

Project:	Newgale WelTAG Study	To:	Rob Morgan
Subject:	WelTAG Habitats Regulations Assessment	From:	Will MacLennan
Date:	4 Jan 2017	cc:	

This report has been prepared by Atkins Limited for the sole and exclusive use of Pembrokeshire County Council in response to their particular instructions. No liability is accepted for any costs claims or losses arising from the use of this document, or any part thereof, for any purpose other than that which it has specifically been prepared or for use by any party other than Pembrokeshire County Council.

The information which Atkins Limited has provided has been prepared by an environmental specialist in accordance with the Code of Professional Conduct of the Chartered Institute of Ecology and Environmental Management. Atkins Limited confirms that the opinions expressed are our true and professional opinions. This document does not purport to provide legal advice.

N.B. The text within this Technical Note will be inputted into a multi-discipline WelTAG assessment prior to issue to the client and will be subject to revision/review.

1. Introduction

Four options for a realignment of the A487 in Newgale, Pembrokeshire have been proposed, these are Options 3, J, 7 & 11. This report provides a qualitative appraisal of the potential impacts of each option on European designated sites and interest features. The options can be viewed on **Figure 2.1** below.

1.1. Habitats Regulations

The EU Habitats (92/43/EEC) and Birds (79/409/EEC) Directives aim to protect European birds and species and the habitats that support them, while the Ramsar Convention on Wetlands of International Importance aims to protect internationally important wetlands, of particular importance to migratory bird species. The Directives are transposed into UK law through the Conservation of Habitats and Species Regulations 2010 and their amendments, referred to as the Habitats Regulations.

The Habitats and Birds Directives require 'competent authorities' to undertake an 'appropriate assessment' of plans, projects and strategies that are unconnected to the management of the site and are likely to have a significant effect on the site. In the UK, there is a similar requirement in relation to sites designated under the Ramsar Convention (known as Ramsar sites).

There are four distinct stages in a Habitats Regulations Assessment (HRA):

- **Stage 1: Screening** – the process which initially identifies the likely potential impacts upon a Natura 2000 site of a plan or project, either alone or in combination with other plans or projects, and considers whether these potential impacts are likely to be significant. This is often called a Test of Likely Significant Effects (TLSE).
- **Stage 2: Appropriate Assessment** – the detailed consideration of the impact on the integrity of the Nature 2000 site of the plan or project, with respect to the site's conservation

objectives and its structure and function. This is to determine whether there will be adverse effects on the integrity of the site.

- **Stage 3: Assessment of alternative solutions** – the process which examines alternative ways of achieving the objectives of the plans or projects that avoid adverse potential impacts on the integrity of the Natura 2000 site.
- **Stage 4: Assessment where no alternative solutions exist** and where adverse potential impacts remain – an assessment of whether the development is necessary for imperative reasons of overriding public interest (IROPI) and, if so, of the compensatory measures needed to maintain the overall coherence of the Natura 2000 network.

This report has the aim of providing a high level review of the four alignment options against the interest features of the European sites that could potentially be effected by the proposals. Due to the strategy level of the options there is not yet full detail regarding the construction of the different options. Therefore, it is not possible at this stage to undertake the assessment, as the current level of information is insufficient to support the first screening stage of the HRA process.

Once a final option has been decided, a full HRA will be required to inform the planning application for the scheme.

This report will aid the decision making process by assessing the relative potential impacts the options could have on European sites, based on the nature, location, sensitivity, and mobility of the interest features effected. Based on this information it will determine what sites and features will need to be included in a HRA for each option.

2. Baseline

2.1. Statutory Designated Sites

Information on European designated sites¹ located within 2 km of each of the option study area (a linear search along the route with a 2 km buffer zone) was obtained from the Multi-Agency Geographical Information for the Countryside (MAGIC²) and Natural Resources Wales³ websites in December 2016. In line with guidance from the Design Manual for Roads and Bridges, the search area was extended to 30 km for European designated sites with bats as a qualifying feature⁴. The search was also extended to include European designated sites where other pathways for impacts may occur, e.g. hydrological links via waterways.

An overview of the statutory designated sites located within the search area is provided in **Table 2.1** below. Table 2.1 - Overview of European designated sites within the option study areas.

Road route options	Statutory designated site	Distance/direction from study area
Option 3	Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton, SAC	27 km NE
	St David's/ Ty Ddewi SAC	0.8km NW
	Pembrokeshire Marine/Sir Benfro Forol SAC	0.2km W
	Ramsey and St David's Peninsula Coast SPA	0.8km NW
Option J	Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton, SAC	25 km SW
	St David's/ Ty Ddewi SAC	0.8km NW
	Pembrokeshire Marine/Sir Benfro Forol SAC	0.8km W
	Ramsey and St David's Peninsula Coast SPA	0.6 km NW
Option 7	Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton, SAC	24 km NE
	St David's/ Ty Ddewi SAC	0.6km SW
	Pembrokeshire Marine/Sir Benfro Forol SAC	0.7km SW
	Ramsey and St David's Peninsula Coast SPA	0.8km SW
Option 11	Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton, SAC	20 km NE
	Ramsey and St David's Peninsula Coast SPA	0.7km SW
	St David's / Ty Ddewi SAC	0.7km SW
	Pembrokeshire Marine/Sir Benfro Forol SAC	0.8km SW

¹ Including: Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites.

² www.magic.defra.gov.uk

³ <https://naturalresources.wales/conservation-biodiversity-and-wildlife/find-protected-areas-of-land-and-seas/designated-sites-search/?lang=en>

⁴ Highways Agency (2009). *HD44/09 - Design Manual for Roads and Bridges Assessment of Implications (of Highways and/or Roads Projects) on European Sites (Including Appropriate Assessment)*.

*Site with hydrological connection to option.

ATKINS



3. Site Interest features

Table 3.1, Table 3.2, Table 3.3 and Table 3.4 below set out the features of each of the European sites that could potentially be effected by the options.

Table 3.1 - Pembrokeshire Marine / Sir Benfro Forol SAC.

Feature	Quality and importance
Annex I Habitats that are a primary reason for selection	
Estuaries	Considered to be one of the best areas in the UK
Large shallow inlets and bays	Considered to be one of the best areas in the UK
Reefs	Considered to be one of the best areas in the UK
Annex I Habitats present as a qualifying feature (but not a primary reason for selection)	
Sandbanks which are slightly covered by sea water all the time	Considered to support a significant presence
Mudflats and sandflats not covered by seawater at low tide	Considered to support a significant presence
Coastal lagoons (priority feature)	Considered to support a significant presence
Atlantic salt meadows (<i>Glauco- Puccinellietalia maritima</i>)	Considered to support a significant presence
Submerged or partially submerged sea caves	Considered to support a significant presence
Annex II species that are a primary reason for selection	
Grey seal (<i>Halichoerus grypus</i>)	Considered to be one of the best areas in the UK
Shore dock (<i>Rumex rupestris</i>)	Considered to be one of the best areas in the UK
Annex II species present as a qualifying feature (but not a primary reason for selection)	
Sea lamprey (<i>Petromyzon marinus</i>)	Considered to support a significant presence
River lamprey (<i>Lampetra fluviatilis</i>)	Considered to support a significant presence
Alis shad (<i>Alosa alosa</i>)	Considered to support a significant presence
Twaite shad (<i>Alosa fallax</i>)	Considered to support a significant presence
Otter (<i>Lutra lutra</i>)	Considered to support a significant presence

Source: Pembrokeshire Marine/Sir Benfro Forol Natura Site details and Natura 2000 Data Form, JNCC website, available at <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013116>

Table 3.2 - Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC.

Feature	Quality and importance
Annex I Habitats that are a primary reason for selection	
Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Considered to be one of the best areas in the UK
Annex I Habitats present as a qualifying feature (but not a primary reason for selection)	
Not applicable	
Annex II species that are a primary reason for selection	
Greater horseshoe bat (<i>Rhinolophus ferrumequinum</i>)	Considered to be one of the best areas in the UK
Annex II species present as a qualifying feature (but not a primary reason for selection)	
Lesser horseshoe bat (<i>Rhinolophus hipposideros</i>)	Considered to support a significant presence
Otter (<i>Lutra lutra</i>)	Considered to support a significant presence

Table 3.3 - St David's/ Ty Ddewi SAC.

Feature	Quality and importance
Annex I Habitats that are a primary reason for selection	
Vegetated sea cliffs of the Atlantic and Baltic Coasts	Considered to be one of the best areas in the UK
European dry heaths	Considered to be one of the best areas in the UK
Annex I Habitats present as a qualifying feature (but not a primary reason for selection)	
Not applicable.	Considered to support a significant presence
Annex II species that are a primary reason for selection	
Floating water-plantain (<i>Luronium natans</i>)	Considered to be one of the best areas in the UK
Annex II species present as a qualifying feature (but not a primary reason for selection)	
Not applicable.	Considered to support a significant presence

Table 3.4 - Ramsey and St David's Peninsula SPA.

Feature	Quality and importance
ARTICLE 4.1 QUALIFICATION (79/409/EEC)	
During the breeding season the site regularly supports: Chough (<i>Pyrrhonorax pyrrhonorax</i>) 11 pairs representing at least 3.2% of the GB breeding population No count period specified.	Nationally Significant
Over winter the site regularly supports: Chough (<i>Pyrrhonorax pyrrhonorax</i>) 22 pairs representing at least 3.2% of the GB breeding population No count period specified.	Nationally Significant

4. Conservation objectives

The conservation objectives for a European marine site are intended to represent the aims of the Habitats and Birds Directives in relation to that site. NRW provide advice on the conservation objectives and operations that may cause deterioration of the habitats or species, or disturbance of the species for which sites have been designated. This advice is in the form of 'Regulation 35 advice' for marine SACs (i.e. SACs with a marine component) or 'management plans' for other sites.

Measures taken under the Habitats Directive should be designed to maintain or restore habitats and species of European Community importance at / to "favourable conservation status" (FCS). The conservation objectives for a site set the standards which must be met if the features of the site (habitats and species) are to be at FCS.

FCS is defined in Article 1 of the Habitats Directive as:

Conservation status of a natural habitat means the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species within the territory referred to in Article 2.

The conservative [sic] status of a natural habitat will be taken as 'favourable' when:

- *its natural range and the areas it covers within that range are stable or increasing, and*
- *the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and*
- *conservation status of typical species is favourable as defined in [Article] 1(i).*

Conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term natural distribution and abundance of its populations within the territory referred to in Article 2;

- *The conservation status will be taken as 'favourable' when:*
- *population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and*
 - *the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and*
 - *there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis*

The conservation objectives recognise and acknowledge that the features are part of a complex, dynamic, multi-dimensional environment which human activity has already modified and continues to modify in various ways, to varying degrees and at varying spatial and temporal scales, either acutely or chronically.

The conservation objectives do not aim to prevent all change to the habitat and species features, or to achieve an indefinable, abstract natural or pristine state, since these would be unrealistic and unattainable aspirations. Rather, they seek to prevent further negative modification of the extent, structure and function of natural habitats and species' populations by human activity and to ensure that degradation and damage to the features that is attributable to human activities or actions is prevented. The conservation objectives, therefore, seek to:

- Encompass inherent dynamism rather than to work against it;
- Safeguard features and natural processes from those impacts of human activity that cause damage to the features through the degradation of their range, extent, structure, function or typical species;
- Facilitate, where necessary, restoration of features or components of features that are currently damaged or degraded and in unfavourable condition.

The overarching vision statements for the sites and their features and the specific conservation objectives for the four sites in the area are set out below.

4.1. Site Conservation objectives

4.1.1. Pembrokeshire Marine / Sir Benfro Forol SAC – Habitat Features

The habitat features designated as part of the Pembrokeshire Marine / Sir Benfro Forol SAC include:

- *Sandbanks which are slightly covered by seawater all the time*
- *Estuaries mudflats and sandflats not covered by seawater at low tide*
- *Coastal lagoons*
- *Large shallow inlets and bays*
- *Reefs*
- *Submerged or partially submerged sea caves*
- *Atlantic salt meadows*

Table 4.1 Pembrokeshire Marine / Sir Benfro Forol Conservation Objectives for SAC Habitat Features.

<p>To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.</p>
<p>Range</p> <p>The overall distribution and extent of the habitat features within the site, and each of their main component parts is stable or increasing.</p> <p>For the inlets and bays feature these include;</p> <ul style="list-style-type: none"> • The embayment of St. Brides Bay • The ria of Milford Haven • Peripheral embayments and inlets <p>For the coastal lagoons feature this is subject to the requirements for maintenance of the artificial impoundment structure and maintenance of the lagoons for the original purpose or subsequent purpose that pre-dates classification of the site.</p>
<p>Structure and Function</p> <p>The physical biological and chemical structure and functions necessary for the long-term maintenance and quality of the habitat are not degraded. Important elements include;</p> <ul style="list-style-type: none"> - geology, - sedimentology, - geomorphology, - hydrography and meteorology, - water and sediment chemistry, - biological interactions. <p>This includes a need for nutrient levels in the water column and sediments to be:</p> <ul style="list-style-type: none"> • at or below existing statutory guideline concentrations • within ranges that are not potentially detrimental to the long term maintenance of the features species populations, their abundance and range. <p>Contaminant levels in the water column and sediments derived from human activity to be:</p> <ul style="list-style-type: none"> • at or below existing statutory guideline concentrations • below levels that would potentially result in increase in contaminant concentrations within sediments or biota • below levels potentially detrimental to the long-term maintenance of the features species populations, their abundance or range. <p>Restoration and recovery</p> <p>As part of this objective it should be noted that; the Milford Haven waterway complex would benefit from restorative action, for example through the removal of non-natural beach material, and the removal, replacement or improved maintenance of rock filled gabions. There is also need for some restoration of the populations of several typical species of the Milford Haven waterway complex that are severely depleted with respect to historical levels as a consequence primarily of human exploitation.</p> <p>In the Milford Haven waterways complex inputs of nutrients and contaminants to the water column and sediments derived from human activity must remain at or below levels at the time the site became a candidate SAC.</p> <p>For the lagoons feature this is subject to the requirements for maintenance of the artificial impoundment structures of coastal lagoons and maintenance of the lagoons for their original purpose or subsequent purpose that pre-dates classification of the site.</p> <p>Typical Species</p>

To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.

The presence, abundance, condition and diversity of typical species are such that habitat quality is not degraded.

Important elements include

- species richness:
- population structure and dynamics,
- physiological health,
- reproductive capacity
- recruitment,
- mobility
- range

As part of this objective it should be noted that:

- populations of typical species subject to existing commercial fisheries need to be at an abundance equal to or greater than that required to achieve maximum sustainable yield and be secure in the long term
- the management and control of activities or operations likely to adversely affect the habitat feature is appropriate for maintaining it in favourable condition and is secure in the long term.

Restoration and recovery

For the **inlets and bays** features this includes the need for some restoration of the populations of several typical species which are severely depleted with respect to historical levels as a consequence, primarily of human exploitation.

In the **Milford Haven waterways complex** inputs of nutrients and contaminants to the water column and sediments derived from human activity must remain at or below levels at the time the site became a candidate SAC.

4.1.2. Pembrokeshire Marine / Sir Benfro Forol SAC – Species Features

The species features designated as part of the Pembrokeshire Marine / Sir Benfro Forol SAC include:

- *Grey seal*
- *Otter*
- *Shad Alosa spp.*
- *River lamprey*
- *Sea lamprey*
- *Shore dock*

Table 4.2 Pembrokeshire Marine / Sir Benfro Forol Conservation Objectives for SAC Species Features.

To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.

Populations

The population is maintaining itself on a long-term basis as a viable component of its natural habitat. Important elements are population size, structure, production, and condition of the species within the site.

As part of this objective it should be noted that for **otter** and **grey seal**;

- Contaminant burdens derived from human activity are below levels that may cause physiological damage, or immune or reproductive suppression

For **grey seal**, populations should not be reduced as a consequence of human activity

Range

The species population within the site is such that the natural range of the population is not being reduced or likely to be reduced for the foreseeable future.

As part of this objective it should be noted that for **otter** and **grey seal**

- Their range within the SAC and adjacent inter-connected areas is not constrained or hindered
- There are appropriate and sufficient food resources within the SAC and beyond
- The sites and amount of supporting habitat used by these species are accessible and their extent and quality is stable or increasing

Supporting Habitats and Species

The presence, abundance, condition and diversity of habitats and species required to support this species is such that the distribution, abundance and populations dynamics of the species within the site and population beyond the site is stable or increasing. Important considerations include;

To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.

- distribution,
- extent,
- structure,
- function and quality of habitat,
- prey availability and quality.

As part of this objective it should be noted that;

- The abundance of prey species subject to existing commercial fisheries needs to be equal to or greater than that required to achieve maximum sustainable yield and secure in the long term.
- The management and control of activities or operations likely to adversely affect the species feature is appropriate for maintaining it in favourable condition and is secure in the long term.
- Contamination of potential prey species should be below concentrations potentially harmful to their physiological health.
- Disturbance by human activity is below levels that suppress reproductive success, physiological health or long-term behaviour
- For **otter** there are sufficient sources within the SAC and beyond of high quality freshwater for drinking and bathing.

Restoration and recovery

In the **Milford Haven waterways complex** inputs of nutrients and contaminants to the water column and sediments derived from human activity must remain at or below levels at the time the site became a candidate SAC.

As part of this objective it should be noted that for the **otter**, populations should be increasing.

4.1.3. Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC – Habitat Features

The habitat features designated as part of the Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC include:

- *Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.*

Table 4.3 Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton Conservation Objectives for SAC Habitat Features.

To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- Submerged Chara beds (mainly Chara hispida in places up to a metre long) will form the predominant submerged macrophyte vegetation throughout most of Central and Western Arms and Central Lake of Bosherton Lakes (unit 1a) and may be present in the Eastern Arm (unit 1b).
- Chara will occur at more than 50% frequency along regular surveillance transects within the Western and Central arms.
- Chara species (not necessarily hispida) will be present in other embayments and pools, including the Eastern Arm of Bosherton Lakes (unit 1b) and pools in the Mere Pool Valley (unit 1d).
- The Western and Central Arms are spring-fed, so nutrient levels here remain low. One of the main nutrients (phosphorous) will reach no more than 25 micrograms per litre in regular sampling areas.
- Nitrogen levels in the water will be low (less than 1 milligram per litre) and declining or stable.
- The Western Arm, Central Arm and Central Lake water will be fairly clear, but well vegetated with submerged and marginal plants. In natural openings (e.g. over springs) within otherwise dense Chara beds, a sechii disk will be viewable on the lakebed.
- Water depth will vary from about 3.5 metres OD (winter maximum) to about 0.5 metres or less in places in summer.
- Fringing the Chara beds, are beds of white water lilies Nymphaea alba. They will remain fairly abundant in the Western and Central Arms, with smaller populations in Central Lake.
- Reed and swamp and fringing burr-reed will be restricted to shallow zones – covering not more than 10 % of the site.
- All factors affecting the achievement of these conditions are under control.

4.1.4. Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC – Species Features

The species features designated as part of the Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC include:

- *Greater horseshoe bat*
- *Lesser horseshoe bat*
- *Otter*

Table 4.4 Pembrokeshire Bat Sites and Bosherton Lakes/Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton Conservation Objectives and TLSE for SAC Species Features.

To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.	
Greater horseshoe bat	
The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:	
<ul style="list-style-type: none"> • The greater horseshoe bat population will be capable of maintaining itself on a long-term basis as a viable component of its natural habitats. • The natural range of greater horseshoe bats will neither be reduced nor will be likely to be reduced for the foreseeable future, and • There will be sufficient habitat to maintain its populations on a long-term basis. • At least three SSSI maternity roosts will be occupied annually by adult greater horseshoe bats and their babies: <ul style="list-style-type: none"> ○ Stackpole Courtyard Flats and Walled Garden SSSI ○ Slebech Stable Yard Loft, Cellars and Tunnels SSSI ○ Felin Llwyngwair SSSI • Carew Castle SSSI will continue to be used as an intermediate greater horseshoe bat roost, during the spring and autumn, as a male summer roost and an autumn/spring mating roost. • The greater horseshoe bat population at the component SSSI's will be stable or increasing. • There will be a sufficiently large area of suitable habitat surrounding these roosts to support the bat population, including continuous networks of sheltered, broadleaved woodland, tree lines and hedgerows connecting the various types of roosts with areas of insect-rich grassland and open water. • All factors affecting the achievement of these conditions are under control. 	
Lesser horseshoe bat	
The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:	
<ul style="list-style-type: none"> • The Lesser horseshoe bat population will be capable of maintaining itself on a long-term basis as a viable component of its natural habitats. • The natural range of lesser horseshoe bats will be neither being reduced nor will be likely to be reduced for the foreseeable future, and • There will be sufficient habitat to maintain its populations on a long-term basis. • At least four SSSI maternity roosts will be occupied annually by adult lesser horseshoe bats and their babies: <ul style="list-style-type: none"> ○ Beech Cottage, Waterwynch SSSI, ○ Orielson Stable Block and Cellars SSSI, ○ Park House Outbuildings SSSI, ○ Stackpole Courtyard Flats and Walled Garden SSSI • The lesser horseshoe bat population at the component SSSI's will be stable or increasing. • There will be a sufficiently large area of suitable habitat surrounding these roosts to support the bat population, including continuous networks of sheltered, broadleaved woodland, tree lines and hedgerows connecting the various types of roosts with areas of insect-rich grassland and open water. • All factors affecting the achievement of these conditions are under control. 	
Otter	
The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:	
<ul style="list-style-type: none"> • The Otter population will be capable of maintaining itself on a long-term basis as a viable component of its natural habitats. • The natural range of otters will neither be reduced nor will be likely to be reduced for the foreseeable future, and • There will be sufficient habitat to maintain its populations on a long-term basis. • The otter population will be stable or increasing. • There will be a sufficiently large area of suitable habitat to support an otter breeding population, including: <ul style="list-style-type: none"> ○ Open water with sufficient food resources (notably eels and other fish species) and; 	

To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.

- A continuous network of undisturbed sheltered resting places along the lake shoreline – including swamp, broadleaved woodland and calcareous scrub.
- All factors affecting the achievement of these conditions are under control.

4.1.5. St David's/ Ty Ddewi SAC – Habitat Features

The habitat features designated as part of the St David's/ Ty Ddewi SAC include:

- *Maritime Cliff and Crevice vegetation*
- *Maritime Grassland*
- *Maritime Heathland*
- *Dry Heath*

Table 4.5 St David's/ Ty Ddewi Conservation Objectives for SAC Habitat Features.

To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.

Maritime Cliff and Crevice vegetation

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- Cliff and crevice vegetation will occur naturally on suitable cliff sections throughout the site.
- The vegetation will be composed of native plants such as sea pursley *Spergularia rupicola* and sea samphire *Crithmum maritimum*.
- The establishment of non-native plants such as Hottentot fig *Carpobrotus edulis* will be discouraged.
- The factors affecting the feature are under control

Maritime Grassland

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- Maritime Grassland will occupy at least x% of the total site area (to be set).
- The following plants will be common in the maritime grassland: thrift *Armeria maritima*; spring squill *Scilla verna* and sea plantain *Plantago maritima*
- Competitive species indicative of under-grazing, particularly cocksfoot *Dactylis glomerata*, bracken *Pteridium aquilinum* and western gorse *Ulex gallii* will be kept in check.
- The factors affecting the feature are under control.

Maritime Heathland

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- Maritime heathland will occupy at least x% of the total site area (to be set).
- The following plants will be common in the maritime heathland: heather *Calluna vulgaris*; bell heather *Erica cinerea* and spring squill *Scilla verna*.
- Competitive species indicative of under-grazing, particularly bracken *Pteridium aquilinum* and gorse *Ulex europaeus* will be kept in check.
- The factors affecting the feature are under control

Dry Heath

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- Dry Heath will occupy areas of the site where heathland extends beyond the zone of maritime influence and lacks the species characteristic of maritime heath as a result much of the dry heath will be short and open.
- The factors affecting the feature are under control

4.1.6. St David's/ Ty Ddewi SAC – Species Features

The species features designated as part of the St David's/ Ty Ddewi SAC include:

- *Floating Water Plantain*

Table 4.6 St David's/ Ty Ddewi Conservation Objectives for SAC Species Features.

To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.
Floating Water Plantain
<p>The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:</p> <ul style="list-style-type: none"> • At least one population is well established. • This population covers at least 15 square metres in two or more separate pools. • Current areas of open water to be maintained on Ramsey; other pool habitats within the SAC to be kept in a suitable state for Luronium where possible. • The factors affecting the feature are under control

4.1.7. Ramsey and St David's Peninsula SPA – Species Features

The species features designated as part of the Ramsey and St David's Peninsula SPA include:

- *Chough (breeding and overwintering)*

Table 4.7 Ramsey and St David's Peninsula SPA Conservation Objectives for SAC Species Features.

To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.
Chough
<p>The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:</p> <ul style="list-style-type: none"> • The breeding population of Chough is at least 11 pairs • Breeding success averages at least 2.5 chicks/pair • Sufficient suitable habitat is present to support the populations • The factors affecting the feature are under control

5. Impacts

It is difficult at this stage of the WelTAG process to determine what impacts to European sites may arise as a result of the required works for each of the different options. This is because there is limited knowledge at this stage regarding how each option may be constructed.

The Habitats Regulations are, by their nature, precautionary. In the absence of the necessary level of detail required to determine if a plan or project would not have an adverse effect on the integrity of the European site, a scheme cannot be granted consent.

At this stage it will only be possible to determine whether a Habitats Regulations Assessment (HRA) will be required for any given option, should it be taken forward to the next stage of the WelTAG process.

It is therefore likely to be the case that most of the shortlisted options will require some form of HRA to determine if the proposal is Likely to have a Significant Effect on any of the interest features of the site (the Screening Stage) and if it may go on to have an adverse effect on the conservation objectives of the site (the Appropriate Assessment stage).

Only in a few cases will the interest features from the list of European sites be so far away or disconnected to the proposed works that it can be determined that a HRA will not be required.

If there is insufficient information to determine if a HRA is required then it will be considered as "Unknown". If this is the case then this option will still be required to undertake a HRA for this site and feature, should the option be taken forward. This is in line with the precautionary principle that the Habitats Regulations are based on.

The HRA requirements of any given option will be one of the following:

Table 5.1 - HRA requirements.

Required	A full HRA is required for that site and feature, should the option be taken forward
Not Required	A HRA is not required for that feature.
Unknown	It is not possible to determine whether or not a HRA is required, due to the limited detail of how the option will be constructed. In this case, a HRA for this feature WILL be required.

Table 5.2 – Review of the HRA requirements for Option 3.

Site	Interest Feature	Impact	HRA Requirement
Pembrokeshire Marine SAC	Sandbanks which are slightly covered by seawater all the time	Option 3 is located directly adjacent to areas of subtidal sandbanks and, depending on the construction methodology, could impact this feature through pollution, run-off of building materials, impacts to coastal processes etc..	Required
	Estuaries mudflats and sandflats not covered by seawater at low tide	Option 3 is located directly adjacent to areas of intertidal sandbanks and mudflats and, depending on the construction methodology, could impact this feature through pollution, run-off of building materials, impacts to coastal processes etc..	Required
	Coastal lagoons	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Large shallow inlets and bays	Option 3 is likely to be located directly adjacent to this feature.	Required
	Reefs	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Submerged or partially submerged sea caves	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Atlantic salt meadows	Option 3 is located directly adjacent to areas of Atlantic salt meadows and, depending on the construction methodology, could impact this feature through pollution, run-off of building materials, impacts to coastal processes etc..	Required
	Grey seal	There is the potential for Grey seal to be affected by this option, due to their high mobility.	Required
	Otter	There is the potential for Otter to be affected by this option, due to their high mobility.	Required
	Shad Alosa spp.	There is the potential for Shad to be affected by this option, due to their high mobility.	Required
	River lamprey	There is the potential for River lamprey to be affected	Required

Site	Interest Feature	Impact	HRA Requirement
		by this option, due to their high mobility.	
	Sea lamprey	There is the potential for Sea lamprey to be affected by this option, due to their high mobility.	Required
	Shore dock	While impacts to this feature are unlikely, they cannot be ruled out at this stage due to insufficient information regarding the construction methodology for this option.	Unknown
St David's/Ty Ddewi SAC	Maritime Cliff and Crevice vegetation	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Maritime Grassland	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Maritime Heathland	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Dry Heath	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Floating Water Plantain	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
Pembrokeshire Bat Sites and Bosherton Lakes SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Due to the location of this site and feature 27km SW from the scheme, any impacts from this option are unlikely.	Not Required
	Greater horseshoe bat	A compartment of Pembrokeshire Bat Sites and Bosherton Lakes SAC is located 27 km SW from the scheme, any works could potentially impact the SAC, especially if hedgerows are lost which are connective foraging points for bats.	Required
	Lesser horseshoe bat	A compartment of Pembrokeshire Bat Sites and Bosherton Lakes SAC is located 27 km SW from the scheme, any works could potentially impact the SAC, especially if hedgerows are lost which are connective foraging points for bats.	Required
	Otter	There is the potential for Otter to be effected by this option, due to their high mobility.	Required

Site	Interest Feature	Impact	HRA Requirement
Ramsey and St David's Peninsula Coast SPA	Chough (breeding)	Choughs generally tend to prefer areas of rocky coasts with short grassland habitat. Given the location of this option and depending on the timing of the works should this option be taken forward, potential impacts to breeding chough cannot be ruled out.	Unknown
	Chough (overwintering)	Choughs generally tend to prefer areas of rocky coasts with short grassland habitat. Given the location of this option and depending on the timing of the works should this option be taken forward, potential impacts to overwintering chough cannot be ruled out.	Unknown

Table 5.3 - Review of the HRA requirements for Option J.

Site	Interest Feature	Impact	HRA Requirement
Pembrokeshire Marine SAC	Sandbanks which are slightly covered by seawater all the time	Pembrokeshire Marine SAC is located immediately off shore. This option therefore has a potential risk of impact on this site and feature from pollution travelling down the Brandy Brook river course.	Required
	Estuaries mudflats and sandflats not covered by seawater at low tide	Pembrokeshire Marine SAC is located immediately off shore. This option therefore has a potential risk of impact on this site and feature from pollution travelling down the Brandy Brook river course.	Required
	Coastal lagoons	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Large shallow inlets and bays	Pembrokeshire Marine SAC is located immediately off shore. This option therefore has a potential risk of impact on this site and feature from pollution travelling down the Brandy Brook river course.	Required
	Reefs	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Submerged or partially submerged sea caves	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Atlantic salt meadows	Pembrokeshire Marine SAC is located immediately off shore. This option therefore has a potential risk of impact on this site and feature from pollution travelling down the Brandy Brook river course.	Required
	Grey seal	There is the potential for Grey seal to be affected by this option, due to their high mobility.	Required
	Otter	There is the potential for Otter to be affected by this option, due to their high mobility.	Required
	Shad Alosa spp.	There is the potential for Shad to be affected by this option, due to their high mobility.	Required
	River lamprey	There is the potential for River lamprey to be affected by this option, due to their high mobility and their	Required

Site	Interest Feature	Impact	HRA Requirement
		seasonal migrations up rivers to breed.	
	Sea lamprey	There is the potential for Sea lamprey to be affected by this option, due to their high mobility and their seasonal migrations up rivers to breed.	Required
	Shore dock	While impacts to this feature are unlikely, they cannot be ruled out at this stage due to insufficient information regarding the construction methodology for this option.	Unknown
St David's/Ty Ddewi SAC	Maritime Cliff and Crevice vegetation	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Maritime Grassland	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Maritime Heathland	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Dry Heath	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Floating Water Plantain	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
Pembrokeshire Bat Sites and Bosherton Lakes SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Due to the location of this site and feature SW from the scheme, any impacts from this option are unlikely.	Not Required
	Greater horseshoe bat	A compartment of Pembrokeshire Bat Sites and Bosherton Lakes SAC is located 25 km SW from the scheme, any works could potentially impact the SAC, especially if hedgerows are lost which are connective foraging points for bats.	Required
	Lesser horseshoe bat	A compartment of Pembrokeshire Bat Sites and Bosherton Lakes SAC is located 25 km SW from the scheme, any works could potentially impact the SAC, especially if hedgerows are lost which are connective foraging points for bats.	Required
	Otter	There is the potential for Otter to be affected by this option, due to their high mobility.	Required

Site	Interest Feature	Impact	HRA Requirement
Ramsay and St David's Peninsula Coast SPA	Chough (breeding)	Choughs generally tend to prefer areas of rocky coasts with short grassland habitat. Given the location of this option, any impacts to breeding Choughs are unlikely.	Not Required
	Chough (overwintering)	Choughs generally tend to prefer areas of rocky coasts with short grassland habitat. Given the location of this option, any impacts to overwintering Choughs are unlikely.	Not Required

Table 5.4 - Review of the HRA requirements for Option 7.

Site	Interest Feature	Impact	HRA Requirement
Pembrokeshire Marine SAC	Sandbanks which are slightly covered by seawater all the time	Pembrokeshire Marine SAC is located immediately off shore. This option therefore has a potential risk of impact on this site and feature from pollution travelling down the Brandy Brook river course.	Required
	Estuaries mudflats and sandflats not covered by seawater at low tide	Pembrokeshire Marine SAC is located immediately off shore. This option therefore has a potential risk of impact on this site and feature from pollution travelling down the Brandy Brook river course.	Required
	Coastal lagoons	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Large shallow inlets and bays	Pembrokeshire Marine SAC is located immediately off shore. This option therefore has a potential risk of impact on this site and feature from pollution travelling down the Brandy Brook river course.	Required
	Reefs	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Submerged or partially submerged sea caves	Due to the location of this site and feature, any impacts from this option is unlikely.	Not Required
	Atlantic salt meadows	Pembrokeshire Marine SAC is located immediately off shore. This option therefore has a potential risk of impact on this site and feature from pollution travelling down the Brandy Brook river course.	Required
	Grey seal	There is the potential for Grey seal to be affected by this option, due to their high mobility.	Required
	Otter	There is the potential for Otter to be affected by this option, due to their high mobility.	Required
	Shad Alosa spp.	There is the potential for Shad to be affected by this option, due to their high mobility.	Required
	River lamprey	There is the potential for River lamprey to be affected by this option, due to their high mobility and their	Required

Site	Interest Feature	Impact	HRA Requirement
		seasonal migrations up rivers to breed.	
	Sea lamprey	There is the potential for Sea lamprey to be affected by this option, due to their high mobility and their seasonal migrations up rivers to breed.	Required
	Shore dock	While impacts to this feature are unlikely, they cannot be ruled out at this stage due to insufficient information regarding the construction methodology for this option.	Unknown
St David's/Ty Ddewi SAC	Maritime Cliff and Crevice vegetation	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Maritime Grassland	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Maritime Heathland	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Dry Heath	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Floating Water Plantain	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
Pembrokeshire Bat Sites and Bosherton Lakes SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Due to the location of this site and feature 24km SW from the scheme, any impacts from this option are unlikely.	Not Required
	Greater horseshoe bat	A compartment of Pembrokeshire Bat Sites and Bosherton Lakes SAC is located 24 km SW from the scheme, any works could potentially impact the SAC, especially if hedgerows are lost which are connective foraging points for bats.	Required
	Lesser horseshoe bat	A compartment of Pembrokeshire Bat Sites and Bosherton Lakes SAC is located 24 km SW from the scheme, any works could potentially impact the SAC, especially if hedgerows are lost which are connective foraging points for bats.	Required
	Otter	There is the potential for Otter to be effected by this option, due to their high mobility.	Required

Site	Interest Feature	Impact	HRA Requirement
Ramsay and St David's Peninsula Coast SPA	Chough (breeding)	Choughs generally tend to prefer areas of rocky coasts with short grassland habitat. Given the location of this option, any impacts to breeding Choughs are unlikely.	Not Required
	Chough (overwintering)	Choughs generally tend to prefer areas of rocky coasts with short grassland habitat. Given the location of this option, any impacts to overwintering Choughs are unlikely.	Not Required

Table 5.5 - Review of the HRA requirements for Option 11.

Site	Interest Feature	Impact	HRA Requirement
Pembrokeshire Marine SAC	Sandbanks which are slightly covered by seawater all the time	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Estuaries mudflats and sandflats not covered by seawater at low tide	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Coastal lagoons	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Large shallow inlets and bays	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Reefs	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Submerged or partially submerged sea caves	Due to the location of this site and feature, any impacts from this option is unlikely.	Not Required
	Atlantic salt meadows	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Grey seal	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Otter	While impacts to this feature are unlikely, they cannot be ruled out at this stage due to insufficient information regarding the construction methodology for this option.	Unknown
	Shad Alosa spp.	While impacts to this feature are unlikely, they cannot be ruled out at this stage due to insufficient information regarding the construction methodology for this option.	Unknown
	River lamprey	While impacts to this feature are unlikely, they cannot be ruled out at this stage due to insufficient information regarding the construction methodology for this option.	Unknown
	Sea lamprey	While impacts to this feature are unlikely, they cannot be ruled out at this stage due to insufficient information regarding the construction methodology for this option.	Unknown
	Shore dock	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required

Site	Interest Feature	Impact	HRA Requirement
St David's/Ty Ddewi SAC	Maritime Cliff and Crevice vegetation	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Maritime Grassland	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Maritime Heathland	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Dry Heath	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
	Floating Water Plantain	Due to the location of this site and feature, any impacts from this option are unlikely.	Not Required
Pembrokeshire Bat Sites and Bosherton Lakes SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Due to the location of this site and feature 27km SW from the scheme, any impacts from this option are unlikely.	Not Required
	Greater horseshoe bat	A compartment of Pembrokeshire Bat Sites and Bosherton Lakes SAC is located 20 km SW from the scheme, any works could potentially impact the SAC, especially if hedgerows are lost which are connective foraging points for bats.	Required
	Lesser horseshoe bat	A compartment of Pembrokeshire Bat Sites and Bosherton Lakes SAC is located 20 km SW from the scheme, any works could potentially impact the SAC, especially if hedgerows are lost which are connective foraging points for bats.	Required
	Otter	While impacts to this feature are unlikely, they cannot be ruled out at this stage due to insufficient information regarding the construction methodology for this option.	Unknown

Site	Interest Feature	Impact	HRA Requirement
Ramsay and St David's Peninsula Coast SPA	Chough (breeding)	Choughs generally tend to prefer areas of rocky coasts with short grassland habitat. Given the location of this option, any impacts to breeding Choughs are unlikely.	Not Required
	Chough (overwintering)	Choughs generally tend to prefer areas of rocky coasts with short grassland habitat. Given the location of this option, any impacts to overwintering Choughs are unlikely.	Not Required

6. Summary and Conclusions

Table 6.1 below displays the HRA requirements of each option and provides an appraisal summary of each in consideration of the potential effects on each of the designated European sites and interest features.

Table 6.1 - Scheme Options Appraisal Summary.

Option	Site	Summary
Option 3	Pembrokeshire Marine SAC	If this option is taken forward to the next stage of the WelTAG process, a Habitats Regulations Assessment will be required to consider all features of this SAC apart from submerged or partially submerged sea caves, reefs and coastal lagoons which, given its location, are unlikely to be impacted and does not need to be considered in the HRA.
	St David's/Ty Ddewi SAC	Due to the location of this site and its features, there are unlikely to be impacts by this option and therefore a Habitats Regulations Assessment will not be required , should this option be taken forward to the next stage of the WelTAG process.
	Pembrokeshire Bat Sites and Bosherton Lakes SAC	If this option is taken forward to the next stage of the WelTAG process, a Habitats Regulations Assessment will be required to consider all features of this SAC, apart from Hard oligo-mesotrophic waters with benthic vegetation of Chara spp which, given its location, is unlikely to be impacted and does not need to be considered in the HRA.
	Ramsay and St David's Peninsula Coast SPA	Potential impacts from this option on the interest features of this site will be dependent on the proposed construction methodology of this option. Given the current strategy level of the options, this information is currently unavailable. The potential impacts are therefore considered to be unknown and as such a Habitats Regulations Assessment will be required to consider all features of this SPA.
Option J	Pembrokeshire Marine SAC	If this option is taken forward to the next stage of the WelTAG process, a Habitats Regulations Assessment will be required to consider all features of this SAC apart from submerged or partially submerged sea caves, reefs and coastal lagoons which, given its location, are unlikely to be impacted and does not need to be considered in the HRA.
	St David's/Ty Ddewi SAC	Due to the location of this site and its features, there are unlikely to be impacts by this option and therefore a Habitats Regulations Assessment will not be required , should this option be taken forward to the next stage of the WelTAG process.
	Pembrokeshire Bat Sites and Bosherton Lakes SAC	If this option is taken forward to the next stage of the WelTAG process, a Habitats Regulations Assessment will be required to consider all features of this SAC, apart from Hard oligo-mesotrophic waters with benthic vegetation of Chara spp which, given its location, is unlikely to be impacted and does not need to be considered in the HRA.

	Ramsay and St David's Peninsula Coast SPA	Due to the location of this site and its features, there are unlikely to be impacts by this option and therefore a Habitats Regulations Assessment will not be required , should this option be taken forward to the next stage of the WeITAG process.
Option 7	Pembrokeshire Marine SAC	If this option is taken forward to the next stage of the WeITAG process, a Habitats Regulations Assessment will be required to consider all features of this SAC apart from submerged or partially submerged sea caves, reefs and coastal lagoons which, given its location, are unlikely to be impacted and does not need to be considered in the HRA.
	St David's/Ty Ddewi SAC	Due to the location of this site and its features, there are unlikely to be impacts by this option and therefore a Habitats Regulations Assessment will not be required , should this option be taken forward to the next stage of the WeITAG process.
	Pembrokeshire Bat Sites and Bosherton Lakes SAC	If this option is taken forward to the next stage of the WeITAG process, a Habitats Regulations Assessment will be required to consider all features of this SAC, apart from Hard oligo-mesotrophic waters with benthic vegetation of Chara spp which, given its location, is unlikely to be impacted and does not need to be considered in the HRA.
	Ramsay and St David's Peninsula Coast SPA	Due to the location of this site and its features, there are unlikely to be impacts by this option and therefore a Habitats Regulations Assessment will not be required , should this option be taken forward to the next stage of the WeITAG process.
Option 11	Pembrokeshire Marine SAC	Due to the location of this option away from this site and its features, there are unlikely to be impacts from this option and therefore a Habitats Regulations Assessment will not be required for all the habitat features as well as grey seal and shore dock. The other interest features, namely otter, shad and river and sea lamprey are highly mobile and capable of migrating up rivers, which increases the potential for possible impacts. As such the impacts to these features are considered to be unknown and a Habitats Regulations Assessment will be required to consider potential impacts to them, should this option be taken forward to the next stage of the WeITAG process.
	St David's/Ty Ddewi SAC	Due to the location of this site and its features, there are unlikely to be impacts by this option and therefore a Habitats Regulations Assessment will not be required , should this option be taken forward to the next stage of the WeITAG process.
	Pembrokeshire Bat Sites and Bosherton Lakes SAC	If this option is taken forward to the next stage of the WeITAG process, a Habitats Regulations Assessment will be required to consider all features of this SAC, apart from Hard oligo-mesotrophic waters with benthic vegetation of Chara spp which, given its location, is unlikely to be impacted and does not need to be considered in the HRA. Potential impacts to otter are considered unknown and as such will need to be considered in the HRA.

	Ramsay and St David's Peninsula Coast SPA	Due to the location of this site and its features, there are unlikely to be impacts by this option and therefore a Habitats Regulations Assessment will not be required , should this option be taken forward to the next stage of the WeITAG process.
--	---	---

6.1. Conclusion

Based on the limited information that is currently available about the various scheme options, the potential for impacts to European site interest features has been identified in all options.

Therefore, all options will be required to undertake a Habitats Regulations Assessment in some form to consider potential impacts to the sites and features outlined above.

This assessment is precautionary due to the lack of information that is currently available. A more detailed HRA should be undertaken once the preferred option has been identified and methodologies for the construction works defined, to determine if the works will cause any likely significant or adverse effects to any interest features, either alone or in-combination with other plans or projects.