DARTMOOR NATIONAL PARK AUTHORITY

Whole Plan Viability Assessment – Addendum Viability Assessment

Three Dragons – September 2019

FINAL REPORT

Three Dragons

This report is not a formal land valuation or scheme appraisal. It has been prepared using the Three Dragons toolkit and non-residential model and is based on local data supplied by Dartmoor National Park Authority, consultation and quoted published data sources. The toolkit provides a review of the development economics of a range of illustrative schemes and the results depend on the data inputs provided. This analysis should not be used for individual scheme appraisal.

No responsibility whatsoever is accepted to any third party who may seek to rely on the content of the report unless previously agreed.

Contents

EXECUTIVE SUMMARY

1. The Dartmoor National Park Authority (DNPA) is currently reviewing its Local Plan and in December 2018 it published the First Draft (Regulation 18 consultation) of the Dartmoor Local Plan, 2018 to 2033. Alongside the First Draft of the Local Plan, the National Park Authority published its Whole Plan Viability Assessment or WPVA (which was dated October 2018) and which was also produced by Three Dragons. The WPVA demonstrated that the draft Local Plan policies for allocated, infill and rural exception residential sites were financially viable for the majority of the typologies tested.

2. In September 2019 the Park Authority will publish its final draft Dartmoor Local Plan (Regulation 19). The updated draft includes policies and other amendments that may have an impact on residential viability and were not considered in the WPVA. Therefore we have re-tested the majority of sites evaluated as part of the Whole Plan Viability Assessment 2018 to assess whether the Local Plan is deliverable, taking into account recent changes in costs and values as well as the additional policies in the draft Local Plan. The results of which are set out in this Addendum Viability Assessment.

Key findings of Addendum Viability Assessment

3. The Addendum Viability Assessment indicates that the draft Local Plan policies most likely to impact on the residential viability are those that include affordable housing. The provision of affordable homes to meet local need is a theme that runs through the draft housing policies.

4. We have used a default affordable mix of 70% Affordable Rent / 30% shared ownership. However an important study finding is that, in some cases, on small infill sites and rural exception sites in particular, a higher proportion of shared ownership or the inclusion of affordable discount market sale homes may be required in order to deliver a viable scheme.

5. Infill schemes of 3, 5 and 10 units can be delivered with 100% affordable housing in the North East Value area only when shared ownership or other intermediate affordable tenures form a significant part the tenure mix. In the South West Value Area some market housing would also be required. Infill sites brought forward as serviced plots for local needs custom or self-build homes were viable in the North East but marginal in the South West.

6. Single unit schemes are not viable, even as a market unit. However it is probable that such schemes will come forward where circumstances vary from the 'typical values and costs' assumed for the viability testing. For example self-build dwellings not necessarily developed for profit or where the dwellings will be sold for higher values than we have modelled. Single units continue to be delivered in the National Park

and we do not consider that the lack of viability for the units we tested is a result of draft Local Plan policies.

7. The mixed tenure/allocated case studies modelled of 25, 40 and 80 dwellings (45% affordable & 55% open market) have all produced viable results. Viability is lower in the South West value area and schemes will be more vulnerable here should additional costs be incurred. Results are more robust in the North East and likely to be able to absorb additional costs and/or fluctuations in the market.

8. Testing has demonstrated that viability in the South West can be improved by the inclusion of Discount Market Sale units in the affordable housing. It should also be noted that the latest PPG in 2019[1] (post the original study) indicates a range for developer return[2] (although noting that there will be exceptions) of 15-20%; we have tested at the upper end of this range and our sensitivity test at mid-range of 17.5% showed marked improvement in residual values.

9. Sheltered Housing for older people, based on the small scheme modelled in this appraisal, is unlikely to be able to deliver the full affordable housing requirement. In the North East the scheme was viable providing half (22.5%) the policy position but in the South West sheltered housing was able to deliver around 5% affordable homes. We have however included bungalows suitable for older people downsizing in the market mix on all allocated schemes and this is a viable option in both value areas.

10. Rural Exception Sites are viable with 25% market housing, although this is with 80% of affordable units delivered as either shared ownership or Discount Market sale. Thus the modelling supports the cap of 25% on cross subsidy from market housing so long as the proportion of intermediate units is increased. Clearly if grant is available then not only will viability improve but a higher proportion of rented units (if this is what is required) can be delivered.

Conclusion

11. The viability testing undertaken in the Addendum Viability Assessment has demonstrated good general viability and, in most cases, ability to achieve a level of between 45% and 100% affordable housing, depending on site type and policy requirement. Results are weaker than found in the 2018 WPVA but overall the conclusions reached are still applicable. On some sites, flexibility regarding affordable tenures will be necessary for an economically deliverable and policy compliant scheme. The case studies have produced viable results in both value areas but there is less 'headroom' to deal with market fluctuations or additional cost in the South West compared to the North East.

12. Where there is additional pressure on development from higher than usual costs, policy trade-off decisions may be required regarding the affordable housing levels and/or affordable tenure mix, in the South West of the National Park in particular. A policy allowing affordable Discount Market Sale Homes will improve viability whilst ensuring that affordable homes are still available to local people. The option to deliver infill sites with up to 100% shared ownership homes, Discount Market Sale

[1] PPG May 2019 paragraphs 13 and 14
[2] PPG May 2019 paragraph 18

units, or local needs custom or self-build plots, will assist in bringing these sites forward in the North East but an element of market housing is likely to be required in the South West.

1. INTRODUCTION

Purpose of the Addendum Report

1.1 The Dartmoor National Park Authority (DNPA) is currently reviewing its Local Plan and in December 2018 it published the First Draft (Regulation 18 consultation) of the Dartmoor Local Plan, 2018 to 2033. Alongside the First Draft of the Local Plan, the National Park Authority published its Whole Plan Viability Assessment or WPVA (which was dated October 2018) and which was also produced by Three Dragons.

1.2 The WPVA reviewed the viability of a number of case studies which reflect the type of sites likely to be come forward, in light of the policies in the draft Local Plan and historic patterns of development. The WPVA followed national planning guidance[3], estimating the residual value of the case studies and comparing these with benchmark land values. The WPVA demonstrated that the draft Local Plan policies for allocated, infill and rural exception residential sites were financially viable for the majority of the typologies tested, concluding that

- A policy requiring 45% affordable housing on allocated sites is generally achievable;
- Infill sites are shown to be viable provided there is flexibility around the tenure of the affordable units, where these are provided, they can also be delivered for local needs custom/self-build plots;
- Rural Exception Sites are viable and the modelling supports a cap of 25% on cross subsidy from market housing, again provided there is flexibility around the affordable housing tenure mix.

1.3 In September 2019 the Park Authority will publish its final draft Dartmoor Local Plan (Regulation 19). The updated draft includes policies and other amendments that may have an impact on residential viability and were not considered in the WPVA. This Addendum Viability Assessment (AVA) sets these out and reviews their potential viability impact. The AVA also takes account of changes in costs and values since they were assessed for the 2018 WPVA, to identify whether changes in either or both may affect the outcome of the viability assessment.

Policy and other changes tested

1.4 The policies that have been reviewed were identified by the National Park Authority and are:

- Biodiversity net gain and that development involving 2 homes or a site area of 0.2 Hectares, or more, will be required to deliver 10% biodiversity net gain (see draft Local Plan Policy 2.3);
- That all development proposals will be encouraged to reduce their carbon emissions further than required by Building Regulations; this is consistent with Planning Practice Guidance released in March 2019 which states that local authorities can set energy performance standards for new housing that

[3] This primarily relates to National Planning Practice Guidance relating to viability. There have been further updates of this guidance since the WPVA was published

are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes (draft Local Plan Policy 1.7);

- Recreational mitigation measures as set out in Policy 4.9 which requires development to mitigate recreational impacts; we understand that the Park Authority will achieve this through a levy introduced in a future SPD and it is therefore prudent to test this cost as part of the AVA;
- Affordable housing to include discount market sale properties consistent with the Local Plan definition (see para 3.4.5 and 3.4.6);
- Education contributions from affordable housing allowed for in the WPVA are no longer sought, to ensure affordable housing is not unduly burdened by additional planning obligations.

1.5 To test the above, we have drawn on a range of data sources to provide the assumptions used in the testing. These are set out in the table below.

Figure 1.1: Policy and other assumptions used and their source

Update	**Information used**	**Assumption used in the testing**
Bio diversity	Defra - Net Gain consultation document (December 2018) and the Impact Assessment[4]. Annex 1 sets out costs per hectare for net gain. We have assumed an average 30 dph development and taken the top of the range of the three scenarios used. Also discussed with Defra.	£500 per dwelling (which was already included in the WPVA as a provisional estimate of the likely impact and verified for the AVA, therefore additional testing note required.) Note – this is not intended to address any mitigation measures required.
Carbon reduction	The Park Authority commissioned an expert study to advise on the costs of the different components of Strategic Policy 1.7. The report to DNPA is published separately[5] and we have adopted the component costs in the AVA. The policy wording to draft Strategic Policy 1.7 is set out below:	

[4]See Net gain Consultation proposals DEFRA December 2018 and related Impact Assessment https://consult.defra.gov.uk/land-use/net-gain/

[5] Dartmoor National Park Authority Reducing Carbon Emissions in New Development 2019

Update	Information used	Assumption used in the testing
	1. All new residential and commercial non-residential buildings must achieve either: **a.** a minimum 10% reduction in carbon emissions over Building Regulations Part L 2013, using a fabric-first approach; or **b.** Association for Environment Conscious Building (AECB) or Passivhaus certification. 2. To minimise the risk of an energy performance gap when meeting part 2 of this policy, developers will be required to: a. with regard part 2a, provide: I. evidence of air tightness tests on all new buildings; and II. passivhaus or equivalent accredited on-site training for airtightness and avoiding thermal bypass and thermal bridging; or b. with regard part 2b, relevant certification.	1. Increase build costs by 0.6% to account for a 10% reduction over Part L of Building Regulations 2013. 2. £350 per dwelling for air tightness (This is a conservative value and the actual cost is likely to be lower).
Discount market sale	Para 3.45 to 3.47 of the draft Local Plan identifies an affordable intermediate house price of around £150,000 - £165,000 for a 2 bed property, a discount to market sale price of 20% to 40%,	On Infill sites DMS dwellings were tested as part of a mixed tenure offer (45% affordable DMS dwellings and 55% open market). A discount of approximately 20-25% was

Update	Information used	Assumption used in the testing
	this covers the broad range of value areas in the National Park. The Local Plan explains that these figures are intended to be a guide that will vary with incomes and lenders' requirements	applied to the 2 bed market house value and 22-30% to the 3 bed[6], arriving at a DMS product valued at £165,000 for 2 bed and £185,000 for 3 bed dwellings.
Recreational mitigation measures	Policy 4.9 requires development within or outside the National Park to mitigate any likely harmful recreational impact. Indicative costs are therefore included to allow flexibility for a future levy on development within the National Park. This is indicative only and subject to further assessment and costing.	£100 per dwelling – on advice from the Park Authority.
Education contributions	Not required for affordable housing as agreed between DNPA and Devon County Council.	Remove education contributions from affordable housing.

1.6 An update of costs and values was also undertaken. This ensures that the testing for this Addendum Report uses current costs and values, as indicated in national guidance. Data for the end of May 2019 was used as this is the latest date both cost and value information was available. As in the WPVA, we have assessed viability in two market sub areas, North East and South West of the National Park, which reflect significant differences in values across the Park. Data was again used and sourced for the three local authorities which cover the majority of the National Park (Teignbridge, West Devon and South Hams) with Teignbridge and part of West Devon covering the North East Value Area and the rest of West Devon and South Hams, covering the South West Value Area[7]. Annex 1 provides a map showing how the local authorities align with the two value areas used in the WPVA and the Addendum Viability Assessment.

1.7 For **build costs**, BCIS data was used[8]. For the higher value North East Value Area, we increased build costs in line with the index for Teignbridge, which is the highest of the indices covering DNPA. For the South West Value Area, where values are generally lower than for the North East, we increased build costs to a blended current rate between South Hams, Teignbridge and West Devon. In both cases this

[6] The discount will vary depending on market value area to arrive at the same value product for both areas, deemed to be affordable to households on average incomes

[7] Noting and accounting for the fact that the north eastern tip of the South West value area is actually in Teignbridge local authority district

[8] The cost indexes applicable to Dartmoor National Park have not only increased to reflect build cost inflation generally but have increased faster than other areas of the country

reflects the comments received at the development industry workshop that the cost of building is towards the higher end of the relevant indices[9].

1.8 For **market values**, those used in the WPVA were increased from the original study by between 3.2% and 8.2%, depending on house type (flat, detached, semi, terraced) and location, using the Land Registry House Price Index[10]. For the North East Value Area we used a blend of the monthly increases for Teignbridge and West Devon and for the South West we used a blended increase for South Hams and West Devon.

1.9 Build costs have risen at a faster rate than house prices in the period between the original study and production of this AVA. Given the uncertain market conditions, costs and value will need to be kept under review.

1.10 Other development assumptions are unchanged from those used in the WPVA. For completeness, the full set of testing assumptions used for the Addendum Viability Assessment are shown in Annex 2. We specifically reviewed the following where change may have been anticipated:

- Affordable Rented rent levels – the Local Housing Allowance rents were unchanged apart from for 1 bed properties, indicating no material shift in rent levels, although we have updated the rents for 1 beds in accordance with the LHA rate increase;
- Benchmark land values – there is no evidence to suggest any change and the impact of the update in the PPG of last July could have actually led to a softening in the benchmark land values as it introduced a clear expectation that benchmark land values would be based on a premium over existing use values and should take into account policy expectations;
- Developer return – a 20% return for market housing used in the WPVA; the 2018 PPG update indicated a range for the return of 15% to 20%[11] therefore indicating that the WPVA had used the most conservative assumption indicated by the guidance. A 20% return has been retained for the AVA but we have undertaken a limited number of sensitivity tests where results indicate a lack of viability to assess the implications of using a return in the middle of the range set out in the PPG.

Viability testing principles

1.11 As with the WPVA, the Addendum Viability Assessment follows Planning Practice Guidance and has employed a residual value approach. This is illustrated in the figure below.

[9] WPVA Annex II
[10] Land Registry House Price Index, by month, from November 2017 to end of May 2019
[11] PPG Paragraph: 018 Reference ID: 10-018-20190509

Figure 1.2: Residual Value Approach

Total development value (market and affordable)

Minus

Development costs (incl. build costs and return to developer)

=

Gross residual value

Minus

CIL + planning obligations (including AH)

=

Net residual value (available to pay for land)

1.12 The residual value of schemes tested is compared with a benchmark land value. There is no evidence to indicate that the benchmark land values should be changed from those used in the WPVA and these are set out in the figure below

Figure 1.3: Benchmark Land Values

DNPA	Value per gross hectare	Larger sites – over 2 ha aprox	Rural Exception Sites
North East	£600,000	£350,000	£10K per plot
South West	£400,000	£300,000	£10K per plot

2. VIABILITY TESTING

Sites tested

2.1 The majority of sites from the WPVA have been re-tested in the Addendum Viability Assessment. They were selected to fully represent the sites considered in the WPVA and to reflect the impact of new policies. As in the WPVA, testing results are presented in four groups:

i. Infill sites - examples of the types of site likely to come forward as windfall infill development;

ii. Site Allocations / Mixed Tenure Sites – larger case study typologies based on sites allocated in the Local Plan which range in size from 25 to 80 dwellings;

iii. Sheltered housing scheme for older persons (10 dwellings);

iv. Rural Exception Sites - where the assumption is that 100% of units will be affordable but if this is not viable then a proportion of market homes may be allowed to facilitate delivery of affordable units.

2.2 Some policies, such as the introduction of Discount Market Sale, have been applied for particular tests. The table below shows which sites in the WVPA have been tested in the AVA and a summary of the site characteristics; a full description of site characteristics can be found in Figure 3.1 of the WVPA.

Figure 2.1: Case studies used in the AVA

Case Study	Total dwellings	Site type	May 2019 costs and values	Tested with DMS[12]	Tested with additional costs for carbon reduction[13]	Tested with recreation mitigation costs[14]	Education contribution removed for affordable dwellings
IF1	1	Infill	√	√	√	√	
IF2	3	Infill	√	√	√	√	
IF3	5	Infill	√	√	√	√	
IF4	10	Infill	√	√	√	√	
CS1	25	Allocated / mixed tenure	√	√	√	√	√
CS2	40	Allocated / mixed tenure	√		√	√	√
CS3	80	Allocated / mixed tenure	√		√	√	√
CS4 (Sheltered)	10	Allocated / mixed tenure	√		√	√	
RES1	7	Exception	√	√	√	√	√

Tests undertaken

2.3 Testing for the AVA was undertaken in the order shown below. The testing was cumulative so that the final test (Test 3) shows the total impact of all the changes.

- Test 1 – Updated costs and values to May 2019
- Test 2 – Test 1 plus Carbon reduction of 10% on Part L of Building Regulations 2010
- Test 3 – Tests 1 and 2 plus Recreation Mitigation of £100 per dwelling
- Test 3 + (affordable) Discount Market Sale (included for some of the tests).

[12] 45% DMS is the alternative affordable housing provision
[13] Policies 1.7, 2.3, 4.9
[14] Policy 4.9

3. TESTING RESULTS

3.1 The results of the testing undertaken for the AVA are compared with those of the WPVA and presented as the residual value of a scheme less the benchmark land value. Where this is a negative value, the scheme is not viable. Schemes will be viable if the residual value exceeds the benchmark land value.

3.2 We present a summary of the testing results in order of the four groups of sites. Full results for all case studies are shown in Annex 3.

Infill Sites

3.3 As with the WPVA, we have tested 4 small infill sites of 1, 3, 5, & 10 units. The starting position is 100% affordable housing and the sites have been tested to show what capacity they have to deliver this before looking at other tenure combinations. The tests undertaken on the Infill sites are;

- 100% Affordable Rent;
- 100% Shared Ownership;
- 45% affordable (70% rented & 30% shared ownership) / 55% market;
- 100% custom/self-build serviced plots for local occupancy;
- 45% affordable Discount Market Sale / 55% market.

Dwellings are a combination of 2 and 3 bed homes.

3.4 The first table shows the results for the North East Value area and the second for the South West. The results are those for Test 3 i.e. they take account of the updated costs and values as well as the additional policy requirement for carbon reduction and recreation mitigation. For each infill site the results of the testing for the AVA 2019 is shown alongside the results of the earlier 2018 testing for the WPVA. Annex 3 provides the full data for each of tests, including those not shown (Tests 1 & 2).

Figure 3.1: Notional Infill Sites – residual value per scheme (after deduction for benchmark land value) – Test 3 (Total impact of Tests 1-3)

North East	IF1: 1 unit		IF2: 3 Units		IF3: 5 Units		IF4: 10 Units	
	2018	2019	2018	2019	2018	2019	2018	2019
All Affordable Rent	-£175,000	Negative	-£161,000	-£222,609	-£274,400	-£372,455	-£555,000	-£759,006
All Shared Ownership	-£36,000	Negative	£49,000	£23,903	£82,600	£48,978	£211,000	£146,546
45%AH*	-£61,000	Negative	£10,000	-£26,351	£27,600	-£24,023	£84,000	-£16,374
CSB	-£10,000	Negative	£65,000	£10,316	£91,600	£58,503	£231,000	£168,718
45% DMS	N/a	Negative	N/a	£56,739	N/a	£107,810	N/a	£240,854

South West	IF1: 1 unit		IF2: 3 Units		IF3: 5 Units		IF4: 10 Units	
	2018	2019	2018	2019	2018	2019	2018	2019
All Affordable Rent	-£168,333	Negative	-£144,000	-£192,273	-£245,600	-£320,341	-£498,000	-£ 657,510
All Shared ownership	-£65,333	Negative	£15,000	-£1,008	£1,400	-£21,623	£13,000	-£ 28,762
45%AH*	-£82,333	Negative	-£11,000	-£36,828	-£28,600	-£63,530	-£52,000	-£ 122,731
CSB	-£41,333	Negative	£28,000	-£13,741	£7,400	-£16,464	£29,000	-£ 15,290
45% DMS	N/a	Negative	N/a	£53,612	N/a	£86,356	N/a	£ 175,784

**45% AH = 45% of units as affordable homes split 70/30 between Affordable Rent and shared ownership*

Viable
Marginal viability
Not viable

3.5 The **1-unit infill scheme** with May 2019 costs and values was not viable with any of the options tested. This is unchanged from 2018 and implies that such schemes would only come forward with public subsidy or where circumstances vary from the 'typical values and costs' assumed for the viability testing. The poor viability is mainly a result of the higher building costs[15] employed in developing one unit schemes.

3.6 In both value areas **the 3, 5 and 10 dwelling infill schemes** were not viable if 100% of units were Affordable Rent. Again, the situation was the same in the 2018 testing.

3.7 In the NE value area, the schemes are viable at 2019 values and costs for the majority of the other tests: they are viable when units are all affordable shared ownership; custom or self-build for local occupancy; 45% affordable Discount Market Sale, and are thus capable of meeting the additional policy requirements of the draft Local Plan. However, this is not the case when 45% of units are affordable housing at 70% affordable rent and 30% shared ownership. (Although when the 45% affordable units are delivered as DMS, they are viable.) This implies that the Park Authority will need to be flexible about how it operates this policy and adjust the type of affordable housing required to deliver a viable scheme.

3.8 The weaker values in the SW value area are reflected in the results. For policy compliant schemes at 45% affordable housing to be achieved, it is likely that the affordable units will need to be delivered as mostly Discount Market Sale. In the

[15] BCIS 5-year median for single dwellings + 15% for external works = £2,107 sqm, compared to £1,265 sqm for developments of over 3 dwellings

South West, 100% shared ownership schemes were no longer viable taking into account the changes in costs & values alongside the additional policy requirements.

3.9 Custom and self build schemes will be more marginal and may only work in slightly larger developments and with some flexibility around plot values.

Allocated / Mixed Tenure Case Studies

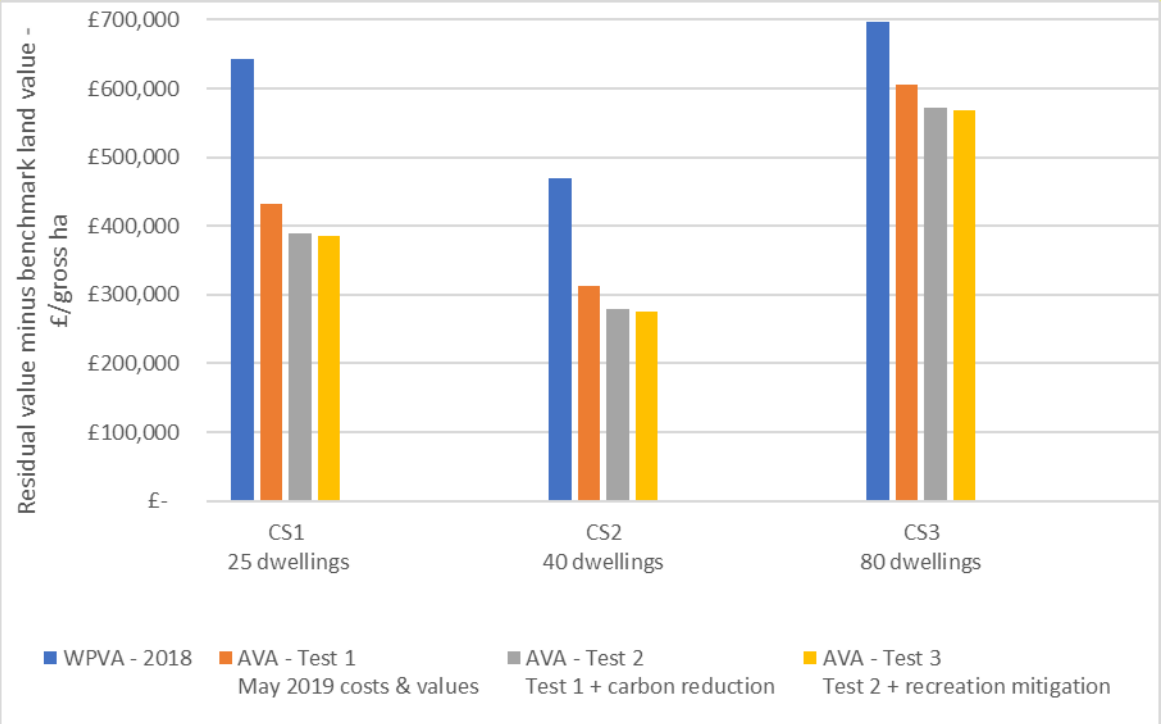
3.10 The site typologies based on allocations in the Local Plan were tested in both value areas, with 45% affordable housing. The case studies were assumed to be at 35 dph with a dwelling mix as shown Annex 2.

- CS1 – 25 dwellings
- CS2 – 40 dwellings
- CS3 – 80 dwellings

North East Value Area

3.11 The results for the allocated/mixed tenure case studies in the North East are shown in the chart below on a per gross hectare basis. The chart shows the results once benchmark land value has been deducted from residual value.

Figure 3.2: Allocated / Mixed Tenure Case Studies (general needs) – residual value per gross ha minus land value – North East value area



Benchmark land value per gross ha = £0.6m for CS1 & CS2 / £0.4m for CS3

3.12 In the North East Value Area, although overall residual values have reduced in comparison with the 2018 WPVA, for Test 3 all three mixed tenure case studies of 25, 40 and 80 dwellings produce per hectare residual land values above the

benchmark land value in each of the three tests. Residual values are significantly higher than land values, indicating robust schemes able to deliver all policy requirements, including 45% affordable housing.

South West Value Area

3.13 The results for the allocated/mixed tenure case studies in the South West of DNPA are shown in the chart below on a per gross hectare basis. The chart shows the results once benchmark land value has been deducted from residual value.

Figure 3.3: Allocated / Mixed Tenure Case Studies (general needs)– residual value per gross ha minus land value – South West value area

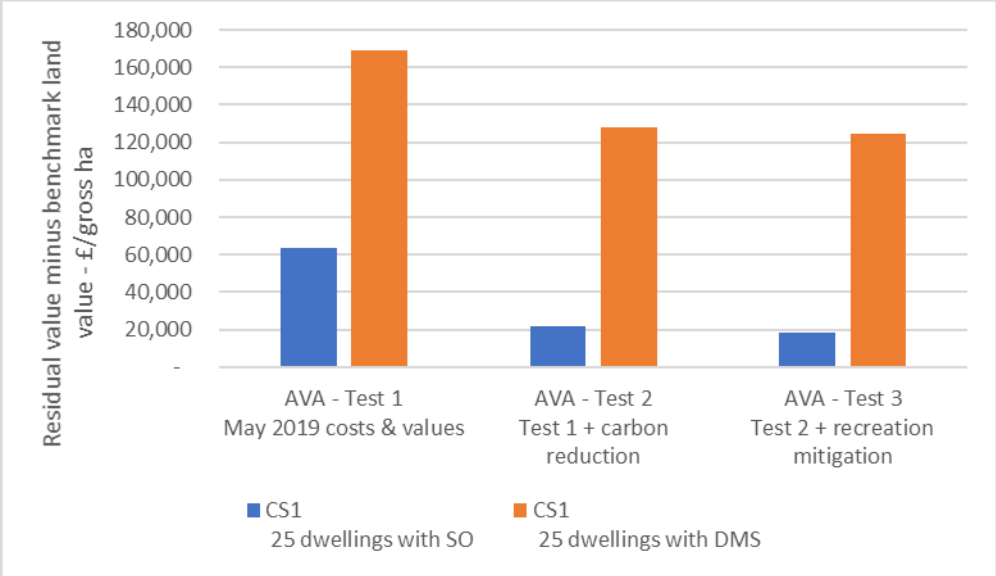
Benchmark Land Value per gross ha = £0.4m for CS1 & CS2 / £0.3m for CS3

3.14 In the South West Value Area overall residual values have reduced in comparison with the 2018 WPVA; however all three mixed tenure case studies of 25, 40 and 80 dwellings produce per hectare residual land values above the benchmark land value in each of the three tests.

3.15 Results are also not as strong as those in the North East, for CS1 & CS2 at tests 2 & 3 in particular where results are around 4% above benchmark land value.

3.16 Depending on the specific circumstances of a site, there may be occasions when some flexibility over tenure of the affordable housing is needed to ensure sites are viable and we have tested the effect of changing the shared ownership units to Discount Market Sale (so affordable delivery would consist of 70% Affordable Rent and 30% DMS). The revised results are shown below, using CS1 to illustrate this.

Figure 3.4: Allocated / Mixed Tenure Case Study CS1 showing the effect of substituting Discount Market Sale for shared ownership units – residual value per gross ha minus land value – South West value area



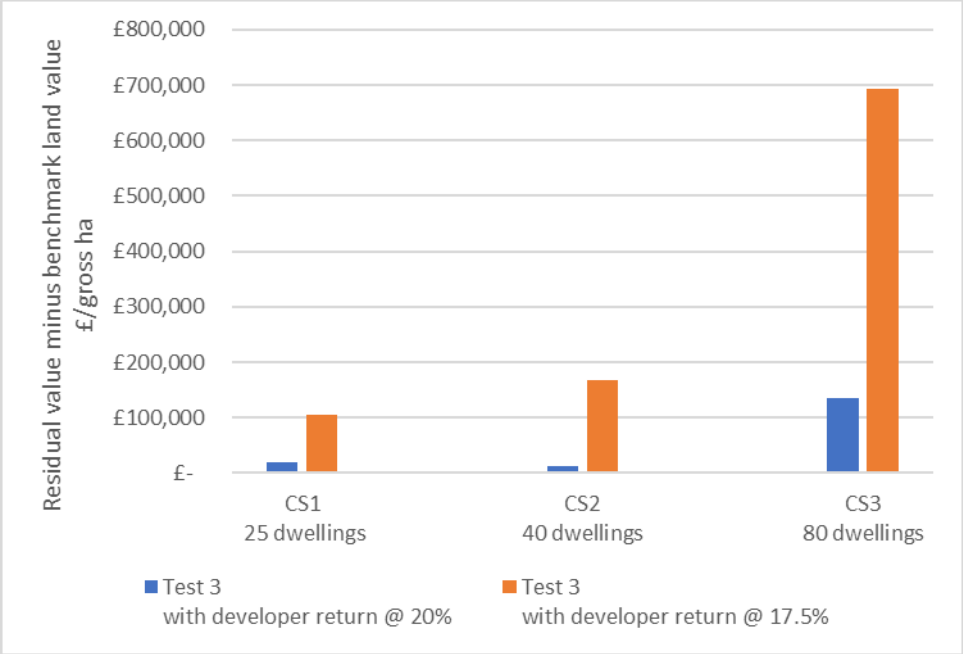
Benchmark Land Value per gross ha = £0.4m for CS1 & CS2 / £0.3m for CS3

3.17 The results show that, when the shared ownership units are changed to Discount Market Sale, viability is improved, in this case by around £100,000 hectare. The scheme is still able to deliver 70% of the affordable homes as Affordable Rent but the 30% intermediate element is switched to DMS. This suggests that flexibility over the tenure of affordable homes will assist in ensuring that policy compliant schemes can be delivered in the South West Value Area.

3.18 In the South West we also looked at the effect of a reduction in developer return. PPG has been updated since the testing for the WPVA and suggests a range for developer return[16] (although noting that there will be exceptions) of 15-20%. As all our testing to date has been carried out at the upper end of this range (20%), we also modelled the case studies in the South West at 17.5% (mid-range) to observe how this might impact on the residual values where results were weaker.

[16] PPG May 2019 paragraph 18

Figure 3.5: Allocated / Mixed Tenure Case Studies showing the effect of reduced developer return– residual value per gross ha minus land value – South West value area



Benchmark Land Value per gross ha = £0.4m for CS1 & CS2 / £0.3m for CS3

3.19 The reduction in developer return has a marked impact on the results for the case studies in the South West and demonstrates that viability can be strengthened in this way whilst preserving a developer return within an acceptable range, supported by PPG.

Older persons housing scheme

3.20 A 10 unit older persons housing scheme (CS4) was tested in the WPVA and is also tested in AVA. The scheme consists of 4 x 1bed and 6 x 2bed flats in a block[17]. As with the WPVA, this is tested both with and without affordable housing at 45%. The results of the testing are presented for both value areas in the same chart below on a per scheme basis.

[17] Note that Sheltered Housing (sometimes referred to as 'Retirement Living') will provide communal facilities such as a resident lounge and a low level of support usually ranging from community alarms to part-time warden for which a service charge is paid by the resident

Figure 3.6: Older persons housing scheme – residual value minus land value per scheme – both value areas

Benchmark land value per gross ha = £0.6m (NE) and £0.4m (SW) Results are shown on a land value per scheme basis of £171,600 (NE) and £114,400 (SW)

3.21 As with the WPVA, for all tests undertaken for the AVA, the sheltered scheme was not viable with 45% affordable housing in either value area but was viable without affordable housing in both[18].

3.22 In the NE value area, the strong viability without affordable housing indicates that the sheltered housing scheme could afford some affordable housing, if not the full 45% of the policy. Therefore a test at 22.5% was undertaken (not shown in chart) which produced viable scheme results with a residual value of just under £65,000 for the scheme after deduction for benchmark land value.

3.23 There is less viability headroom in the SW value area for specialist older persons schemes of this size. However a test undertaken at 5% affordable housing (but not shown in the chart) was viable and suggests that a small number of affordable units or a commuted sum may be possible in the South West Value Area.

[18] Without affordable housing, viability improved very slightly for the first test in both value areas. This result appears out of step with the rest of the testing and is explained by lower build cost inflation for sheltered housing compared with general needs housing, alongside the higher prices that specialist older persons housing achieves in the market.

Rural Exception Sites

3.24 A Rural Exception Site policy is in place in all settlements in the NPA. Development on these sites at 100% affordable housing is required but this can be varied to 75% on viability grounds[19] or to 45% where necessary community infrastructure is provided[20].

3.25 In the WPVA three RES case studies were tested – for the AVA, we selected one (the 7 unit scheme) to demonstrate the impact of updated costs, values and policies. As in the WPVA, the benchmark land value used is £10,000 per plot and the scheme modelled is a mix of one, two and three bedroom houses.

3.26 Testing in the AVA replicates that of the WPVA with an initial test at 100% affordable housing and then with various combinations of market and affordable housing. As viability is generally lower with the updated costs, values and policies, we included an extra test where the shared ownership homes were changed to DMS. The tests are set out below:

i) As 100% affordable housing;

ii) 25% market housing and 75% affordable housing with the affordable housing split at 70% Affordable Rent /25% shared ownership;

iii) 25% market housing and 75% affordable housing with the affordable housing split at 50% Affordable Rent /50% shared ownership;

iv) 25% market housing and 75% affordable housing with the affordable housing split at 20% Affordable Rent /80% shared ownership;

v) 25% market housing and 75% affordable housing with the affordable housing split as 20% Affordable Rent / 80% DMS (this test was undertaken in the South West value area only).

3.27 The results of the testing are shown in the chart below and demonstrate the position at test 3 (2019 costs and values and all draft policies accounted for) for a 7 dwelling scheme. The North East Value Area is shown on the left and the South West on the right. Results are for scheme residual value minus benchmark land value of £10,000 per plot.

[19] The inference being that when 25% of units are delivered as market this is the minimum amount of market housing required to ensure development is viable and therefore able to deliver affordable homes – draft policies 3.3(4), 3.4(4), 3.5(3)
[20] draft policies 3.3(4), 3.4(4)

Figure 3.7: Rural Exception Site of 7 dwellings – residual value per scheme – both value areas

North East 1 x 1 bed house 3 x 2 bed house 3 x 3 bed house	**2018**	**2019 - test 3**	**South West** 1 x 1 bed house 3 x 2 bed house 3 x 3 bed house	**2018**	**2019 - test 3**
100% Affordable (AH)	-149,000	-256,700	100% Affordable (AH)	-182,000	-263,700
25% mkt/75%AH as 70% AR/ 30%SO	-48,000	-140,700	25% mkt/75%AH as 70% AR/ 30%SO	-105,000	-174,700
25%mkt/75%AH as50%Aff rent/ 50%SO	12,000	-68,700	25%mkt/75%AH as 50%Aff rent/ 50%SO	-57,000	-116,700
25%mkt/75%AH as20%Aff rent/ 80%SO		43,300	25%mkt/75%AH as 20%Aff rent/ 80%SO	13,000	-31,700
			25%mkt/75%AH as 20%Aff rent/ 80%DMS		64,300

Land value = £70,000 for scheme (£10,000 per plot)

3.28 The testing shows that viable RES schemes can be found in both value areas with a level of 25% market dwellings as per plan policy but the affordable dwelling mix is key. For sites in the North East of the National Park, 80% of the affordable units were delivered as shared ownership to produce a viable case study. In the South West 80% of the affordable units were delivered as DMS to produce a viable scheme.

3.29 RES will in practice be based upon local need and should be judged on a case by case basis. We haven't modelled these schemes with any subsidy but understand from our conversations with providers that some level of grant is likely to be available for RES in the National Park. We have therefore modelled a cautious worst-case scenario for this AVA. In practice, if subsidy were available a different affordable mix could be viable and/or a lower level of market units.

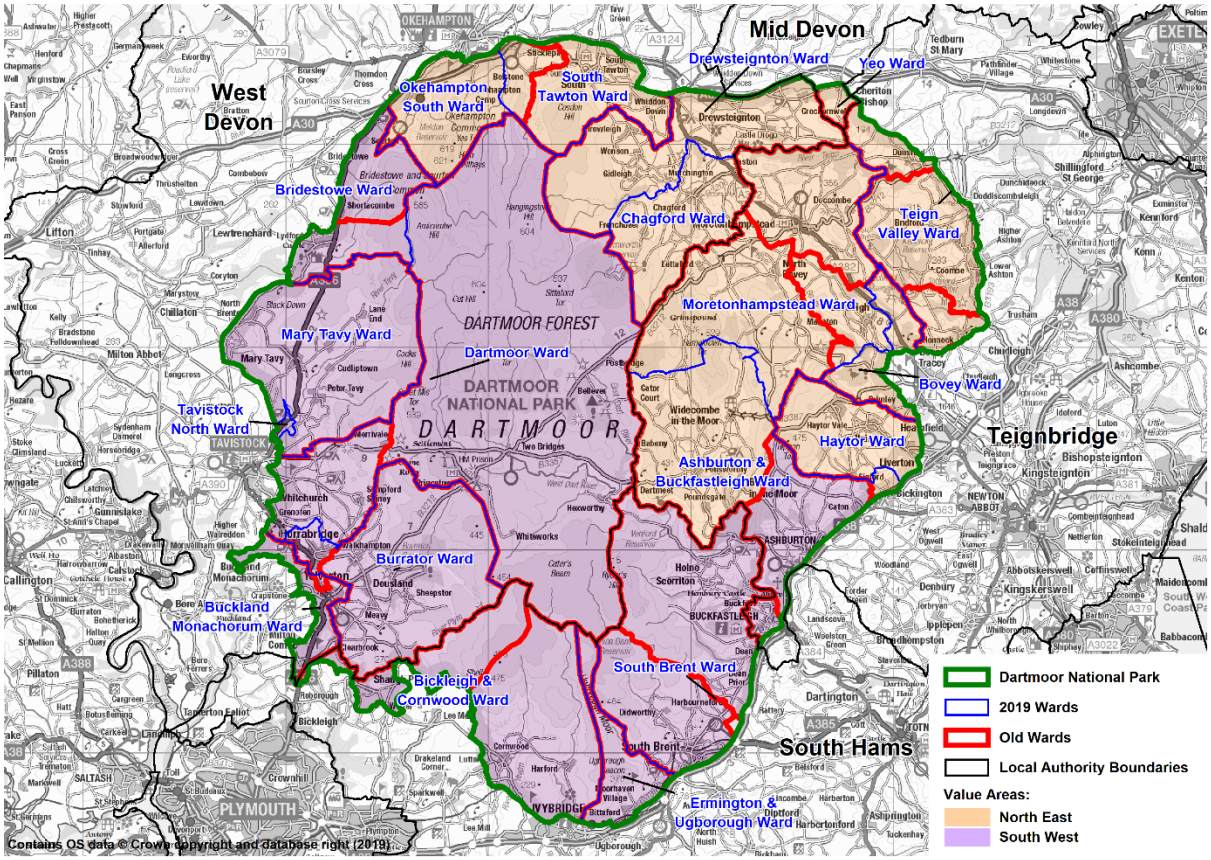
3.30 The additional viability headroom reached with DMS dwellings could allow DNPA to achieve the electric vehicle charging and higher accessibility standards that were excluded from the WPEVA on RES.

3.31 Finally, it is of note that we have used a benchmark land value of £10,000 per plot, however PPG is clear that the price paid for land should reflect policy requirements thus where local need requirements are for a greater number of affordable rented units, the value per plot should be reduced so that this can be achieved.

Conclusion

3.32 The viability testing undertaken in the Addendum Viability Assessment has demonstrated good general viability and, in most cases, ability to achieve a level of between 45% and 100% affordable housing, depending on site type and policy requirement. Results are weaker than found in the 2018 WPVA but overall the conclusions reached are still applicable. On some sites, flexibility regarding affordable tenures will be necessary for an economically deliverable scheme. The case studies have produced viable results in both value areas but there is less 'headroom' to deal with market fluctuations or additional cost in the South West compared to the North East.

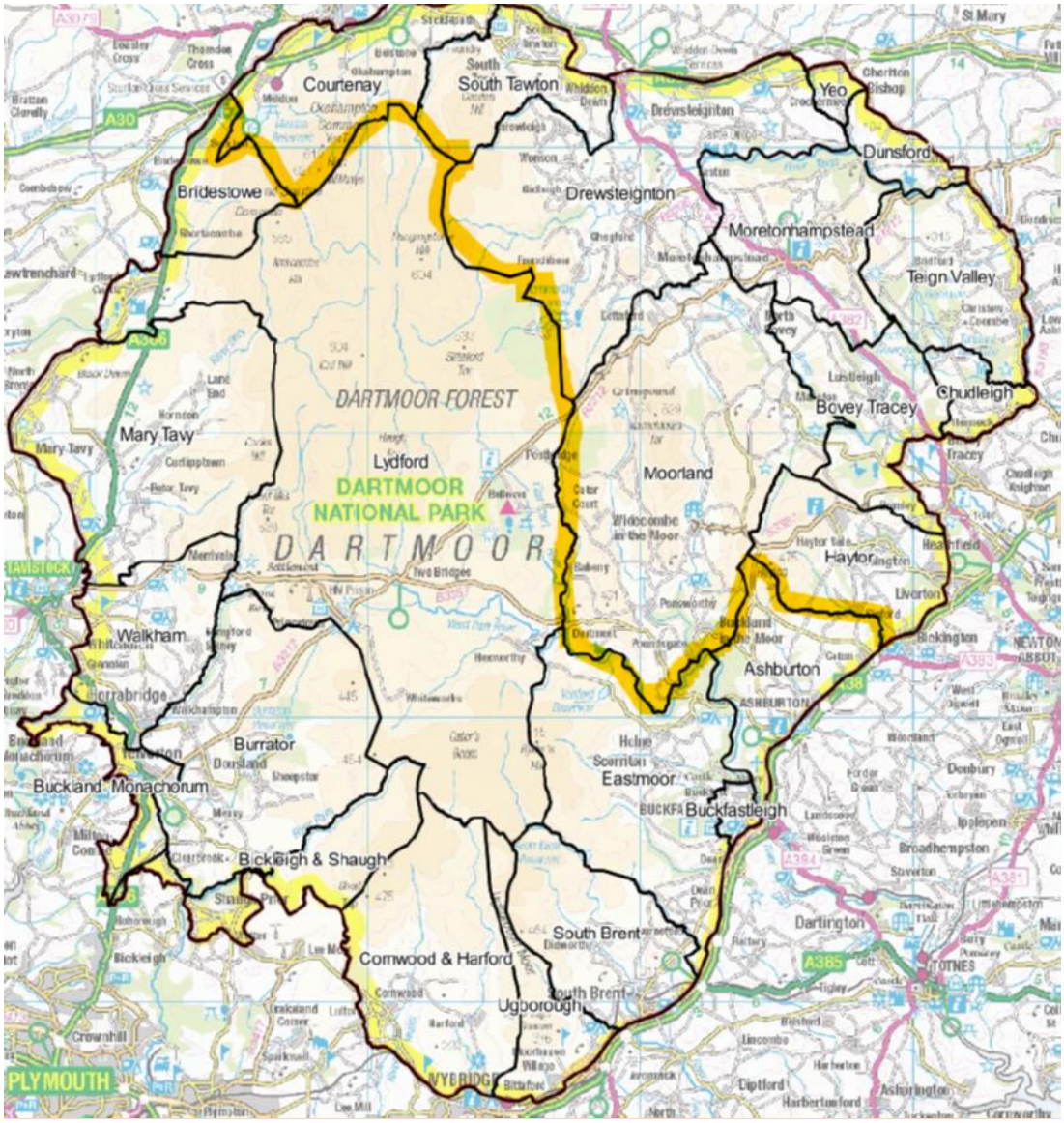
ANNEX 1: MAP SHOWING ALIGNMENT OF LOCAL AUTHORITY BOUNDARIES WITH THE VALUE AREAS USED FOR THE WPVA AND THE AVA



ANNEX 2: TESTING ASSUMPTIONS AS AT JULY 2019

NOTE that where costs have changed since the 2018 study, items are marked with an *

1. Market Housing



House Prices*

Market GIA SQ M	120	100	106	97	106	93	79	58	70	50	80	55
	Detached		**Semi-detached**		**Terrace**				**Flats**		**Bungalows**	
	4 Bed	**3 Bed**	**4 Bed**	**3 Bed**	**4 Bed**	**3 Bed**	**2 Bed**	**1 bed**	**2 Bed**	**1 Bed**	**2 bed**	**1 bed**
North East	436,900	364,100	336,300	307,800	301,700	264,700	224,800	165,100	189,200	135,200	304,600	209,400
South West	372,600	310,500	278,500	254,800	271,400	238,100	202,200	148,500	160,200	114,500	252,200	173,400

On development of 1-3 units + 5% added to selling price for 'exclusivity'

For sheltered housing it is assumed that a 1bed flat = 75% of a 3bed semi and a 2bed flat = 100% of a 3bed semi

(Affordable) Discount Market Sale* – 2 bed house = £165,000 and 3 bed house = £185,000

Note – not all unit types will be included in development testing

Average price per sqm – all houses and flats*

	Detached	Semi	Terrace	Flat
NE	3,641	3,173	2,846	2,703
SW	3,105	2,627	2,560	2,289

Premium for bungalows –semi-detached house + 20%

.

Market Housing dwelling mix

Type	**Allocated sites – 35 dph**
1 bed flat or terrace	-
2 bed flat	-
2 bed downsizer bungalow	5%
2 bed terrace	15%
3 bed terrace	20%
4 bed terrace	-
3 bed semi	10%
4 bed semi	-
3 bed detached	25%
4 bed detached	25%

Single units scheme as 3 bed detached
Infill sites of 2-5 units –2/3 bed terraced
Infill sites of +5 units – 2 bed terrace / 3 bed semi
Custom/Self-build plots suitable for 3 bed semi or detached

2. Affordable Housing

Allocated sites
45% affordable homes – with no threshold
70/30 split between rented and intermediate. Rented as Affordable Rent and intermediate as shared ownership or, where specified, Discount Market Sale

Infill sites
Test at

a) 100% AH - rented;
b) 100% AH – shared ownership;
c) 45% affordable housing/55% market housing;
d) 100% plots for custom or self-build local needs sale
e) 45% affordable Discount Market Sale / 55% market housing*

RES
Start at 100% AH - What level of market makes schemes viable? Sequential testing

1. 100% affordable housing made up of 70% Affordable Rent & 30% shared ownership
2. 75% affordable housing (70% Affordable Rent & 30% shared ownership) / 25% open market
3. 75% affordable housing (50% Affordable Rent & 50% shared ownership) / 25% open market
4. 75% affordable housing (20% Affordable Rent & 80% shared ownership) / 25% open market
5. 75% affordable housing (20% Affordable Rent & 80% DMS) / 25% open market sale

Affordable Housing Dwelling mix

Affordable Housing Development Mix House Type	**Affordable Rent (70% of AH)**	**Intermediate SO (30% of AH)**
1 bed flat/house	25%	
2 bed house	45%	50%
3 bed house	25%	50%
4 bed house	5%	

Single units scheme as 3 bed detached
Infill sites of 2-5 units –2/3 bed terraced
Infill sites of +5 units – 2 bed terrace / 3 bed semi

Affordable housing values

Affordable Rent (AR) is net of service charge of £5 for houses and flats (not likely to be communal areas in flats in NP) & based on 100% of LHA rates (rounded)
There are 3 BRMAs –Plymouth, South Devon, Exeter. Plymouth BRMA is used for rents as it is lowest but not that much lower than South Devon and the 2 together cover most of NPA. Exeter BRMA covers a top slice and is much higher.

Net of service charges	Net Weekly Affordable Rents
1 bedroom flat*	£92
2 bedroom flat	£117
1 bedroom house	£92
2 bedroom house/bungalow	£117
3 bedroom house	£140
4 bedroom house	£177

For rental properties.	
Management and maintenance	£1,000
Voids/bad debts	2.5%
Repairs reserve	£600
Capitalisation	5%
For shared ownership	
Share size	40%
Rental charge	2.5%
Capitalisation	5%

3. General costs and assumptions – all dwellings

Dwelling sizes

House type description	***Affordable sq m***	***Market sq m***
1 bedroom flat	*50 (2p)*	*50*
2 bedroom flat	*70 (4p)*	*70*
1 bedroom bungalow	*55 (2p)*	*55*
2 bedroom bungalow	*70 (4p)*	*80*
1 bedroom terrace	*58 (2p)*	*58*
2 bedroom terrace	*75*	*79*
3 bedroom terrace	*85*	*93*
4 bedroom terrace	*97*	*106*
3 bed semi detached	*93*	*97*
4 bed semi detached	*106*	*106*
3 bed detached		*100*
4 bed detached		*120*

Affordable & Market Dwelling size compliant with Nationally Described Space Standards
An allowance of 10% of floor area will be added to the 1-2 storey flats for circulation space and common areas.

Other costs

Type	Build Cost (North East Market Area)	Build Cost (South West Market Area)	Comment
Flats (1-2 storeys)*	£1,615.8	£1,569.2	sq m includes 15% for external works
Flats (3-5 storeys)*	£1,608.9	£1,562.9	sq m includes 15% for external works
Houses*	£1,445.6	£1,403.6	sq m includes 15% for external works
2 to 3 houses And custom build*	£1,517.9	£1,473.8	sq m includes 15% for external works (5% increase over standard house build cost)
Single house*	£2,511.6	£2,439.2	sq m includes 15% for external works
Bungalows*	£1,803.2	£1,751.5	sq m includes 15% for external works
Sheltered Housing*	£1,756.1	£1,705.	sq m includes 15% for external works (sheltered housing is 2-storey in DNPA)

Type	Cost – All Market Areas	Comment
Additional sustainability standard*	+0.6% on build costs + a further £350 unit	10% carbon reduction over the building emissions rate required for Part L (2013) of the Building Regulations[21] 0.6% on build costs results in an average of around £850 additional cost per dwelling £350 per unit is for air-tightness testing
Professional fees	8%-10%	50 units or less – 10% 50+ units - 8%
Finance	6%	of development costs (net of inflation)

[21] Assessment of the Viability of Carbon Emissions Targets for New Builds – Evora Edge Main Report, April 2017 and see also Housing Standards Review EC Harris for DCLG September 2014 which suggests the additional cost should be minimal

Marketing fees	3%	of market GDV
Developer return	20%	of market GDV
Contractor return	6%	of affordable build costs
s106/278	i) £2,500 ii) £500 iii) £3,650 iv) £100*	i) per unit - S106 to cover open space & some site specific ii) per unit - Biodiversity Net Gain[22] iii) per market unit on larger sites of 20+ dwellings for primary education and, on sites over 75 units, £3,650 for secondary education (in addition to primary) iv) per market unit for recreational mitigation[23]
Strategic infrastructure costs/ opening up	>55 units 75k/net ha >100 units £100k/net ha	net ha for larger sites
Void costs	£50,000	Smaller sheltered and extracare schemes
Agents and legal	1.75%	
Part M4	Based on Housing Standards Review[24]	All units at M4 (2) 2% of affordable at M4(3) on sites over 20 dwellings
Electric Vehicle Charging Points	£500 – passive £800 – active	1 active point per detached or semi 5% of communal[25] car parking spaces - active & 50% of remaining spaces - passive

[22] See Net gain Consultation proposals DEFRA December 2018 and related Impact Assessment
[23] Amount advised by DNPA
[24] Housing Standards Review EC Harris for DCLG September 2014
[25] **Table 4.2** Minimum on-site residential car parking standards

Dwelling size	Parking provision*
1 bedroom	1
2-3 bedrooms	2
4+ bedrooms	3
*** in addition 1 visitor parking space should be provided for every 10 dwellings**	

Draft Local Plan Table 4.2

Net to gross ratios & density
Up 1 ha – 100%
1 ha or more – 80%
Density – 35 dph

Build out rate / DCF period
1,3,25 in first year
40 - 2 years
80 – 3 years
Older persons – 2 years for sale

4. Benchmark Land Values

DNPA	**Value per gross hectare**	**Larger sites – over 2 ha aprox**	**Rural Exception Sites**
North East	£600,000	£350,000	£10K per plot
South West	£400,000	£300,000	£10K plot

5. Sites Tested

Infill – 30 dph	**Allocated**	**RES / CNS – per plot**
1 unit	25	7
3 units	40	
5 units	80	
10 units	10-unit older persons (single storey)	
Infill sites tested as a) all affordable b) 45% affordable c) all custom/self-build plots for local needs sale e) 45% affordable discount market sale		

ANNEX 3: RESULTS OF VIABILITY TESTING

Infill Sites

											Oct-18 Report		August 2019 Report					
											Oct-18 - using Jan-18 build costs and SPs		Jul-19 - Test 1 - May-19 build costs & SPs applied		Jul-19 - Test 2 May-19 build costs & SPs with additional allowance for carbon reduction		Jul-19 - Test 3 - £100/dwg habitat mitigation cost applied to Test 2	
Case Study Ref	No of Dwgs	Dwelling Mix	S106 /dwelling	Market Value Area	%Aff Housing (Aff Rent)	% Aff Housing (SO)	55% mkt/ 45% Aff Housing (Aff Rent & SO)	CSB plots for local needs	100% Discount Market Sale (40% disc)	55% mkt/ 45% Discount Market Sale	Scheme Residual Value	Scheme RV less Site Benchmark	Scheme Residual Value	Scheme RV less Site Benchmark	Scheme Residual Value	Scheme RV less Site Benchmark	Scheme Residual Value less £100/dwg habitat mitigation	Scheme RV less Site Benchmark
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	NE	100%						-155,000	-175,000	-204,449	-224,449				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	NE		100%					-16,000	-36,000	-47,009	-67,009				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	NE			45%				-41,000	-61,000	-76,904	-96,904				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	NE				100%			10,000	-10,000	-17,553	-37,553				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	NE					100%		-93,800	-113,800	-129,973	-149,973				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	NE						45%			-47,000	-67,000				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	SW	100%						-155,000	-168,333	-195,573	-208,906				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	SW		100%					-52,000	-65,333	-77,333	-90,666				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	SW			45%				-69,000	-82,333	-97,298	-110,631				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	SW				100%			-28,000	-41,333	-49,964	-63,297				
IF1	1	1 x 3bd	s106 - 2500 Bio - £500	SW						45%			-62,081	-75,414				
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE	100%						-110,000	-161,000	-167,463	-218,463	-171,309	-222,309	-171,609	-222,609
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE		100%					100,000	49,000	78,979	27,979	75,203	24,203	74,903	23,903
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE			45%				61,000	10,000	29,285	-21,715	24,949	-26,051	24,649	-26,351
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE				100%			116,000	65,000	65,456	14,456	61,616	10,616	61,316	10,316
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE					100%		-100,000	-151,000	-135,881	-186,881	-139,792	-190,792	-140,092	-191,092
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE						45%			111,825	60,825	108,039	57,039	107,739	56,739
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	SW	100%						-110,000	-144,000	-154,216	-188,216	-157,973	-191,973	-158,273	-192,273
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	SW		100%					49,000	15,000	36,978	2,978	33,292	-708	32,992	-1,008
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	SW			45%				23,000	-11,000	1,227	-32,773	-2,528	-36,528	-2,828	-36,828
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	SW				100%			62,000	28,000	24,307	-9,693	20,559	-13,441	20,259	-13,741
IF2	3	2x3bt, 1x2bt	s106 - 2500 Bio - £500	SW						45%			91,608	57,608	87,912	53,912	87,612	53,612

											Oct-18 Report		August 2019 Report					
											Oct-18 - using Jan-18 build costs and SPs		Jul-19 - Test 1 - May-19 build costs & SPs applied		Jul-19 - Test 2 May-19 build costs & SPs with additional allowance for carbon reduction		Jul-19 - Test 3 - £100/dwg habitat mitigation cost applied to Test 2	
Case Study Ref	No of Dwgs	Dwelling Mix	S106 /dwelling	Market Value Area	%Aff Housing (Aff Rent)	% Aff Housing (SO)	55% mkt/ 45% Aff Housing (Aff Rent & SO)	CSB plots for local needs	100% Discount Market Sale (40% disc)	55% mkt/ 45% Discount Market Sale	Scheme Residual Value	Scheme RV less Site Benchmark	Scheme Residual Value	Scheme RV less Site Benchmark	Scheme Residual Value	Scheme RV less Site Benchmark	Scheme Residual Value less £100/dwg habitat mitigation	Scheme RV less Site Benchmark
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE	100%						-188,000	-274,400	-279,317	-365,717	-285,555	-371,955	-286,055	-372,455
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE		100%					169,000	82,600	142,012	55,612	135,878	49,478	135,378	48,978
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE			45%				114,000	27,600	68,992	-17,408	62,877	-23,523	62,377	-24,023
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE				100%			178,000	91,600	149,738	63,338	145,403	59,003	144,903	58,503
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE					100%		-109,000	-195,400	-156,725	-243,125	-162,930	-249,330	-163,430	-249,830
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE						45%			200,755	114,355	194,710	108,310	194,210	107,810
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW	100%						-188,000	-245,600	-258,153	-315,753	-262,241	-319,841	-262,741	-320,341
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW		100%					59,000	1,400	42,460	-15,140	36,477	-21,123	35,977	-21,623
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW			45%				29,000	-28,600	639	-56,961	-5,430	-63,030	-5,930	-63,530
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW				100%			65,000	7,400	47,768	-9,832	41,636	-15,964	41,136	-16,464
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW					100%				-217,347	-274,947	-223,402	-281,002	-223,902	-281,502
IF3	5	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW						45%			148,405	90,805	144,456	86,856	143,956	86,356
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE	100%						-384,000	-555,000	-574,144	-745,144	-587,006	-758,006	-588,006	-759,006
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE		100%					382,000	211,000	330,541	159,541	318,546	147,546	317,546	146,546
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE			45%				255,000	84,000	168,212	-2,788	155,626	-15,374	154,626	-16,374
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE				100%			402,000	231,000	353,041	182,041	340,718	169,718	339,718	168,718
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE					100%		-199,000	-370,000	-295,171	-466,171	-307,943	-478,943	-308,943	-479,943
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE						45%			424,522	253,522	412,854	241,854	411,854	240,854
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW	100%						-384,000	-498,000	-529,964	-643,964	-542,510	-656,510	-543,510	-657,510
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW		100%					127,000	13,000	98,556	-15,444	86,238	-27,762	85,238	-28,762
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW			45%				62,000	-52,000	4,681	-109,319	-7,731	-121,731	-8,731	-122,731
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW				100%			143,000	29,000	112,359	-1,641	99,710	-14,290	98,710	-15,290
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW					100%				-442,380	-556,380	-454,840	-568,840	-455,840	-569,840
IF4	10	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW						45%			302,215	188,215	290,784	176,784	289,784	175,784

Case Study Sites

																	October 2018 Report		August 2019 Report							
																	Oct-18 - using Jan-18 build costs and SPs		Jul-19 - Test 1 - May-19 build costs & SPs applied		Jul-19 - Test 2 May-19 build costs & SPs with additional allowance for carbon reduction		Jul-19 - Test 3 - £100/dwg habitat mitigation cost applied to Test 2		Jul-19 - Sensitivity Test - Test 3 with 17.5% developer return applied to Test 2	
Case Study Ref	Type of dev	No of Dwgs	Net Area (ha)	Gross area (ha)	Net to Gross %	Density	Market Dwelling Mix	%AH	S106/dwelling	Opening up/ Abnormals costs	DCF Applied	Market Value Area	%Aff Rent	% Sh Ownership	% DMS	Benchmark per ha	Site Benchmark	Scheme Residual Value 45%AH	Scheme RV less Benchmark	Scheme Residual Value 45%AH	Scheme RV less Benchmark	Scheme Residual Value 45%AH	Scheme RV less Benchmark	Scheme Residual Value 45%AH	Scheme RV less Benchmark	Scheme Residual Value 45%AH	Scheme RV less Benchmark
CS1	Allocated	25	0.714	0.714	100%	35dph	35 dph mix	45%	s106 - £6,150 Bio - £500	-	No	NE	31.5%	13.5%		600,000	428,400	887,000	458,600	737,084	308,684	706,853	278,453	704,353	275,953		
CS1	Allocated	25	0.714	0.714	100%	35dph	35 dph mix	45%	s106 - £6,150 Bio - £500	-	No	NE	31.5%		13.5%	600,000	428,400			757,555	329,155	727,325	298,925	724,825	296,425		
CS1	Allocated	25	0.714	0.714	100%	35dph	35 dph mix	45%	s106 - £6,150 Bio - £500	-	No	SW	31.5%	13.5%		400,000	285,600	411,000	125,400	330,846	45,246	301,336	15,736	298,836	13,236	390,963	105,363
CS1	Allocated	25	0.714	0.714	100%	35dph	35 dph mix	45%	s106 - £6,150 Bio - £500	-	No	SW	31.5%		13.5%	400,000	285,600			406,450	120,850	376,940	91,340	374,440	88,840	466,567	180,967
CS2	Allocated	40	1.143	1.429	80%	35dph	35 dph mix	45%	s106 - £6,150 Bio - £500	-	Yes	NE	31.5%	13.5%		600,000	857,400	1,528,953	671,553	1,304,182	446,782	1,256,320	398,920	1,252,320	394,920		
CS2	Allocated	40	1.143	1.429	80%	35dph	35 dph mix	45%	s106 - £6,150 Bio - £500	-	Yes	SW	31.5%	13.5%		400,000	571,600	755,692	184,092	641,519	69,919	594,823	23,223	590,823	19,223	740,366	168,766
CS3	Allocated	80	2.286	2.857	80%	35dph	35 dph mix	45%	s106 - £9,800 Bio - £500	171,450	Yes	NE	31.5%	13.5%		350,000	999,950	2,992,740	1,992,790	2,730,315	1,730,365	2,633,955	1,634,005	2,625,955	1,626,005		
CS3	Allocated	80	2.286	2.857	80%	35dph	35 dph mix	45%	s106 - £9,800 Bio - £500	171,450	Yes	SW	31.5%	13.5%		300,000	857,100	1,401,878	544,778	1,343,140	486,040	1,248,846	391,746	1,240,846	383,746	1,551,248	694,148
CS4	Allocated (Older Persons)	10	0.286	0.286	100%	35dph	2.2x1bflat 3.3x2bflat	45%	s106 - £2,500 Bio - £500	50,000	Yes	NE	31.5%	13.5%		600,000	171,600	46,622	-124,978	8,298	-163,302	-4,811	-176,411	-5,811	-177,411		
CS4	Allocated (Older Persons)	10	0.286	0.286	100%	35dph	3.1x1bflat 4.65x2bflat	22.5%	s106 - £2,500 Bio - £500	50,000	Yes	NE	15.8%	6.8%		600,000	171,600	264,012	92,412	249,732	78,132	237,331	65,731	236,331	64,731		
CS4	Allocated (Older Persons)	10	0.286	0.286	100%	35dph	2.2x1bflat 3.3x2bflat	45%	s106 - £2,500 Bio - £500	50,000	Yes	SW	31.5%	13.5%		400,000	114,400	-195,716	-310,116	-205,221	-319,621	-218,786	-333,186	-219,786	-334,186		
CS4	Allocated (Older Persons)	10	0.286	0.286	100%	35dph	4x1bflat 6x2bflat	5%	s106 - £2,500 Bio - £500	50,000	Yes	SW	3.5%	1.5%		400,000	114,400					125,101	10,701	124,101	9,701		
CS4	Allocated (Older Persons)	10	0.286	0.286	100%	35dph	4x1bflat 6x2bflat	0%	s106 - £2,500 Bio - £500	50,000	Yes	NE	_	_		600,000	171,600	473,770	302,170	481,585	309,985	469,620	298,020	468,620	297,020		
CS4	Allocated (Older Persons)	10	0.286	0.286	100%	35dph	4x1bflat 6x2bflat	0%	s106 - £2,500 Bio - £500	50,000	Yes	SW	_	_		400,000	114,400	146,333	31,933	176,717	62,317	164,122	49,722	163,122	48,722		

Rural Exception Sites

												Oct-18 Report		Aug-19 Report					
												Oct-18 - using Jan-18 build costs and SPs		Jul-19 - Test 1 - May-19 build costs & SPs applied		Jul-19 - Test 2 May-19 build costs & SPs with additional allowance for carbon reduction		Jul-19 - Test 3- £100/dwg habitat mitigation cost applied to Test 2	
Case Study Ref	Type of dev	No of Dwgs	Net Area (ha)	Gross area (ha)	Net to Gross %	Density	Dwelling Mix	S106/ dwelling	DCF Applied	Market Value Area	Site Benchmark	Residual Value	Residual Value less benchmark	Residual Value	Residual Value less benchmark	Residual Value	Residual Value less benchmark	Residual Value	Residual Value less benchmark
RES1 Test 1 100% Affordable Rent	Rural Exception	7	0.250	0.250	100%	32 dph	1 x 1 bh 3 x 2 bh 3 x 3 bh	2,500	no	NE	70,000	-79,000	-149,000	-178,000	-248,000	-186,000	-256,000	-186,700	-256,700
RES1 Test 2 - 25% mkt/75%AH split 70% Aff Rent/ 30%SO	Rural Exception	7	0.250	0.250	100%	32 dph	1 x 1 bh 3 x 2 bh 3 x 3 bh	2,500	no	NE	70,000	22,000	-48,000	-62,000	-132,000	-70,000	-140,000	-70,700	-140,700
RES1 Test 3 - 25% mkt/75%AH split 50% aff rent/ 50%SO	Rural Exception	7	0.250	0.250	100%	32 dph	1 x 1 bh 3 x 2 bh 3 x 3 bh	2,500	no	NE	70,000	82,000	12,000	10,000	-60,000	2,000	-68,000	1,300	-68,700
RES1 Test 4 - 25%mkt/75%AH split 20%Aff rent/ 80%SO	Rural Exception	7	0.250	0.250	100%	32 dph	1 x 1 bh 3 x 2 bh 3 x 3 bh	2,500	no	NE	70,000			120,000	50,000	114,000	44,000	113,300	43,300
RES1 Test 1 100% Affordable Rent	Rural Exception	7	0.250	0.250	100%	32 dph	1 x 1 bh 3 x 2 bh 3 x 3 bh	2,500	no	SW	70,000	-112,000	-182,000	-185,000	-255,000	-193,000	-263,000	-193,700	-263,700
RES1 Test 2 - 25% mkt/75%AH split 70% Aff Rent/ 30%SO	Rural Exception	7	0.250	0.250	100%	32 dph	1 x 1 bh 3 x 2 bh 3 x 3 bh	2,500	no	SW	70,000	-35,000	-105,000	-95,000	-165,000	-104,000	-174,000	-104,700	-174,700
RES1 Test 3 - 25% mkt/75%AH split 50% aff rent/ 50%SO	Rural Exception	7	0.250	0.250	100%	32 dph	1 x 1 bh 3 x 2 bh 3 x 3 bh	2,500	no	SW	70,000	13,000	-57,000	-37,000	-107,000	-46,000	-116,000	-46,700	-116,700
RES1 Test 4 - 25%mkt/75%AH split 20%Aff rent/ 80%SO	Rural Exception	7	0.250	0.250	100%	32 dph	1 x 1 bh 3 x 2 bh 3 x 3 bh	2,500	no	SW	70,000	83,000	13,000	47,000	-23,000	39,000	-31,000	38,300	-31,700
RES1 Test 5 - 25%mkt/75%AH split 20%Aff rent/ 80%DMS	Rural Exception	7	0.250	0.250	100%	32 dph	1 x 1 bh 3 x 2 bh 3 x 3 bh	2,500	no	SW	70,000			140,000	70,000	135,000	65,000	134,300	64,300

.