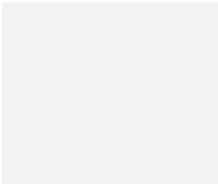


PEMBROKESHIRE COAST NATIONAL PARK REPLACEMENT LOCAL DEVELOPMENT PLAN (TO 2031): LAND IMPLEMENTATION STUDY

Final Report

DECEMBER 2017

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This report dated 14 December 2017 has been prepared for Pembrokeshire Coast National Park Authority Pembrokeshire Coast National Park Authority (the "Client") in accordance with the terms and conditions of appointment dated 27 June 2017 (the "Appointment") between the Client and **Arcadis Consulting (UK) Limited** ("Arcadis") for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

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Acknowledgements

We would like to acknowledge the assistance we have received from officers of Pembrokeshire National Park Authority together with Pembrokeshire County Council and the advice and co-operation of Dŵr Cymru Welsh Water; Western Power Distribution; and the landowners, developers and agents for the candidate sites; for the information they have provided in the preparation of this Study.

1 Introduction

1.1 Study Commission

1.1.1 Arcadis Consulting (UK) Limited was commissioned by Pembrokeshire Coast National Park Authority ('the Authority') in June 2017, to undertake the preparation of a Land Implementation Study. The objective of the study, as stated in the brief, is to:

"Identify the infrastructural requirements and the planning obligation requirements to allow sites in the Local Development Plan to be developed and set out the likely timeline for their delivery."

1.1.2 On an individual site basis, this is to include:

- a) *"Identifying and costing infrastructure requirements in conjunction with the landowner or landowner representative and the relevant statutory undertakers."*
- b) *Identifying and costing planning obligation requirements including affordable housing in conjunction with the National Park Authority."*
- c) *Identifying, in conjunction with landowners/developers, how it is intended to bring sites forward and the timescales planned for their development."*

1.1.3 It is noted that the assessment is also to consider the environmental constraints to development, which were to be provided by the Authority.

1.2 Study Background

1.2.1 The Local Development Plan (LDP) provides the policy framework for the development and use of land within the National Park. It also provides the context for determining local planning applications. The Pembrokeshire Coast National Park Authority LDP was adopted by the Authority on the 29th September 2010. Following the adoption of the LDP, the Authority has a duty to ensure that the LDP remains fit for purpose. Following a full review of the Plan at the end of the financial year 2014-15, it was decided that a replacement plan would be required.

1.2.2 As part of the evidence gathering for the revised Plan, the Authority invited developers, agents and organisations to submit details of sites they wish to be considered for inclusion, as sites for development or protection, in the emerging Local Development Plan. The sites are referred to as 'Candidate Sites'.

1.2.3 The Candidate Sites were entered onto a Candidate Sites Register, which was published alongside the consultation of the Preferred Strategy of the Replacement Local Development Plan (LDP2)¹ The consultation ended on 21st July 2017. The Candidate Sites Register provides detail of the sustainability and policy assessment of each site, and includes whether it was deemed suitable for allocation in the revised Plan at that stage. It is these Candidate Sites that are the subject of the viability assessment in this study. One additional site submitted during the preferred strategy consultation was also included.

Deliverability and Housing Need

¹ <http://www.pembrokeshirecoast.org.uk/default.asp?pid=795>

1.2.4 The importance attached to the deliverability of sites allocated within the LDP2 is established in national policy and is a key driver for this study, recognising that a main principle of the development plan is to act as an effective tool for the delivery of sustainable development.

1.2.5 Preparation of the LDP2 has been undertaken in accordance with the procedural requirements set-out in the Town and Country Planning (Local Development Plan) (Wales) Regulations 2005. Amongst other matters of relevance to this study, the Regulations emphasise the importance of 'Deliverability' as a key guiding principle for Local Development Plans and for site delivery to be integral to the way plans are produced. This remains a pertinent issue with significant implications not only for the plan preparation process, but for the subsequent implementation of plan policies and proposals.

1.2.6 Procedurally, site deliverability is an important part of the Examination into the 'Soundness' of LDPs introduced under the 2005 Regulations. Of the criteria for assessing the test of soundness, 'Test 3' seeks to ensure that site allocations are realistic and appropriate. This also requires that local planning authorities put in place a robust and credible evidence base, to ensure that the local planning authority can make available all relevant information which will enable the Inspector to make informed decisions on the outcome of the LDP2.

1.2.7 The above reflects the growing recognition within planning of the critical link that exists between the aspirations set-out within development plans and the delivery of individual site allocations. A key aim is to achieve timely and sustainable development during the plan period and to remove the uncertainty that exists around the deliverability of site allocations.

1.2.8 Achieving sustainable development has resonance within the context of the National Park Authority, where development must continue to respect and where possible enhance the special qualities of the National Park in achieving its purposes. For this reason, opportunities for development within the Park are limited by the environmental capacity of the protected landscape. Therefore, alternatives to site allocations are seldom available and, in any case, are likely to be subject to similar constraints.

1.2.9 However, Welsh Government policy asks the Authority to consider evidence including population projections and capacity issues in determining the overall scale of growth. As set out in the LDP2 Preferred Strategy, recent development plan inquiries have endorsed the current approach of allowing development commensurate with the landscape capacity of the National Park. The approach ensures compliance with the Environment Act 1995 which requires compatibility with the national park designation. Furthermore, housing growth is not anticipated, as a result of a declining population forecast. The focus of the LDP2 is on enabling affordable housing delivery for the local population, for which market housing is needed to cross subsidise delivery.

1.2.10 The total affordable housing need is set out in the Preferred Strategy, as a result of the Local Housing Market Assessment. The Preferred Strategy for the LDP2 sets out that the Authority, in the adopted Local Development Plan, sought to increase the supply of housing land to deliver more affordable housing but the overall provision was considered 'too ambitious'. There were also issues around the deliverability of some sites allocated in the adopted Local Development Plan. The reconsideration of sites and potential replacement with deliverable sites could boost potential the supply and delivery of affordable housing in the National Park.

1.2.11 A considerable amount of information has already been obtained by the Authority on known site constraints, which was presented as part of the consultation on the Preferred Strategy. This report uses that information where relevant, and expands to develop an evidence base for this study, based on the study team research and site visits and further information and advice provided by landowners, and stakeholders including Dŵr Cymru/Welsh Water, Western Power Distribution and the Local Highway Authority.

1.3 Scope of the Study

1.3.1 The purpose of the Study is to provide a sound and robust assessment of the requirements necessary to support the delivery of site allocations within the LDP2. This will underpin the deliverability of the Plan during the Plan Period (up to 2031).

1.3.2 The Authority's Replacement LDP proposes a Preferred Strategy aimed at ensuring that the limited opportunities identified for development within the plan area contribute to sustaining local communities, where compatible with the statutory National Park purposes. New development will be directed predominantly to communities with adequate services and amenities and linked by a convenient, low-impact and affordable public transport network.

1.3.3 The candidate sites included in this study relate to housing schemes, with the potential to provide a total of 963 dwellings across 27 housing sites. These are presented in **Appendix C**.

1.3.4 The remainder of this Draft Study Report is structured as follows:

- A detailed outline of the study approach, including the base information and assumptions used within the viability assessments.
- A comprehensive exploration of the site assessments in terms of deliverability and viability.
- A summary of the key site deliverability and viability issues identified through the site assessments.

2 Study Approach

2.1 Overview

2.1.1 The approach to the Study has begun with a review of the background information provided, the identification of key issues and constraints, through to the detailed site assessment process.

2.1.2 The site assessment has involved the following considerations and activities:

- Identification of abnormal infrastructure and other development constraints;
- Estimation of Planning Obligations;
- Initial assessment of viability using the Development Appraisal Toolkit; and
- Landowner and stakeholder consultations.

2.2 Infrastructure and other Development Constraints

2.2.1 Examining each of the candidate sites requires an understanding of the infrastructure needs and other development constraints. The assessment of infrastructure requirements has come from technical review by our study team specialists, together with discussions with stakeholders as appropriate.

2.2.2 From the review of work undertaken and from past experience, the study has focussed on the 'fundamental' infrastructure types that are required to be provided up-front to support a site's development. These are:

- Sewerage and Water Infrastructure;
- Utilities Infrastructure; and
- Highways and Access Infrastructure.

2.2.3 The above is an important distinction as there are other types of infrastructure such as community facilities. Whilst these may be required to support or mitigate the impact of new development they are assessed as part of the planning obligations requirements.

2.2.4 The assessment has included detailed site considerations relating to the built and natural environment that may impose restrictions on a site's development in terms of ecology, agricultural land quality (**Appendix C**), landscape, land contamination, archaeology and historic interest. These factors have previously been considered in identifying the Candidate Sites.

2.2.5 The basic premise is that in most cases, basic site constraints represent the 'normal' development costs, with an acceptance by site promoters and landowners that these are to be built-in to the standard development costs. Where such development constraints exist, these are not seen as impacting on site delivery within the Plan Period and need not be considered further as raising an issue for the LDP in terms of their deliverability.

2.2.6 The focus therefore of the site assessment process (and of this study) is on those sites which are identified as having 'abnormal' costs associated with infrastructure provision, which have then been considered as part of the viability assessment.

2.2.7 Meetings and discussions have taken place with statutory bodies including Dŵr Cymru/Welsh Water (DCWW), Western Power Distribution (WPD) and Pembrokeshire

County Council Highways Department to collect background information about the requirements and potential costs for each of the key infrastructure types considered.

2.2.8 The proformas for each site have sought to identify the likely costs to overcome site constraints. Where possible these have been obtained, but it is not considered practicable for a study of this nature to provide detailed costs for all aspects. At this point it is possible to determine the level of impact of site constraints on project delivery, recognising that in some cases high project costs do not necessarily equate to a high level of impact (and *vice versa*).

2.2.9 The individual site assessments have been based on the availability of data and information at the time of the Final Study Report through the various statutory undertakers and technical advisors. It is noted that only broad cost parameters have been estimated for both highways infrastructure and water and sewerage infrastructure. These estimates are subject to change as project proposals develop. The Western Power Distribution (WPD) estimates include two categories of costs for work for providing new electrical utility connections, both of which are included in the appraisals:

- Non-contestable work is work that can only be undertaken by the host Distribution Network Operator (DNO). For example, the DNO is the only body permitted to determine the point of connection to the network.
- Contestable work may be undertaken by a suitably accredited Independent Connections Provider (ICP). Contestable works include the installation of cables, sub stations and other plant associated with the new connection.

2.2.10 Each site assessment has been supplemented by a site visit. The proforma has been important in ensuring that a sound and inclusive approach has been taken in assessing the broad level of infrastructure requirements, the identified constraints and to provide information for the Planning Authority to reach informed decisions on the likelihood of the allocated sites being delivered within the Plan Period and at what stage. The completed proformas are included in **Appendix A**.

2.3 Planning Obligations

2.3.1 Planning Obligations Supplementary Planning Guidance (SPG) was adopted by the National Park Authority on the 28th September 2016, following adoption by the County Council on 12th September 2016². The SPG states that:

“The Local Planning Authority will secure Planning Obligations in order to ensure that local services and infrastructure have adequate capacity to meet the additional demands arising from new development. All planning applications will be assessed on their own individual merits and Planning Obligations will be considered in accordance with Welsh Office Circular 13/97 “Planning Obligations” and Regulations 122 and 123 of the Community Infrastructure Levy (CIL) Regulations 2010 (as amended).

² Pembrokeshire County Council and Pembrokeshire Coast National Park Authority, *Supplementary Planning Guidance: Planning Obligations*, Adopted 12th September 2016 (Pembrokeshire County Council) and 28th September 2016 (Pembrokeshire Coast National Park Authority), <http://www.pembrokeshirecoast.org.uk/Files/files/Dev%20Plans/AdoptedSPG/Planning%20Obligations%20SPG%20final%20version%20September%202016%20-%20English.pdf>

The tests in Circular 13/97 Planning Obligations apply to all Planning Obligations, including those not covered by the CIL Regulations. The tests make it clear that a Planning Obligation must be:

- *Relevant to planning;*
- *Necessary to make the proposed development acceptable in planning terms;*
- *Directly related to the proposed development;*
- *Fairly and reasonably related in scale and kind to the proposed development; and*
- *Reasonable in all other respects.'*

2.3.2 The SPG sets out that Pembrokeshire County Council and the National Park Authority have not introduced a CIL charging schedule and are consequently continuing to rely on Planning Obligations to provide necessary infrastructure. They may choose to introduce a CIL charging schedule in the future.

2.3.3 The SPG is intended to provide landowners, developers and residents with guidance on the type and scale of contributions that the Local Planning Authority will seek from defined types and scales of development.

2.3.4 The SPG covers the following services, facilities and infrastructure that the Local Planning Authority will generally seek contributions and obligations on and includes:

- Affordable Housing (with more detail provided in separate SPGs available on the Authority's websites);
- Recreational and Amenity Open Space;
- Sustainable Transport Facilities;
- Education;
- Community Facilities (including Libraries);
- Public Art; and
- Biodiversity.

2.3.5 Section 3 of this report sets out the calculations made, based on the SPG. For community facilities (including libraries) and education contributions, it was possible to consult with the relevant consultee at Pembrokeshire County Council to gain specific insight into whether or not the basic calculation would be relevant for each individual site. The National Park Authority planning team provided the specific calculations for the potential planning contributions for recreational and amenity open space provision. Public Art has not been considered as part of this study. It was also determined that requirements relating to biodiversity would not be necessary for inclusion in the study, although a review of sites to determine any significant issues has been undertaken by the planning department's ecologist.

2.3.6 A cautious approach has been taken at this stage, meaning that there is potential that not all contributions included would necessarily be required at the planning application stage. More specific calculations for all contributions are likely to be made based on individual planning applications, when they are brought forward.

2.5 Development Appraisal Toolkit

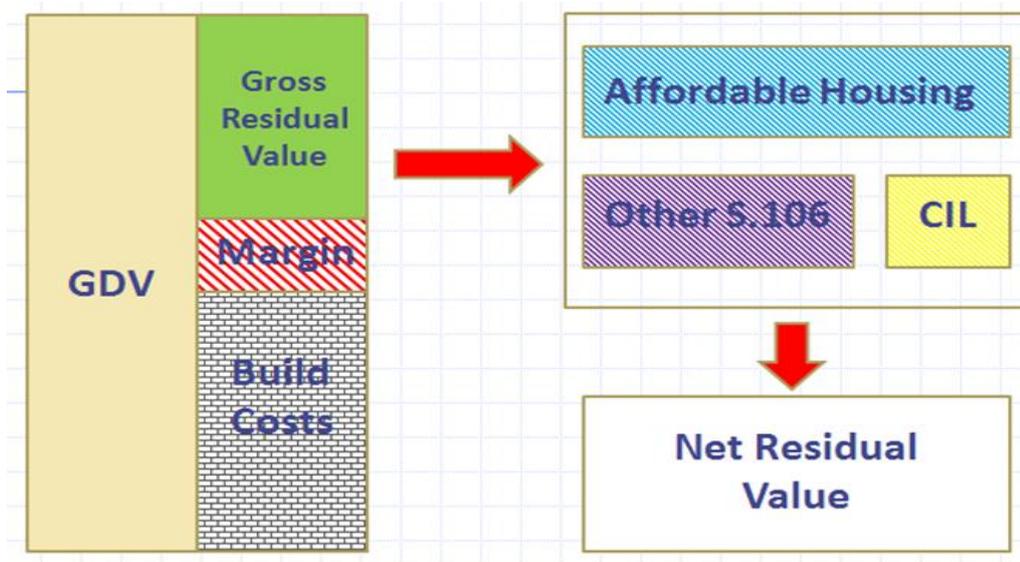
2.5.1 The Study has considered site viability using the guidance set out in the Development Appraisal Toolkit, prepared for several local planning authorities across Wales, including Pembrokeshire Coast National Park Authority, by Dr Andrew Golland (January 2010, with updates in 2017). The Toolkit provides a mechanism for assessing the economic implications on a site’s development arising from the range of physical infrastructure costs, different types and amounts of planning obligations, and, in particular, the amount and mix of affordable housing.

2.5.2 As set out in the Development Appraisal Toolkit (DAT) Guidance Notes³, the main output of the DAT is the residual value. This is represented in Figure 1 and can be explained as:

‘the sum of money that is available to be shared between the developer and the landowner. It is a surplus that remains after all development costs, except land costs, have been met from revenue. Development costs include a standard return for the developer and contractor. The residual value will have to cover the costs of land acquisition. Any surplus remaining after land acquisition becomes ‘super-normal’ profit for the developer. The residual value is not the same as land costs, although land costs will invariably make up the larger part of the residual. For development to be economically viable, the residual must be large enough to at least cover the cost of acquiring the site.’

2.5.3 It is noted in the DAT Guidance Notes that the DAT does not indicate whether a site will come forward or not. It is up to the user to make a judgement about the residual value generated by the Toolkit, and its relationship with other benchmarks.

Figure 1: Assessing residual value⁴



³ Dr Andrew Golland, Andrew Golland Associates, *Development Appraisal Toolkit (DAT): Guidance Notes*, January 2017, Available: <http://www.pembrokeshirecoast.org.uk/?PID=665>

⁴ Dr Andrew Golland, Andrew Golland Associates, *Pembrokeshire Coast National Park Authority Affordable Housing Study: For the Pembrokeshire Coast National park replacement Local Development Plan Preferred Strategy, Final Report*, April 2017

Assumptions used in the DAT

2.5.4 The DAT Guidance Notes set out the default values for variables within the toolkit. Some of these (e.g. professional fees and finance costs) are the same for all locations. Others will vary depending on their location and assumptions made about the density of development. Other variable default values are:

- House prices;
- Build costs;
- Social rents (SR);
- Market rents from which the user provides intermediate rents (IR);
- Acceptable Cost Guidance or ACG values (including wheelchair supplements); and
- Dwelling mixes.

2.5.5 For the purposes of the viability exercise, *Table 1: Assumptions used in the DAT* sets out the assumptions that have been used. The updated toolkit also brings in average costs, market values and the ability to add existing use land costs (January 2017).

2.5.6 With regards to affordable housing provision, the Affordable Housing Study⁵ provides percentage affordable housing requirements by sub-market area. This is reproduced in *Table 2: Suggested Affordable Housing Percentage Requirements by Sub Market Area*. As agreed with the National Park Authority, the testing for viability began with the percentage requirements set in the Study, reducing by 5% intervals if necessary to provide an indication of sensitivity to the emerging policy requirements.

2.5.7 A list of sites by sub-market area is presented in *Table 3: List of Candidate Sites including Submarket Areas and ACG Bands*: *List of Candidate Sites including Submarket Areas and ACG Bands* and the initial affordable housing percentage requirement has been provided for in the final column.

2.5.8 In terms of where there may be land arrangements such as gifting the value to a housing association for affordable housing, the standard approach has been assumed, in order to ensure that any future changes in approach do not prejudice the viability and delivery of the site.

Table 1: Assumptions used in the DAT

Item	Assumption
ACG Band	Assumption based on site location – see <i>Table 3</i>
House Price Area	Assumption based on site location and sub market area – see <i>Table 3</i>
Unit Numbers	Assumption based on 30 dwellings per hectare (dph), with the exception of sites 308 (Temple House) and 113 (Butts Field Car Park) which are notably higher.

⁵ Dr Andrew Golland, Andrew Golland Associates, *Pembrokeshire Coast National Park Authority Affordable Housing Study: For the Pembrokeshire Coast National park replacement Local Development Plan Preferred Strategy, Final Report*, April 2017

Item	Assumption
Dwelling Mix	Default dwelling mix used
Parking	Surface parking assumed for all flats
Market Values	Default values used based on Local Authority and House Price Area
Affordable Provision	<ul style="list-style-type: none"> • Affordable provision based on Affordable Housing Study (see <i>Table 2</i>). An 80/20 split between Social Rent and Low-Cost Home Ownership (LCHO) has been assumed based on the Pembrokeshire Coast National Park Affordable Housing SPG.
Affordable Values	Default Social Rent values used. Default 70% discount used for LCHO units.
Social Rent On-Costs	Default assumptions used for all items: <ul style="list-style-type: none"> • Management / Maintenance Costs - (£950 per annum) • Voids / Bad Debts - (3% of gross rent) • Repairs Reserve - (£700 per annum) • Capitalisation Yield - (6.25% of net rent)
Build Costs	Default build costs used for all unit types. This includes a default allowance of 15% for external works.
Other Development Costs	Default assumptions used for the following items: <ul style="list-style-type: none"> • Internal Overheads (5% of build costs) • Finance (Market) (6% of build costs) • Finance (Affordable Housing) (6% of build costs) • Marketing Fees (3% of market value) • Developers Return (17% of market value) • Contractors Return (5% of development costs) • Professional fees have been reduced from 12% to 10% based on industry benchmarks.
Construction Period	Site specific assumption made based on unit numbers
Planning Obligations	Site specific allowances have been made for planning obligations
Community Infrastructure Levy (CIL)	No allowance made
Capital Contribution	Assumed no grant contribution
Developer's Discount	Default assumption used for each tenure: <ul style="list-style-type: none"> • Social Rent (58% discount on ACG value) • Homebuy (30% discount on ACG value)
On-Costs	Assumed 9% of build costs for all tenures
Non-Residential	Assumed no non-residential uses for all sites

Item	Assumption
Land Finance	Default assumption used based on construction duration

Table 2: Suggested Affordable Housing Percentage Requirements by Sub Market Area

Sub Market Area	Requirement
Newport	50%
Tenby	50%
South East Coast	50%
St David's and North Coast	35%
South West Coast	25%
St Brides Bay	25%
Estuary Hinterland	20%
North East NP	20%

Table 3: List of Candidate Sites including Submarket Areas and ACG Bands

Site Ref.	Site Address	Use specified	Net Site Size (not including open space requirements) Estimated number of units.	PCNPA Submarket Area	ACG Band	Suggested Affordable Housing %
013A and 135A	Land to the Rear/West of Spring Hill	Affordable Housing /Housing	0.37ha 10 dwellings	Newport	2	50
014A	Glasfryn Field, Square and Compass	Housing	0.26ha 7 dwellings	St David's & North Coast	1	35
015	Land at Sandy Hill, Saundersfoot	Housing	2.26ha 68 dwellings	South East Coast	3	50
021A and 099A	Land West of Glasfryn Road	Housing	3.22ha 90 dwellings	St David's & North Coast	2	35
031	North of Whitlow, Saundersfoot	Housing	5.62ha 168 dwellings	South East Coast	3	50
034	Land off Trewarren Road, St Ishmaels	Housing	1.8ha 14 dwellings	St Brides Bay	2	25
036	Penny Farm, Site A,	Housing	0.38ha 12 dwellings	South East Coast	3	50

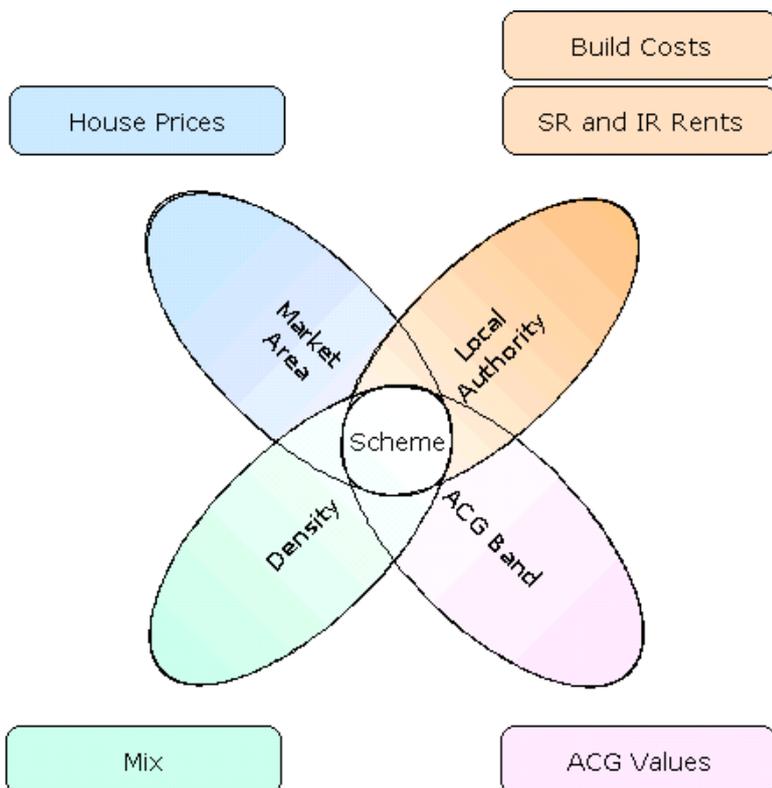
	Saundersfoot					
037	Penny Farm, Site B, Saundersfoot	Housing	1.13ha 36 dwellings	South East Coast	3	50
039	South-East of Site 041, Broad Haven	Housing	0.93ha 28 dwellings	St Brides Bay	2	25
041	North-east Marine Road, Broad Haven	Housing	2.21ha 66 dwellings	St Brides Bay	2	25
045	Lawrenny Home Farm, Lawrenny	Housing	1.92ha 33 dwellings	Estuary Hinterland	1	20
050	Land off Heol Crwys, Trefin	Housing	0.35ha 10 dwellings	St David's & North Coast	1	35
054	Land to rear of Angorfan Bungalow and Dinas Cross Service Station, Dinas Cross	Housing and Employment	0.2ha 5 dwellings	Newport	2	50
056	West of Narberth Road, Tenby	Housing	1.10ha 33 dwellings	South East Coast	4	50
061	Parc y Plant, Newport	Affordable Housing	0.34ha 10 dwellings	Newport	2	50
068, 088A, 089A and 090A	Land North of Newport Business Park, Newport	Housing	0.5ha 15 dwellings	Newport	2	50
086A	West of the Green, Lydstep	Housing	0.39ha 10 dwellings	Tenby	2	50
096A	Cippin Stone, Newport	Housing	1.5ha 15 dwellings	Newport	2	50
106	Land adjacent Bryngolau, Square and Compass	Housing	0.33ha 10 dwellings	St David's & North Coast	1	35
112	Bryn Hir, Tenby	Housing	4.25ha 127 dwellings	South East Coast	4	50
113	Butts Field Car Park, Tenby	Mixed Use	0.94ha 80 dwellings	South East Coast	4	50
124	East of Tower Hill, Dinas	Housing	1.5ha 20 dwellings	Newport	2	50

	Cross					
129	West of Rosebush, Rosebush	Housing	0.36ha 10 dwellings	North East NP	1	20
131A	North of Jason's Corner, Stackpole	Housing	0.34ha 10 dwellings	South West Coast	1	25
136A	Land South of A487, SouthWest of Castle Terrace, Dinas Cross	Housing	0.17ha 5 dwellings	Newport	2	50
138	Buttylands, Manorbier Station	Affordable housing	0.59ha 18 dwellings	Tenby	2	50
151	Land North West of Maes Ewan, Solva	Housing	1.5ha 45 dwellings	St David's & North Coast	2	35
308	Land adjacent Temple House, Square and Compass	Housing	0.17ha 8 dwellings	St David's & North Coast	2	35

2.5.9 In principle, a cautious view of the assumptions has been taken within the appraisal due to the initial stages of viability and high-level information available. Figure 2 shows the factors that govern the default values used in the DAT for a specific scheme. Following analysis, recommendations have been made where we believe that further analysis could be undertaken in relation to the current default assumptions, to help improve the viability of individual sites.

2.5.10 It should also be noted that the dwelling mix and tenure split has been calculated on a percentage basis resulting in decimal figures being used when calculating the number of units i.e. 1.7 units, rather than rounding to the nearest whole unit. This is recognised within the DAT stating '*the number of dwellings may be expressed as fractions for purposes of financial calculations*'. We would not typically expect viability negotiations to be argued on this basis, with whole units being used, however, for the purposes of this exercise we have used the fractions calculated within the DAT.

Figure 2: Drivers of Default Values used in the DAT



Source: DAT Guidance Notes, January 2017

2.6 Consultation with Landowners, Developers and Agents

2.6.1 At the early stages of the project, contact was made with either the landowner, developer or acting agent for the majority of the candidate sites. Consultation was undertaken with developers, landowners, or their agents for 24 of the sites within the study (not all landowners were able to be contacted) in the form of telephone discussions. The intention of these calls was to make initial contact and to establish their current intentions for the development of each of the sites. The majority of the consultees stated that they are keen to develop their sites as soon as possible. A number of issues were highlighted for each of the respective sites, including:

- Access arrangements to the site;
- Securing access to the site over land which is owned by third parties;
- Coal Mining Risk Assessments;
- Sewerage Capacity;
- Topography;
- Infrastructure;
- Restrictive covenants; and
- Water table higher than anticipated.

2.6.2 A small number of the site promoters had already had discussions with utility suppliers, NRW, Coal Authority, Welsh Water and the Highways Authority. The majority have had some discussions with the National Park Authority. For those that had completed affordable housing assessments, they expressed their view that the proportion required may make the sites unviable.

2.6.3 It is noted that, as a result of this consultation process, one of the sites (Francis Yard, Tenby) was withdrawn from the assessment on the advice of the landowner.

2.6.4 This consultation will be continued by the National Park Authority, as part of the ongoing process of development of the LDP2.

3 Site Assessments

3.1 Development Constraints

3.1.1 This section identifies the individual site constraints, based on the detailed site information gathered from each of the service providers, the advice of the technical specialists, responses received from landowners and individual site visits, as set out in the methodology section. Following consideration of the environmental constraints, none of them, including flood risk, were considered to necessitate abnormal costs to development of each of the sites under consideration. As such, they have not been considered further in the assessment process. A separate note on agricultural land implications is provided in **Appendix C**.

3.1.2 Specific infrastructure requirements for each of the sites have been assessed, and are set out under specific topic headings below.

3.1.3 The purpose of identifying the development constraints is to highlight potential issues that may affect deliverability and therefore may need to be addressed in taking the development forward. The requirements and associated costs are indicative at present and a cautious approach has been taken when identifying ranges of typical costs.

3.1.4 The costs of development requirements including sustainable transport and access, drainage, water and sewerage and utilities are set out in Section 3.2. However, these items are not included in the DAT inputs for the viability assessment. There are a number of uncertainties: infrastructure requirements and level of costs; whether all costs only involve 'strategic infrastructure' or 'abnormals' which are not included in the build costs and external works allowances; and whether all costs will fall on the development (some water and sewerage costs may not fall on the developer). As such, it was not considered appropriate to include these 'abnormal' costs in the viability assessment at this stage. However, these development requirements will need to be confirmed and incorporated into viability assessments for each site as more detailed information is available.

3.2 Development Requirements

Sustainable Transport and Access

3.2.1 Site visits were undertaken by our transport planner and a desk top review has been undertaken. This has led to an evaluation of potential site requirements and subsequent cost estimates. The cost estimates were supplemented by the calculation in the Planning Obligations SPG, which states that (as a guide only), for five or more dwellings a cost of £2,500 per dwelling is charged for contributions to transport infrastructure. This calculation was applied to each site.

3.2.2 The site requirements, broad cost parameters, and planning obligation contributions, were then discussed with the Highway Authority at Pembrokeshire County Council and no cost calculation changes were made as a result of the meeting. A summary of the infrastructure requirements in relation to access and sustainable transport for each site is summarised in *Table 5 : Summary of Sustainable Transport and Access Requirements by Site*.

Table 4: Cost Parameters for Sustainable Transport and Access

Costs to overcome/Level of Impact	Cost Estimate
Low cost	<£50K
Medium cost	£50K-£100K
High cost	>£100K

Table 5 : Summary of Sustainable Transport and Access Requirements by Site

Site reference	Name	Requirement	Cost Estimate
013A + 135A	Land to the rear/West of Spring Hill	Access	>£100K
		Sustainable Transport	£25K
014A	Glasfryn Field, Square and Compass	Access	<£50K
		Sustainable Transport	£17,500
015	Land at Sandy Hill	Access	£50K-£100K
		Sustainable Transport	£170K
021A/099A	Glasfryn Road Field Numbers 8877, 8463 and 9372	Access	£50K-£100K
		Sustainable Transport	£225K
031	North of Whitlow	Access	>£100K
		Sustainable Transport	£420K
034	Land off Trewarren Road adjacent to School	Access	£50K-£100K
		Sustainable Transport	£35K
036	Penny Farm, Site A	Access	£50K-£100K
		Sustainable Transport	£30K
036/037	Penny Farm, Site A/Site B	Access	£50K-£100K
		Sustainable Transport	£90K

Site reference	Name	Requirement	Cost Estimate
039/041	South East of Site 041/North-east Marine Road	Access	>£100K
		Sustainable Transport	£245K
045	Part of Home Farm, Lawrenny	Access	<£50K
		Sustainable Transport	£82.5K
050	Land adjoining Cefn Galod, Trefin	Access	<£50K
		Sustainable Transport	£25K
054	Land to rear of Angorfan Bungalow and Dinas Cross Service Station	Access	>£100K
		Sustainable Transport	£12.5K
056	West of Narberth Road	Access	>£100K
		Sustainable Transport	£82.5K
061	Parc y Plant, Newport	Access	<£50K
		Sustainable Transport	£25K
068(088A,089A and 090A)	Land North of Newport Business Park, Newport	Access	<£50K
		Sustainable Transport	£37.5K
086A	West of the Green, Lydstep	Access	<£50K
		Sustainable Transport	£25K
096A	Cippin Stone, Newport	Access	£50K-£100K
		Sustainable Transport	£37.5K
106	Land adjacent Bryngolau	Access	<£50K
		Sustainable Transport	£25K
112	Bryn Hir	Access	>£100K
		Sustainable Transport	£317.5K
113	Butts Field Car Park	Access	<£50K
		Sustainable Transport	£200K

Site reference	Name	Requirement	Cost Estimate
124	East of Tower Hill	Access	£50K-£100K
		Sustainable Transport	£50K
129	West of Rosebush, Rosebush	Access	<£50K
		Sustainable Transport	£25K
131A	North of Jason's Corner	Access	<£50K
		Sustainable Transport	£25K
136A	Land South of A487, South West of Castle Terrace, Dinas Cross	Access	£50K-£100K
		Sustainable Transport	£12.5K
138	Buttylands, Manorbier	Access	<£50K
		Sustainable Transport	£45K
151A	Land North West of Maes Ewan	Access	£50K-£100K
		Sustainable Transport	£112.5K
308	Land adjacent Temple House, Square and Compass	Access	<£50K
		Sustainable Transport	£20K

Drainage, Water and Sewerage

3.2.3 Following individual site assessments by our infrastructure engineer (which evaluated site requirements and provided broad cost parameters using asset plans), the findings were discussed with DCWW. Individual site advice and costings were prepared by Arcadis, which are presented in the individual site proformas. The rationale behind the 'low', 'medium' and 'high' cost ratings is presented in

3.2.4

3.2.5

3.2.6 *Table 6: Cost Parameters for Sewerage and Water Supply.* This was verified with DCWW, and the cost implications for each site are presented in *Table 7: Summary of Sewerage, Drainage and Water Supply Requirements by Site.* It is noted that DCWW has stated that any costs would need to be re-visited at the planning application stage, and may need to be revised.

Table 6: Cost Parameters for Sewerage and Water Supply

Costs to overcome/Level of Impact	Commentary	Cost Estimate
Low cost	<p>Where the water mains and/or public sewers are either:</p> <p>a) located adjacent to the site and capable of providing the service to the development.</p> <p>b) within a reasonable distance from the development and that the development is of a density which will make it economically viable to procure.</p>	<£100K
Medium cost	<p>Where the water mains and/or public sewers are either:</p> <p>a) located further away and that the distance for connection would result in higher costs to procure e.g. offsite water distances of 500m.</p> <p>b) where there may be problems associated with the water supply (low pressure) and/or the public sewerage network (flooding) and these would need to be resolved to allow the development to proceed.</p> <p>For above medium cost instances, the requisition provision of the Water Industry Act 1991 can apply – [Sections 41-44 ‘Duty to comply with water main requisition’ and Sections 98-101 ‘Duty to comply with sewer requisition’]</p> <p>http://www.legislation.gov.uk/ukpga/1991/56/section/41 http://www.legislation.gov.uk/ukpga/1991/56/section/98 whereby the cost of the scheme is offset by the income generated from the development over a period of 12 years. Therefore, a developers’ contribution may or may not be applicable.</p>	£100K-£0.5M
High cost	<p>Improvements to Water Treatment Works (WTW) and Waste Water Treatment Works (WwTW) are normally carried out by DCWW through its Asset Management Plan as it is unreasonable for developers to fund. That said, dependant on the density proposed and the extent of upgrade required it may be feasible for developers to fund the improvements in advance of</p>	>£0.5M

Costs to overcome/Level of Impact	Commentary	Cost Estimate
	<p>DCWW planned Regulatory investment.</p> <p>Arcadis are aware of several examples of where developers have entered into Unilateral Undertakings for such improvements but ultimately it is a decision for them to take dependant on the unit cost per property. The Water Industry Act does not allow the Requisition provisions/offsetting of income for improvements to WTW and WwTW.</p>	

Table 7: Summary of Sewerage, Drainage and Water Supply Requirements by Site

Site reference	Name	Requirement	Cost Estimate
013A + 135A	Land to the rear/West of Spring Hill	Sewerage	£100K-£0.5M
		Water Supply	£100K-£0.5M
		Drainage	>£0.5M
014A	Glasfryn Field, Square and Compass	Sewerage	<£100K
		Water Supply	<£100K
		Drainage	>£0.5M
015	Land at Sandy Hill	Sewerage	N/A
		Water Supply	£100K-£0.5M
		Drainage	>£0.5M
021A/099A	Glasfryn Road Field Numbers 8877, 8463 and 9372	Sewerage	£100K-£0.5M
		Water Supply	£100K-£0.5M
		Drainage	>£0.5M
031	North of Whitlow	Sewerage	£100K-£0.5M
		Water Supply	<£100K
		Drainage	>£0.5M
034	Land off Trewarren Road adjacent to School	Sewerage	£100K-£0.5M
		Water Supply	<£100K
		Drainage	>£0.5M
036	Penny Farm, Site A	Sewerage	<£100K

Site reference	Name	Requirement	Cost Estimate
		Water Supply	<£100K
		Drainage	>£0.5M
036/037	Penny Farm, Site A/Site B	Sewerage	<£100K
		Water Supply	<£100K
		Drainage	>£0.5M
039/041	South East of Site 041/North-east Marine Road	Sewerage	£100K-£0.5M
		Water Supply	£100K-£0.5M
		Drainage	N/A
045	Part of Home Farm, Lawrenny	Sewerage	>£0.5M
		Water Supply	<£100k
		Drainage	>£0.5M
050	Land adjoining Cefn Galod, Trefin	Sewerage	£100K-£0.5M
		Water Supply	<£100K
		Drainage	>£0.5M
054	Land to rear of Angorfan Bungalow and Dinas Cross Service Station	Sewerage	£100K-£0.5M
		Water Supply	£100K-£0.5M
		Drainage	>£0.5M
056	West of Narberth Road	Sewerage	£100K-£0.5M
		Water Supply	<£100K
		Drainage	>£0.5M
061	Parc y Plant, Newport	Sewerage	<£100K
		Water Supply	<£100K
		Drainage	>£0.5M
068(088A,089A and 090A)	Land North of Newport Business Park, Newport	Sewerage	<£100K
		Water Supply	<£100K
		Drainage	>£0.5M
086A	West of the Green,	Sewerage	£100K-£0.5M

Site reference	Name	Requirement	Cost Estimate
	Lydstep	Water Supply	<£100K
		Drainage	>£0.5M
096A	Cippin Stone, Newport	Sewerage	£100K-£0.5M
		Water Supply	£100K-£0.5M
		Drainage	>£0.5M
106	Land adjacent Bryngolau	Sewerage	<£100K
		Water Supply	<£100K
		Drainage	>£0.5M
112	Bryn Hir	Sewerage	<£100K
		Water Supply	£100K-£0.5M
		Drainage	£100K-£0.5M
113	Butts Field Car Park	Sewerage	<£100K
		Water Supply	£100K>£0.5M
		Drainage	>£0.5M
124	East of Tower Hill	Sewerage	<£100K
		Water Supply	<£100K
		Drainage	>£0.5M
131A	North of Jason's Corner	Sewerage	£100K-£0.5M
		Water Supply	<£100k
		Drainage	>£0.5M
129	West of Rosebush, Rosebush	Sewerage	£100K-£0.5M
		Water Supply	<£100K
		Drainage	>£0.5M
136A	Land South of A487, South West of Castle Terrace, Dinas Cross	Sewerage	<£100K
		Water Supply	<£100K
		Drainage	>£0.5M
138	Buttylands,	Sewerage	>£0.5M

Site reference	Name	Requirement	Cost Estimate
	Manorbier	Water Supply	<100K
		Drainage	>£0.5M
151A	Land North West of Maes Ewan	Sewerage	£100K-£0.5M
		Water Supply	£100K-£0.5M
		Drainage	>£0.5M
308	Land adjacent Temple House, Square and Compass	Sewerage	<£100K
		Water Supply	<£100K
		Drainage	>£0.5M

Utilities

3.2.7 Using a similar approach to that for DCWW, our infrastructure engineer undertook site assessments to determine the infrastructure requirements to enable each of the sites to be developed, and the broad costs associated with this. Consultation was then undertaken with Western Power Distribution, who provided both non-contestable and contestable charges, for the provision of electricity to each of the sites. As explained earlier, both the contestable and non-contestable costings were included in the assessment. This was alongside the broader cost estimates for providing a BT connection based on knowledge from other sites. **Table 8: Cost Parameters for Utilities (Electricity and BT) provision:** *Cost Parameters for Utilities (Electricity and BT) provision* shows the cost parameters used for electricity and BT connections and **Table 9: Summary of Utilities (Electricity and BT) Requirements by Site:** *Summary of Utilities (Electricity and BT) Requirements by Site* provides the estimated costs (these have been rounded to the nearest thousand pounds in the table).

Table 8: Cost Parameters for Utilities (Electricity and BT) provision

Costs to overcome/Level of Impact	Cost Estimate	
	Electricity	BT
Low cost	<£50K	<£100K
Medium cost	£50K-£100K	£100K-£0.5M
High cost	>£100K	>£0.5M

Table 9: Summary of Utilities (Electricity and BT) Requirements by Site

Site reference	Name	Requirement	Cost Estimate
013A + 135A	Land to the rear/West of Spring Hill	Electricity	£34K
		BT	<£100K
014A	Glasfryn Field, Square and Compass	Electricity	£22K
		BT	<£100K
015	Land at Sandy Hill	Electricity	£72K
		BT	<£100K
021A/099A	Glasfryn Road Field Numbers 8877, 8463 and 9372	Electricity	£54K
		BT	<£100K
031	North of Whitlow	Electricity	£82K
		BT	<£100K
034	Land off Trewarren Road adjacent to School	Electricity	£61K
		BT	<£100K
036	Penny Farm, Site A	Electricity	£41K
		BT	<£100K
036/037	Penny Farm, Site A/Site B	Electricity	£41K
		BT	<£100K
039/041	South East of Site 041/North-east Marine Road	Electricity	£29K
		BT	<£100K
045	Part of Home Farm, Lawrenny	Electricity	£31K
		BT	<£100K
050	Land adjoining Cefn Galod, Trefin	Electricity	£13K
		BT	<£100K
054	Land to rear of Angorfan Bungalow and Dinas Cross Service Station	Electricity	£16K
		BT	<£100K
056	West of Narberth Road	Electricity	£66K
		BT	<£100K
061	Parc y Plant,	Electricity	£16K

Site reference	Name	Requirement	Cost Estimate
	Newport	BT	<£100K
068(088A,089A and 090A)	Land North of Newport Business Park, Newport	Electricity	£24K
		BT	<£100K
086A	West of the Green, Lydstep	Electricity	£11K
		BT	<£100K
096A	Cippin Stone, Newport	Electricity	£35K
		BT	>£0.5M
106	Land adjacent Bryngolau	Electricity	£16K
		BT	<£100K
112	Bryn Hir	Electricity	£157K
		BT	<£100K
113	Butts Field Car Park	Electricity	£48K
		BT	<£100K
124	East of Tower Hill	Electricity	£13K
		BT	<£100K
129	West of Rosebush, Rosebush	Electricity	£49K
		BT	>£0.5M
131A	North of Jason's Corner	Electricity	£19K
		BT	<£100K
136A	Land South of A487, South West of Castle Terrace, Dinas Cross	Electricity	£14K
		BT	<£100K
138	Buttylands, Manorbier	Electricity	£33K
		BT	£100K-£0.5M
151A	Land North West of Maes Ewan	Electricity	£16K
		BT	<£100K
308	Land adjacent Temple House, Square and Compass	Electricity	£11K
		BT	<£100K

3.3 Planning Obligation Requirements

3.3.1 As stated earlier, initial calculations of planning obligation requirements were made based on the Planning Obligations SPG published by Pembrokeshire County Council and Pembrokeshire Coast National Park Authority. These were then discussed in order to be verified by the specialist officers within Pembrokeshire County Council. Responses were received from officers with responsibility for libraries and education provision as well as sustainable transport provision. Provisions relating to sustainable transport have been included alongside access in the section above. The National Park Authority clarified calculations relating to recreation and open space provision.

Education

3.3.2 Cost parameters for education provision are shown in *Table 10: Cost Parameters for Educational facilities provision*, as included in the proformas for each site. Following initial calculations, the Education Officer from Pembrokeshire County Council, sent revised information, as included in *Table 11: Pembrokeshire County Council Draft Calculations: Planning Obligations in relation to Education: Pembrokeshire County Council Draft Calculation: Planning Obligations in Relation to Education*, with the following caveats:

- For each site which meets the threshold of 20+ units, a calculation has been made to see whether a financial contribution would be required. These are based on the current pupil census, pupil forecasting and housing commitment data. It should be noted that these factors will all be updated within the next six months and thus may be subject to change.
- With regards to the identified sites in the St David’s area, current calculations do not take into account the fact that the capacity of the new 3-16 school will be significantly lower than the sum of the current schools. As a result, it appears as though there would not be a need for financial contributions for these sites when in reality there would be. Updated advice would be provided as and when schemes are proposed.

Table 10: Cost Parameters for Educational facilities provision

Costs to overcome/Level of Impact	Cost Estimate
Low cost	<£10K
Medium cost	£10K-£100K
High cost	>£100K

Table 11: Pembrokeshire County Council Draft Calculations: Planning Obligations in relation to Education

	Site Name	Site Ref	No of Units ⁶	Primary School/s	Secondary School	Already included in PCNP Housing Commitment s Data? ⁷	Advice relating to contributions for education provision from PCC Education Officer	Comment/ Note
	Buttylands, Manorbier	138	18	Manorbier VC	Greenhill School	Yes - but for 15 dwellings, not 18		Site does not meet the threshold (20 units) for a contribution towards education provision.
	Land to the rear/west of Spring Hill, Dinas Cross	013A & 135A	10	Ysgol Bro Ingli	Ysgol Bro Gwaun	No		Site does not meet the threshold (20 units).
	Glasfryn Field, Square & Compass	014A	7	Ysgol Croesgoch	Ysgol Dewi Sant	No		Site does not meet the threshold (20 units).
	Land at Sandy Hill, Saundersfoot	015	68	Saundersfoot	Greenhill School	No	Primary - £0.00 per dwelling Secondary - £0.00 per dwelling	

⁶ assumption made that all are 2+ bed as no further information provided. **Number of units was at 22nd September 2017, before some amendments were made to the unit numbers within the sites.**

⁷ sent from PCNP to PCC Jan 2017

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	Site Name	Site Ref	No of Units ⁶	Primary School/s	Secondary School	Already included in PCNP Housing Commitment s Data? ⁷	Advice relating to contributions for education provision from PCC Education Officer	Comment/ Note
	Glasfryn Road, St David's	021A / 099A	90	Ysgol Bro Dewi	Ysgol Dewi Sant	Yes	Primary - £1,257.14 per dwelling Secondary - £0.00 per dwelling = £113,142.60	
	North of Whitlow, Saundersfoot	031	177	Saundersfoot	Greenhill School	No	Primary - £0.00 per dwelling Secondary - £0.00 per dwelling	
	Land off Trewarren Road, St Ishmaels	034	14	Coastlands CP	Milford Haven School	Unsure		Site does not meet the threshold (20 units).
	Penny Farm, Site A/Site B, Saundersfoot	036	12	Saundersfoot	Greenhill School	No		Site does not meet the threshold (20 units).
		037	36	Saundersfoot	Greenhill School	No	Primary - £0.00 per dwelling Secondary - £0.00 per dwelling	
	South East of Site 041/North-east Marine Road	039	28	Broad Haven CP	Tasker Milward VC	Yes - but for 35 dwellings, not 28	Primary - £0.00 per dwelling Secondary - £0.00 per dwelling	
		041	66	Broad Haven CP	Tasker Milward VC	Yes - but for 35 dwellings,	Primary - £0.00 per dwelling	

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	Site Name	Site Ref	No of Units ⁶	Primary School/s	Secondary School	Already included in PCNP Housing Commitment s Data? ⁷	Advice relating to contributions for education provision from PCC Education Officer	Comment/ Note
						not 66	Secondary - £0.00 per dwelling	
	Part of Home Farm, Lawrenny	045	33	St Oswald's VA	Greenhill School	Yes - but for 30 dwellings, not 33	Primary - £0.00 per dwelling Secondary - £0.00 per dwelling	
	Land adjoining Cefn Gallod, Trefin	050	10	Ysgol Croesgoch	Ysgol Dewi Sant	No		Site does not meet the threshold (20 units).
	Land to rear of Angorfan bungalow & Dinas Cross Service Station	054	5	Ysgol Bro Ingli	Ysgol Bro Gwaun	No		Site does not meet the threshold (20 units).
	West of Narberth Road, Tenby	056	33	Tenby VC Ysgol Hafan y Mor St Teilo's RC	Greenhill School	Yes - but for 25 dwellings, not 33	Primary - £0.00 per dwelling Secondary - £0.00 per dwelling	
	Parc y Plant, Newport	061	10	Ysgol Bro Ingli	Ysgol Bro Gwaun	No		Site does not meet the threshold (20 units).
	Land north of Newport Business Park,	068 (088 A, 089A)	15	Ysgol Bro Ingli	Ysgol Bro Gwaun	Unsure		Site does not meet the threshold (20 units).

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	Site Name	Site Ref	No of Units ⁶	Primary School/s	Secondary School	Already included in PCNP Housing Commitment s Data? ⁷	Advice relating to contributions for education provision from PCC Education Officer	Comment/ Note
	Newport	& 090A)						
	West of The Green, Manorbier	086A	10	Manorbier VC	Greenhill School	Unsure		Site does not meet the threshold (20 units).
	Cippin Stone, Newport	096A	15	Ysgol Bro Ingli	Ysgol Bro Gwaun	No		Site does not meet the threshold (20 units).
	Land adjacent Bryngolau	106	10	Ysgol Croesgoch	Ysgol Dewi Sant	No		Site does not meet the threshold (20 units).
	Bryn Hir, Tenby	112	168	Tenby VC Ysgol Hafan y Mor St Teilo's RC	Greenhill School	Yes	Primary - £0.00 per dwelling Secondary - £0.00 per dwelling	
	Butts Field Car Park, Tenby	113	80	Tenby VC Ysgol Hafan y Mor St Teilo's RC	Greenhill School	Yes	Primary - £0.00 per dwelling Secondary - £0.00 per dwelling	
	East of Tower Hill, Dinas Cross	124	20	Ysgol Bro Ingli	Ysgol Bro Gwaun	No	Primary - £0.00 per dwelling Secondary - £2,630.77 per dwelling	

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	Site Name	Site Ref	No of Units ⁶	Primary School/s	Secondary School	Already included in PCNP Housing Commitment s Data? ⁷	Advice relating to contributions for education provision from PCC Education Officer	Comment/ Note
							= £52,615.40	
	West of Rosebush, Rosebush	129	10	Ysgol Maenclochog	Ysgol y Preseli	No		Site does not meet the threshold (20 units).
	North of Jason's Corner, Stackpole	131A	10	Penrhyn VC	Pembroke School	No		Site does not meet the threshold (20 units).
	Land south of A487, south west of Castle Terrace, Dinas Cross	136A	5 to 7	Ysgol Bro Ingli	Ysgol Bro Gwaun	No		Site does not meet the threshold (20 units).
	Land north west of Maes Ewan, Solva	151A	20	Solva CP	Ysgol Dewi Sant	No	Primary - £0.00 per dwelling Secondary - £0.00 per dwelling	
	Land adjacent Temple House, Square & Compass	308	8	Ysgol Croesgoch	Ysgol Dewi Sant	No		Site does not meet the threshold (20 units).

Community Facilities

3.3.3 The SPG states that, for sites over 20 dwellings, the cost for community facilities is unspecified and is to be based on the facilities required as highlighted by community councils. The sum for the provision of libraries (as a guide only) is £54.58 per unit. This is the figure that has been used for the calculations. However, the County Council has indicated that a contribution to libraries may only be required for the Glasfryn Road development, St David's (Site 021A Glasfryn Road Field Numbers 8877, 8463 and 9372 (90 dwellings)).

3.3.4 *Table 12: Cost Parameters for Libraries provision: Cost Parameters for Libraries provision* shows the cost parameters for libraries provision, used in the proformas. The figures used in the appraisal for each site are shown in *Table 13: Summary of Potential Library Contributions by Site*(rounded to the nearest £100).

Table 12: Cost Parameters for Libraries provision

Costs to overcome/Level of Impact	Cost Estimate
Low cost	<£10K
Medium cost	£10K-£100K
High cost	>£100K

Table 13: Summary of Potential Library Contributions by Site

Site reference	Name	Requirement	Cost Estimate
021A/099A	Glasfryn Road Field Numbers 8877, 8463 and 9372	Community Facilities	£4,900

3.3.5 For recreation and amenity open space provision, the National Park Authority has provided calculations, based on the SPG, for the provision of Open Space using the following categories:

- Informal;
- Local Equipped Areas for Play (LEAP);
- Multi-Use Games Areas (MUGA); and
- Neighbourhood Equipped Areas for Play (NEAP).

3.3.6 *Table 14: Cost Parameters for Recreation and Open Space provision: Cost Parameters for Recreation and Open Space provision* shows the cost parameters for recreation and open space provision, used in the proformas. *Table 15* presents a summary of the calculated contributions, per site.

Table 14: Cost Parameters for Recreation and Open Space provision

Costs to overcome/Level of Impact	Cost Estimate
Low cost	<£10K
Medium cost	£10K-£100K
High cost	>£100K

Table 15: Summary of Recreation and Amenity Open Space Contributions by Site

Site reference	Site Address	Use specified	Site Size/Estimated number of units	Open Space Assessment Need	DAT input
013A and 135A	Land to the Rear/West of Spring Hill	Affordable Housing/Housing	0.37ha 10 dwellings	1 contribution to informal.	£289
				1 contribution for leap	£467
				1 contribution NEAP	£381
				1 contribution for a muga	£940
014A	Glasfryn Field, Square and Compass	Housing	0.26ha 7 dwellings	None	£ -
015	Land at Sandy Hill, Saundersfoot	Housing	2.26ha 68 dwellings	On site informal open space provision. Can be incorporated without reducing density. Use costings in the SPG for on-site provision for the tool kit.	£ 19,074
				Leap 68-9 x by commuted sum	£ 27,553
				NEAP 68-9 x Commuted Sum	£ 22,479
				No need for MUGA contributions.	£ -
021A and	Land West of	Housing	3.22ha	All contributions. 2 informal.	£19,074

Pembrokeshire Coast National Park Replacement Local Development Plan (to 2031): Land Implementation Study

Site reference	Site Address	Use specified	Site Size/Estimated number of units	Open Space Assessment Need	DAT input
099A	Glasfryn Road		90 dwellings	1 leap onsite	£33,624
				NEAP	£ 76,140
				MUGA contribution	£ 30,861
031	North of Whitlow, Saundersfoot	Housing	5.9 ha (developable area 5.62ha) 168 dwellings Number of units reduced because of need to provide play space	0.2 hectares of informal open space. 5x cost of 1 informal.	£ 47,685
				0.08 LEAP 2 by cost of LEAP	£ 67,248
				NEAP contribution 159 units.	£ 60,579
				No need for MUGA contributions.	£-
034	Land off Trewarren Road, St Ishmaels	Housing	1.8ha 14 dwellings	Contributions.	£1,445
					£2,335
					£4,700
					£1,905
036	Penny Farm, Site A, Saundersfoot	Housing	0.38ha 12 dwellings	Informal contribution on 3 units.	£ 867
				LEAP contribution on 3	£1,401
				NEAP contribution on 3	£1,143

Pembrokeshire Coast National Park Replacement Local Development Plan (to 2031): Land Implementation Study

Site reference	Site Address	Use specified	Site Size/Estimated number of units	Open Space Assessment Need	DAT input
				No need for MUGA contributions.	£ -
037	Penny Farm, Site B, Saundersfoot	Housing	1.13ha 36 dwellings	1 informal space on site. Can be provided beyond the site boundary without reducing numbers.	£9,537
				LEAP contribution on 27	£12,609
				NEAP contribution on 27	£10,287
				No need for MUGA contributions.	£ -
039	South-East of Site 041, Broad Haven	Housing	0.93ha 28 dwellings	No provision required.	£ -
041	North-east Marine Road, Broad Haven	Housing	2.21ha 66 dwellings	No provision required	£ -
045	Lawrenny Home Farm, Lawrenny	Housing	1.92ha 33 dwellings	Open space is adequate in Lawrenny. No commuted sum.	£ -
050	Land off Heol Crwys, Trefin	Housing	0.35ha 10 dwellings	1 Contribution for everything	£289
					£467
					£381
					£940

Pembrokeshire Coast National Park Replacement Local Development Plan (to 2031): Land Implementation Study

Site reference	Site Address	Use specified	Site Size/Estimated number of units	Open Space Assessment Need	DAT input
054	Land to rear of Angorfan Bungalow and Dinas Cross Service Station, Dinas Cross	Housing and Employment	0.2ha 5 dwellings	No contribution needed.	£ -
056	West of Narberth Road, Tenby	Housing	1.10ha 33 dwellings	Informal Space contribution – if provided on site goes below provision – 24.	£9,537
				LEAP contribution	£15,411
				NEAP contribution	£12,573
				MUGA contribution	£31,020
061	Parc y Plant, Newport	Affordable Housing	0.34ha 10 dwellings	Replacement informal	£9,537
				Contributions for others	£467
					£381
					£940
068, 088A, 089A and 090A	Land North of Newport Business Park, Newport	Housing	0.5ha 15 dwellings	Contributions other than informal.	£2,802
					£2,286
					£5,640
086A	West of the Green, Lydstep	Housing	0.39ha 10 dwellings	Contributions for everything.	£289
					£467
					£381
					£940

Pembrokeshire Coast National Park Replacement Local Development Plan (to 2031): Land Implementation Study

Site reference	Site Address	Use specified	Site Size/Estimated number of units	Open Space Assessment Need	DAT input	
096	Cippin Stone, Newport	Housing	1.5ha 15 dwellings		£2,802	
					£2,286	
					£5,640	
106	Land adjacent Bryngolau, Square and Compass	Housing	0.33ha 10 dwellings	1 contribution for everything	£289	
					£467	
					£381	
					£940	
112	Bryn Hir, Tenby	Housing	4.37 ha (Developable area is 4.25) 127 dwellings because of reduced area of development Wet area of land taken out also.	The site area with the wet valley area removed is 4.37ha which works out to 131 houses at 30 per hectare -on site provision of 3 informal. 1 LEAP	£28,611	
					LEAP	£33,624
					NEAP	£44,958
					MUGA contribution	£110,920
113	Butts Field Car Park, Tenby	Mixed Use	0.94ha 80 dwellings	Off-site provision. Layout unlikely to include provision Informal	£23,120	
					LEAP	£37,360
					NEAP	£30,480

Site reference	Site Address	Use specified	Site Size/Estimated number of units	Open Space Assessment Need	DAT input
				MUGA contribution	£ 75,200
124	East of Tower Hill, Dinas Cross	Housing	1.5ha 20 dwellings	Contributions for all	£3,179
					£5,137
					£4,191
					£10,340
129	West of Rosebush, Rosebush	Housing	0.36ha	No contribution needed.	£ -
			10 dwellings		
131	North of Jason's Corner, Stackpole	Housing	0.34ha 10 dwellings	1 LEAP contribution	£467
				1 NEAP contribution	£381
				1 MUGA contribution	£940
136A	Land South of A487, South West of Castle Terrace, Dinas Cross	Housing	0.17ha 5 dwellings	None	£ -
138	Buttylands, Manorbier Station	Affordable housing	0.59ha 18 dwellings	Informal space only required – off site. 9 x informal off-site open space commuted sum contribution.	£2,601

Pembrokeshire Coast National Park Replacement Local Development Plan (to 2031): Land Implementation Study

Site reference	Site Address	Use specified	Site Size/Estimated number of units	Open Space Assessment Need	DAT input
151	Land North West of Maes Ewan, Solva	Housing	1.5ha 45 dwellings	Informal on site provision. Site can accommodate the provision. No reduction in numbers. No need for other contributions.	£9,537
308	Land adjacent Temple House, Square and Compass	Housing	0.17ha 8 dwellings	As before.	£ -

3.4 Viability Appraisals

3.4.1 Based on the information above, viability appraisals were undertaken on each of the sites, using the DAT, to produce a Residual Land Value (RLV), including financing costs. To establish a baseline position, the target affordable housing provisions, as presented in

3.4.2 *Table 2*, were used.

3.4.3 Sensitivity analysis was then undertaken on the affordable housing provision, decreasing by 5% intervals (as a percentage of total units on site), for each of the sites until a 'Viable Scheme' was achieved. For the purposes for this exercise a 'Viable Scheme' was one that produced an RLV per hectare in excess of the Land Value Benchmarks stated in Table 5.1 of Andrew Golland's '*Pembrokeshire Coast National Park Authority Affordable Housing Study*' report.

3.4.4 The benchmark land values per hectare produced within Andrew Golland's report are based on the previous Pembrokeshire Coast National Park benchmark land value marker of £300,000 per hectare and adjusted for the location area of the sites.

3.4.5 The table below summarises the benchmark land values, detailed within Andrew Golland's report, for the different Pembrokeshire Coast National Park areas:

Table 16: Benchmark Land Values for Pembrokeshire Coast National Park Area

Area	Price – 3 Bed Terrace	Relative House Prices	Adjusted Benchmark Land Values – per Hectare
Newport	£324,000	184	£552,273
Tenby	£313,000	178	£533,523
South East Coast	£222,000	126	£378,409
St David's & North Coast	£190,000	108	£323,864
South West Coast	£176,000	100	£300,000
St Brides Bay	£171,000	97	£291,477
Estuary Hinterland	£168,000	95	£286,364
North East National Park	£167,000	95	£284,659

3.4.6 Summarised in *Table 7* are the affordable housing provisions (as a percentage of total units) for each site that produces a 'viable scheme'. These are compared to the emerging policy requirements for the site. A scheme listed as 'non-viable' is one that does not produce an RLV per Hectare in excess of those benchmark land values per hectare stated within Andrew Golland's report.

3.4.7 It should be noted that good practice indicates that a 'buffer' on RLV should be added to sensitivity test whether a site would still meet affordable housing requirements. This is typically 20% but has not been added at this stage.

Table 17: Schemes Assessed as Viable/Not Viable and Affordable Housing Provision

Site	Viable / Not Viable	Affordable Housing Provision Included	Emerging Policy Affordable Housing Provision
Site 013A – Land to the rear / West of Spring Hill	Viable	50%	50%
Site 014A – Glasfryn Field, Square and Compass	Viable	30%	35%
Site 015 – Land at Sandy Hill, Saundersfoot	Viable	45%	50%
Site 021A and 099A – Land West of Glasfryn Road	Viable	20%	35%
Site 031 – North of Whitlow, Saundersfoot	Viable	40%	50%
Site 034 – Land off Trewarren Road, St Ishmaels	Unviable	-	25%
Site 036 – Penny Farm Site A, Saundersfoot	Viable	50%	50%
Site 037 – Penny Farm Site B, Saundersfoot	Viable	45%	50%
Site 039 & 041 – South East of Site 041 & North East of Marine Road, Broad Haven	Viable	10%	25%
Site 045 – Lawrenny Home Farm	Unviable	-	20%

Site	Viable / Not Viable	Affordable Housing Provision Included	Emerging Policy Affordable Housing Provision
Site 050 – Land off Heol Cryws, Trefin	Viable	30%	35%
Site 054 – Land to rear of Angorfan Bungalow and Dinas Cross Service Station, Dinas Cross	Viable	50%	50%
Site 056 – West of Narberth Road, Tenby	Viable	50%	50%
Site 061 – Parcy Plant, Newport	Viable	50%	50%
Site 068, 088A, 089A and 090A – Land North of Newport Business Park, Newport	Viable	50%	50%
Site 086 – West of Green, Lydstep	Viable	50%	50%
Site 096 – Cippin Stone, Newport	Viable	45%	50%
Site 106 – Land adjacent Bryngolau, Square and Compass	Viable	30%	35%
Site 112 – Bryn Hir, Tenby	Viable	40%	50%
Site 113 – Butts Field Car Park, Tenby	Viable	45%	50%
Site 124 – East of Tower Hill, Dinas Cross	Viable	50%	50%
Site 129 – West of Rosebush, Rosebush	Viable	10%	20%
Site 131 – North of Jason’s Corner, Stackpole	Viable	20%	25%
Site 136A – Land South of A487, South West of Castle Terrace, Dinas Cross	Viable	50%	50%

Site	Viable / Not Viable	Affordable Housing Provision Included	Emerging Policy Affordable Housing Provision
Site 138 – Buttylands, Manorbier	Viable	50%	50%
Site 151 – Land North West of Maes Ewan, Solva	Viable	25%	35%
Site 308 – Land adjacent Temple House, Square and Compass	Viable	35%	35%

Viability Analysis

3.4.8 At present, only high-level information is available for each of the sites, particularly with regards to development costs. Due to this, several default and generic assumptions have been used to appraise each of the sites. As more detailed information becomes available, more site-specific assumptions can be utilised to provide a more accurate assessment of viability.

3.4.9 The current viability appraisals do not consider potentially identified ‘abnormals’ for each of the sites. These ‘abnormals’ include all strategic infrastructure costs that could be required to service the site including items such as utility provision, water, sewerage and drainage, and sustainable transport allowances. At present the costs identified are broad ranges and subject to a number of uncertainties as described in paragraph 3.1.4. Further testing of a sites’ viability will need to be undertaken at later stages in the planning process once a greater understanding of infrastructure requirements and costings is known.

3.4.10 As shown in the table above, currently 25 of the 27 sites produce an RLV per Hectare in excess of Andrew Golland’s benchmark land values, indicating that they are ‘viable’ based on the current appraisal assumptions.

3.4.11 Of the 25 sites that are ‘viable’, 11 meet the emerging affordable housing policy requirements whilst a further eight sites are within 5% of the emerging affordable housing policy requirement.

4 Summary of Site Deliverability

4.1.1 Deliverability within the context of this study refers to there being a reasonable prospect that the allocated development site will be delivered on the site during the Plan Period, informed by the evidence base available and the assessment work undertaken.

4.1.2 As examined in the viability work in section 3, currently 25 of the 27 sites produce an RLV per Hectare in excess of the benchmark land values stated within Andrew Golland's report, indicating that they are 'viable' based on the current appraisal assumptions. As sites are taken forward further information can be taken account of including Welsh Water's investment programme, the refining of infrastructure costs, changes in house prices, the mix of sites and build costs. Initial discussions with the developers, landowners and agents have identified that they would be willing to take the sites forward. The findings of this report should assist in this process

4.2 Summary of Site Findings

4.2.1 The findings for each site are summarised below. In each case, the detailed costs and responsibility for meeting costs would need to be established.

4.2.2 **Site 013/135 Land to the Rear/West of Spring Hill:** the site comprises 10 dwellings and is located in the submarket area of Newport, where the emerging policy for affordable housing provision is 50%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for access and drainage and medium for sewerage and water supply.

4.2.3 **Site 014A Glasfryn Field, Square and Compass:** the site potentially comprises seven dwellings and is located in the submarket area of St.David's & North Coast, where the emerging policy housing provision is 35%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 30% affordable homes. Potential development costs not included in the viability appraisal are high for drainage and electricity.

4.2.4 **Site 015 Land at Sandy Hill, Saundersfoot:** the site potentially comprises 68 dwellings and is located in the submarket area of South East Coast, where the emerging policy for affordable housing provision is 50%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with provision of 45% affordable homes. Potential development costs not included in the viability appraisal are high for access and drainage and medium for water supply and electricity.

4.2.5 **Site 021A/099A Land West of Glasfryn Road:** the site potentially comprises 90 dwellings and is located in the submarket area of St.David's & North Coast, where the emerging policy housing provision is 35%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 20% affordable homes. Potential development costs not included in the viability appraisal are high for drainage and sustainable transport and medium for sewerage, water supply, access and electricity.

4.2.6 Site 031 North of Whitlow, Saundersfoot: the site potentially comprises 168 dwellings and is located in the submarket area of South East Coast, where the emerging policy housing provision is 50%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 40% affordable homes. Potential development costs not included in the viability appraisal are high for drainage, access and sustainable transport and medium for sewerage, access, and electricity.

4.2.7 Site 034 Land off Trewarren Road, St.Ishmaels: the site potentially comprises 14 dwellings and is located in the submarket area of St. Brides Bay, where the emerging policy housing provision is 25%. The DAT outputs give a Residual Land Value lower than the Benchmark Land Value per hectare with 10% affordable provision (one home) suggesting that the site is not viable. Potential development costs not included in the viability appraisal are high for drainage and medium for sewerage, access and electricity.

4.2.8 Site 036 Penny Farm, Site A, Saundersfoot: the site potentially comprises 12 dwellings and is located in the submarket area of South East Coast, where the emerging policy housing provision is 50%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for drainage and medium for access.

4.2.9 Site 037 Penny Farm, Site B, Saundersfoot: the site potentially comprises 36 dwellings and is located in the submarket area of South East Coast, where the emerging policy housing provision is 50%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 45% affordable homes. Potential development costs not included in the viability appraisal are high for drainage and medium for access and sustainable transport.

4.2.10 Site 039 South-East of Site 041, Broad Haven: the site potentially comprises 28 dwellings and is located in the submarket area of St. Brides Bay, where the emerging policy housing provision is 25%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 10% affordable homes. Potential development costs not included in the viability appraisal are high for access and sustainable transport and medium for sewerage and water supply.

4.2.11 Site 041 North-east Marine Road, Broad Haven: the site potentially comprises 66 dwellings and is located in the submarket area of St.Brides Bay, where the emerging policy housing provision is 25%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 10% affordable homes. Potential development costs not included in the viability appraisal are high for access and sustainable transport and medium for sewerage and water supply.

4.2.12 Site 045 Lawrenny Home Farm, Lawrenny: the site potentially comprises 33 dwellings and is located in the submarket area of Estuary Hinterland, where the emerging policy for affordable housing provision is 20%. The DAT outputs give a Residual Land Value lower than the Benchmark Land Value per hectare suggesting that the site is not viable with provision of 5% affordable homes.

Potential development costs not included in the viability appraisal are high for access and drainage and medium for water supply and electricity.

4.2.13 Site 050 Land off Heol Crwys, Trefin: the site potentially comprises 10 dwellings and is located in the submarket area of St.David's & North Coast, where the emerging policy for affordable housing provision is 35%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 30% affordable homes. Potential development costs not included in the viability appraisal are high for drainage and medium for sewerage.

4.2.14 Site 054 Land to rear of Angorfan Bungalow and Dinas Cross Service Station, Dinas Cross: the site potentially comprises five dwellings and is located in the submarket area of Newport, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for drainage and access and medium for sewerage and water supply.

4.2.15 Site 056 West of Narberth Road, Tenby: the site potentially comprises 33 dwellings and is located in the submarket area of South East Coast, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for drainage and access and medium for sewerage, sustainable transport and electricity.

4.2.16 Site 061 Parc y Plant, Newport: the site potentially comprises 10 dwellings and is located in the submarket area of Newport, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for drainage.

4.2.17 Site 068, 088A, 089A and 090A Land North of Newport Business Park, Newport: the site potentially comprises 15 dwellings and is located in the submarket area of Newport, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for drainage.

4.2.18 Site 086A West of Green, Lydstep: the site potentially comprises 10 dwellings and is located in the submarket area of Tenby, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for drainage and medium for sewerage.

4.2.19 Site 096 Cippin Stone, Newport: the site potentially comprises 15 dwellings and is located in the submarket area of Newport, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land

Value in excess of the Benchmark Land Value per hectare with a provision of 45% affordable homes. Potential development costs not included in the viability appraisal are high for drainage and BT services and medium for sewerage, water supply and access.

4.2.20 Site 106 Land adjacent Bryngolau, Square and Compass: the site potentially comprises 10 dwellings and is located in the submarket area of St.David's & North Coast, where the emerging policy for affordable housing provision is 35%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 30% affordable homes. Potential development costs not included in the viability appraisal are high for drainage.

4.2.21 Site 112 Bryn Hir, Tenby: the site potentially comprises 127 dwellings and is located in the submarket area of South East Coast, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 40% affordable homes. Potential development costs not included in the viability appraisal are high for access, sustainable transport and electricity and medium for water supply, drainage and access.

4.3.21 Site 113 Butts Field Car Park, Tenby: the site potentially comprises 80 dwellings and is located in the submarket area of South East Coast, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 45% affordable homes. Potential development costs not included in the viability appraisal are high for drainage and sustainable transport and medium for water supply.

4.2.22 Site 124 East of Tower Hill, Dinas Cross: the site potentially comprises 20 dwellings and is located in the submarket area of Newport, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for drainage and medium for access and sustainable transport.

4.2.23 Site 129 West of Rosebush, Rosebush: the site potentially comprises 10 dwellings and is located in the submarket area of North East NP, where the emerging policy for affordable housing provision is 20%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 10% affordable homes. Potential development costs not included in the viability appraisal are high for drainage and medium for sewerage.

4.2.24 Site 131A North of Jason's Corner, Stackpole: the site potentially comprises 10 dwellings and is located in the submarket area of South West Coast, where the emerging policy for affordable housing provision is 25%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 20% affordable homes. Potential development costs not included in the viability appraisal are high for drainage and BT services and medium for sewerage.

4.2.25 Site 136A Land South of A487, South West of Castle Terrace, Dinas Cross: the site potentially comprises five dwellings and is located in the submarket area of Newport, where the emerging policy for affordable housing provision is 50%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for drainage and BT services and medium for access.

4.2.26 Site 138 Buttylands, Manorbier: the site potentially comprises 18 dwellings and is located in the submarket area of Tenby, where the emerging policy for affordable housing provision is 50%. The DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for sewerage and drainage and medium for BT services.

4.2.27 Site 151 Land North West of Maes Ewan, Solva: the site potentially comprises 45 dwellings and is located in the submarket area of St.David's & North Coast, where the emerging policy for affordable housing provision is 35%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with a provision of 25% affordable homes. Potential development costs not included in the viability appraisal are high for drainage and sustainable transport and medium for sewerage, water supply and access.

4.2.28 Site 308 Land adjacent Temple House, Square and Compass: the site potentially comprises 8 dwellings and is located in the submarket area of St.David's & North Coast, where the emerging policy for affordable housing provision is 35%. DAT outputs give a Residual Land Value in excess of the Benchmark Land Value per hectare with full provision of the emerging policy affordable housing percentage. Potential development costs not included in the viability appraisal are high for drainage.

APPENDIX A

Site Proformas

APPENDIX B

Candidate Site Maps

APPENDIX C

Agricultural Land Classification Assessment

APPENDIX D

Development Appraisal Toolkit (DAT) Outputs (30/11/2017)

Site 013A – Land to the rear / West of Spring Hill – 10 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£532,000	£1,438,000	50%

Site 014A – Glasfryn Field, Square and Compass – 8 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£64,000	£246,000	35%
£98,000	£377,000	30%

Site 015 – Land at Sandy Hill, Saundersfoot – 68 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£583,000	£258,000	50%
£920,000	£407,000	45%

Site 021A and 099A – Land West of Glasfryn Road – 90 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£308,000	£96,000	35%
£659,000	£205,000	30%
£1,007,000	£313,000	25%
£1,357,000	£421,000	20%

Site 031 – North of Whitlow, Saundersfoot – 168 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£942,000	£168,000	50%
£1,744,000	£310,000	45%
£2,546,000	£453,000	40%

Site 034 – Land off Trewarren Road, St Ishmaels – 14 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£67,000	£37,000	25%
£112,000	£62,000	20%

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£157,000	£87,000	15%
£203,000	£113,000	10%

Site 036 – Penny Farm Site A, Saundersfoot – 12 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£148,000	£389,000	50%

Site 037 – Penny Farm Site B, Saundersfoot – 36 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£323,000	£286,000	50%
£508,000	£450,000	45%

Site 039 & 041 – South East of Site 041 & North East of Marine Road, Broad Haven – 94 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£216,000	£69,000	25%
£509,000	£162,000	20%
£802,000	£255,000	15%
£1,096,000	£349,000	10%

Site 045 – Lawrenny Home Farm – 33 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£194,000	£101,000	20%
£305,000	£159,000	15%
£416,000	£217,000	10%
£526,000	£274,000	5%

Site 050 – Land off Heol Crwys, Trefin – 10 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£76,000	£217,000	35%
£118,000	£337,000	30%

Site 054 – Land to rear of Angorfan Bungalow and Dinas Cross Service Station, Dinas Cross – 5 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£267,000	£1,335,000	50%

Site 056 – West of Narberth Road, Tenby – 33 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£451,000	£410,000	50%

Site 061 – Parcy Plant, Newport – 10 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£524,000	£1,541,000	50%

Site 068, 088A, 089A and 090A – Land North of Newport Business Park, Newport – 15 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£790,000	£1,580,000	50%

Site 086 – West of Green, Lydstep – 10 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Provision
£487,000	£1,249,000	50%

Site 096 – Cippin Stone, Newport – 15 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£790,000	£527,000	50%
£935,000	£623,000	45%

Site 106 – Land adjacent Bryngolau, Square and Compass – 10 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£76,000	£230,000	35%
£118,000	£358,000	30%

Site 112 – Bryn Hir, Tenby – 127 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£984,000	£232,000	50%
£1,557,000	£366,000	45%
£2,128,000	£501,000	40%

Site 113 – Butts Field Car Park, Tenby – 80 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£272,000	£289,000	50%
£564,000	£600,000	45%

Site 124 – East of Tower Hill, Dinas Cross – 20 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£998,000	£665,000	50%

Site 129 – West of Rosebush, Rosebush – 10 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£53,000	£147,000	20%
£86,000	£239,000	15%
£120,000	£333,000	10%

Site 131 – North of Jason’s Corner, Stackpole – 10 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£70,000	£206,000	25%
£107,000	£315,000	20%

Site 136A – Land South of A487, South West of Castle Terrace, Dinas Cross – 5 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£263,000	£1,547,000	50%

Site 138 – Buttylands, Manorbier – 18 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£879,000	£1,490,000	50%

Site 151 – Land North West of Maes Ewan, Solva – 45 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Housing Provision
£276,000	£184,000	35%
£455,000	£303,000	30%
£637,000	£425,000	25%

Site 308 – Land adjacent Temple House, Square and Compass – 8 units

Residual Land Value – after Finance	Residual Land Value – per Hectare	Affordable Provision
£103,000	£606,000	35%

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