgan Bird Atlas).
- Natural England goose and swan functional land Impact Risk Zone (IRZ) buffer.
- BTO Wetland Bird Survey (WeBS) data.
- South East Wales Biodiversity Records Centre (SEWBReC) Records.
- Ecological Surveys of the site.

1.5.2.2 Each of these data sources, and the results of the data gathering exercise, is described below.

BTO Bird Track records

1.5.2.3 Bird Track is an online recording portal available through the BTO that anyone can register to use, and enables birdwatchers to upload their sightings. Whilst it cannot necessarily be relied upon to provide accurate and detailed location information of bird sightings; it provides a useful guide as to the presence of large flocks of SPA/ Ramsar site species and covers a much wider area than would be covered by regular, standardised surveys, such as WeBS.

1.5.2.4 A search of the Bird Track records did not identify any records within the proposed development boundary, the nearest records of SPA/ Ramsar site species were more than 2km to the east of the site within the Gwent Levels – Rumney and Peterstone Site of Special Scientific Interest (SSSI).

Glamorgan Bird Club

1.5.2.5 Glamorgan Bird Club hold an online Bird Atlas with records from 421 tetrads within East Glamorgan. The proposed solar farm development lies within tetrad ST27I (Lamby Way). The Atlas includes breeding and wintering records covering a 50-year period. However, for the purposes of this Report, the most recent wintering records, covering 2007 – 2011, were reviewed. The tetrad data shows that there are records of six SPA/ Ramsar site qualifying species (including: Bewick's swan, shelduck, pintail, ringed plover, dunlin and redshank), plus a further 33 species which could form part of the qualifying waterbird assemblage present within tetrad ST27I. However, as the tetrad includes the edge of the Severn Estuary SPA/ Ramsar site, Lamby Salt Marsh Site of Importance for Nature Conservation (SINC), and the River Rhymney SINC, it is likely that the records relate to these other more suitable locations, rather than the proposed development site itself.

Natural England goose and swan functional land IRZ buffer (GIS Data)

1.5.2.6 Natural England have produced a swan and goose functional land IRZ buffer, to provide an indication as to the potential for areas to support wintering geese and swans associated with SPA/ Ramsar sites across England and the borders of Wales around the Dee Estuary and the Severn Estuary. The IRZ does not take account of the presence of existing development, as such, being within the buffer does not necessarily mean an area supports suitable habitat, but does provide an indication as to where suitable habitat could be present. Due to the close proximity of the proposed development site to the Severn Estuary, the site does lie within the goose and swan functional land IRZ buffer.

BTO WeBS data

1.5.2.7 The BTO carry out the WeBS monitoring scheme for non-breeding waterbirds across the UK. Synchronised monthly counts at wetlands of all habitat types, are carried out mainly during the winter period. These WeBS Core Counts are supplemented by occasional WeBS Low Tide Counts undertaken on estuaries, with the aim of identifying key feeding areas. There are four WeBS Core Count sectors adjacent to the proposed development site.

1.5.2.8 Low tide Count data is available for the Severn Estuary; however the most recent data is from 2008/09. Given that this data is now ten years old, and more recent data is available from other sources, it was not deemed necessary to obtain the Low tide Count data.

1.5.2.9 The Core Count sectors adjacent to the proposed development site comprise:

- Parc Tredelerch – Cardiff (Location Code: 60055)

- Cors Crychydd Reen (Location Code: 60011)
- Rhymney Estuary and Great Wharf (Location Code: 61405)
- Peterstone Wentlooge (Location Code: 60401)

1.5.2.10 All of these sectors have been counted in the last five years, and data has been obtained for the three Core Count sectors (Parc Tredelerch – Cardiff, Cors Crychydd Reen, and Rhymney Estuary and Great Wharf) closest to the proposed development.

Parc Tredelerch – Cardiff (Location Code: 60055)

1.5.2.11 This count sector is located to the northwest of the proposed development site. The WeBS data shows that no SPA/ Ramsar site qualifying species have been recorded. However, 13 bird species which would form part of the waterbird assemblage are present within the count sector in small numbers (refer to Table 5).

Table 5: Birds recorded within the Parc Tredelerch - Cardiff count sector

Species	**5 yr average (2012/13 – 2016/17)**
Canada goose	12
Tufted duck	12
Cormorant	2
Moorhen	8
Black-headed gull	155
Lesser black-backed gull	38
Mute swan	9
Mallard	33
Great crested grebe	6
Grey heron	1
Coot	16
Common gull	1
Herring gull	91

The Cors Crychydd Reen (Location Code: 60011)

1.5.2.12 This Count sector is located to the northeast of the proposed development site. The WeBS data for this Count sector also shows that no SPA/ Ramsar site qualifying species were recorded. However, eight bird species which would form part of the waterbird assemblage are present within the count sector in small numbers (refer to Table 6).

Table 6: Birds recorded within the Cors Crychydd Reen count sector

Species	**5 yr average (2012/13 – 2016/17)**
Mute swan	6
Canada goose	2
Mallard	16
Little grebe	4
Lamby Way, Rumney, Cardiff	15
Grey heron	1
Moorhen	18
Coot	5
Black-headed gull	1

Rhymney Estuary and Great Wharf (Location Code: 61405)

1.5.2.13 This Count sector is located to the south and east of the proposed development site. The WeBS data for this Count sector shows that individual SPA/ Ramsar site qualifying species are present within the count sector (refer to Table 7). Species which would form part of the waterbird assemblage are present within the count sector.

Table 7: SPA/ Ramsar site individual qualifying species recorded within the Rhymney Estuary and Great Wharf count sector

Species	**5 yr average (2012/13 – 2016/17)**
Ringed plover (on passage)	9
Curlew	4
Dunlin	1500
Pintail	155
Redshank	1167
Shelduck	428
Gadwall	9
Lesser black-backed gull (breeding only)	37
Teal	41

1.5.2.14 Numbers of Dunlin and Redshank are of particular importance. The numbers of Dunlin recorded in this count sector (adjacent to the proposed development) represent approximately 3.5% of the total number of wintering Dunlin recorded when the SPA was designated (41,683, 5 year mean peak between 1988/9 and 1992/3) and more than 50% of Redshank numbers (2013, 5 year mean peak between 1988/9 and 1992/3). The conservation objectives contained within the regulation 33 advice for both Dunlin and Redshank require maintenance of the population such that numbers do not fall below the 5 year mean peak between 1988/9 and 1992/3. Therefore, maintenance of the Dunlin population so numbers no not fall below 41,683 individuals and maintenance of Redshank populations so that numbers do not fall below 2013 individuals.

SEWBReC

1.5.2.15 As part of the desk study for the Preliminary Ecological Appraisal (PEA) of the proposed development, SEWBReC were contacted for records of protected and/or notable species, including records of SPA/ Ramsar site species. The records from 2008 to 2016, identified one waterfowl species (gadwall), within the site itself, with the remainder of the records outside of the site. Little ringed plover, lapwing, greenshank, kingfisher, and whimbrel were recorded approximately 100m away (associated with the Rhymney River), with records of other waterfowl species being associated with the Severn Estuary.

1.5.2.16 SEWBReC did not provide any records of qualifying fish species associated with the Severn Estuary SAC/ Ramsar site.

1.5.2.17 Habitat information provided by SEWBReC identified that the adjacent River Rhymney and Estuary supported the SAC and Ramsar site qualifying habitats Atlantic salt meadow (saltmarsh), Intertidal mudflats and sandflats, and Estuaries.

Ecological Surveys of the Site

1.5.2.18 Ecological surveys have been carried out at the site during 2017 and 2018, including a Preliminary Ecological Appraisal (PEA) (Udall-Martin Associates Ltd, December 2017) and Ground-nesting Bird Surveys (Udall-Martin Associates Ltd, September 2017). Over-wintering bird surveys were not included in the scope of 2017 surveys. Arcadis undertook an over-wintering bird habitat assessment in October 2018 to assess the suitability of the site for over-wintering birds. Despite the poor habitat quality, further overwintering / migratory birds surveys were undertaken on the Lamby Way site in February and March 2019.

Preliminary Ecological Appraisal

1.5.2.19 The Extended Phase 1 habitat survey identified the site as '*dominated by grassland, with scattered and dense patches of scrub, pockets of woodland, a large pond, small pond and several scattered areas of wet pools/marshy areas. The central area of the site comprised reasonably flat ground (although with localised humps and hollows) with the site sloping downwards to the south and west towards the Severn Estuary and Rhymney River respectively*.' The River Rhymney to the west of the proposed site is not within the Severn Estuary SPA/ Ramsar site or SAC, however, the desk study undertaken as part of the PEA identified that it is a designated as a SINC, along with Lamby Saltmarsh SINC to the south of the proposed solar development.

1.5.2.20 Lamby Saltmarsh SINC is described as '*The remnant edges of the originally large Lamby Saltings that were reclaimed by land fill....located on the eastern banks of the River Rhymney, bounded by the Severn Estuary to the south and Lamby tip to the north. The site is important for rare salt-marsh and coastal plants...and as a rest place and breeding site for birds frequenting the Rhymney Estuary for feeding*.'

1.5.2.21 River Rhymney SINC is described as '*One of the three main rivers within Cardiff…Rhymney River Valley Complex SINC, Rhymney Grassland East SINC and Lamby North SINC and Lamby Salt Marsh SINC all bound the River Rhymney SINC towards the south. The river is important for migratory fish, otters, wildfowl and bankside vegetation and acts as a major wildlife corridor. Bats, dormice, grass snakes, eel and trout have been recorded in and around the River Rhymney'*.

1.5.2.22 The Gwent Levels – Rumney and Peterstone SSSI is also located to the east of the site and supports tidal mudflats and saltmarsh, as well as a network of ditches and reens. The area is important during the spring and autumn migration for waders along the west coast of Britain, and also supports large numbers of birds in the winter including oystercatcher, curlew, dunlin, redshank, knot, turnstone, grey plover, shelduck, teal, pintail, wigeon, shoveler, and avocet.

1.5.2.23 The PEA identified that the waterbodies and wet pool/marshy areas within the proposed development site provide potential habitat for waterfowl (species recorded during the protected species walkover survey included common snipe, coot, moorhen, and grey heron), and the site was also identified as suitable for breeding birds. Further bird surveys were carried out in 2017, as described below.

Ground-nesting Bird Surveys

1.5.2.24 The Ground-nesting Bird Surveys were carried out in June and July 2017 (Udall-Martin Associates Ltd, September 2017). The surveys identified the presence of oystercatcher (up to two pairs on the active landfill site) and lapwing (two nests identified, but appeared to fail) on the adjacent landfill site. Neither species were recorded within the proposed development site boundary. Shelduck were also recorded as present to the south-west of the active landfill site, but

no breeding was noted. Little grebe, mute swan, grey heron, moorhen and coot were recorded utilising the waterbodies within the survey area, but again were not recorded breeding. Gulls were recorded during the surveys, but no potentially suitable features for nesting were present within the proposed development site. The three gull species (black-headed gull, lesser black-backed gull and herring gull) that were noted were recorded as flying over or loafing on the adjacent roofs of industrial buildings.

1.5.2.25 The presence of these waterbird species suggest that the proposed development site could provide some suitable habitat for over wintering birds - species such as lapwing will utilise the same areas for wintering and breeding. However, the Ground-nesting Bird Survey Report concluded that predation and disturbance on site are major constraints to successful breeding, and these issues would be prevalent during the winter, thereby reducing the sites' potential suitability for over-wintering birds.

Over-wintering Bird Habitat Assessment

1.5.2.26 In order to determine the potential use of the proposed development site for over-wintering birds, a habitat assessment was carried out in October 2018. The assessment identified that the majority of the site supported tall ruderal herbs and scrubby grassland, which was unsuitable for use by the SPA/Ramsar site qualifying bird species, for breeding, foraging or roosting purposes. The pond at the northern end of the proposed development site could be used infrequently by small numbers of ducks, but it was not sufficient in size to be support a significant proportion of the SPA overwintering bird assemblage. It supported densely vegetated margins with no areas suitable for probing waders, such as curlew, redshank or dunlin.

1.5.2.27 It was considered possible that species such as lapwing or shelduck could land within the site and utilise the small number of areas with a shorter sward. However, these habitats were subject to frequent disturbance and were not sufficient in extent to support such species in significant numbers, being generally less than 20m2 in size.

1.5.2.28 The boundaries of the site comprised scrub and woodland that screened the proposed development site from the adjacent Severn Estuary and Rhymney River.

1.5.2.29 Despite the poor habitat suitability within the proposed development site, further overwintering bird surveys were undertaken in February and March 2019.

1.6 Potential Impacts Arising From Project

1.6.1 The proposed development site is between 55 and 600 metres to the north of the foreshore of the Severn Estuary, which at this point is designated as a Site of Special Scientific Interest (SSSI), as a Special Area of Conservation (SAC), is classified as a Special Protection Area (SPA), and listed as a Ramsar site.

1.6.2 However, the proposed development will not encroach upon the Severn Estuary EMS, so there is no potential for effects due to land take or immediate physical disturbance of habitats. Nonetheless, mindful of the vulnerabilities in Section 1.4 above, there is potential for the proposed development to have the following impacts:

- Direct habitat and species loss associated with European sites.
- Habitat degradation as a result of increased air pollution.
- Changes in water quality within the European sites.

- Loss of habitat functionally linked to a European site (i.e. used by overwintering or passage birds for foraging).
- Disturbance/displacement to species using the adjacent Rhymney River and Severn Estuary.

1.6.3 These impacts correlate with the categories of operations which may cause deterioration or disturbance as set out in tables 2 to 4 above, as follows:-

Table 8. Comparison of likely impacts of the project with categories of operations which may cause deterioration or disturbance		Impacts arising from proposed development as set out above				
		Direct habitat and species loss associated with European sites.	Habitat degradation as a result of increased air pollution.	Changes in water quality within the European sites.	Loss of habitat functionally linked to a European site (i.e. used by overwintering or passage birds for foraging).	Disturbance/displacement to species using the adjacent Rhymney River and Severn Estuary.
Categories of operations which may cause deterioration or disturbance as set out in tables 2 to 4 above	Noise & Visual presence	N	N	N	Y	Y
	Introduction of synthetic compounds	N	Y	Y	N	N
	Introduction of non-synthetic compounds	N	Y	Y	N	N
	Changes in nutrient loading	N	Y	Y	N	N
	Smothering of habitats	N	Y	Y	N	N
	Removal / substratum loss	Y	N	N	Y	N
	Selective extraction of species	Y	N	N	N	N

1.6.4 Tables 2 to 4 above also set out the levels of sensitivity of each of the features of the designations to the categories of operations which may cause deterioration or disturbance. These are summarised in Table 6 below. These levels of sensitivity will be used to assess the likelihood of any significant effect and subsequently and any adverse effect upon the integrity of the Severn Estuary EMS.

Table 9. Levels of sensitivity of Severn Estuary EMS features to identified pathways for adverse effect.

Receptors – Severn Estuary EMS Features		**Pathway for adverse effect**								
		Mobilisation of existing ground/groundwater contaminants		**Disturbance**		**Smothering**	**Changes in nutrient loading**		**Removal / substratum loss**	**Selective extraction of species**
		Toxic Contamination – Introduction of Synthetic Compounds	Toxic Contamination – Introduction of Non-synthetic Compounds	Noise	Visual	Dust	Dust	Surface water run-off		
SAC Annex I Habitats	Estuaries	High	High	Low	Low	High	Low	Low	High	High
	Subtidal Sandbanks	High	High	Low	Low	Low	Moderate	Moderate	Moderate	Low
	Mudflats & sandflats	High	High	Low	Low	Moderate	High	High	High	Low
	Atlantic Salt-meadow	High	High	Low	Low	High	High	High	High	Low
	Reefs	Moderate	Unknown	Low	Low	Low	Moderate	Moderate	Low	Low
SAC Annex II Species	Fish	Unknown	Unknown	Unknown	Unknown	Low	Unknown	Unknown	Low	Unknown
Habitats of SPA Annex I species	Intertidal mudflats & sandflats	Moderate	Moderate	Moderate	Moderate	Moderate	Low	Low	High	Low
	Saltmarsh	Moderate	Moderate	High	High	Moderate	High	High	High	Low
Habitats of SPA migratory species and waterfowl assemblage	Intertidal mudflats & sandflats	High	High	High	High	Moderate	High	High	High	Moderate
	Saltmarsh	High	High	High	High	Moderate	High	High	High	Moderate
	Hard substrates	High	High	High	High	Moderate	Moderate	Moderate	High	Low

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1.6.5 Therefore in summary, looking at the factors which may affect the features of the Severn Estuary EMS from section 1.6.2 above, the likelihood or magnitude of impact from Table 6 above is summarised as follows:-

Table 10. Likelihood / magnitude of impact of screened-in factors	
Screened-in factors from Section 1.6.2 above	**Maximum Likelihood / magnitude of impact for any Severn Estuary EMS feature from Table 6 above**
Direct habitat and species loss associated with European sites.	High
Habitat degradation as a result of increased air pollution.	High
Changes in water quality within the European sites.	High
Loss of habitat functionally linked to a European site (i.e. used by overwintering or passage birds.	High
Disturbance/displacement to species using the adjacent Rhymney River and Severn Estuary.	High

1.6.6 The potential impacts from section 1.4.2.2 above are considered in turn, as part of the test of likely significant effect, in the following section. Further details on the site features, their conservation objectives and the impact of factors upon those features is given in Appendix A of the 'Statement to Inform an Appropriate Assessment' Version 03 dated April 2019, submitted in support of the planning application 19/00397/MJR by Arcadis Consulting (UK) Ltd.

Test of Likely Significance

1.7 Direct habitat and species loss associated with European sites

1.7.1 The proposed solar farm is located outside the Severn Estuary EMS boundary and therefore, there would be no direct habitat or species loss within the Severn Estuary EMS as a result of the proposed development.

1.7.2 Therefore this potential impact pathway has been screened out of further assessment as there is no likely significant effect alone and/ or in combination with any other plans or projects.

1.8 Habitat degradation as a result of air pollution

1.8.1 Changes in air quality from increased traffic and development could have impacts on European sites through an increase in nitrogen deposition which could occur as a result of construction activities in the vicinity of European sites. Given the proximity of the proposed development to the Severn Estuary, there is the potential for air quality impacts.

1.8.2 The Site Improvement Plan for the Severn Estuary (Natural England, 2015) identified the risk of atmospheric nitrogen deposition as a potential pressure/threat to the European sites. The plan states
that:

'*Activities around the Estuary include fertiliser application, potentially dairy and poultry production, road traffic, industry (including power stations), and shipping which are all sources of nitrogen*

pollution. Nitrogen deposition exceeds site relevant critical loads, with potential impacts on vegetation structure and diversity.'

1.8.3 The Site Improvement Plan includes the following qualifying features of the Severn Estuary which are sensitive to nitrogen deposition: gadwall, Estuaries, Atlantic salt meadows, sea lamprey, river lamprey, Twaite shad, and the waterbird assemblage. The only potential impact pathway associated with air pollution and the proposed development would be through increased traffic during the construction phase. Given that the construction works (and any future decommissioning works) will take place outside of the main winter period, there would be no direct impacts on gadwall or the waterbird assemblage. The remaining features could be present within 200m during the construction phase.

1.8.4 Current air quality guidance suggests that any construction sites or routes used by construction vehicles within 50 m of a designated site[1]; and the presence of any European site within 200 m of the
main access roads used by HGVs accessing the site[2] could lead to likely significant effects on the European site during the construction phases of new development.

1.9 Changes in water quality within the European sites

1.9.1 Changes in water quality as a result of the proposed development could have impacts on European sites. For example, damaging the engineering cap of the landfill site could release contaminants into the Rhymney River/ Severn Estuary, there is an increased risk of potential pollution incidents, and potential increases in suspended sediments resulting in ecological effects, such as the direct loss of habitats caused by re-deposition of suspended sediment, and the consequential health or mortality effects on prey species, particularly invertebrates associated with the intertidal mudflats.

1.9.2 The Site Improvement Plan for the Severn Estuary (Natural England, 2015) identified the risk of water pollution as a potential pressure/threat to the European sites. The plan states that:

> *'There is uncertainty over water quality in the Estuary due to diffuse (including agricultural) or direct pollution (e.g. industrial, sewage treatment works, thermal, radioactive). There is a requirement for better understanding of water and sediment quality issues. The Severn River Basin Management Plan identifies that 17 % of the estuarine waterbodies in the river basin district currently achieve good ecological status while the others are at moderate status. Macrophytobenthos (benthic macro algae) have been identified in localised hotspots and may be having adverse impacts on the invertebrate communities there. The extent of issues like this, the presence and mobilisation of a range of contaminants and reasons behind the moderate statuses need to be understood. This includes analysis of current data and consideration of potential issues with contaminants in sediment.'*

1.9.3 The Site Improvement Plan includes the following qualifying features of the Severn Estuary which are sensitive to water pollution: gadwall, dunlin, common redshank, greater white-fronted goose, subtidal sandbanks, Estuaries, intertidal mudflats and sandflats, reefs, Atlantic salt meadows, sea lamprey, river lamprey, twaite shad and the waterbird assemblage.

[1] Institute of Air Quality Management (IAQM), Guidance on the assessment of dust from demolition and construction (2014)

[2] Design Manual for Roads and Bridges, Volume 11, Section 3, Part 1, HA 207/07 – Air Quality, Highways Agency, 2007.

1.9.4 Based on the available construction information, the solar farm will be fixed to the ground via structural supporting units with concrete shoe foundations. The access routes will be laid over the existing ground, and there will be no ground penetration below 1m (refer to Section 2 for further details). The engineering cap on the landfill will not be affected by the works and as such, no release of contaminants are predicted from the landfill during the construction, operational or decommissioning phases of the development.

1.9.5 There is a potential impact pathway of water quality impacts during construction if no mitigation was put in place.

1.10 Disturbance/displacement to species using the adjacent Rhymney River and Severn Estuary

1.10.1 The Site Improvement Plan for the Severn Estuary does not include effects associated with disturbance/ displacement (as a result of construction activities/ operational stage) as a potential threat on the European site. However, there is the potential to disturb qualifying species within European sites, in particular birds, during the construction and operational phases of new developments. Disturbance/displacement could occur as a result of the following:

- Noise and visual disturbance to overwintering birds during construction and decommissioning of the solar farm, and changes to visual surroundings caused by its presence.
- Potential collision with the new solar panels and visual disturbance to overwintering birds during operation, from glare.

1.11 Noise and visual disturbance to overwintering birds during construction and decommissioning of the solar farm, and changes to visual surroundings caused by its presence.

1.11.1 The information presented in the baseline (Section 5) indicates that the River Rhymney SINC, Lamby Saltmarsh SINC and adjacent estuarine habitat of the Severn Estuary provide roosting and foraging areas for SPA/ Ramsar site qualifying features, in particular important numbers of Redshank and Dunlin.

1.11.2 There is potential for disturbance/displacement effects on the over-wintering and passage SPA/Ramsar site qualifying bird species using the adjacent habitats during the construction, operation and decommissioning phases of the project, without mitigation.

1.11.3 As a general rule, a distance of 200m between the receptor (i.e. the birds) and the activity (i.e. construction) is taken as the maximum distance over which the activity can affect the receptor. Roughly half of the proposed project is within 200m of mean high water, and therefore potentially all installation works at this site may cause disturbance to wetland birds on the foreshore. In addition, the change in visual surroundings caused by the presence of the solar farm in operation may cause displacement of wetland bird species, perturbed by the radical change in visual aspect.

1.12 Potential collision with the new solar panels and visual disturbance to overwintering birds during operation, from glare

1.12.1 Given the proximity of the SPA/ Ramsar site to the proposed development site, there is the potential for visual disturbance to overwintering birds during the operational phase, from glare, and the potential for collision with the new solar panels.

1.12.2 Although there is the potential for birds to collide with the solar panels, there is little scientific evidence that this is actually the case. A study by DeVault et al (2014) conducted 515 bird surveys at solar PV sites, but found no obvious evidence for bird casualty caused by solar panels. The literature review carried out by Natural England (Natural England, 2017) concluded that current evidence suggests that bird collision risk from solar panels is very low and that there is likely to be more of a collision risk to birds presented by infrastructure associated with solar PV developments, such as overhead power lines.

1.13 Loss of habitat functionally linked to a European site

1.13.1 Functionally-linked land is considered to be any land outside of a European site, which is regularly used by significant numbers of birds that are qualifying interest features of that European site. The Site Improvement Plan for the Severn Estuary EMS does not include loss of functionally-linked land as a potential threat to the European sites.

1.13.2 The information presented in the baseline section of this report, including an overwintering bird habitat assessment of the proposed development site, indicates that the land within the proposed development site is largely unsuitable for supporting breeding, foraging and roosting SPA/ Ramsar site species. Although small areas of habitat offered some potential to support SPA/Ramsar site species, these were assessed by experienced ornithologists as being unsuitable to support significant numbers of birds due to their limited extent, sub-optimal habitat suitability, predation and frequent levels of disturbance from the active landfill site. Furthermore, the most suitable habitats, namely the waterbody within the proposed development site, would be retained as part of the development proposals.

1.13.3 The desk study data shows that surrounding habitats including the Severn Estuary EMS site itself, the River Rhymney SINC, Lamby Saltmarsh SINC and the Gwent Levels – Peterstone SSSI provide more suitable foraging and roosting habitat, and regularly support EMS site species during the over-winter period (as indicated by the WeBS data).

1.13.4 Given the poor suitability of the proposed development site for SPA/Ramsar site species it is not considered to be functionally linked land to the Severn Estuary SPA/ Ramsar site. As such, there would be no likely significant effect on the qualifying features of the Severn Estuary SPA/ Ramsar site as a result of the loss of 19ha of sub-optimal habitat under the footprint of the proposed solar farm.

1.13.5 Further overwintering and migratory bird surveys on the application site in February and March 2019 did not detect any birds which are features of the Severn Estuary EMS using the habitats on site, other than a pair of Mallards.

1.13.6 This potential impact has been **screened out** of further assessment alone and/ or in combination.

1.14 Results of the Test of Likely Significance

The results of the Test of Likely Significance are set out in the table below. Where likely significant effect has been identified, the relevant factors will be considered in turn in the Appropriate Assessment section below.

Table 11 – Summary of Test of Likely Significance		
Factor		**Likely Significant Effect?**
Direct habitat and species loss associated with European sites		No
Habitat degradation as a result of air pollution		Yes
Changes in water quality within the European sites		Yes
Loss of habitat functionally linked to a European site		No
Disturbance/displacement to species using the adjacent Rhymney River and Severn Estuary		
(i)	Noise and visual disturbance to overwintering birds during the construction, operation and decommissioning phases of the solar farm	Yes
(ii)	Potential collision with the new solar panels and visual disturbance to overwintering birds during operation, from glare	Yes

2.0 Appropriate Assessment

2.1 Habitat degradation as a result of air pollution

2.1.1 Based on the available construction information, the construction site for the proposed development would be more than 50m from the edge of the European site; therefore, potential air quality impacts associated with the construction site itself can be ruled out. The proposed haul routes would use Lamby Way to the north of the proposed development and access the site at the northern end of the construction area. Lamby Way is over 700m from the Severn Estuary, and the entrance to the construction site would be more than 400m from the Severn Estuary. Potential impacts associated with the construction can therefore also be ruled out. The decommissioning site and haul routes would be expected to be the same as those used for the construction phase.

2.1.2 Furthermore, Shared Regulatory Services in their responses to consultation have not raised any issues in regards to impacts upon air quality. Therefore due to the distance of haul routes from the Severn estuary European Sites, there would be no air quality impacts associated with the operational phase of the proposed solar farm and no adverse effects on the integrity of the Severn Estuary EMS and no need to progress to Stage 3.

2.2 Changes in water quality within the European sites

2.2.1 In order to protect water quality during the construction and decommissioning phases of the development as a result of potential pollution incidents, or run off from the construction site, the Construction and Decommissioning Method Statement will include water quality protection measures. These will comprise best practices and measures set out within relevant CIRIA publications, such as:

- undertaking regular checking of waterbodies located near areas of construction works for changes in water quality;
- avoiding spillages by using bunds around storage tanks to prevent leakages,
- use of drip trays around mobile plant,
- designating specific areas for re-fuelling to prevent run off; and
- use of grips, sumps, straw bales and sediment trap to capture silt, if required.

These will be secured by a planning condition, and also by the SuDS Approval process, which requires that SuDS meet a series of standards, one of which is the Biodiversity Standard.

2.2.2 These standard pollution protection measures are considered sufficient to protect water quality within the Severn Estuary EMS during the construction and decommissioning phases of the proposed development, and no likely significant effects on water quality of the adjacent European sites are predicted.

2.2.3 Taking into account the above mitigation measures, there will be no adverse effect on the integrity of the Severn Estuary EMS and no need to progress to Stage 3.

2.3 Noise and visual disturbance to overwintering birds during construction and decommissioning of the solar farm, and changes to visual surroundings caused by its presence

2.3.1 To avoid this impact, no construction or decommissioning works will take place during the main overwintering period when over-wintering and passage qualifying species associated with the Severn
Estuary SPA/ Ramsar site would be present. All construction works, including site clearance and construction of the solar arrays will be completed prior to the main winter period 2019/2020, although minor works would continue into October, the majority of the works would already be completed by this time. Decommissioning would be expected to take place during the summer of 2054. The timing of the works will mean that visual and noise disturbance to birds will be avoided and this will be secured by a planning condition.

2.3.2 Despite a detailed literature review there is very little evidence to suggest that a change in the visual appearance of a site is likely to cause displacement or disturbance to bird species (Natural England, 2017). The majority of the literature cites anthropogenic factors such as noise and the visual appearance of people as more likely to cause disturbance and displacement of bird species. Nevertheless, there is potential for displacement effects on the over-wintering and passage SPA/Ramsar site qualifying bird species using the adjacent habitats due to changes in visual appearance during the construction or decommissioning phases of the project without mitigation. This could affect the integrity of the European Sites given the high numbers of Redshank and Dunlin using the adjacent Rhymney Estuary.

2.3.3 To avoid this impact, the existing landscape planting, which provides effective screening of the proposed development from the Rhymney Estuary, will be retained and maintained for the duration of the operational phase to reduce the potential for changes in visual appearance to be noticed by bird species, reducing the potential for displacement. The retention and management of this screening vegetation can be secured through a planning condition and will be part of the green infrastructure strategy and ecological management plan for the proposed scheme.

2.3.4 Images 1 and 2 below show the existing landscape screening demonstrating effective screening of the proposed development. Image 3 shows the escarpment and location of existing hedgerow / fencing. Further details on this area are included in an Addendum to this report provided by Cardiff Council.

Image 1 showing existing landscape screening (Image from Google Earth)

Image 2 View of landscape screening seen from bridge on Lamby Way (Image Google Earth)

Image 3 showing the location of escarpment, fencing and hedgerow and areas that will be subject to enhancement via hedgerow planting. The orange star marks the location of Image 4 (Image Google Earth).

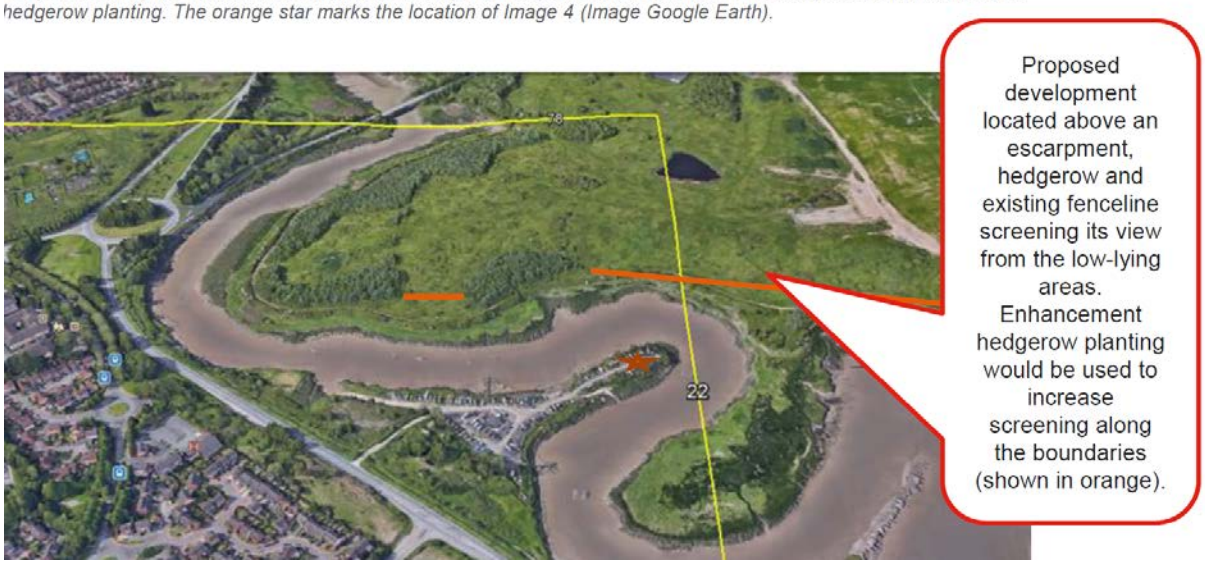

Image 4 Photo taken from Google Earth looking north to the proposed development site from the Rhymney Estuary

2.3.5 In addition to the existing woodland planting, there is an existing security fence surrounding the Lamby Way Landfill site which has dense scrub and trees associated with it, in the form of Hawthorn, Blackthorn and Elder etc. This vegetation is likely to provide an effective visual screen between birds on the upper sections of the foreshore and the solar array. There are some gaps in this vegetation, but the retention, management and stopping-up of gaps with bolster planting will be specified in the Green Infrastructure Statement, secured by planning condition.

2.3.6 It is envisaged that birds will to some extent already be habituated to changes in visual appearance when the landfill was operational and subsequently capped and also due to the ongoing development in the local area. However, WeBS counts which gave rise to the counts of species such as Redshank and Dunlin on the nearby foreshore are likely continue into the future, and continued reference will be made to these data to detect any significant decline in occurrences for a period of ten years post-construction. If any adverse effects can be attributed, bearing in mind the Precautionary Principle, to the ongoing presence of the solar array, then additional measures such as enhanced screening would be implemented.

2.3.7 In addition, no construction or decommissioning works will take place during the main overwintering period (October to March) when the over-wintering and passage qualifying species associated with the Severn Estuary SPA/ Ramsar site would be present. All construction works, including site clearance and construction of the solar arrays will be completed prior to the main

winter period 2019/2020. Although minor works would continue into October, all construction works would already be completed by this time. Decommissioning would be expected to take place during the summer of 2054.

2.3.8 The Severn Estuary Ramsar site includes lesser black-backed gull as a qualifying feature during the breeding season. Although recorded in small numbers (less than 1% of the SPA/Ramsar site population) during the ground-nesting bird surveys (Udall-Martin Associates Ltd, September 2017), no record of breeding was noted. Taking into account the timing of the works and the lack of breeding lesser black-backed gull there will be no adverse effect on the integrity of the Severn Estuary EMS.

2.3.9 Taking into account the timing of works and the mitigation measures set out above to be secured by planning condition, no adverse effect on the integrity of the sites is expected due to a change in visual surroundings either during or following construction, or during decommissioning.

2.4 Potential collision with the new solar panels and visual disturbance to overwintering birds during operation, from glare

2.4.1 Given the small-scale of the proposed solar farm and the positioning of the arrays, which by design, allows gaps in between the banks of panels to break up the surface, potential impacts associated with collision with the panels are considered unlikely.

2.4.2 Although there is the potential for glare from the new solar arrays, the solar farm will be screened from the adjacent River Rhymney and Severn Estuary from existing woodland and scrub at the edge of the site. This woodland / scrub vegetation is outside the proposed development site so would not require the removal of this screening vegetation. In addition, as described in the previous paragraph, the design of the solar farm means that gaps will be left between the banks of panels to break up the surface, further reducing the likelihood of solar glare. Given the retention of screening vegetation around the edge of the proposed new solar farm, and the positioning of the arrays, potential impacts associated with glare are considered unlikely.

2.4.3 Furthermore, the efficiency of solar panel depends upon them absorbing as much solar radiation as possible, rather than reflecting it, so they are inherently designed to reduce glare.

2.4.4 Therefore, given the mitigation measures outlined above no adverse effects on the integrity of the Severn Estuary EMS would occur and there is no need to progress to Stage 3.

2.5 Other plans and programmes that could contribute to in combination effects

2.5.1 Consideration of In-combination effects has identified two projects:

- The Frag Tip Application (Parc Calon Gwyrdd 17/02909/MNR)
- Flood risk management works comprising a new sea wall at Tremorfa (at business case stage completion design estimated February 2020)

2.5.2 The Appropriate Assessment for the Frag Tip application has concluded no adverse effect on the integrity of the Severn Estuary SAC/SPA/Ramsar. No residual effects have been identified, therefore there will be no In-Combination effects in association with Frag Tip.

2.5.3 The proposed new sea wall is on the south side of the Rhymney River directly opposite Lamby Way. There is the potential for both developments acting together to cause disturbance to

overwintering bird species using the Rhymney Estuary. However, as the construction works for Lamby way will be completed before the main 2019/2020 bird overwintering period and the flood risk works will only be at completion of design stage by 2020 this is can be ruled out as the projects will not be constructed during the same time period.

2.5.4 Therefore, no residual effects have been identified and no adverse effects on the integrity of the Severn Estuary EMS are envisaged.

2.6 Summary of the results of the assessment of adverse effects on the integrity

2.6.1 A summary of the results of the assessment of adverse effects on the integrity of the Severn Estuary EMS is given in the following table

Table 12 – Summary of Test of Adverse Effect upon Integrity		
Factor	**Adverse Effect upon Integrity?**	
	Alone	**In Combination**
Habitat degradation as a result of air pollution	No	No
Changes in water quality within the European sites	No	No
Noise and visual disturbance to overwintering birds during the construction and decommissioning phases of the solar farm	No	No
Potential collision with the new solar panels and visual disturbance to overwintering birds during operation, from glare	No	No

3. Conclusion

3.1 It is the conclusion of this Habitats Regulation Appraisal that, based upon the planning application and supporting documents as submitted, and provided the suggested planning conditions are attached and implemented, **the proposed development will not have an adverse effect upon the integrity of the Severn Estuary EMS**.

4. Consultation with Natural Resources Wales

4.1 In accordance with Regulation 61(3) of the Conservation of Habitats and Species Regulations 2010 (as amended):- '*The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specify'*.

4.2 NRW were consulted on the planning application and present HRA, and provided written comments on 29/03/19 and 10/04/19, and verbal comments on 10/04/19. Concerns were raised by the NRW ornithological specialist that the importance of the Redshank and Dunlin roosts was not given adequate consideration, and that the change in visual environment caused by the solar array once in place may cause species such as these to abandon these roosts. These comments have been addressed and the resulting changes incorporated into this finalised HRA.

5. References

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Udall-Martin Associates Ltd (December 2017) Preliminary Ecological Appraisal

Welsh Assembly Government (October 2006) Annex to Technical Advice Note 5: Nature conservation and planning. The Assessment of Development Plans in Wales Under the Provision of The Habitats Regulations'.

PAGE NO. 101	**APPLICATION NO : 19/491/DCH**
ADDRESS:	**6 CLOS ELPHAN, ST MELLONS, CARDIFF**
FROM:	STEVE COZENS, 2 CLOS ELPHAN
SUMMARY:	Please find below comments relating to Committee Report 19/00491/DCH, 6 Clos Elphan. We are concerned that the objections we have raised have not been adequately mentioned and fully addressed in the Committee report. To be clear we remain opposed to the entire planning application and reserve legal rights, the comments that follow are seeking a planning report that fully considers the planning application according to planning policies. Points highlighted in red are to facilitate a quick scan and understanding of key points. We trust this makes it quick and easy to appreciate our concerns. We look forward to an enhanced report to ensure full representation with modified recommendations & conditions to the Committee. 1) Restricted Permitted Development Rights exist to retain the double garage and preserve 4 off-street parking spaces - 2 in garage, 2 on driveway. The Application adds 4 parking spaces, plus 2 on driveway, totalling 6 spaces. Contrary to the report, this increases parking from 4 to 6 spaces. Increasing the number of parking spaces is contrary to Council planning objectives. *(By the way - if not counting spaces on the driveway as blocks in the 4 additional parking spaces this would be true of the spaces in the garage, in which case increases parking from 2 to 4 spaces, either way it's an increase of 2 spaces.)* 2) The Application seeks "planning permission" to add 4 parking spaces and therefore should be assessed against parking standards. ***SPG Managing Transport Impacts Jul 2018*** *states -* *6.31 All off-street car parking spaces should have minimum dimensions of 5.0m x 2.5m (Manual for Streets 2007), with a minimum manoeuvring space of 6.0m behind a car parking bay.*

	- 3 spaces at minimum of 2.5 x 5.0m to the East do not fit in the 7.4m available. The proposed plans are incorrect and therefore misleading. - 4 spaces are not accessible as there is only 5.89m for manoeuvring vs 6.0m required, plus the house front wall & porch are in the way. - parking blocks gate and access to rear garden. 3) The choice of property with a small frontage to be dominated by 6 parking spaces will be completely out of character with the existing residential landscape and contrary to policies. A parking space with the side of a car right next to the pavement is totally out of character with existing street scene & neighbourhood and something we trust the Council would not advocate. This parking is contrary to - ***Manual for Streets 2007*** *8.3.33 - The Urban Design Compendium advises that vehicles should not be allowed to dominate spaces,….Parking within the front curtilage should generally be avoided as it breaks up frontage and restricts informal surveillance.* ***SPG Cardiff Residential Extensions & Alterations*** *1.4 Ensure your proposal respects the context of your neighbourhood.* *2.4 An alteration to a house or garden may have an impact, not only on its own setting, but also on the wider neighbourhood. It is therefore essential that these types of proposals achieve the highest design quality……Poorly-designed alterations which detract from the appearance of your property can often reduce its value.* *6.1 All alterations and additions to a property should relate well to the character and context of the surrounding area.* *6.2 For smaller schemes, 'context' may relate to the character of the street or estate, while for larger schemes, or those on prominent sites, consideration should be given to the scheme's impact on the wider area.* *6.3 House alterations and extensions should be sympathetic to their context in terms of scale, positioning, detailing and materials to ensure that the development results in a balanced appearance and fits comfortably into the wider street scene, particularly if the neighbourhood has a very strong style or character.* 4) Policies require Councils to properly assess and preserve landscaping and trees through Applicants submitting BS5837 tree survey. Full information should be provided of the mature Oak tree close to boundary and overhanging the parking spaces. 3 parking spaces are within the mature Oak tree RPA (see picture at

	end of mail). We propose the Council demands the Applicant submits a tree survey to fully inform the Council. This would lead the Council to require modified plans to remove parking spaces which will damage a mature Oak tree of high local amenity and habitat value. This is to comply with law and multiple policies PPW, TN5, TGN & LDP. ***Section 197 of the Town & Country Planning Act 1990 (Ref. 2)*** *states that it: -* *'...shall be the duty of the local planning authority to ensure, whenever it is appropriate, that in granting planning permission for any development adequate provision is made, by the imposition of conditions, for the preservation or planting of trees'.* ***Planning Policy Wales (Ref. 3)*** *adds that: -* *'Trees, woodlands and hedgerows are of great importance, both as wildlife habitats and in terms of their contribution to landscape character and beauty. They also play a role in tackling climate change by trapping carbon and can provide a sustainable energy source. Local planning authorities should seek to protect trees, groups of trees and areas of woodland where they have natural heritage value or contribute to the character or amenity of a particular locality. Ancient and semi-natural woodlands are irreplaceable habitats of high biodiversity value which should be protected from development that would result in significant damage', and: -* *'...planning authorities should, as appropriate, make full use of their powers to protect and plant trees to maintain and improve the appearance of the countryside and built up areas'.* ***Technical Advice Note 5 - Nature Conservation (Ref. 4)*** *advises that requiring the protection and planting of trees by planning conditions can contribute to biodiversity conservation.* ***Trees and Development Technical Guidance Note November 2017*** *Trees within and/or adjoining a development site should be assessed in accordance with British Standard 5837 (Ref. 7), or any Standard that replaces it. This requires the sequential production of the following, by an Arboriculturist……* ***LDP 2006-2026*** ***EN8*** *5.130 The purpose of the Policy is to protect trees, woodlands and hedgerows with natural heritage or amenity value.* *5.131 It responds to Plan objectives relating to the natural environment and climate change and accords with PPW which*

	emphasises the protection and preservation of trees and woodlands against inappropriate development. *5.132 Trees, woodlands and hedgerows offer multiple benefits, including visual amenity, defining a sense of place, providing places for relaxation and recreation, habitats for wildlife, improved health and wellbeing and mitigating the effects of climate change.* *5.133 In order to determine unacceptable harm to trees, woodland and hedgerows within or bounding a site, applicants must assess them in accordance with the current British Standard 5837.* *Further guidance and advice will be contained in SPG relating to Trees and development.* ***KP15*** *4.168 Carbon sinks act as a means of off-setting carbon emissions by natural means. Trees and soils act as substantial reservoirs of carbon, sequestering atmospheric carbon, and contributing substantially to soils, which accrete carbon faster under tree cover than other forms of vegetation. This stored carbon will usually be emitted as a greenhouse gas if trees are removed or damaged, or soils removed, covered or disturbed (by compaction or contamination) during the construction process.* *4.169 As far as practicable, trees should be retained and protected, and land kept as functioning vegetated soil open to the fall of organic matter, with new trees and shrubs provided by developers wherever possible. Where trees and shrubs cannot be surrounded by open soil, hard surfaces should not be used unless there is an overriding need, and areas that are not needed for pedestrian or vehicle use should be retained for soft landscape. Cardiff's open spaces, trees and soils play a crucial role in mitigating the effects of climate change at the local level. Open vegetated soils absorb rainfall and runoff.* ***'BS5837: Trees in relation to design, demolition and construction - Recommendations'.*** *4.1.3 …..include all trees present, and certainly all those over 75 mm stem diameter, measured at 1.5 m above adjacent (higher) ground level. Trees over this size growing on land adjacent to the site, which are at or within a distance equal to 12 times their stem diameter from the boundary (or 10 times their base diameter, in the case of multi-stemmed trees), or where their crowns overhang the site boundary, should also be included…."* *5.2.3 NOTE There is a need to avoid the cumulative damaging effects of incursions into the RPA, for example from excavation for services and the laying of permanent hard surfaces.* *6.2.4 Particular care is needed regarding the retention of large old trees which become enclosed within the new development. Such*

	trees may be less resilient and more likely to die or become potentially unsafe as a result of the pressures associated with development. *11.9.2 ….However, gravel is rarely suitable for use where there is vehicle or pedestrian traffic for example, in residential areas.* 5) Whilst we do not agree with the double garage conversion as per objections raised, the property is well capable to support 2 adults and 4 children with the property as is. If however the council are to approve conversion of the garage to living accommodation, rather than allow garage doors to be replaced by "full length windows" totally out of character, we request a condition is attached - a) either convert the garage however leave the garage doors in situ. b) or require external finish as per existing – lower brick with leaded double glazed window – horizontal lines as per existing – materials to be submitted for approval. The aim ensure external appearance is in keeping with existing house and neighbouring properties. NB: a) is far preferred as no one would know the garage has been converted. This would preserve visual amenity in keeping with the neighbourhood as per policies. ***SPG Cardiff Residential Extensions & Alterations*** *1.4 Ensure your proposal respects the context of your neighbourhood.* *1.5 Ensure that your proposal complements the detailed design and materials of your existing house.* *2.4 An alteration to a house or garden may have an impact, not only on its own setting, but also on the wider neighbourhood. It is therefore essential that these types of proposals achieve the highest design quality……Poorly-designed alterations which detract from the appearance of your property can often reduce its value.* *6.1 All alterations and additions to a property should relate well to the character and context of the surrounding area.* *6.2 For smaller schemes, 'context' may relate to the character of the street or estate, while for larger schemes, or those on prominent sites, consideration should be given to the scheme's impact on the wider area.* *6.3 House alterations and extensions should be sympathetic to their context in terms of scale, positioning, detailing and materials to ensure that the development results in a balanced appearance and fits comfortably into the wider street scene, particularly if the neighbourhood has a very strong style or character.* *7.67 The architectural detailing on the existing property should be repeated, where appropriate, on any extension. This includes the continuation of plinths, stringcourses, decorative brickwork, bargeboards, sills and fascias as they are important elements in the overall design. The repeat of details such as decorative bargeboards, quoins or brick courses can also help to integrate the*

extension with the original property.

6) Expected a comment from Highways re: Gravel ending up on pavement, in the road & in drains.

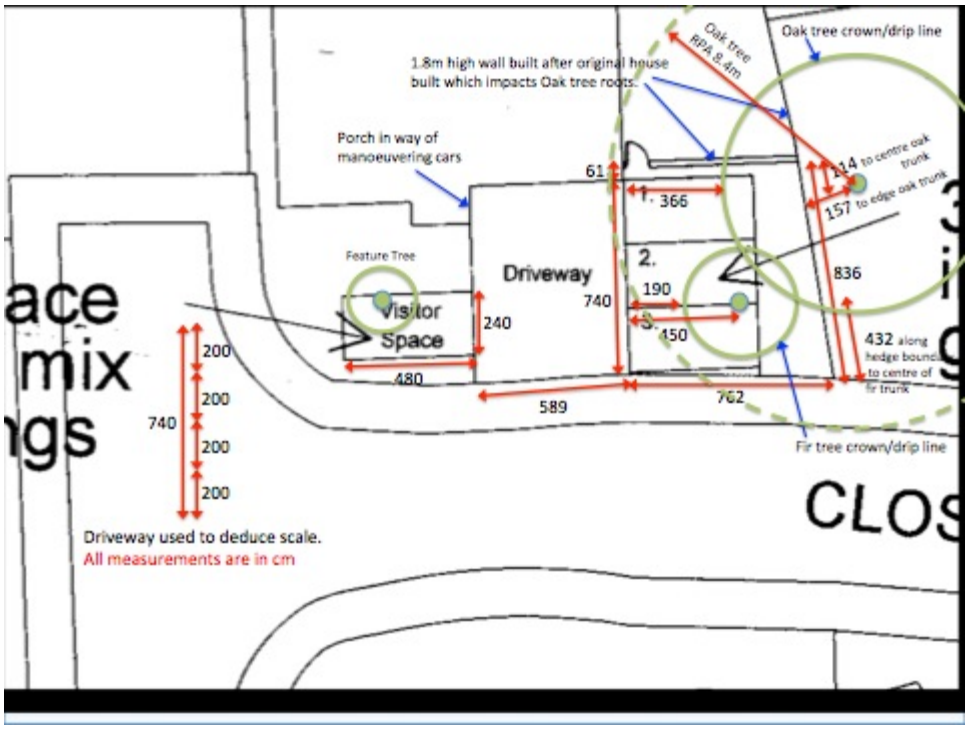
Overall comment (not relevant to the report per se)

The parallel application to change the use to a residential institution as a children's care home is clearly what is behind seeking "planning permission" for the 4 additional parking spaces and critically the Applicant needs to have the parking spaces recorded in plans approved by the Council because of what is to follow.

Permitted Development rights are lost when a property is under C2 class, hence the Applicant's 2 stage approach to circumvent a proper planning process for a residential institution where parking plans would be properly considered in context of a change in use.

We question why everything is not being handled as one planning Application for a full and proper assessment?
Currently the property is not being used as a residential dwelling in single household occupation, it is vacant, so we question the validity of an application on a residential basis.
If the Applicant is applying on a residential basis there is no need to have 6 parking spaces specified in the plans.

6 Clos Elphan – Front view

	3 Parking spaces within Oak tree RPA – dotted green circle 
REMARKS:	Noted