
**DARTMOOR NATIONAL PARK
AUTHORITY**

**Whole Plan Viability Assessment -
2018**

**Three Dragons in association with
Rural Housing Solutions &
Enableteam – October 2018**

FINAL REPORT



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.

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EXECUTIVE SUMMARY

1. The Dartmoor National Park Authority (DNPA) is currently reviewing its Local Plan. The new draft Local Plan sets out the opportunities for development within the National Park and the policies to support that development to 2035. DNPA seeks to restrict the development of market homes in the National Park, hence the new Plan will allow the provision of market housing and/or allocate sites where it may help to ensure delivery of affordable homes. As part of this process, the Authority needs evidence to demonstrate that its draft policies are deliverable, including that the balance of affordable and market housing is viable. This Viability Assessment provides that evidence.
2. The Viability Assessment has been prepared in consultation with the development industry and has followed the relevant regulations and guidance and is in line with the National Planning Policy Framework.
3. In summary, the Viability Assessment has demonstrated that the draft Local Plan policies in relation to residential development for allocated, infill and rural exception sites are financially viable for the majority of the typologies tested. A policy requiring 45% affordable housing on allocated sites is generally achievable. Draft policies regarding infill sites require different levels of affordable dwellings dependent on location as well as other factors: infill sites are viable at the policy position provided there is flexibility around the tenure of the affordable units, where these are provided. Infill sites 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.

Testing Principles

4. The testing undertaken uses a standard residual value approach. The residual value of development (total value less all development and policy costs, including planning obligations) is compared to a land value benchmark and the scheme is said to be viable if the residual value exceeds the benchmark.
5. For the testing we used the Three Dragons Toolkit for residential development.
6. Whilst this report was being compiled, the Government issued its revised National Planning Policy Framework (NPPF) (July 2018). This has had some implications for the economic viability testing for the Local Plan, and we have made reference to the new NPPF and associated Planning Practice Guidance throughout the report.

Residential Development

Types of site tested

7. To test viability, we identified 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. Working with the National Park Authority (NPA), we drew up three types of site for testing:

- i) Infill sites - examples of the types of site likely to come forward as windfall infill development; the sites were based on examples from past delivery and range from 1 to 10 dwellings;
- ii) Site Allocations / Mixed Tenure Sites – case study typologies based on sites allocated in the Local Plan, these are larger sites and range in size from 25 to 80 dwellings;
- iii) Rural Exception Sites - three examples of potential Rural Exception Sites (RES) of 7, 15 and 20 units 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. The scale and type of site was drawn up in consultation with housing associations with experience of developing in Dartmoor National Park and with the NPA.

Key assumptions used in the testing

- 8. Key assumptions in relation to costs and revenues used in the analysis of residual values can be found at Annex I. These were reviewed at a development industry workshop held on 16th January 2018. Full details of the workshop can be found at Annex II.
- 9. Two value areas were identified within the NPA and have been used for the testing. The division into the North East and South West value areas was supported at the development industry workshop. House prices and land values are higher in the North East than in the South West.
- 10. There is no single agreed figure to be used for the benchmark land value for either value area and we have arrived at realistic benchmark values through review of a number of data sources. These include values used in previous viability studies, existing use values and known values achieved within Dartmoor National Park. We have used a figure of £0.6m per gross hectare as the benchmark in the North East and £0.4m in the South West. For larger sites over 2ha we have used £0.35m in the North East and £0.3m in the South West to account for higher policy/infrastructure burden and differing land uses.
- 11. Benchmark land values for the RES sites are based on a value per plot (for the market and affordable housing) and reflect ‘typical’ values found in the area.
- 12. House prices are based on Land Registry data, adjusted for new build values. Values were reviewed with local estate agents.
- 13. The testing has taken account of the policies in the draft Local Plan, including Policy 3 Housing Strategy which sets out the following affordable housing requirements:
 - Strategic Policy 3.3(1): Housing in Local Centres; and Strategic Policy 3.4(1): Housing in Rural Settlements both require that development must “*comprise not less than 45% Affordable Housing*”. There is no threshold but developments of 5 or fewer in Local Centres and 3 or fewer in Rural Settlement can deliver the homes as *Local Needs Custom and Self-Build Housing* (which is not necessarily affordable housing) or provide a commuted sum in substitute for provision;

- Strategic Policy 3.5(1): Housing in Villages & Hamlets allows development of up to 3 dwellings delivered as “*Local Needs Custom or Self-Build Housing, or 100% Affordable Housing*”;
 - In all cases housing can also be provided on sites adjacent to the settlement to meet local need and be delivered as 100% affordable housing unless “*it is proven essential for the viability of the development and comprises not less than 75% Affordable Housing*”. (In the case of Local Centres & Rural Settlements the level of affordable housing can be reduced to 45% if the development is providing necessary community infrastructure. This has been referred to in early policy development as Community Needs Sites.)
14. Other policies with particular implication for viability include:
- Policy 4.4(1): Electric Vehicle Charging which sets criteria for active and passive charging points;
 - Policy 3.2(1): Size & Accessibility of New Housing which requires all new dwellings to reach Building Regulations Requirement M4(2) for accessible and adaptable dwellings, along with a proportion to M4(3) and for new dwellings to meet but not significantly exceed national space standards;
 - Policy 2.3(1): Biodiversity Enhancement requires development which would impact on biodiversity to make a proportionate on-site contribution to wildlife enhancement.
15. Based on information from the NPA affordable housing was tested at 70% Affordable Rent and 30% shared ownership. It has been assumed that no grant is available. In practice, grant may well be available as a subsidy for affordable housing but as this cannot be guaranteed we have taken a cautious approach to not include it.
16. Development costs have been based on standard industry published sources such as BCIS. In the case of Dartmoor National Park we have taken the higher building costs of the three district authorities covering the Park.
17. To take account of typical s106/s278 payments we allowed £2,500 per dwelling for site specific work plus £500 for biodiversity mitigation with a further £3,650 - £7,300 per dwelling (dependent on size of case study) as an education contribution on sites of 25 dwellings or above.
18. We have also carried out a series of sensitivity tests to evaluate the impact of:
- The short term impact of inflation on the assumptions used for building costs and house prices over the course of the study - up to September 2018;
 - Higher build or abnormal costs which may occur in the least accessible regions of the National Park or on some sites that present development challenges;
 - Different affordable housing rental models (e.g. no intermediate housing or delivery of social rent);
 - Potential future market fluctuations in either building costs or house prices (although noting that planning policy specifies current costs and values which is the main focus of our testing).

Key findings of residential analysis

19. Infill schemes of more than 1 unit can be delivered with up to 100% affordable housing so long as shared ownership or other intermediate dwellings are included in the mix. Infill sites are also deliverable where all plots are provided for local needs custom or self-build homes¹.
20. Single unit infill 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 such as self-build dwellings not necessarily developed for profit or where the dwellings are sold for higher values than we have modelled. Single unit schemes 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.
21. Mixed tenure schemes on allocated sites of 25, 40 & 80 dwellings comprising 45% affordable housing/55% market have all produced viable results. In the south west of the National Park our modelling produced viable results but also demonstrated that scheme viability could become marginal where additional costs were incurred. Scheme viability is more robust in the North East and likely to be able to absorb additional costs and/or fluctuations in the market.
22. The modelling supports the cap of 25% on cross subsidy from market housing on Rural Exception Sites in that case studies were viable without grant and able to deliver 75% affordable units (so long as the proportion of intermediate units was increased to between 50% & 80% of affordable units). We modelled these schemes without the benefit of grant although there will be circumstances where grant will be available to assist viability and housing mix. 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.
23. Small developer led sheltered schemes were not viable where tested with a 45% affordable housing requirement. This is a result of the higher costs and sales period associated with retirement housing. Some level of affordable housing may be achievable, especially in the North East, but this will need to be assessed on a case by case basis.

Conclusion

24. This whole plan 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. 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

¹ DNPA Local Plan (at para 3.6) has the following description "*Custom Build Housing* is: a home commissioned by an individual for their own use, and to which they have had a significant influence over the design, layout and specification. *Self-Build Housing* is: a home built in whole or in part by and individual for their own use and to which they have had a significant influence over the design, layout and specification."

See also NPPF 2018 para 16

'headroom' to deal with market fluctuations or additional cost in the South West compared to the North East.

1 INTRODUCTION

Purpose of the Economic Viability Assessment

- 1.1 The Dartmoor National Park Authority (DNPA) is currently reviewing its Local Plan. The new draft Local Plan sets out the opportunities for development within the National Park and the policies to support that development to 2035. DNPA seeks to restrict the development of market homes in the National Park hence the new Plan will allow the provision of market housing and/or allocate sites where it may help to ensure delivery of affordable homes. As part of this process, the Authority needs evidence to demonstrate that its draft policies are deliverable, including that the balance of affordable and market housing is viable. This Viability Assessment provides that evidence.
- 1.2 The Viability Assessment has been prepared in consultation with the development industry and has followed the relevant regulations and guidance and is in line with the National Planning Policy Framework (NPPF).²

National planning context

National Planning Policy Framework

- 1.3 The revised National Planning Policy Framework (NPPF) was issued in July 2018. It recognises the importance of positive and aspirational planning but states that this should be done *'in a way that is aspirational but deliverable'*³
- 1.4 The NPPF advises that cumulative effects of policy should not combine to render plans unviable:
*'Plans should set out the contributions expected from development. This should include setting out the levels and types of affordable housing provision required, along with other infrastructure (such as that needed for education, health, transport, flood and water management, green and digital infrastructure). Such policies should not undermine the deliverability of the plan.'*⁴
- 1.5 The government has long signalled its desire to simplify the planning process, including development contributions. The NPPF advises that:
*'All viability assessments, including any undertaken at the plan-making stage, should reflect the recommended approach in national planning guidance, including standardised inputs, and should be made publicly available.'*⁵
- 1.6 In terms of affordable housing the government has reiterated previous policy on affordable housing thresholds and a desire to increase affordable housing products that can potentially lead to home ownership:
'Provision of affordable housing should not be sought for residential developments that are not major developments, other than in designated rural areas (where policies may set out a lower threshold of 5 units or fewer). To support the re-use of

² National Planning Policy Framework, Ministry of Communities, Housing and Local Government, July 2018

³ NPPF 2018 Para 16

⁴ NPPF 2018 Para 34

⁵ NPPF 2018 Para 57

brownfield land, where vacant buildings are being reused or redeveloped, any affordable housing contribution due should be reduced by a proportionate amount⁶

Where major development involving the provision of housing is proposed, planning policies and decisions should expect at least 10% of the homes to be available for affordable home ownership, unless this would exceed the level of affordable housing required in the area, or significantly prejudice the ability to meet the identified affordable housing needs of specific groups.⁷

- 1.7 Note that the NPPF does not state that all sites must be viable now in order to appear in the plan. Instead, the NPPF is concerned to ensure that the bulk of the development is not rendered unviable by unrealistic policy costs. It is important to recognise that economic viability will be subject to economic and market variations over the local plan timescale. In a free market, where development is largely undertaken by the private sector, the local planning authority can seek to provide suitable sites to meet the needs of sustainable development. It is not within the local planning authority's control to ensure delivery actually takes place; this will depend on the willingness of a developer to invest and a landowner to release the land. So, in considering whether a site is deliverable now or developable in the future, we have taken account of the local context to help shape our viability assumptions.

National Planning Practice Guidance for Plan Making

- 1.8 Planning Practice Guidance⁸ (PPG) provides further detail about how the NPPF should be applied. PPG contains general principles for understanding viability. The approach taken reflects the latest version of PPG, which was updated in July 2018. In order to understand viability, a realistic understanding of the costs and the value of development is required and direct engagement with development sector may be helpful⁹. Evidence should be proportionate to ensure plans are underpinned by a broad understanding of viability, with further detail where viability may be marginal or for strategic sites with high infrastructure requirements¹⁰. However not every site requires testing and site typologies may be used to determine policy¹¹.
- 1.9 Generally, values should be based on comparable, market information, using average figures and informed by specific local evidence¹². For an area wide viability assessment, such as this, a broad assessment of costs is required, based on robust evidence which is reflective of local market conditions. All development costs should be taken into account, including within setting of benchmark land values, in particular para 011 within the PPG Viability section states that costs include:
- *“build costs based on appropriate data, for example that of the Building Cost Information Service;*

⁶ NPPF 2018 Para 63

⁷ NPPF 2018 Para 64

⁸ MHCLG, Planning Practice Guidance

⁹ PPG Paragraph: 001 Reference ID: 10-001-20180724

¹⁰ PPG Paragraph: 004 Reference ID: 10-004-20180724

¹¹ PPG Paragraph: 002 Reference ID: 10-002-20180724

¹² PPG Paragraph: 010 Reference ID: 10-010-20180724

- *abnormal costs, including those associated with treatment for contaminated sites or listed buildings, or costs associated with brownfield, phased or complex sites. These costs should be taken into account when defining benchmark land value;*
- *site-specific infrastructure costs, which might include access roads, sustainable drainage systems, green infrastructure, connection to utilities and decentralised energy. These costs should be taken into account when defining benchmark land value;*
- *the total cost of all relevant policy requirements including contributions towards affordable housing and infrastructure, Community Infrastructure Levy charges, and any other relevant policies or standards. These costs should be taken into account when defining benchmark land value;*
- *general finance costs including those incurred through loans;*
- *professional, project management, sales, marketing and legal costs incorporating organisational overheads associated with the site. Any professional site fees should also be taken into account when defining benchmark land value;*
- *explicit reference to project contingency costs should be included in circumstances where scheme specific assessment is deemed necessary, with a justification for contingency relative to project risk and developers return”*

1.10 Land values¹³ should be defined using a benchmark land value that is established on the basis of Existing Use Value plus a premium for the landowner. The premium should reflect the minimum return at which it is considered a reasonable landowner would be willing to sell their land. The benchmark should reflect the implications of abnormal costs, site specific infrastructure and fees. It should be informed by market evidence including current costs and values but that this should be based on development that is compliant with policies, where evidence is not available adjustments should be made to reflect policy compliance.

1.11 PPG states that developer return should be 15 – 20% of gross development value (GDV) and that where affordable housing is provided a lower figure is more appropriate¹⁴.

National Policy context relevant to the National Park

1.12 The founding blocks of all policy designed and adopted by Dartmoor National Park Authority are the two statutory purposes placed on all National Parks as laid out in the Environment Act 1995:

- to conserve and enhance the natural beauty, wildlife and cultural heritage (of the National Parks); and
- to promote opportunities for the understanding and enjoyment of the special qualities (of the National Parks) by the public.

¹³ PPG Paragraph: 012&013 Reference ID: 10-012-20180724

¹⁴ PPG Paragraph: 017 Reference ID: 10-017-20180724

- 1.13 The 1995 Act also states that, in pursuing National Park purposes, National Park Authorities have a duty to seek to foster the economic and social well-being of local communities (within the National Park) by working closely with the agencies and local authorities responsible for these matters.
- 1.14 An expansion of these statutory requirements is provided by the ‘English National Parks and the Broads: UK Government Vision and Circular 2010’. It requires that in furthering their statutory purposes the Parks give sufficient weight to socio-economic interests to fulfil their duty to sustain strong rural communities. This requires that they provide clear and consistent advice on what are acceptable forms of development. In relation to housing the Government recognises that the National Parks are not suitable locations for unrestricted housing and does not therefore provide general housing targets for them. Instead the expectation is that the National Parks will maintain a focus on affordable housing and that their Local Plans will include policies that that pro-actively respond to local housing needs¹⁵.
- 1.15 The revised NPPF reflects these requirements by providing an exception for National Parks to the application of the principle of presumption in favour of sustainable development. Whilst still requiring that their Local Plans should provide for the development needs of their areas, they are not expected to meet the objectively assessed housing need, including that which cannot be met in neighbouring areas¹⁶.
- 1.16 This is echoed in Paragraph 172 which states,
- “Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these [conservation and enhancement of the natural environment] issues. “*
- It goes on to say, *“The scale and extent of development within these designated areas should be limited.”*
- 1.17 Given these statutory and guidance requirements the NPPF’s policies for affordable housing are particularly pertinent. Reflecting the high levels of local need for affordable housing, the small size of development sites, historically, National Parks have set low thresholds to trigger on-site affordable housing contributions from small sites.
- 1.18 The Ministerial Written Statement - 28th November 2014 and associated amendments to the NPPG changed national policy. As designated rural areas National Parks were limited to taking affordable housing contributions as commuted sums on sites of 6- 10 units, nothing from smaller sites and only on-site contributions from schemes of 11 or more dwellings. The whole policy was challenged in the Courts with the Court of Appeal¹⁷ concluding that the Written Ministerial Statement could become part of NPPG, but as a material consideration, not a blanket policy and not used to frustrate the operation of statute, i.e. the primacy of the Local Plan.

¹⁵ English National Parks and the Broads: UK Government Vision and Circular 2010 - paragraphs 78 and 79

¹⁶ NPPF Paragraph 11 and accompanying footnote.

¹⁷ Court of Appeal Case No C1/2015/2559 - 11th May 2015

- 1.19 *“In our judgment, then, the policy stated in the MWS is not to be faulted on the ground that it does not use language which indicates that it is not to be applied in a blanket fashion, or that its place in the statutory scheme of things is as a material consideration for the purposes of s.38(6) of the 2004 Act and s.70(2) of the 1990 Act, and no more. It does not countermand or frustrate the effective operation of those provisions. The judge has, with respect, conflated what the policy says with how it may be lawfully applied¹⁸.”*

The Judgement also stated that a LPA could set its own site thresholds where there is needs and viability evidence to justify a departure from national policy.

Likewise if in the future an LPA submits for examination Local plan policies with thresholds below those in the national policy, the Inspector will consider whether the LPA’s evidence base and local circumstances justify the LPAs proposed thresholds. If he concludes that they do and the local plan policy is adopted, then more weight will be given to it than to the new national policy in subsequent decisions on planning applications¹⁹.’

- 1.20 The revised NPPF has incorporated the Written Statement, but with changes to the rural exception arrangements. Paragraph 62 states

“Where a need for affordable housing is identified, planning policies should specify the type of affordable housing required²⁷, and expect it to be met on-site unless:

a) off-site provision or an appropriate financial contribution in lieu can be robustly justified; and

b) the agreed approach contributes to the objective of creating mixed and balanced communities.”

And Paragraph 63

“Provision of affordable housing should not be sought for residential developments that are not major developments [sites of 10 or more dwellings, or site area of 0.5 hectares or more], other than in designated rural areas (where policies may set out a lower threshold of 5 units or fewer).”²⁰

- 1.21 National Parks are covered by the rural designation (S157, 1985 Housing Act). In combination these two paragraphs could be read as allowing National Parks to take an on-site affordable housing from sites of five dwellings or less.
- 1.22 This, together with the Court of Appeal Judgement, provide the basis for Dartmoor National Park’s approach to seeking affordable housing to meet its local housing needs.
- 1.23 The revised NPPF offers a further exception for National Parks in its policy for Entry Level Exception sites. In a footnote it states that “Entry-level exception sites should not be permitted in National Parks (or within the Broads Authority), Areas of Outstanding Natural Beauty or land designated as Green Belt”

¹⁸ Paragraph 30 ibid

¹⁹ Paragraph 26 (iv) ibid

²⁰ NPPF Paragraph 62 & 63 ibid

2 VIABILITY TESTING – RESIDENTIAL DEVELOPMENT

Principles and Approach

2.1 Planning Practice Guidance summarises the approach to viability testing

“Viability assessment should not compromise sustainable development but should be used to ensure that policies are realistic, and that the total cumulative cost of all relevant policies will not undermine deliverability of the plan.

It is the responsibility of plan makers in collaboration with the local community, developers and other stakeholders, to create realistic, deliverable policies. Drafting of plan policies should be iterative and informed by engagement with developers, landowners, and infrastructure and affordable housing providers”²¹.

2.2 As is standard practice²², we have adopted a residual value approach to our analysis. Residual value is the value of the completed development (known as the Gross Development Value or GDV) less the development costs. The remainder is the residual value and is available to pay for the land. The value of the scheme includes both the value of the market housing and affordable housing. Scheme costs include the costs of building the development, plus professional fees, scheme finance and a return to the developer as well as any planning obligations, as described in PPG

“Viability assessment is a process of assessing whether a site is financially viable, by looking at whether the value generated by a development is more than the cost of developing it. This includes looking at the key elements of gross development value, costs, land value, landowner premium, and developer return.”²³

2.3 This is illustrated in the figure below

²¹ Paragraph: 002 Reference ID: 10-002-20180724

²² See page 25 of Viability Testing Local Plans: Advice for Planning Practitioners Harman 2012 – “We recommend that the residual land value approach is taken when assessing the viability of plan-level policies and further advice is provided below on the considerations that should be given to the assumptions and inputs to a model of this type.”

²³ Paragraph: 010 Reference ID: 10-010-20180724

Figure 2.1 Residual Value Approach

$$\begin{array}{r} \text{Total development value (market and affordable)} \\ \text{Minus} \\ \text{Development costs (incl. build costs and return to} \\ \text{developer)} \\ = \\ \text{Gross residual value} \\ \text{Minus} \\ \text{CIL + planning obligations (including AH)} \\ = \\ \text{Net residual value (available to pay for land)} \end{array}$$

Land Value Benchmarks

- 2.4 It is standard practice for area-wide viability studies to compare the residual value of schemes tested against a benchmark land value. This approach is reconfirmed within the revised PPG guidance published in July 2018. Where the residual value exceeds the benchmark, a scheme is said to be viable and where it falls below the benchmark, it is not viable. Benchmark land values therefore play a central role in viability studies but with limited guidance on how they should be determined.
- 2.5 The (historic) NPPF 2012 sets out in paragraph 173 that the pursuit of sustainable development should provide “competitive returns to a willing landowner”. More recent Planning Practice Guidance on viability (2018) sets out in greater detail the principles that area wide viability studies should follow when taking land values into account:

“To define land value for any viability assessment, a benchmark land value should be established on the basis of the existing use value (EUV) of the land, plus a premium for the landowner. The premium for the landowner should reflect the minimum return at which it is considered a reasonable landowner would be willing to sell their land. The premium should provide a reasonable incentive, in comparison with other options available, for the landowner to sell land for development while allowing a sufficient contribution to comply with policy requirements. This approach is often called ‘existing use value plus’ (EUV+).”²⁴

“Benchmark land value should:

- *be based upon existing use value*
- *allow for a premium to landowners (including equity resulting from those building their own homes)*

²⁴ PPG Paragraph 012 Reference ID: 10-012-20180724

- *reflect the implications of abnormal costs; site-specific infrastructure costs; and professional site fees and*
- *be informed by market evidence including current uses, costs and values wherever possible. Where recent market evidence is used to inform assessment of benchmark land value this evidence should be based on developments which are compliant with policies, including for affordable housing. Where this evidence is not available plan makers and applicants should identify and evidence any adjustments to reflect the cost of policy compliance. This is so that historic benchmark land values of non-policy compliant developments are not used to inflate values over time.*²⁵

2.6 PPG 2018 is clear that the benchmark land values should therefore be based on current use, both reflect emerging policy requirements and planning obligations and be informed by comparable market evidence which may or may not have taken current and or emerging policy requirements into account.

Setting benchmark land values

2.7 The above review of guidance indicates the preference for benchmark land values that are based on the existing value of a site plus an uplift to provide an incentive to the landowner.

2.8 The appropriate scale of the uplift is not set out in any of the current guidance, although PPG 2018 does define a ‘premium’ for a landowner as being:

“...reasonable incentive for a land owner to bring forward land for development while allowing a sufficient contribution to comply with policy requirements²⁶”.

There is a wide range of site specific variables which will affect the level of uplift required (e.g. does the landowner require a quick sale?) However, for a strategic study, where the land values on future individual sites are unknown, a pragmatic approach is required.

2.9 There is no single agreed figure to be used for the benchmark land value in Dartmoor National Park and we have arrived at realistic benchmark values through review of a number of data sources, sense checked locally. These include:

- Previous viability studies at plan level and site-specific²⁷;
- Existing use values²⁸;
- Review of DCLG published land values²⁹ against costs of likely obligations³⁰;

²⁵ PPG Paragraph 013 Reference ID: 10-013-20180724

²⁶ PPG Paragraph 015 Reference ID: 10-015-20180724

²⁷ Strategic Housing Viability Assessment Final Report, Level Ltd , March 2011 with update 2012; DNPA Standard Commuted Sum Contribution – Three Dragons & Rural Housing Solutions December 2013; SHVA South Hams Level 2015; 4 x site specific viability appraisals provided by DNPA

²⁸ Land Values for Policy appraisal DCLG 2015 (& MHCLG 2017) – values for agricultural and industrial land in South West England

²⁹ Land Values for Policy appraisal DCLG 2015 (& MHCLG 2017) (using information on residential development for neighbouring authorities of South Hams, W Devon, Teignbridge, Mid Devon)

³⁰ DCLG land values do not include costs of policy compliance and other costs such as developer profit differ from the costs used in this study

- Consultation with developers, land-owners and agents at a stakeholder workshop and subsequent follow-up discussion;
 - Consultation with local estate agents³¹ and review of land for sale on Rightmove³².
- 2.10 Based on the survey of evidence we have used a figure of £0.6m per hectare as the benchmark in the North East of the National Park and £0.4m in the South West. This figure will be lower on sites over 2ha, where infrastructure costs will be higher³³.
- 2.11 Benchmark land values for the Rural Exception Sites have been derived on a slightly different basis. They are based on a value per plot (for the market and affordable housing) and reflect ‘typical’ values found in the South West of England and verified by feedback from Registered Providers (RPs – typically housing associations) that have experience of operating in the National Park.
- 2.12 Land values are illustrated in the figure below

Figure 2.2: 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

- 2.13 The benchmark land values are an estimate of the lowest values that landowners may accept and where development is able to pay more, then land will be transacted at higher prices.

Testing approach and assumptions

Guidance on costs and values

- 2.14 PPG gives broad guidance with regard to selecting costs and values and encourages engagement with a variety of stakeholders.

“Plan makers should engage with landowners, developers, and infrastructure and affordable housing providers to secure evidence on costs and values to inform viability assessment at the plan making stage.”³⁴

³¹ Baker Estates; Rendells Estate Agents; Torbay Development Agency; Homes England

³² Review of land for sale - 15th January 2018

³³ Para 13 PPG 2018 states that land values should “reflect the implications of site-specific infrastructure costs”

³⁴ PPG July 2018 Paragraph: 006 Reference ID: 10-006-20180724

2.15 Our basis for viability is to use current costs and values as recommended by Harman³⁵ and reflected in current guidance where land values, for example, should *“be informed by market evidence including current uses, costs and values.”*³⁶

2.16 There is general guidance on information to identify costs with specific reference to contractor return

*“For the purpose of plan making an assumption of 15-20% of gross development value (GDV) may be considered a suitable return to developers in order to establish the viability of plan policies. Plan makers may choose to apply alternative figures where there is evidence to support this according to the type, scale and risk profile of planned development. A lower figure may be more appropriate in consideration of delivery of affordable housing in circumstances where this guarantees an end sale at a known value and reduces risk.”*³⁷

Selection of Case Studies

2.17 PPG states that

*“Assessing the viability of plans does not require individual testing of every site or assurance that individual sites are viable. Plan makers can use site typologies to determine viability at the plan making stage”*³⁸.

2.18 To test viability, we worked with the National Park Authority to arrive at a number of case studies which reflect the type of sites likely to be come forward, in light of the policies in the emerging Local Plan and historic patterns of development. The case study sites are shown in the table below

Infill Sites	Allocated Sites	Rural Exception Sites
1 unit	25 units	7 units
3 units	40 units	15 units
5 units	80 units	20 units
10 units	10-unit older persons (single storey)	

Key Assumptions used in the Testing

Role of the development industry workshop

2.19 Key assumptions in relation to costs and revenues used in the analysis of residual values can be found at Annex I. These were reviewed at a development industry workshop held on 16th January 2018 and subsequent follow up discussion, with refinement where evidence or further justification was produced. Costs and values have also been reviewed and sensitivity tested to account for the time between the workshop and production of the report. Full details of the workshop can be found at Annex II.

³⁵ P26 Viability Testing Local Plans June 2012

³⁶ PPG July 2018 Paragraph: 014 Reference ID: 10-014-20180724

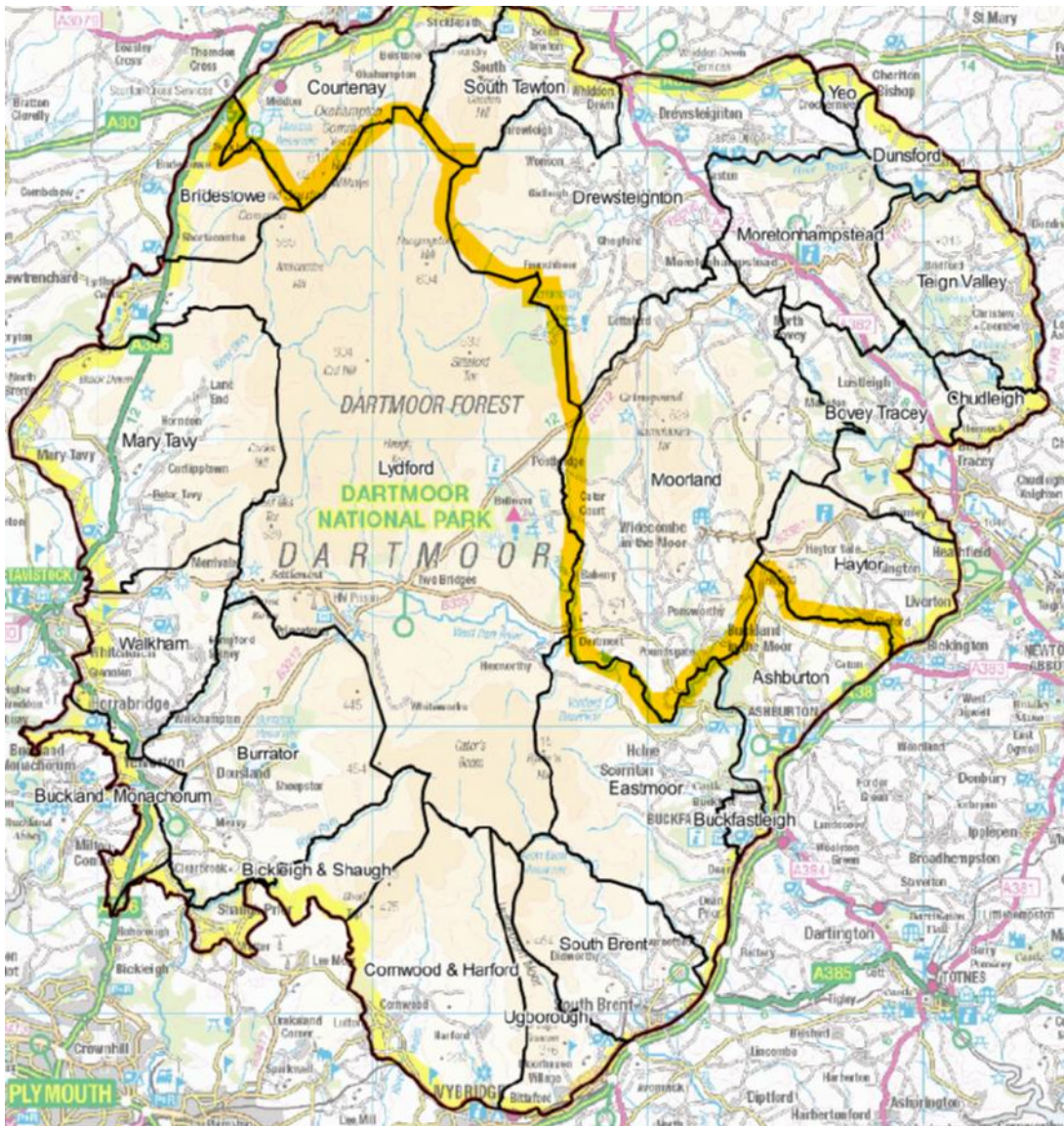
³⁷ PPG Paragraph: 018 Reference ID: 10-018-20180724

³⁸ PPG Paragraph: 003 Reference ID: 10-003-20180724

Market values

2.20 Two value areas were identified within the National Park and have been used for the testing. The division into the North East and South West value areas was supported at the development industry workshop. House prices and land values are higher in the North East than in the South West. These are illustrated in the map below. The light yellow line shows the boundary of the National Park and the thick darker yellow line shows the demarcation between North East (top right of map) and South West (bottom left).

Figure 2.3: Map of Value Areas



2.21 House prices are based on Land Registry data, adjusted for new build values. When presented at the workshop there was a broad acceptance of these values and the distribution into 2 value areas. It is recognised that there will be variation within each value area. House values were sense checked with local agents³⁹.

³⁹ Bakers Estates; Rendells Estate Agents

Local plan policies

- 2.22 The testing has taken account of the proposed policies in the draft Local Plan. The impact on viability of all draft Local Policies is shown in the table at Annex III. The policies potentially creating the main impacts are discussed in the paragraphs below.
- 2.23 **Affordable Housing** – The requirement for affordable housing is varied depending on whether a site is defined as in a Local Centre, a Rural Settlement or Village/Hamlet:
- Strategic Policy 3.3(1): Housing in Local Centres; and Strategic Policy 3.4(1): Housing in Rural Settlements both require that development must “*comprise not less than 45% Affordable Housing*”. There is no threshold but developments of 5 or fewer dwellings in Local Centres and 3 or fewer in Rural Settlement can deliver the homes as *Local Needs⁴⁰ Custom and Self-Build Housing* (which is not necessarily affordable housing) or provide a commuted sum in substitute for on-site provision;
 - Strategic Policy 3.5(1): Housing in Villages & Hamlets allows development of up to 3 dwellings delivered as “*Local Needs Custom or Self-Build Housing, or 100% Affordable Housing*”;
 - In all cases housing can also be provided on sites adjacent to the settlement to meet local need and be delivered as 100% affordable housing unless “*it is proven essential for the viability of the development and comprises not less than 75% Affordable Housing*”. (In the case of Local Centres & Rural Settlements the level of affordable housing can be reduced to 45% if the development is providing necessary community infrastructure).
- 2.24 The table below gives an outline of how the affordable housing policies work on the different types of site.

⁴⁰ i.e. for households with a local connection

Figure 2.4: Table showing outline of Affordable Housing Policies by site type

	Local Centres	Rural Settlements	Villages & Hamlets
Allocated Sites	45% AH ⁴¹		
Infill Sites	≥6 – 45% AH ≤5 – 45% AH or commuted sum or local needs CSB ⁴²	≥4 – 45% AH ≤3 – 45% AH or commuted sum or local needs CSB	Up to & including 3 units @ 100% AH or local needs CSB
Exception Sites	100% AH but up to 25% cross-subsidy allowed for viability (45% if providing local infrastructure)	100% AH but up to 25% cross-subsidy allowed for viability (45% if providing local infrastructure)	100% AH but up to 25% cross-subsidy allowed for viability

(N.B. There are some circumstances where this may be varied - please refer to full policy for complete details)

- 2.25 Thus we have modelled our infill case studies in 3 ways, with i) 100% affordable housing; ii) 45% affordable housing and iii) 100% plots for local custom & self-build. The allocated site case study typologies have been modelled as providing 45% affordable housing. Rural Exception Sites have been modelled from a starting point of 100% affordable housing, with further iterations to assess what level, if any, market housing may be required to produce a viable scheme. Where we have modelled local needs custom & self-build we have assumed that any relevant build costs will be higher than for a comparable scheme. However, house prices will be 5% lower to account for the local needs requirement. Full details are set out in Annex I.
- 2.26 Other draft policies which will have an impact on viability include
- Policy 4.4(1): Electric Vehicle Charging which sets criteria for active and passive charging points;
 - Policy 3.2(1): Size & Accessibility of New Housing which requires all new dwellings to reach Building Regulations Requirement M4(2) for accessible and adaptable dwellings, along with a proportion to M4(3) and for new dwellings to meet but significantly exceed national space standards;
 - Policy 2.3(1): Biodiversity Enhancement requires development which would impact on biodiversity to make a proportionate on-site contribution to wildlife enhancement.
- 2.27 Along with draft text on the Plan housing strategy which seeks to emphasise the need to “provide suitable homes for older people, and downsizers”. We have included bungalows suitable for older people downsizing in the market mix on all allocated schemes as well as a specialist sheltered scheme.

⁴¹ AH – Affordable Housing

⁴² CSB – Custom and Self Build

Affordable housing assumptions

- 2.28 Based on the information from the NPA and Registered Providers, affordable housing was tested at 70% Affordable Rent and 30% shared ownership. In sensitivity tests, we looked at delivery of the rented units as Social Rent (at 60% of market rent which is lower than Affordable Rent) and at delivering all affordable units as Affordable Rent (i.e. no intermediate). The rent levels used for each affordable housing rental option are shown in Annex 1.
- 2.29 The affordable dwelling mixes cover the types and tenures most likely to be delivered in the National Park, based on our conversations with providers. The supporting text of the draft Local Plan provides the ability to deliver other types of affordable housing, such as discounted market sale to local households. To avoid an overly complex set of case studies and results, we have not tested every permutation, especially where affordable products are more market orientated and likely to only be developed at a higher developer return⁴³. These products would come forward where the market seeks to deliver this type of home and it is viable.
- 2.30 For testing purposes, we have applied an equivalence model in relation to commuted sums which assumes that the developer is no better or worse off for providing affordable units in site. Thus the same impact on residual values applies whether affordable housing is delivered on-site or as a commuted sum.
- 2.31 It has been assumed that no grant is available to subsidise the affordable housing. In practice, some grant may be available (and traditionally we understand that good levels of grant have been available) but it is not possible to say how much and in what circumstances. Testing with nil grant is therefore prudent but does mean we are reporting a 'worse case' picture.

Dwelling mixes

- 2.32 To test each of the case studies we drew up a notional mix of dwellings which best reflected a 'typical development' of that scale and location. An analysis of historic development and advice from the National Park Authority provides the basis for understanding the mix of homes and Strategic Policy 3.2 requires that "*All new housing development should contribute towards creating and sustaining sustainable and balanced communities by delivering a mix of dwelling sizes and types*". The mix also took account of:
- Information on the affordable housing mix that would best meet housing associations requirements for manageable and viable schemes and that would also meet housing need;
 - The draft text on the Plan housing strategy seeks to emphasise the need to "*provide suitable homes for older people, and downsizers*", thus we have included bungalows suitable for older people downsizing in the market mix on all allocated schemes;
 - Views of the development industry (at the workshop – see Annex II) on the mixes they would seek to develop for the market housing;

⁴³ Developer return for market homes was modelled at 20% of GDV; for affordable homes developer return is 6% of cost

- Information provided by the NPA on past delivery patterns.

Scheme densities

- 2.33 Densities and net to gross ratios tested reflect past patterns of delivery. In most cases 35dph is used and on sites of over 1 hectare we have assumed 80% of the site is developed. On smaller sites we assume all the site is developed.

Development costs

- 2.34 Development costs have been based on standard industry published sources such as BCIS. In the case of Dartmoor National Park we have taken the higher building costs of the three district authorities covering the Park. Initially we presented an average value for the three to the development industry workshop (Annex II) but the feedback from the workshop was that build costs were higher than the averages shown and should be raised to costs associated with the 'most costly' authority. As we have done.

Custom and self-build

- 2.35 Where we have modelled custom & self-build we have based our methodology and assumptions on those used in the custom & self-build industry. That is we have costed units using higher build costs (BCIS costs for small schemes of 2-3 units) and worked out the end value of building out a unit to assess whether it is viable. Normally it is assumed a premium of around 5% is applicable to market values on this type of development. However in the case of DNPA, we have reduced selling prices by 5% to account for the fact that the units are for sale to meet local needs only rather than the wider market.

Planning obligations

- 2.36 To take account of typical s106/s278 payments we allowed £2,500 per dwelling to cover open space and any site specific requirements with a further cost of up to £7,300 per dwelling to take account of a education contributions on sites of 25 dwellings or above. The education contribution has been taken from guidance provided by Devon County Council⁴⁴. We have applied a primary education contribution of £3,650 per dwelling to the 3 largest case studies of 25, 40 and 80 units and an additional secondary contribution, also of £3,650 per dwelling, on the 80 unit case study.

Sensitivity testing

- 2.37 We have also carried out a series of sensitivity tests to evaluate the impact of:
- The short term impact of inflation on the assumptions used for both building costs and house prices over the course of the study - up to September 2018⁴⁵;

⁴⁴ Devon County Council – S106 Infrastructure Approach January 2013

⁴⁵ BCIS records build cost inflation in Devon to September 2018 as an increase of 6.35% flats & 6.52% houses whilst Land Registry House Price index records house price rises of 2.1% to 3.3% for houses (depending on type) and 1.24% for flats

- Higher build or abnormal costs which may occur in the least accessible regions of the National Park or on some sites that present development challenges;
- Different affordable housing models (social rent and nil intermediate);
- The potential effect of predicted increases in building costs and house prices to 2021 using BCIS and OBR respectively⁴⁶.

2.38 A full list of the assumptions used in the testing can be found at Annex 1.

⁴⁶ table 3.10, Economic and Fiscal Outlook March 2018 OBR and table 16, BCIS Quarterly Briefing June 2018 show overall increases – 7.3% for house prices and 9.3% for build costs

3 RESIDENTIAL VIABILITY ANALYSIS

Case Study Characteristics

- 3.1 The viability testing undertaken relies on a series of notional case study sites. These were identified in conjunction with the NPA to reflect typical sites likely to be brought forward in Dartmoor National Park taking into account the policies and allocations in the Local Plan. The case studies vary in size from 1 to 80 dwellings and in density from 12 to 100 dwellings per hectare.
- 3.2 We have divided the case studies into three groups:
- i) Infill sites - examples of the types of site likely to come forward as windfall infill development; the sites were based on examples from past delivery and range from 1 to 10 dwellings;
 - 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) Rural Exception Sites - three examples of potential Rural Exception Sites (RES) of 7, 15 and 20 units 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.
- 3.3 The key characteristics of the case studies are shown in the table below.

Figure 3.1: Case Study Characteristics

Case Study Ref	Total dwellings	Site type	Affordable units	Net Site area (ha)	Gross Site area (ha)	Net to gross	DPH
IF1	1	Infill	100% & 45%	0.033	0.033	100%	30dph
IF2	3	Infill	100% & 45%	0.085	0.085	100%	35dph
IF3	5	Infill	100% & 45%	0.144	0.144	100%	35dph
IF4	10	Infill	100% & 45%	0.285	0.285	100%	35dph
CS1	25	Allocated / mixed tenure	45%	0.714	0.714	100%	35dph
CS2	40	Allocated / mixed tenure	45%	1.143	1.429	80%	35dph
CS3	80	Allocated / mixed tenure	45%	2.286	2.857	80%	35dph
CS4	10	Allocated / mixed tenure	45%	0.286	0.286	100%	35dph
RES1	7	Exception	Various	0.250	0.250	100%	32dph
RES2	15	Exception	Various	0.5	0.5	100%	30dph
RES3	20	Exception	Various	0.65	0.65	100%	31dph

Results of the viability testing

Infill Sites

- 3.4 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 as either Affordable Rent or Shared Ownership. Subsequent testing shows the sites' capacity to deliver 45% of units as affordable then all units as custom or self build for local occupancy. The table below shows the residual value on a per scheme basis after the land value has been deducted. The first table shows the results for the North East Value area and the second for the South West. The cells are colour coded red and green to show where delivery is viable (see key below).

Figure 3.2: Notional Infill Sites – residual value per scheme (after deduction for land)

North East	IF1: 1 unit	IF2: 3 Units	IF3: 5 Units	IF4: 10 Units
All Affordable Rent	-£175,000	-£161,000	-£274,400	-£555,000
All Shared Ownership	-£36,000	£49,000	£82,600	£211,000
45%AH*	-£61,000	£10,000	£27,600	£84,000
CSB	-£10,000	£65,000	£91,600	£231,000

South West	IF1: 1 unit	IF2: 3 Units	IF3: 5 Units	IF4: 10 Units
All Affordable Rent	-£168,333	-£144,000	-£245,600	-£498,000
All Shared ownership	-£65,333	£15,000	£1,400	£13,000
45%AH*	-£82,333	-£11,000	-£28,600	-£52,000
CSB	-£41,333	£28,000	£7,400	£29,000

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

Key	
	Not viable
	Viable

- 3.5 The **1-unit infill scheme** was not viable with any of the options tested and would not be able to contribute any affordable housing (which in this case, would be as a commuted sum). This is mainly a result of the higher building costs⁴⁷ employed in developing one off schemes. Although the results show that there is likely to be little profit in developing a single unit it is probable that such schemes will come forward where circumstances vary from the ‘typical values and costs’ assumed for the viability testing. Such sites are already part of the historic pattern of housing delivery in the National Park. Single dwellings are likely to be self-build, potentially from purchase of an individual plot or subdivision of land already in the ownership of the applicant and not necessarily developed for profit. Alternatively, where they are developed for speculatively, the dwellings will be sold for higher values than we have modelled here.
- 3.6 In both value areas **the 3, 5 and 10 dwelling infill schemes** were not viable if 100% of units were Affordable Rent but they were viable where all the units were shared ownership. Thus 100% affordable delivery options were shown to be viable and deliverable for infill schemes in all areas of the National Park.
- 3.7 Where we modelled mixed tenure (45% affordable⁴⁸ / 55% market) infill schemes were viable in the North East but not the South West of the National Park. In these cases the affordable housing was assumed to be 70% Affordable Rent & 30% shared ownership. It should be noted that the results of the shared ownership only modelling produced viable results, indicating that other affordable mixes would be more likely to work on mixed tenure infill schemes and this is especially pertinent in the South West where the standard mix of tenures is not viable.

⁴⁷ 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

⁴⁸ Assuming a part payment where less than a complete unit is required to meet the 45%

- 3.8 In both value areas the 3, 5 & 10 dwelling infill schemes are viable where delivered as local needs custom or self-build, delivered as custom-build terraced or semi-detached dwellings for local needs.
- 3.9 **In summary**, of the scenarios tested, the custom/self-build schemes produce the most viable results but delivery of infill schemes as shared ownership is also viable in each case. The findings suggest that infill sites can be delivered as local needs custom & self-build or as 100% affordable housing where the affordable is shared ownership but if a rental product is sought then a level of market housing may be required.

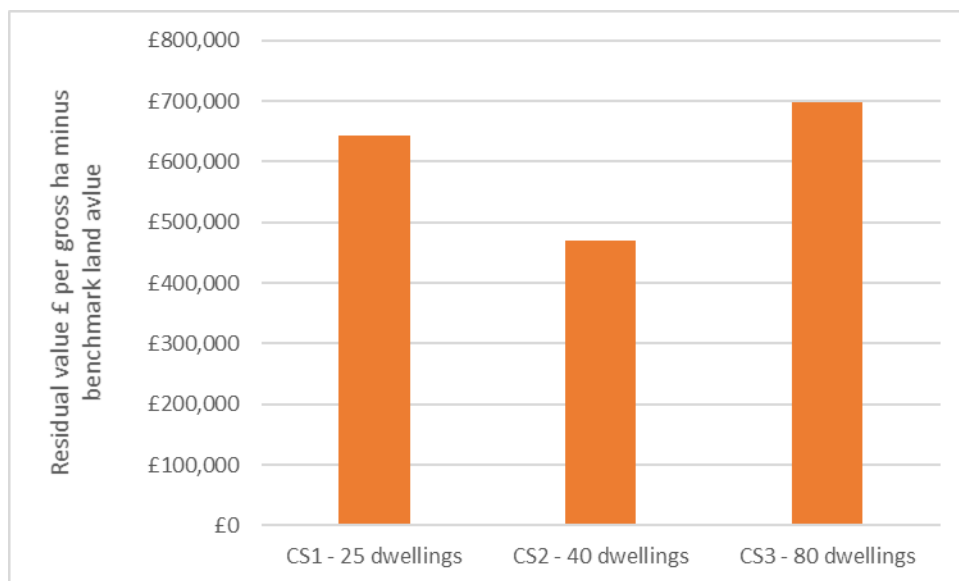
Allocated / Mixed Tenure Case Studies

- 3.10 The site typologies based on allocations in the Local Plan were tested in both value areas, all with 45% affordable housing. The results are discussed below dealing separately with the general needs sites in each value area, then with older persons accommodation. The assumptions are all set out in Annex I.

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 3.3: 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 The 3 mixed tenure case studies of 25, 40 and 80 dwellings all produced per hectare residual land values above the benchmark land value with a significant level of headroom so that, for example, CS1 would still be viable if the benchmark land value was twice that assumed for the testing.
- 3.13 CS3, 80 dwellings, produced the highest value at £0.7m per gross hectare above the benchmark land value. Although the land value is lower on this scheme, costs

associated with larger schemes are higher and the site net to gross is lower, thus if results were analysed on a per dwelling basis CS1, 25 dwellings, would produce the highest values.

3.14 The results for the sheltered, older persons scheme⁴⁹, are shown in the chart below

Figure 3.4: Allocated / Mixed Tenure Case Studies (sheltered housing) – residual value per gross ha minus land value – North East value area



Benchmark land value per gross ha = £0.6m

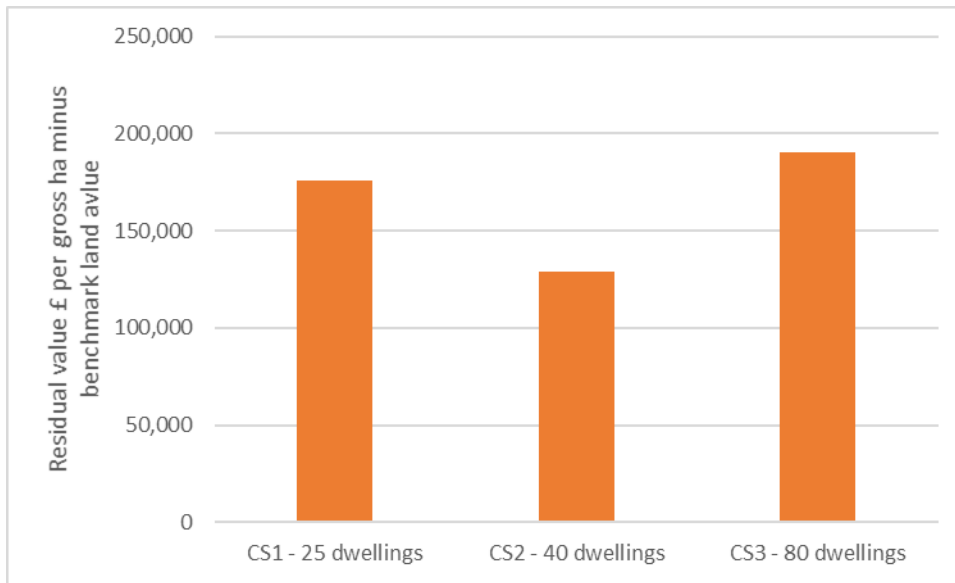
3.15 CS4, the 10 unit sheltered scheme was not viable with 45% affordable housing. Developing a sheltered scheme incurs higher costs related to build costs, internal space, marketing and longer sales periods compared to general needs housing (although values are also higher). The scheme was, however, viable without any affordable units, producing a surplus over benchmark land value of over £1.0m per gross hectare. As this suggests that some affordable units could be provided on sheltered schemes in the North East of the National Park we also modelled the scheme with 22.5% of the units provided as affordable (or equivalent commuted sum), which produced viable scheme results.

South West Value Area

3.16 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.

⁴⁹ 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

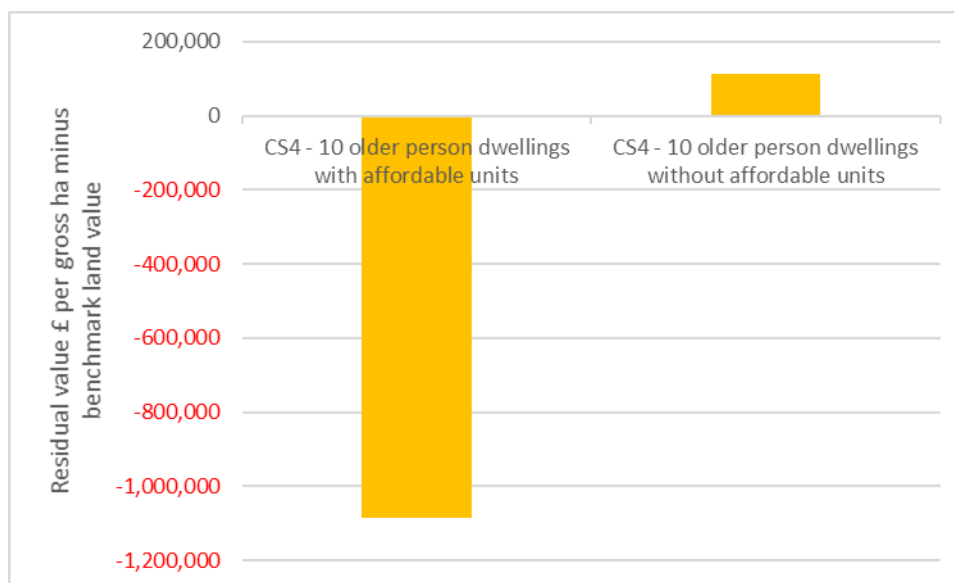
Figure 3.5: Allocated / Mixed Tenure Case Studies (general needs) – residual value per gross ha minus land value – South West value area



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

- 3.17 The 3 mixed tenure case studies of 25, 40 and 80 dwellings respectively all produced per hectare residual land values above the benchmark land value. Although the residual values are lower than for comparable schemes in the North East of DNPA, case studies still produce a surplus above benchmark land value of between £100,000 and £200,000 per gross hectare.
- 3.18 CS3, 80 dwellings, produced the highest value at £0.19m above the benchmark land value per hectare. Although the land value is lower on this scheme, costs associated with larger schemes are higher and the site net to gross is lower, thus if results were analysed on a per dwelling basis CS1, 25 dwellings, would produce the highest values

Figure 3.6: Allocated / Mixed Tenure Case Studies (sheltered housing) – residual value per gross ha minus land value – South West value area



Benchmark land value per gross ha = £0.4m

- 3.19 CS4, the 10 unit sheltered scheme was not viable with 45% affordable housing. The scheme was however viable without any affordable units, producing a surplus of just over £0.1m per gross ha. This suggests that whilst sheltered schemes could come forward in the South West of DNPA, they are unlikely to be able to deliver any affordable units.

Sensitivity Analysis – Alternative Costs & Values

- 3.20 As described in chapter 2, we have used current costs and values for our Viability Assessment. However, in order to give confidence that the viability of development in the National Park might stand up to changes in the development market, we have also looked at a number of possible scenarios, using the allocated/mixed tenure sites as a base:
- Firstly, as this has been an inflationary year for both house prices and build costs we have looked at the short term impact of inflation on the assumptions used for both items over the course of the study - up to September 2018⁵⁰;
 - We have looked at what might happen in a poorly performing market where building costs rise by 7% but house prices remain stagnant;

⁵⁰ BCIS records build cost inflation in Devon to September 2018 as an increase of 6.35% flats & 6.52% houses whilst Land Registry House Price index records house price rises of 2.1% to 3.3% for houses (depending on type) and 1.24% for flats

- We have modelled the house price forecasts produced by Office for Budgetary Responsibility⁵¹ alongside the build costs forecasts made by BCIS⁵² to project our case studies into predicted increases/decreases for the period until 2021⁵³.

The results are shown in the table below and include those for the original modelling, as comparison. Case studies in the North East appear at the top of the table and the South West below. Results that remain viable are shown in green, whilst those that are not viable are coloured red.

Figure 3.7: Residential Viability – sensitivity testing results allowing for possible changes in build costs and house prices

CS	Original toolkit Residual Land Value (RLV) - Benchmark Land Value (BLV) per ha	RLV - BLV per ha with costs and values inflated to September 2018 rates	RLV - BLV per ha with 7% increase build costs & static house prices	RLV - BLV per ha OBR/BCIS predictions to 2021
CS1 - 25 units North East	£642,297	£623,230	£327,171	£569,468
CS2 - 40 units North East	£469,946	£456,936	£220,469	£418,472
CS3 - 80 units North East	£697,511	£689,099	£447,643	£644,059
CS1 - 25 units South West	£175,630	£143,111	-£142,297	£52,381
CS2 - 40 units South West	£128,826	£105,582	-£120,652	£36,575
CS3 - 80 units South West	£190,682	£170,467	-£64,437	£89,622

Key	
	Not viable
	Viable

- 3.21 The table demonstrates possible impacts on viability of various market scenarios with the first column showing the results of the main modelling. The second column shows the potential impact of inflation over the time it has taken to complete this study and which results in a small reduction in viability but not enough to change the interpretation of results. The final column in the table shows the impact of published future predictions of building costs and house prices. Again this results in a decrease in viability with the predicted rise in house prices being outstripped by a rise in build costs. However both value areas remain viable at full policy position.
- 3.22 Where we looked at the effect of a 7% increase in build costs but with house prices remaining static (third column), viability was compromised with schemes in the South West of the National Park becoming unviable, although case studies in the North East remained viable.

⁵¹table 3.10, Economic and Fiscal Outlook March 2018 OBR

⁵² table 16, BCIS Quarterly Briefing June 2018

⁵³ Overall – 7.3% for house prices and 9.3% for build costs

Sensitivity Analysis – Affordable Housing

3.23 We also looked at the effect of:

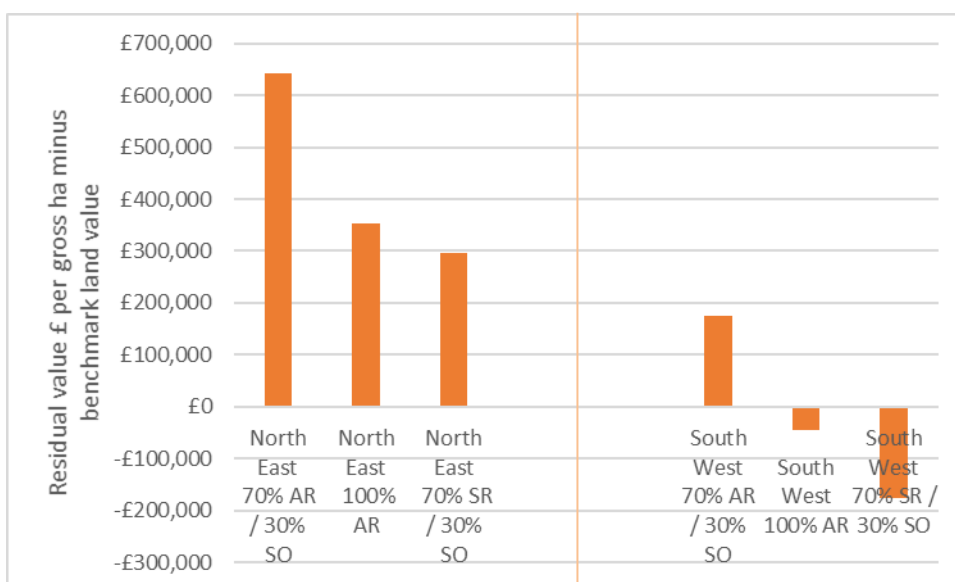
a) delivering all the 45% affordable housing as Affordable Rent (without shared ownership or other intermediate), and

b) changing Affordable Rent to social rent (but keeping the intermediate units – so 70% social rent and 30% shared ownership); social rents are 60% of market rent or approximately 70% below Affordable Rents as modelled.

We modelled these alternative affordable housing scenarios with CS1 – the 25 unit scheme.

3.24 The results are shown in the chart below. Both value areas are shown in the same chart for ease of comparison.

Figure 3.7: Residential Viability for alternative affordable housing tenures on CS1 (25 unit scheme) – North East and South West value areas



Benchmark land value per gross ha = £0.6m in North East

Benchmark land value per gross ha = £0.4m in South West

3.25 The first bar in each value area shows the results as per the main testing. Subsequent bars show the alternative affordable housing mix. In the North East value area, case studies remain viable and deliverable with different affordable housing scenarios. Delivering the affordable units as 100% Affordable Rent is slightly more advantageous financially compared with the mix of social rent and shared ownership. In the South West value area, the alternative affordable housing scenarios are not viable.

Rural Exception Sites

3.26 A Rural Exception Site policy is in place in all settlements in the NPA. Development on these sites is required to comprise 100% affordable housing but this can be varied

to 75% on viability grounds⁵⁴ or to 45% where necessary community infrastructure is provided.

- 3.27 Testing of these sites therefore focuses first on the residual value generated by 100% affordable housing which we have tested as all Affordable Rent and as 70% Affordable Rent / 30% shared ownership. If this is not viable, we then identify whether the scheme is deliverable with 25% market housing. If necessary we have amended the affordable mix (between rented and shared ownership) to ascertain whether this would help deliver a viable scheme.
- 3.28 For RES, the benchmark land value used is typically £10,000 per plot (very approximately £300,000 per hectare). This benchmark was derived in discussion with local providers and is much lower than the benchmark used for the other case studies and reflects the presumption against unconstrained market housing on these sites. However, it needs to be borne in mind that RES are only permitted when they meet a local need for affordable housing in perpetuity and are not intended to meet wider housing demand.
- 3.29 Three rural exception sites (RES) were modelled at 7, 15 and 20 units. The type of dwelling modelled (the dwelling mix) is set out in the table below where we report results of the testing. In practice, the mix would be decided scheme by scheme reflecting local need. The 4 tests undertaken were:
- 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 (this test was undertaken in the South West value area only).
- 3.30 The results of the testing are shown in the table below. For each test the residual value minus the scheme benchmark land value is shown. Where a positive value is shown, the scheme can be said to be viable.

⁵⁴ 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

Figure 3.8: Rural Exception Sites– residual value per scheme

				Test 1: 100% affordable	Test 2: 25% market 75% affordable (affordable units 70% rented / 30% shared ownership)	Test 3: 25% market 75% affordable (affordable units 50% rented / 50% shared ownership)	Test 4: 25% market 75% affordable (affordable units 20% rented / 80% shared ownership)
Scheme	Units	Mix	Scheme Benchmark (£10,000 per plot)	Headroom over Scheme benchmark	Headroom over Scheme benchmark	Headroom over Scheme benchmark	Headroom over Scheme benchmark
RES1 - NE	7	1 x 1 bh 3 x 2 bh 3 x 3 bh	£70,000	-£149,000	-£48,000	£12,000	
RES2 - NE	15	3 x 1bh 7 x 2bh 5 x 3 bh	£150,000	-£338,000	-£127,000	£2,000	
RES3 - NE	20	4 x 1bh 8 x 2bh 7 x 3bh 1 x 4 bh	£200,000	-£425,000	-£145,000	£27,000	
RES1 - SW	7	1 x 1 bh 3 x 2 bh 3 x 3 bh	£70,000	-£182,000	-£105,000	-£57,000	£13,000
RES2 - SW	15	3 x 1bh 7 x 2bh 5 x 3 bh	£150,000	-£405,000	-£238,000	-£138,000	£9,000
RES3 - SW	20	4 x 1bh 8 x 2bh 7 x 3bh 1 x 4 bh	£200,000	-£517,000	-£297,000	-£167,000	£26,000

- 3.31 The RES case studies demonstrate that RES can be delivered in Dartmoor but will require an element of market housing. A viable scheme can be produced in each case study 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, half 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 shared ownership to produce a viable scheme.
- 3.32 It should be noted that we have not modelled these schemes with any subsidy. In practice, if subsidy were available a different affordable mix could be viable and/or a lower level of market units.
- 3.33 We modelled RES schemes with S106 of £2,500 plus £500 for biodiversity mitigation. However, as the results were quite ‘fragile’ we did not include plan policy requirements for electric vehicle charging units or for accessibility standards. Therefore trade-off may be required between S106 and other items such as electric vehicle charging or additional accessibility unless subsidy was forthcoming and/or there were further minor adjustments to the housing mix.

Summary of Residential Case Studies

- 3.34 The viability testing undertaken results in good general viability and as such support the policies included in the Local Plan, including the affordable housing policies. This is with the exception of single unit schemes which were not able to deliver an

affordable housing contribution and sheltered schemes which may be able to deliver a partial contribution.

- 3.35 Viability is more marginal on some of the infill and rural exception site case studies in the South West, although the residual value is still positive at policy position. Also in the South West, where we have 'stress tested' case studies against higher build costs without increase in values or used a varied affordable housing tenure, schemes were no longer viable. This indicates that where grant for affordable housing is not available to ameliorate the position, there may be occasion when flexibility around policy will be required in the South West. This was not the case in the North East value area where case studies remained viable against rises in costs or differing affordable tenures such as social rent.
- 3.36 The small sheltered case study was not able to provide the full level of affordable housing in either value area. Specialist retirement provision will need to be assessed on a case by case basis but flexibility around density and number of units may assist viability.
- 3.37 The Rural Exception Site testing supports the cap of 25% on cross subsidy from market housing in that case studies were viable without grant and able to deliver 75% affordable units. In the North East, this would mean around 50% of affordable units would need to be shared ownership and in the South West around 80% of affordable units would need to be shared ownership. 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. In practice, RES is peculiar to location and will be required to meet identified local need.

4 RESIDENTIAL VIABILITY ANALYSIS – IMPLICATIONS & CONCLUSIONS

Introduction

- 4.1 The viability testing undertaken in the 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. 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.

Viability findings

- 4.2 The 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 housing to meet local housing needs runs through all housing related policies and it is worth repeating here the draft Local Plan Housing Strategy, Policy 3 in the draft Plan.

The focus of housing delivery in Dartmoor National Park is the delivery of affordable and well-designed homes. Market housing will support the delivery of affordable housing, it should also respond to the needs of local people in terms of size, mix and tenure. Around 65 new homes will be built in the National Park each year.

In Local Centres land is allocated for development to meet the affordable housing needs of local people: 45% of homes on allocated sites are required to be affordable, subject to viability. Developments which do not deliver a meaningful proportion of affordable housing that meets local needs will not be supported. Housing development is also allowed on infill sites, and through conversion.

In Rural Settlements small-scale housing development will be permitted on infill sites and through conversion. In villages and hamlets new housing is restricted to small scale development to meet local needs.

A rural exception site policy will operate in all classified settlements, allowing for a small amount of affordable housing, to meet identified local needs, where this cannot be met on another site.

- 4.3 As the focus is meeting local need for affordable housing so the tenure mix will play a key role in determining viability. We have used a default affordable mix of 70% Affordable Rent / 30% shared ownership. However in some cases, on small infill sites and rural exception sites in particular, a higher proportion of shared ownership was required.
- 4.4 An important study finding is that the plan area has two distinct value areas: North East & South West. There is some contrast between the higher residential values achieved in the North East value area, where the viability of development is not an issue, compared to the South West value area where more flexibility in the approach to tenure may be required, especially if additional scheme costs are incurred. If

affordable housing subsidy is available then viability will be improved. However, it must be noted that all the testing was undertaken assuming nil grant and where grant is available, alternative tenure mixes can be achieved.

- 4.5 Infill schemes of 3, 5 and 10 units can be delivered with 100% affordable housing so long as shared ownership or other intermediate affordable tenures form a part the tenure mix. (In the South West value area it would need to form a significant part.) Of the scenarios modelled, the best results on infill sites are produced through the provision of serviced plots for local needs custom or self-build homes.
- 4.6 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.
- 4.7 The mixed tenure/allocated case studies modelled of 25, 40 and 80 dwellings (45% affordable & 65% 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.
- 4.8 Rural Exception Sites are viable with 25% market housing and with between 50-80% of affordable units delivered as shared ownership. 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. It is important to note that these sites are very much focussed on meeting local needs and dwelling mix may vary considerably from the mix we have modelled and, historically, grant has been available to support delivery of the affordable units.

Is the Local Plan deliverable?

- 4.9 The final stage of this viability assessment is to draw broad conclusions on whether the draft Local Plan is deliverable in terms of viability.
- 4.10 The testing undertaken shows that most of the residential development scenarios are currently viable, allowing for policies in the draft Plan and for anticipated S106/infrastructure costs.
- 4.11 Regarding the proportion of affordable housing, the viability evidence suggests that:
 - 45% affordable housing on allocated sites is achievable in both value areas;
 - 45% affordable housing on infill sites in Local Centres & Rural settlements is achievable in the North East value area, but in the South West value area some flexibility would be required around the affordable housing mix (i.e. to provide more than 30% of affordable units as shared ownership);
 - 100% affordable housing on infill sites in villages and hamlets is achievable provided up to 100% of those units can be delivered as shared ownership;

- 100% local needs custom & self-build units (without affordable housing) is achievable on infill sites in all settlement types;
 - 75% affordable housing on Rural Exception Sites is achievable where flexibility of the affordable tenure mix is possible (and still meets local need).
- 4.12 Key policies on accessibility and sustainability, e.g. electric car charging and Part M4 (2) of Building Regulations on accessibility have been tested and are supported by the viability assessment.
- 4.13 The draft text of the Local Plan housing strategy seeks to emphasise the need to “*provide suitable homes for older people, and downsizers*”. We have included bungalows suitable for older people downsizing in the market mix on all allocated schemes and this is a viable option. However it is unlikely that a small specialist sheltered scheme will be able to provide the full, if any, affordable housing requirement (although some level of provision should be viable in the North East value area) and such schemes should be assessed on a case by case basis.

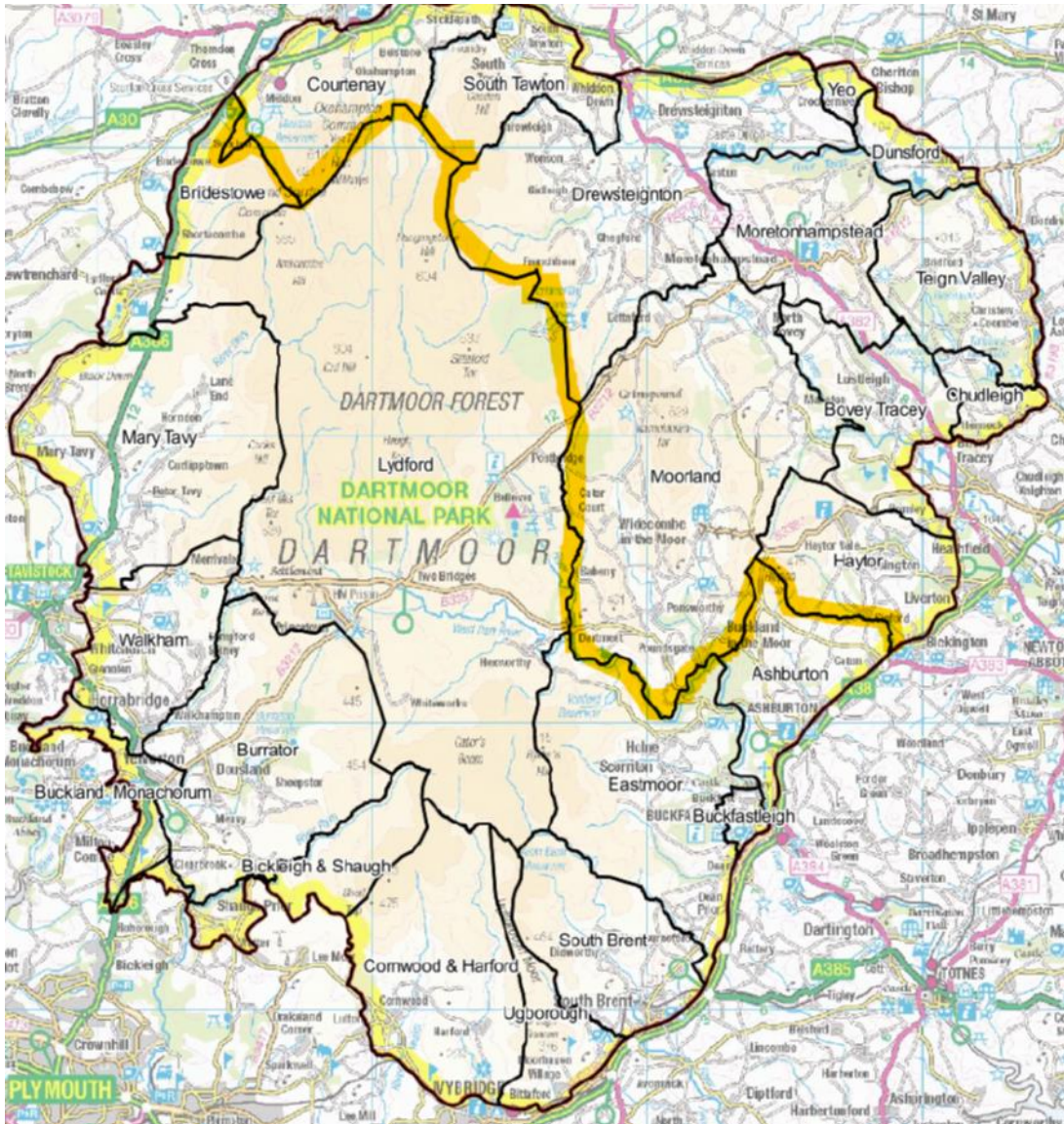
Conclusion

- 4.14 The viability appraisal findings demonstrate a viable and deliverable Plan so long as some flexibility is maintained, over affordable housing mix in particular. 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. The option to deliver infill sites with up to 100% shared ownership homes or as local needs custom or self-build plots will assist in bringing these sites forward without the need to increase unfettered open market housing.

ANNEX I – TECHNICAL DETAIL FOR RESIDENTIAL TESTING

Dartmoor National Park Testing Assumptions

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	407,160	339,300	311,110	284,695	282,702	248,031	210,693	154,686	183,400	131,000	281,760	193,710
South West	347,280	289,400	257,262	235,419	254,294	223,107	189,521	139,142	155,120	110,800	232,992	160,182
On development of 1-3 units + 5% added to selling price for 'exclusivity'												
Values for market units with a local needs criteria will be reduced by 5%												
Note – not all unit types will be included in development testing												

Average price per sqm – all houses and flats

	Detached	Semi	Terrace	Flat
NE	3393	2935	2667	2620
SW	2894	2427	2399	2216

Premium for bungalows –semi-detached house + 20%

See separate full note at Annex II on stakeholder workshop for process of arriving at house prices.

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. (Also sensitivity tests at different tenure mix.)

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

Rural Exception Sites

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

1. 100% affordable housing – all Affordable Rent
2. 100% affordable housing made up of 70% Affordable Rent & 30% shared ownership
3. 50% Affordable Rent / 25% shared ownership / 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	Social Rent @ 60% of market
1 bedroom flat	£89	£66
2 bedroom flat	£117	
1 bedroom house	£89	
2 bedroom house/bungalow	£117	£83
3 bedroom house	£140	£100
4 bedroom house	£177	£134

For market rents - VOA <https://www.gov.uk/government/statistics/private-rental-market-summary-statistics-october-2016-to-september-2017>

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
<i>1 bedroom flat</i>	<i>50 (2p)</i>	<i>50</i>
<i>2 bedroom flat</i>	<i>70 (4p)</i>	<i>70</i>
<i>1 bedroom bungalow</i>	<i>55 (2p)</i>	<i>55</i>
<i>2 bedroom bungalow</i>	<i>70 (4p)</i>	<i>80</i>
<i>1 bedroom terrace</i>	<i>58 (2p)</i>	<i>58</i>
<i>2 bedroom terrace</i>	<i>75</i>	<i>79</i>
<i>3 bedroom terrace</i>	<i>85</i>	<i>93</i>
<i>4 bedroom terrace</i>	<i>97</i>	<i>106</i>
<i>3 bed semi detached</i>	<i>93</i>	<i>97</i>
<i>4 bed semi detached</i>	<i>106</i>	<i>106</i>
<i>3 bed detached</i>		<i>100</i>
<i>4 bed detached</i>		<i>120</i>

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	Cost	Comment
Flats (1-2 storeys)	£1,431	sq m includes 15% for external works
Flats (3-5 storeys)	£1,469	sq m includes 15% for external works
Houses	£1,265	sq m includes 15% for external works
2 to 3 houses And custom build	£1,328	sq m includes 15% for external works (5% increase over standard house build cost)
Single house	£2,107	sq m includes 15% for external works
Bungalows	£1,458	sq m includes 15% for external works
Sheltered Housing	£1,589	sq m includes 15% for external works Generally
Professional fees	8%-10%	50 units or less – 10% 50+ - 8%
Finance	6%	of development costs (net of inflation)
Marketing fees	3%	of market GDV – all market units except sheltered / extra care for which a figure of 6% is used.
Developer return	20%	of market GDV
Contractor return	6%	of affordable build costs
s106/278	i) £2,500 ii) £500 iii) £3,650	i) per unit - S106 to cover open space & some site specific ii) per unit - Biodiversity enhancement iii) per unit on larger sites of 20+ dwellings for primary education and, on sites over 75 units, £3,650 secondary education (in addition to primary)
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 ⁵⁵	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 ⁵⁶ car parking spaces - active & 50% of remaining spaces - passive

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 per plot

5. Sites Tested

Infill – 30 dph	Allocated	RES – per plot
1 unit	25	7
3 units	40	15
5 units	80	20
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		

⁵⁵ Housing Standards Review EC Harris for DCLG September 2014

⁵⁶ **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

Other sensitivity testing

- Other affordable tenures – as a sensitivity test, the 25 unit scheme will be tested as where a) all affordable units are Affordable Rent (i.e. no intermediate tenure) and b) the rented units are delivered as social rent
- The short-term impact of inflation on the assumptions used for house prices & building costs over the course of the study - up to September 2018
- Extra costs to account for potential for higher build costs in more remote areas or any site abnormalities not likely to have reduced land value – build costs + 7%
- Stress test for future market scenarios –a) reduction in house prices with increase in build costs and b) OBR & Land Registry predictions for 2021

ANNEX II: DEVELOPMENT INDUSTRY WORKSHOP

Dartmoor National Park Authority - Local Plan Viability Assessment

Notes of the development industry workshop held on 15th January 2018

Attending

Devon and Cornwall Housing
Teignbridge District Council
Devon Communities Together
South Hams/West Devon Councils
Stevens Homes
Cavanna Homes
Maxwells
Teign Housing
Baker Estates
Herridge Property Consultants
Dan Janota
Clare Reid
Alex Gandy
Lin Cousins
Dominic Houston

Dartmoor National Park Authority
Dartmoor National Park Authority
Dartmoor National Park Authority
Three Dragons
Three Dragons

Introduction

Daniel Janota (DJ) from Dartmoor National Park Authority (DNPA) introduced the workshop and thanked those attending.

DJ explained that the DNPA had been working on the review of the local plan for the National Park for about 18 months with an Issues Paper published in October 2016. This is a full local plan review with the intention of publishing a 'Regulation 18 plan' by July of this year. The role of Three Dragons and their team is to provide technical advice across issues of housing policy, including on residential viability and how development viability might impact on policy.

Lin Cousins (LC) explained the purpose of the meeting note which will form part of the final published report. It will be circulated in draft to those attending the workshop who will have the chance for further comment before the note is finalised by Three Dragons for their report. The name of individuals will not be shown in the note but that of organisations represented would be noted. Those attending the workshop agreed with this approach.

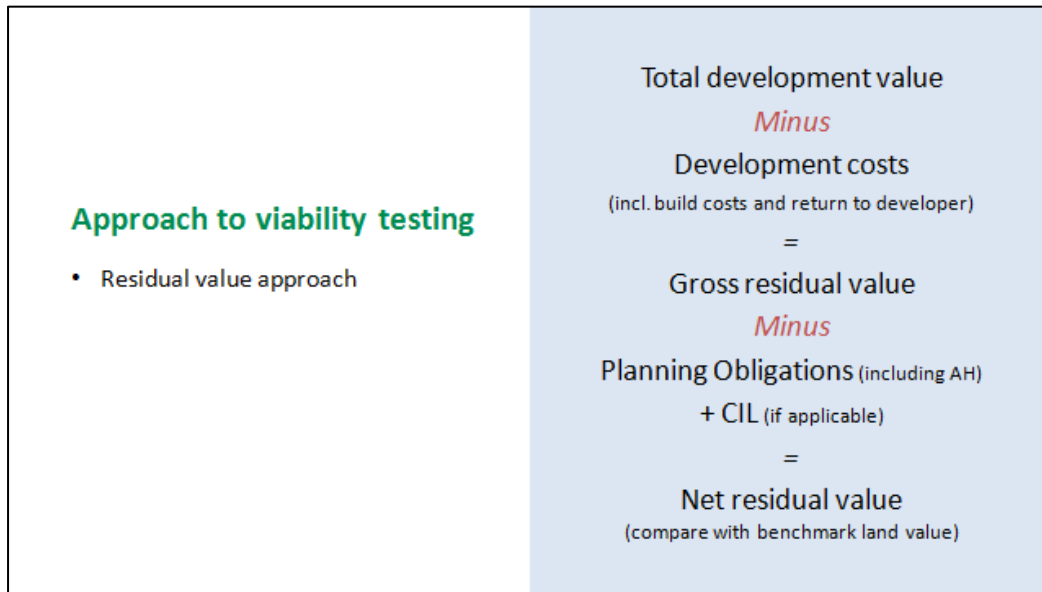
Dominic Houston (DH) set out the planning policy context for viability studies, quoting from the National Planning Policy Framework as follows.

"Pursuing sustainable development requires careful attention to viability and costs in plan-making and decision-taking. Plans should be deliverable. Therefore, the sites and the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened. To ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing, standards, infrastructure contributions or other requirements should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable." (Para 173)

DH explained that the viability study will assess the costs and values of development in the National Park to demonstrate the viability of the plan as a whole, based on the available evidence and proportionate to the type of development planned under the new local plan. He indicated that the

evidence will rely on published information and attributable sources, including the consultation with the development industry at today’s workshop. The study must use current costs and values and take into account all policies in the plan and their potential costs - including the provision of affordable housing.

The remainder of this note follows the presentation used at the workshop and shows each slide and then notes the key points raised.



DH explained that Three Dragons will use a standard residual value approach to the viability testing. This will derive a net residual value for a development which is then compared with a benchmark land values.

Workshop noted acceptability of this approach.

Benchmark Land Value

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

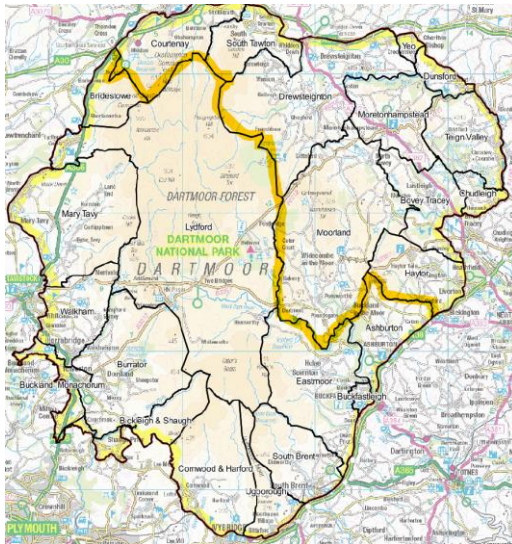
- Figures based on previous studies and some known land transactions
- Benchmark Land Value – enough to enable transaction but not the same as best price. Land will transact above this value

DH set out the benchmark land values proposed for use in the testing. He explained the information was drawn from a number of sources including an earlier study for DNPA undertaken by Level and consideration of recent viability studies submitted to the Authority. The values reflect the type of mixed tenure scheme recently undertaken in the Park - broadly at 50% affordable housing. DH also noted that the benchmark should be the lowest price a landowner will accept not the highest.

Comment from the workshop:

- Would expect land values to be higher - to be twice this but this may not take account of affordable housing in the scheme. Land agents are pushing up the prices. They assume housing associations will pay for the land for affordable housing.
- Agents are assuming that developer led schemes fetch more than an HA led scheme.
- Housing association view – affordable housing (without grant) has a negative value and developers should take this into account.
- Type of affordable housing in a scheme matters a great deal. Housing associations are looking for 100% Affordable Rent– this has more impact on land values than other intermediate tenures.
- No further comments on appropriate benchmark land values were given but noted that land agents invited to the workshop had not attended and Three Dragons will attempt to contact them separately for any further views on land values.

MARKET AREAS – DARTMOOR NATIONAL PARK



- Data suggests there are 2 value areas:
 - North East – higher value
 - South west – lower value
- Would you agree with this broad conclusion?
- There will be some higher value pockets in SW and vice versa
- There was little sales data for some small rural parishes

Comment from the workshop:

- Broad division is OK but please recognise there will be local variations within the two broad areas;
- However, Three Dragons were asked to check whether Ashburton and Yelverton were correctly assigned.

MARKET VALUES – DARTMOOR NATIONAL PARK AUTHORITY

Market GIA SQ M	120	100	106	97	93	79	58	80
	Detached		Semi-detached		Terraced			Bungalow
	4 Bed	3 Bed	4 Bed	3 Bed	3 Bed	2 Bed	1 bed	2 bed
North East	£407,000	£339,500	£311,000	£284,500	£248,000	£210,500	£154,500	£282,000
South West	£347,500	£289,500	£257,500	£235,500	£223,000	£189,500	£139,000	£233,000
On development of 1-3 units + 5% added to selling price for 'exclusivity'								
Where a Principal Residence Condition is applied this will have the effect of reducing selling prices by 5%								

Comment from the workshop:

- Difficult to comment at the meeting – will feed back when notes circulated – but immediate reaction was that these values looked very broadly acceptable

Post workshop note – Three Dragons have checked whether Yelverton and Ashburton are in the correct value zones and confirm that they are.

As requested, above information represented below on a £s per sq m and per sq ft basis.

Dwelling size in sq m	120	100	106	97	93	79	58
	Detached		Semi-detached		Terraced		
	4 Bed	3 Bed	4 Bed	3 Bed	3 Bed	2 Bed	1 bed
NE – per dwelling	£407,000	£339,500	£311,000	£284,500	£248,000	£210,500	£154,500
SW – per dwelling	£347,500	£289,500	£257,500	£235,500	£223,000	£189,500	£139,000
NE – per sq m	£3,400	£3,400	£2,900	£2,900	£2,700	£2,700	£2,700
SW – per sq ft	£2,900	£2,900	£2,400	£2,400	£2,400	£2,400	£2,400
NE – per sq ft	£320	£320	£270	£270	£250	£250	£250
SW – per sq ft	£270	£270	£220	£220	£220	£220	£220

DJ introduced the option for the Park Authority of adopting a principal residence policy – applied to market housing. Such a policy would limit the sale of newbuild market housing to persons who lived in the property as their main residence. This was being considered because of concerns about an increase in 2nd home ownership. DJ noted that such a policy would lead to a reduction in the value of new properties. DH commented on basis of experience elsewhere, albeit limited, that a 5% reduction would be used.

DJ also noted that DNPA did not intend, as things stand, to introduce a ‘local connections’ policy for market housing.

Comment from the workshop:

- Problem of principal residence limit for new homes is that it merely passes pressure for 2nd homes onto the existing stock of market housing. However, second home market does focus on older more ‘character’ properties so use of principal residence restriction on new homes may not have a significant impact on the existing stock of market housing.

Residential Testing – dwelling sizes

- Affordable units compliant with national space standards
- Not all these house types will be provided

House type description	Affordable sqm	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	79 (4p)	79
3 bedroom terrace	93 (5p)	93
4 bedroom terrace	106 (6p)	106
3 bed semi detached	93 (5p)	93
4 bed semi detached	106 (6p)	106
3 bed detached		100
4 bed detached		120

An allowance of 10% of floor area will be added to the flats for circulation and common areas

Comment from the workshop:

- It was noted that the only difference in sizes between tenures was with 2 bed bungalow.
- Use of the national standards accepted.

DJ noted that the Park Authority was considering introducing a maximum floor area for intermediate market housing – at 93 sq m i.e. a modest sized family house. It was noted that it would be open to housing associations to build smaller properties if they chose to and any policy about maximum dwelling size would include an option to build larger dwellings if there was evidence of a local need for this.

Comment from the workshop:

- The proposed maximum dwelling size was supported by current patterns of demand for intermediate housing experienced by the housing associations (*but see later comment on intermediate sale housing more generally*).

Residential Testing – market dwelling mix

Type	30 dph	40 dph
2 bed downsizer bungalow	5%	
2 bed terrace	10%	20%
3 bed terrace	15%	20%
4 bed terrace		
3 bed semi	10%	10%
4 bed semi		
3 bed detached	25%	30%
4 bed detached	35%	20%

- Mix takes into account need to provide smaller market dwellings to meet a local need
- And needs of older people who may want to downsize
- Past delivery rates support this mix
- **On sites of 3 or fewer or lower density – majority of delivery will be tested with 3 & 4 bed detached**
- A range of sites will be tested – a full list will be generated by emerging details of sites allocated in the LP
- In some areas we will test the effect of having a **Principal Residence Condition**

Comment from the workshop:

- Mixes were considered broadly acceptable;

- Question was raised whether should include some 1 bed flats – but others at the workshop commented that there is very limited/no demand for this size of property – market or affordable.

Post workshop note: for infill sites of 3 dwellings – noted that this could be as a terrace and testing to reflect this alternative

Affordable Housing Dwelling Mix – Mixed Tenure Sites

Affordable Housing Development Mix House Type	Affordable Rent 70%	Intermediate 30%
1 bed flat / house	25%	
2 bed house / bungalow	45%	50%
3 bed house	25%	50%
4 bed house	5%	

- Current policy target of 50% on market led sites but different levels to be tested between 30% & 50%
- In practice mix for Rural Exception Sites will be based on local need
- Affordable thresholds will be zero
- Mix is based on need identified by Housing Register
- There may be some adjustments to mix following further planned consultation with Councils and Registered Providers

It was noted by LC that testing would range from 30% to 50% affordable housing (other than in Rural Exceptions Sites where testing would start from the principle of 100% affordable housing, adding in market housing until scheme became viable).

DJ confirmed that the current intention for the local plan is that there would be no set size threshold and all sites would make an affordable housing contribution. On schemes of 1 to 3 dwellings this would be as a financial contribution but on site for schemes of 4 and more dwellings.

Comment from the workshop:

- Small schemes are very varied in character and difficult to draw general conclusions about their viability (and therefore ability to afford payment of commuted sums);
- Housing Enablers felt that it would be important to keep the comparability of commuted sums to on-site provision
- Housing associations asked that mix for intermediate housing is switched to 60% 3 bed / 40% 2 bed
- **But** housing associations will not consider developing shared ownership or equity share with a 80% cap on share size – reflecting lender reluctance to engage with this product type. Discount market sale does not have this problem but is not strictly affordable;
- The mix of Affordable Rent shown would be OK for the Local Centres but maybe would require more family accommodation in rural areas. However, differences are limited, and the mix is fine for viability testing;
- 2 bed flats can be acceptable as market housing, but housing associations greatly prefer 2 bed houses for Affordable Rent (as these are more popular products with gardens);
- In rural settlements – a 60/40split between AR and intermediate affordable housing would be better – as long as the cap on size bought is removed (otherwise, should test with 100% affordable rent).

Rural Exception & Community Need Sites

- Affordable led sites
- Homes for people with housing need and local connection by residency or employment
- Value reflects:
 - not a development site
 - that costs are not met by income from rent /sales of affordable housing
- Typical value = £10k a plot (£100k - £120k per acre)
- Up to 40% of housing delivered in National Park could be on this type of site
- On Rural Exception Sites NPPF allows market housing where where essential to enable the delivery of affordable units without grant funding
 - not expected to increase land cost as this reduces amount of affordable housing
 - Viability testing will establish what level (if any) market housing is needed to deliver these sites

DJ explained that there is no significant difference in approach between rural exception and community need sites with the underlying principle being that such sites should maximise affordable housing with market housing only included to ensure viability. The NPA is considering introducing CNS to allow for some slightly larger predominately affordable housing schemes in a middle tier of villages. CNS may attract smaller housebuilders into this market while housing associations may be less interested in these site types because of their scale.

Comments from the workshop:

- Small builders welcomed the proposal for three tiers. There is currently a gap between allocated sites and RES. Small builders could be better partners for middle tier CNS. The opportunity for market housing as well as AH would be welcome.

Build Cost (BCIS median 5 yr) and new Building Regs

Type	Dartmoor – blended rate for National Park – per square metre	
Flats (1-2 storey)	£1,386	includes 15% for external works/contingency
Flats (3-5 storey)	£1,423	includes 15% for external works/contingency
Houses (estate housing general)	£1,226	includes 15% for external works/contingency
2-3 houses (general)	£1,287	includes 15% for external works/contingency
One-off houses - detached	£2,041	includes 15% for external works/contingency
Bungalows	£1,412	includes 15% for external works/contingency
Sheltered flats	£1,433	includes 15% for external works/contingency
<i>Delivery Rates – any comments?</i>		
<i>Median index used – would lower quartile be more appropriate?</i>		

In response to a question from the workshop, DH explained that the build costs shown do not include professional fees, marketing, agents' fees etc and are purely for the build and external works. LC indicated this adds roughly 15% to base build costs. For example:

- Houses (estate general) 'construction costs' = £1409 per sq m
- One-off house - 'construction costs' = £2347 per sq m

It was noted that contract/developer return is not included in the above.

Comment from the workshop:

- Build costs initially look low but with the 15% addition (an ‘all in’ cost) – they look more realistic;
- Noted that building in the Park is more expensive than in surrounding areas because of extra costs of logistics (getting materials and labour to the sites), particularly as local suppliers within the National Park have gone. These are common factors of developing in rural areas and not specific to the National Park. The development standards required by the Park Authority were also noted as contributing to costs. In response DJ noted that it was not a requirement of the Authority to use materials e.g. granite although developers may choose to do so;
- It was said that scheme viability evidence required of applicants was subject to review by the Park Authority’s own advisor who may then question the costs quoted by the applicant.

Post workshop note:

Following the workshop, Three Dragons reviewed the available BCIS data (which is organised at local authority level) and put forward an alternative set of build costs – see below. These are based on the higher costs found in South Hams and Teignbridge and ignore the slightly lower values in West Devon. Again the costs shown do not include fees, finance etc.

Build Cost (BCIS median 5 yr) and new Building Regs		
Type	Dartmoor – blended rate for National Park – per square metre	
Flats (1-2 storey)	£1,431	includes 15% for external works/contingency
Flats (3-5 storey)	£1,469	includes 15% for external works/contingency
Houses (estate housing general)	£1,265	includes 15% for external works/contingency
2-3 houses (general)	£1,328	includes 15% for external works/contingency
One-off houses - detached	£2,107	includes 15% for external works/contingency
Bungalows	£1,458	includes 15% for external works/contingency
Sheltered flats – general	£1,589	includes 15% for external works/contingency

Other costs		
Professional fees	8-10%	Of build costs
Finance	6%	Of development costs
Marketing fees	3%	Of Market GDV
Developer return	20%	Of GDV
Contractor return (for affordable)	6%	Of affordable build costs
Agents & Legal SDLT	1.75% Per HMRC figures	
S106	£2,500	Per unit – may be amended as awaiting further information Larger sites will be higher
Opening up	£55k/net ha	larger sites over 50 units

Comment from the workshop:

- 20% developer return is quite high. But as part of a blended average across a 50/50 scheme looks more credible (at, say, 12/13% return). It was noted that the figure for developer return includes overheads;
- There is no provision for abnormal and this should be taken into account;
- Some one-off abnormal will be taken into account in fixing the land values if known at the outset but abnormal can arise after planning permission when the land price has been fixed;
- Run off attenuation measure on greenfield sites noted as one type of abnormal;
- S106 requirement looks light – education contributions may/may not be required – when they are these can be significant – c£7,000 per dwelling.
- Note that DNPA are not proposing to introduce CIL

Three Dragons agreed to follow up with the Park Authority:

- If there is a 'typical' cost of abnormal which can be identified and should be modelled – over and above the allowance for contingency and external works used in the build costs:
- The scale of the education contribution if required and in what circumstances – and Three Dragons will include as a sensitivity test for the viability testing.

AFFORDABLE TENURES – What Works in the National Park?	
Affordable Rent	Main testing will assume Affordable Rent - DNPA aiming for 70% of affordable tenures to be Affordable Rent on market led sites and 65% elsewhere
Living Rent	Is Living Rent more appropriate than Affordable Rent? Based on 28% of incomes and closer to social rent. Research suggests only a small proportion of people would be helped by this tenure as households on lower income HH will have access to Housing Benefit
Shared Ownership	Does this intermediate tenure work in the National Park? Or is Shared Equity popular?
Affordable Discount Market Sale	Sold at around 80% of the market price – discount is available in perpetuity
Rent to Buy	Tenant expected to save up and buy property at the end of a set period – not always a successful tenure

Comment from the workshop:

- Housing associations present reiterated concerns about developing shared ownership and equity share homes if NPA policy dictated the use of a cap on the % share that is owned (e.g. at 80%).

RENTS

Property Size	Affordable Rent (Incl service charge)	Approximate amount if Living Rent*
1 bed Flat	£94	£79
2 bed House / Bungalow	£122	£110
3 bed House	£145	£126
4 bed House	£182	£142

* Living Rent calculation is approximate and based upon 28% of income from Housing Registers and using equivalence table from Savills 2015 – if this tenure is to be pursued then figures will need to be refined

- Could RPs deliver Living Rent in the National Park
- Aimed at households on LQ incomes
- Likely to be only a small percentage of households who will benefit – Housing Benefit will be available to help many paying AR

DH noted that the Park is within three Broad Rental Market Areas and so is subject to different Local Housing Allowance (LHA) maxima. Intention is to undertake the testing on basis of the lowest LHA rates.

Comment from the workshop:

- It was noted that there are households in need of affordable housing, that cannot readily afford Affordable Rents. However, the 'Living Rent' levels set out above, based on a % of incomes of those on the register, are not significantly lower than Affordable Rents when service charges are taken into account;
- Transfer value for Affordable Rent may not be related solely to rental levels.

Three Dragons will contact the housing associations separately to confirm appropriate transfer values to use in the testing.

Gross to Net Rental Factors - Affordable

For rental properties

- Rents 100% LHA (except parts of NE where it will be lower)
- Service Charges £10 flats / £5 houses
- Management and maintenance £1,000
- Voids/bad debts 3.00%
- Repairs reserve £600
- Capitalisation 5%

For shared ownership

- Share size 40%
- Rental charge 2.75%
- Capitalisation 5%

Other affordable options?

Comment from the workshop:

- For shared ownership - share size is OK but use 2.5% for the rental charge

Housing associations to provide further detailed feedback on the above.

Workshop conclusion

DJ thanked those attending for their contribution.

DH noted that Three Dragons would be undertaking some follow up interviews with those attending the workshop as well as the land agents.

ANNEX III: LOCAL PLAN POLICIES

Table of Local Plan Policies

Title	Policy requirements	Viability Implications
Strategic Policy 1.1(1) Delivering National Park purposes and protecting Dartmoor's Special Qualities	<p>The policy requires development to protect the qualities of the National Park as well as meeting needs of communities. This includes:</p> <ul style="list-style-type: none"> • Maximising reuse of brownfield land & existing buildings • No development in the National Park except in exceptional circumstances • Development focused in sustainable settlements, only small-scale development in rural settlements • In village & hamlets, only small-scale affordable housing development, or business growth, is considered appropriate • Alterations, improvements and extensions to buildings should be sympathetic to existing buildings & local character. • All planning applications have regard to site and its surroundings, and the amenity enjoyed by its neighbours 	<p>The schemes tested within the study are considered representative of the locations where development is likely to be sought as set out in the policy, such as existing settlement & built up areas.</p> <p>The assumptions are representative of the housing that is required within Dartmoor National Park, and schemes reflect local demand for type, size and tenures.</p>
Strategic Policy 1.2(1) Sustainable development in Dartmoor National Park	<p>When determining development proposals within Dartmoor National Park, the Authority will do so in accordance with National Park purposes. The National Park purposes are:</p> <ul style="list-style-type: none"> • To conserve and enhance the natural beauty, wildlife and cultural heritage of the area; and • To promote opportunities for the enjoyment and understanding of the Special Qualities of the National Park. <p>Policy notes that greater weight will be attached to the former.</p>	No impacts on residential viability
Strategic Policy 1.3 (1) Presumption in favour of sustainable development	<p>The policy sets out a requirement that development must be sustainable, noting requirements for:</p> <ul style="list-style-type: none"> • Supporting the National Park • Responding to climate change 	No impacts on residential viability

	<ul style="list-style-type: none"> • Conservation • Efficient reuse of buildings & land • Having regard to design & historical conservation • Commitments to greener transport 	
Strategic Policy 1.4(1) Spatial Strategy	<p>The policy outlines the spatial strategy principles of:</p> <p>Local Centres (Ashburton, Buckfastleigh, Chagford, Horrabridge, Moretonhampstead, Princetown, South Brent, and Yelverton) whereby development to serve local needs will be acceptable in principle.</p> <p>Rural Settlements (Bittaford, Bridford, Buckfast, Cheriton Cross, Christow, Cornwood, Dousland, Dunsford, Hennock, Ilsington, Liverton, Mary Tavy, South Zeal, Sticklepath, Walkhampton, and Whiddon Down) whereby development intended to meet the needs of the settlement and its parish will be acceptable in principle</p> <p>Villages & Hamlets (Belstone, Dean Prior, Drewsteignton, Holne, Lustleigh, Lydford, Manaton, Meavy, North Bovey, North Brentor, Peter Tavy, Postbridge, Scorrison, Shaugh Prior, Sourton, South Tawton, Throwleigh, and Widecombe in the Moor) where limited development will be acceptable in principle.</p> <p>Open Countryside. Development may be acceptable for certain uses including farming, forestry or for the needs of the National Park.</p>	The study considers the locations of development set out in the hierarchy, and tested schemes are believed to be representative of the type, scale and density that could be expected within each location.
Strategic Policy 1.5 (1) Major Development in Dartmoor National Park	Policy states that <i>“permission will not be granted for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest, outweighing National Park purposes, and that the development cannot reasonably be accommodated in any other way”</i>	Schemes tested for the study are representative of the type, scale and density that could be expected within each location
Strategic Policy 1.6 (1) Delivering good design	The policy sets out various design principles such as reinforcing local character, respecting vernacular and enhancing townscapes. The policy requires plans to include sufficient design information to ensure design quality can be adequately assessed and maintained.	Schemes have been tested with a consideration of localised costing for new residential development.

Policy 1.7 Sustainable construction	Policy states that <i>“proposals will be encouraged to reduce their carbon emissions further than required by Building Regulations, including by improving their energy efficiency using a ‘fabric-first’ approach”</i>	No impacts on residential viability
Policy 1.8(1) Protecting local amenity in Dartmoor National Park	The policy indicates that proposals should not <i>“significantly reduce the levels of daylight and privacy enjoyed by the occupiers of nearby properties”, “have an overbearing and dominant impact”, “introduce levels of noise, vibration, lighting, odours, fumes or dust that would adversely affect human health” or “have an adverse effect on highway safety”.</i>	No impacts on residential viability
Policy 1.9 (1) Higher risk development and sites	The policy sets out principles to guide the development of sites including higher levels of risk, in terms of land contamination and development on unstable land. The policy states the intention for conditions to be applied to such development to ensure both monitoring and acceptable remediation measures are carried out.	Sensitivity testing has been carried out for the potential higher build costs resulting from site abnormalities (such as land remediation or additional land foundations).
Policy 1.10(1) Flood risk	The policy states that <i>“through application of the sequential test, development will not be located where it would be at risk of flooding or where it would lead to increased flood risk in other places”.</i> Only in exceptional circumstances may development be permitted where it does not satisfy a sequential test.	No impacts on residential viability
Strategic Policy 2.1(1) Protecting the character of Dartmoor’s landscape	The policy expects that development should conserve or enhance the character of the Dartmoor landscape, and sets out a range of design principles to consider.	Sites tested allow appropriate net to gross to ensure provision for play, sports and green space provision is captured.
Strategic Policy 2.2 (1) Conserving and enhancing Dartmoor’s biodiversity and geodiversity	Development must conserve and/or enhance Dartmoor’s biodiversity and geodiversity, and result in no net loss. Proposals with adverse impacts on biodiversity and geodiversity sites, or priority habitats and species, will only be permitted in exceptional circumstances. The policy sets out certain criteria where this could be the case.	No impacts on residential viability
Policy 2.3 (1) Biodiversity Enhancement	Development which would impact on biodiversity would be required to make a proportionate on-site contribution to wildlife enhancement.	Costs that might be required in order to adequately mitigate have been informed by the strategy or supplementary planning document cited in the policy, and in consultation with the Council. These are accounted for within s106 costs (where we have allowed £500

		per unit) and within the gross to net assumptions of development sites
Strategic Policy 2.4(1) Conserving and enhancing Dartmoor's moorland, heathland and woodland	<p>Within the areas of moorland, heathland and woodland of conservation importance development will only be permitted where it:</p> <ul style="list-style-type: none"> • conserves, enhances and/or restores features of landscape, archaeological, historic and ecological significance; and • maintains and/or improves public access; or • is demonstrated to be necessary for land management and/or public recreation 	See response to Policy 2.3 (1) Biodiversity Enhancement
Strategic Policy 2.5 (1) Protecting tranquillity and dark night skies	The policy states that, outside classified settlements, proposals shall only be permitted where they conserve and/or enhance tranquillity	No impacts on residential viability
Strategic Policy 2.6 (1) Conserving and enhancing heritage assets	The policy requires that all development " <i>must conserve and/or enhance heritage assets and their settings</i> ". The policy sets out guidelines for the alteration or loss of heritage assets.	No impacts on residential viability
Strategic Policy 2.7 (1) Conservation of historic non-residential buildings in the open countryside	Similar to 2.6, the policy requires that development " <i>must conserve and/or enhance heritage assets and their settings</i> " for any non-residential buildings. The policy sets out guidelines for the alteration or loss of historic non-residential units.	No impacts on non-residential viability
Policy 2.8 (1) Enabling Development	The policy notes the possibility whereby securing a heritage assets future conflicts with other planning polices, and sets out guidelines to navigate.	No impacts on residential viability
Strategic Policy 3.1 Meeting Housing Need in Dartmoor National Park	<p>The local plan sets a target of 65 homes per annum across the plan period, and ambitions to achieve this through the identification of allocated sites, windfall sites & rural exceptions.</p> <p>The policy states that "<i>development of allocated sites, rural exception sites, and windfall sites of more than 5 homes will only be approved where there is a current identified affordable housing need in that area</i>" and that "<i>size and tenure mix of the development should respond to the need identified</i>"</p>	<p>In arriving at suitable typologies to test, consideration has been given to the growth areas and site allocations highlighted in this policy.</p> <p>This has been achieved by ensuring that the site typologies are representative of the delivery in terms of both smaller and strategic sites.</p>
Strategic Policy 3.2 (1) Size and accessibility of new housing	The policy expects that " <i>new housing development should contribute towards creating and sustaining sustainable and balanced communities by delivering a mix of dwelling sizes and types</i> ".	This has a significant impact on viability. Schemes have been tested in accordance with the required mix set out in the policy, in order to

	<p>New housing should “<i>meet and not significantly exceed</i>” nationally described residential space standards</p> <p>All new build dwellings should be constructed in accordance with Building Regulations Requirement M4(2) for accessible and adaptable dwellings (unless evidence indicates that it is either unviable or undesirable).</p> <p>Wheelchair accessible dwellings constructed in accordance with Building Regulations Requirement M4(3), or successive regulations, will be encouraged where a specific local need is identified</p>	<p>reflect the type of development that will be typically sought.</p> <p>Units all meet nationally described space standards, although are not unduly large.</p> <p>All units have been tested at M4(2) and 2% of units on sites over 20 or more have been tested at M4(3)</p>
Strategic Policy 3.3 (1) Housing in Local Centres	<p>In developments of up to 5 dwellings, the development must:</p> <ul style="list-style-type: none"> comprise Local Needs Custom and Self-Build Housing; or comprise not less than 45% Affordable Housing provided on-site; or provide a commuted sum equivalent to 45% Affordable Housing. <p>For sites of 6 and over 45% affordable housing is required on site.</p>	<p>Residential schemes have been tested against the affordable housing requirement set out in this policy. This includes testing the tenure mix that is compliant with this policy.</p> <p>It is understood that affordable housing will generate less value to a scheme than its open market counterparts. Assumptions for affordable units have been cross checked with the local development industry and have been used to account for this difference in value.</p> <p>To take a cautious approach, values for local needs custom & self-build have been reduced to take account of the restriction to local sales.</p>
Strategic Policy 3.4(1) Housing in Rural Settlements	<p>In developments of up to 3 dwellings within the Settlement Boundary, the development must:</p> <ul style="list-style-type: none"> comprise Local Needs Custom and Self-Build Housing; or 	See response to Strategic Policy 3.3 (1) Housing in Local Centres

	<ul style="list-style-type: none"> comprise not less than 45% Affordable Housing provided on-site; or provide a commuted sum equivalent to 45% Affordable Housing <p>Developments of 4 dwellings or more must be on Previously Developed Land within the Settlement Boundary, development must comprise not less than 45% Affordable Housing provided on-site</p>	
Strategic Policy 3.5 (1) Housing in Villages and Hamlets	<p>The policy indicates that development in this location may be approved if it is on small, infill sites, on previously developed land or through the conversion or change of use of an existing building</p> <p>Development of up to 3 dwellings, will be approved, where it:</p> <ul style="list-style-type: none"> is Local Needs Custom or Self-Build Housing, or 100% Affordable Housing, on Previously Developed Land, or is Local Needs Custom or Self Build Housing, or 100% Affordable Housing provided through the conversion, sub-division or change of use of an existing building, or is on a small infill plot within an existing built frontage and within the settlement, and comprises Local Needs Custom or Self-Build Housing, or 100% Affordable Housing provided on site 	See response to Strategic Policy 3.3 (1) Housing in Local Centres
Policy 3.6(1) Custom and Self-Build Housing	<p>The policy indicates that the authority will “<i>positively encourage the delivery of Custom and Self-Build Housing</i>” and shall be “<i>proactive in exploring ways to approve plots</i>”.</p>	<p>100% Custom and Self build plots have been tested within the appraisal. For such schemes, it has been assumed that the build costs would be marginally higher compared to other residential typologies.</p> <p>Additionally, a lower average sales value has been modelled given the assumption that these types of units would be to meet a more localised market.</p>

Policy 3.7(1) Residential alterations, extensions and outbuildings	The policy guides the alteration or extension of development and outbuildings, providing certain design principles and guidance on size increases.	No impacts on residential viability
Policy 3.8 (1) Replacement Homes	The policy provides circumstances where a replacement home may be considered, and offers size and design guidance for development proposals.	No impacts on residential viability
Policy 3.9 (1) Rural Workers' Housing	The policy outlines the conditions for when rural workers housing might be accepted.	No impacts on residential viability
Policy 3.10 (1) Residential annexes to support farming	The policy outlines the conditions for when residential annexes to support farming might be accepted.	No impacts on residential viability
Policy 3.11(1) Removal of rural workers' occupancy conditions	Removal of rural workers occupancy conditions will only be approved where there is no evidence for demand in the area, or the property is affordable housing.	No impacts on residential viability
Policy 3.12 (1) Gypsy and Traveller Accommodation	The policy indicates that development for small scale development of permanent or transit sites for gypsy and traveller accommodation will be permitted where need is demonstrated by a Gypsy and Traveller Accommodation Assessment. These sites must be " <i>within, adjoining, or well-related to a Local Centre or Rural Settlement</i> ". The policy sets out guidance for these types of development relating to scale, local amenity, access and sequential tests (for Flood and PDL).	No impacts on residential viability
Policy 3.13 Low Impact Development	The policy indicates that low impact residential development will be permitted based on certain criteria including (location, scale, contribution, integration with landscape, among others).	No impacts on residential viability
Strategic Policy 4.1 (1) Supporting community services and facilities	The policy resists the loss or partial loss of community facilities, unless evidence demonstrates no community need, equivalent provision elsewhere or that the service is unviable. The policy also provides criteria where proposals for diversification of community services will be supported.	No impacts on residential viability
Strategic Policy 4.2(1) Supporting public open space and sports facilities	Development should promote the availability of and access to public open space and sports facilities. Whole or partial loss will only be permitted where evidence demonstrates that the space or facility is not needed or that alternative provision of equivalent is available elsewhere. The policy indicates that development " <i>will be required to contribute to open space and/or sports facilities provision where it creates or exacerbates</i>	Sites tested allow appropriate net to gross to ensure provision for play, sports and green space provision is captured. S106 reflects site specific cost

	<i>a shortfall in provision, or as identified in a site allocation in this Local Plan or an adopted Neighbourhood Plan”.</i>	
Policy 4.3 (1) Parking standards for new development	All new residential development should provide on-site car parking in line with the standards set out in the plan, and provides certain criteria where alternative levels of parking may be considered (i.e. if on-site parking is not possible, if developments have good access to sustainable transport etc.).	Allowed for within our standard costs and external works assumptions
Policy 4.4(1) Electric Vehicle Charging Points (EVCPs)	The policy outlines that <i>“all development involving off-street car parking provision should provide electric vehicle charging points”</i> to comply with the standards set out in the local plan.	A cost for EVCP’s has been included based on 1 active point per detached or semi + 5% of communal car parking spaces as active & 50% of remaining spaces - passive (£500 for passive, £800 for active)
Policy 4.5 (1) Public car parks	The policy sets out the guidance for the development of public car parks within Dartmoor.	No impacts on residential viability
Policy 4.6 (1) Signs and Advertisements	The policy sets out the guidance for permissions relating to signs and advertisements within Dartmoor.	No impacts on residential viability
Policy 4.7 (1) Telecommunications Development	The policy sets out the guidance for permissions relating to telecommunication development within Dartmoor.	No impacts on residential viability
Strategic Policy 4.8 (1) Access Land, Public Rights of Way and Permissive Paths	The policy provides guidance for the permission of access network	No impacts on residential viability
Strategic Policy 5.1 (1) Business and Tourism Development	Business and tourist development should be <i>“of a scale and use appropriate for its location and local highway network”</i> . The policy also guides development within (or adjoining) its Local Centres and Rural Settlements. The proposal also sets out ambitions for the retention of existing business and employment sites.	No impacts on residential viability
Strategic Policy 5.2 (1) Development affecting Town Centres	Development involving main town centre uses will be guided towards town centres, and required to follow a sequential test if not.	No impacts on residential viability
Strategic Policy 5.3 (1) Shops and other active uses	The policy guides the change of use of shops within Dartmoor	No impacts on residential viability
Policy 5.4 (1) Tourist accommodation	The policy seeks to guide development of tourist accommodation towards Local Centres and Rural Settlements. Development within Villages and Hamlets will only be granted if it is well related to tourist services or provided through the conversion of <i>“suitable redundant historic building”</i> in accordance with other plan polices.	No impacts on residential viability

Policy 5.5 (1) Staff accommodation for serviced accommodation businesses	The policy sets out the guidance for proposals for staff accommodation within Dartmoor.	No impacts on residential viability
Policy 5.6 (1) Camping and touring caravan sites	The policy provides principles for Camping and caravan sites within Dartmoor. These include regard to <i>“landscape character, biodiversity, dark night skies and heritage significance”</i> .	No impacts on residential viability
Policy 5.7 (1) Agriculture, forestry and rural land-based enterprise development	The policy sets out the guidance for the development of agriculture, forestry and other rural-land based enterprise within Dartmoor.	No impacts on residential viability
Policy 5.8 (1) Farm diversification	The policy sets out the guidance for farm diversification within Dartmoor.	No impacts on residential viability
Policy 5.9 (1) Equestrian development	The policy sets out the guidance for permissions relating to equestrian development within Dartmoor.	No impacts on residential viability
Strategic Policy 6.1 (1) New or Extended Minerals Operations	The policy provides guidance for both major and minor mineral developments, and provides criteria that the council will consider on receiving proposals.	No impacts on residential viability
Policy 6.2 (1) Minimising the Impact of Minerals Operations	Applicants for mineral developments will be required to provide supporting information that considers the impact on surroundings as well as the restoration and aftercare strategies.	No impacts on residential viability
Policy 6.3 (1) Minerals Safeguarding	Policy sets out that important minerals and reserves shall be safeguarded	No impacts on residential viability
Policy 6.4 (1) Waste Prevention	All new development should seek to prevent waste, and <i>“must identify sufficient and convenient space for storage of waste and recycling”</i> . Major developments (of 10+ dwellings or greater than 1,000 m2) must include a waste audit.	No impacts on residential viability
Policy 6.5 (1) Waste Disposal and Recycling Facilities	The policy indicates that <i>“waste management facilities or disposal sites will not be permitted unless they can demonstrate significant environmental benefits”</i> . Small scale re-use, recycling or composting facilities will be supported. Development should mitigate against environmental and socioeconomic impacts	No impacts on residential viability
Policy 6.6 (1) Renewable energy development	Small scale renewable energy development will be permitted where it does not harm the National Park’s special qualities. Developments shouldn’t impact on flood risk or soil stability. Large scale renewable energy development will not be approved.	No impacts on residential viability

Policy 7.1 (1) Settlement Boundaries and Development Sites	The policy provides maps defining the settlement boundaries which are referenced throughout the plan.	No impacts on residential viability
Policy 7.2 (1) Community Planning	The policy notes that where neighbourhood plans are present, they will become part of the development plan. Where a Parish plan, Appraisal or village design statement has been positively prepared, the <i>“relevant recommendations and action plans will be regarded as material consideration”</i>	No impacts on residential viability
Site allocations Policy 7.3 (1) Land at Longstone Cross, Ashburton Through to Policy 7.23 (1) South Zeal Special Policy Area	This section provides a number of site allocations that are expected to contribute to the delivery of homes within Dartmoor over the plan period. Each allocation sets out specific requirements as to what is expected which includes contributions towards affordable housing, custom and self build, access	In arriving at suitable typologies to test, consideration has been given to the growth areas and site allocations highlighted in this policy. This has been achieved by ensuring that the site typologies are representative of the delivery in terms of both smaller and strategic sites.

ANNEX V: TESTING RESULTS

Mixed tenure/site allocations

Case Study Ref	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 Owners hip	Benchmark per ha	Site Benchmark	Scheme Residual Value 45%AH	Per gross ha Residual Value 45%AH	Scheme RV less site benchmark	per ha RV less benchmark
CS1	25	0.714	0.714	100%	35dph	35 dph mix	45%	§106 - £6,150 Bio - £500	-	No	NE	31.5%	13.5%	600,000	428,400	887,000	1,242,297	458,600	642,297
CS1	25	0.714	0.714	100%	35dph	35 dph mix	45%	§106 - £6,150 Bio - £500	-	No	SW	31.5%	13.5%	400,000	285,600	411,000	575,630	125,400	175,630
CS2	40	1.143	1.429	80%	35dph	35 dph mix	45%	§106 - £6,150 Bio - £500	-	Yes	NE	31.5%	13.5%	600,000	857,400	1,528,953	1,069,946	671,553	469,946
CS2	40	1.143	1.429	80%	35dph	35 dph mix	45%	§106 - £6,150 Bio - £500	-	Yes	SW	31.5%	13.5%	400,000	571,600	755,692	528,826	184,092	128,826
CS3	80	2.286	2.857	80%	35dph	35 dph mix	45%	§106 - £9,800 Bio - £500	171,450	Yes	NE	31.5%	13.5%	350,000	999,950	2,992,740	1,047,511	1,992,790	697,511
CS3	80	2.286	2.857	80%	35dph	35 dph mix	45%	§106 - £9,800 Bio - £500	171,450	Yes	SW	31.5%	13.5%	300,000	857,100	1,401,878	490,682	544,778	190,682
CS4	10	0.286	0.286	100%	35dph	2.2x1bflat 3.3x2bflat	45%	§106 - £2,500 Bio - £500	50,000	Yes	NE	31.5%	13.5%	600,000	171,600	46,622	163,014	-124,978	-436,986
CS4	10	0.286	0.286	100%	35dph	3.1x1bflat 4.65x2bflat	23%	§106 - £2,500 Bio - £500	50,000	Yes	NE	15.8%	6.8%	600,000	171,600	264,012	923,119	92,412	323,119
CS4	10	0.286	0.286	100%	35dph	2.2x1bflat 3.3x2bflat	45%	§106 - £2,500 Bio - £500	50,000	Yes	SW	31.5%	13.5%	400,000	114,400	-195,716	-684,322	-310,116	-1,084,322
CS4	10	0.286	0.286	100%	35dph	4x1bflat 6x2bflat	0%	§106 - £2,500 Bio - £500	50,000	Yes	NE	-	-	600,000	171,600	473,770	1,656,538	302,170	1,056,538
CS4	10	0.286	0.286	100%	35dph	4x1bflat 6x2bflat	0%	§106 - £2,500 Bio - £500	50,000	Yes	SW	-	-	400,000	114,400	146,333	511,654	31,933	111,654

Infill Sites

Case Study Ref	No of Dwgs	Net Area (ha)	Gross area (ha)	Net to Gross %	Density	Dwelling Mix	S106 /dwelling	Market Value Area	%Aff Housing (Aff Rent)	% Aff Housing (SO)	Aff Housing (Aff Rent & SO)	CSB plots for local needs	Benchmark per ha	Site Benchmark	Scheme Residual Value	Scheme RV less Site Benchmark
IF1	1	0.033	0.033	100%	30dph	1 x 3bd	s106 - 2500 Bio - £500	NE	100%				600,000	20,000	-155,000	-175,000
IF1	1	0.033	0.033	100%	30dph	1 x 3bd	s106 - 2500 Bio - £500	NE		100%			600,000	20,000	-16,000	-36,000
IF1	1	0.033	0.033	100%	30dph	1 x 3bd	s106 - 2500 Bio - £500	NE			45%		600,000	20,000	-41,000	-61,000
IF1	1	0.033	0.033	100%	30dph	1 x 3bd	s106 - 2500 Bio - £500	NE				100%	600,000	20,000	10,000	-10,000
IF1	1	0.033	0.033	100%	30dph	1 x 3bd	s106 - 2500 Bio - £500	SW	100%				400,000	13,333	-155,000	-168,333
IF1	1	0.033	0.033	100%	30dph	1 x 3bd	s106 - 2500 Bio - £500	SW		100%			400,000	13,333	-52,000	-65,333
IF1	1	0.033	0.033	100%	30dph	1 x 3bd	s106 - 2500 Bio - £500	SW			45%		400,000	13,333	-69,000	-82,333
IF1	1	0.033	0.033	100%	30dph	1 x 3bd	s106 - 2500 Bio - £500	SW				100%	400,000	13,333	-28,000	-41,333
IF2	3	0.085	0.085	100%	35dph	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE	100%				600,000	51,000	-110,000	-161,000
IF2	3	0.085	0.085	100%	35dph	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE		100%			600,000	51,000	100,000	49,000
IF2	3	0.085	0.085	100%	35dph	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE			45%		600,000	51,000	61,000	10,000
IF2	3	0.085	0.085	100%	35dph	2x3bt, 1x2bt	s106 - 2500 Bio - £500	NE				100%	600,000	51,000	116,000	65,000
IF2	3	0.085	0.085	100%	35dph	2x3bt, 1x2bt	s106 - 2500 Bio - £500	SW	100%				400,000	34,000	-110,000	-144,000
IF2	3	0.085	0.085	100%	35dph	2x3bt, 1x2bt	s106 - 2500 Bio - £500	SW		100%			400,000	34,000	49,000	15,000
IF2	3	0.085	0.085	100%	35dph	2x3bt, 1x2bt	s106 - 2500 Bio - £500	SW			45%		400,000	34,000	23,000	-11,000
IF2	3	0.085	0.085	100%	35dph	2x3bt, 1x2bt	s106 - 2500 Bio - £500	SW				100%	400,000	34,000	62,000	28,000

Case Study Ref	No of Dwgs	Net Area (ha)	Gross area (ha)	Net to Gross %	Density	Dwelling Mix	S106 /dwelling	Market Value Area	%Aff Housing (Aff Rent)	% Aff Housing (SO)	Aff Housing (Aff Rent & SO)	CSB plots for local needs	Benchmark per ha	Site Benchmark	Scheme Residual Value	Scheme RV less Site Benchmark
IF3	5	0.144	0.144	100%	35dph	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE	100%				600,000	86,400	-188,000	-274,400
IF3	5	0.144	0.144	100%	35dph	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE		100%			600,000	86,400	169,000	82,600
IF3	5	0.144	0.144	100%	35dph	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE			45%		600,000	86,400	114,000	27,600
IF3	5	0.144	0.144	100%	35dph	2x3bs 3x2bt	s106 - 2500 Bio - £500	NE				100%	600,000	86,400	178,000	91,600
IF3	5	0.144	0.144	100%	35dph	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW	100%				400,000	57,600	-188,000	-245,600
IF3	5	0.144	0.144	100%	35dph	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW		100%			400,000	57,600	59,000	1,400
IF3	5	0.144	0.144	100%	35dph	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW			45%		400,000	57,600	29,000	-28,600
IF3	5	0.144	0.144	100%	35dph	2x3bs 3x2bt	s106 - 2500 Bio - £500	SW				100%	400,000	57,600	65,000	7,400
IF4	10	0.285	0.285	100%	35dph	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE	100%				600,000	171,000	-384,000	-555,000
IF4	10	0.285	0.285	100%	35dph	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE		100%			600,000	171,000	382,000	211,000
IF4	10	0.285	0.285	100%	35dph	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE			45%		600,000	171,000	255,000	84,000
IF4	10	0.285	0.285	100%	35dph	4x2bt 6x3bs	s106 - 2500 Bio - £500	NE				100%	600,000	171,000	402,000	231,000
IF4	10	0.285	0.285	100%	35dph	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW	100%				400,000	114,000	-384,000	-498,000
IF4	10	0.285	0.285	100%	35dph	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW		100%			400,000	114,000	127,000	13,000
IF4	10	0.285	0.285	100%	35dph	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW			45%		400,000	114,000	62,000	-52,000
IF4	10	0.285	0.285	100%	35dph	4x2bt 6x3bs	s106 - 2500 Bio - £500	SW				100%	400,000	114,000	143,000	29,000

Rural Exception Sites

												Result before deduction for benchmark land value			
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	Test1 100% Affordable	Test 2 25% market 75% Affordable (70% rented/30% shared owned)	Test 3 25% market 75% Affordable (50% rented/50% shared owned)	Test 4 25% market 75% Affordable (20% rented/80% shared owned)
RES1	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	£22,000	£82,000	
RES1	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	-£35,000	£13,000	£83,000
RES2	Rural Exception	15	0.500	0.500	100%	30 dph	3 x 1bh 7 x 2bh 5 x 3 bh	2,500	no	NE	150,000	-£188,000	£23,000	£152,000	
RES2	Rural Exception	15	0.500	0.500	100%	30 dph	3 x 1bh 7 x 2bh 5 x 3 bh	2,500	no	SW	150,000	-£255,000	-£88,000	£12,000	£159,000
RES3	Rural Exception/ community needs	20	0.650	0.650	100%	31 dph	4 x 1bh 8 x 2bh 7 x 3bh 1 x 4 bh	2,500	no	NE	200,000	-£225,000	£55,000	£227,000	
RES3	Rural Exception/ community needs	20	0.650	0.650	100%	31 dph	4 x 1bh 8 x 2bh 7 x 3bh 1 x 4 bh	2,500	no	SW	200,000	-£317,000	-£97,000	£33,000	£226,000

Sensitivity testing results

Case Study Ref	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	Sensitivity Test - Build costs increased by 7%					
												Benchmark per ha	Site Benchmark	Scheme Residual Value 45%AH	Per gross ha Residual Value 45%AH	Scheme RV less site benchmark	per ha RV less benchmark
CS1	25	0.714	0.714	100%	35dph	35dph mix	45%	s106 - £6,150 Bio - £500	-	No	NE	600,000	428,400	662,000	927,171	233,600	327,171
CS1	25	0.714	0.714	100%	35dph	35dph mix	45%	s106 - £6,150 Bio - £500	-	No	SW	400,000	285,600	184,000	257,703	-101,600	-142,297
CS2	40	1.143	1.429	80%	35dph	35dph mix	45%	s106 - £6,150 Bio - £500	-	Yes	NE	600,000	857,400	1,172,450	820,469	315,050	220,469
CS2	40	1.143	1.429	80%	35dph	35dph mix	45%	s106 - £6,150 Bio - £500	-	Yes	SW	400,000	571,600	399,189	279,348	-172,411	-120,652
CS3	80	2.286	2.857	80%	35dph	35dph mix	45%	s106 - £9,800 Bio - £500	183,452	Yes	NE	350,000	999,950	2,278,866	797,643	1,278,916	447,643
CS3	80	2.286	2.857	80%	35dph	35dph mix	45%	s106 - £9,800 Bio - £500	183,452	Yes	SW	300,000	857,100	673,003	235,563	-184,097	-64,437

All affordable dwellings are rented																			
Case Study Ref	No of Dwgs	Net Area (ha)	Gross area (ha)	Net to Gross %	Density	Market Dwelling Mix	%AH	S106/dwelling	Opening up/ Abnormal s costs	DCF Applied	Market Value Area	%Aff Rent	% Sh Ownership	Benchmark per ha	Site Benchmark	Residual Value 45%AH	Per gross ha Residual Value 45%AH	schme RV less benchmark	Per ha RV less benchmark
CS1	25	0.714	0.714	100%	35dph	35dph mix	45%	s106 - £6,150 Bio - £500	-	No	NE	45.0%		600,000	428,400	680,000	952,381	251,600	352,381
CS1	25	0.714	0.714	100%	35dph	35dph mix	45%	s106 - £6,150 Bio - £500	-	No	SW	45.0%		400,000	285,600	254,000	355,742	-31,600	-44,258

Affordable dwellings are 70% social rent & 30% shared ownership																			
Case Study Ref	No of Dwgs	Net Area (ha)	Gross area (ha)	Net to Gross %	Density	Market Dwelling Mix	%AH	S106/dwelling	Opening up/ Abnormal s costs	DCF Applied	Market Value Area	%Aff Rent	% Sh Ownership	Benchmark per ha	Site Benchmark	Residual Value 45%AH	Per gross ha Residual Value 45%AH	schme RV less benchmark	Per ha RV less benchmark
CS1	25	0.714	0.714	100%	35dph	35dph mix	45%	s106 - £6,150 Bio - £500	-	No	NE	32%	14%	600,000	428,400	639,000	894,958	210,600	294,958
CS1	25	0.714	0.714	100%	35dph	35dph mix	45%	s106 - £6,150 Bio - £500	-	No	SW	32%	14%	400,000	285,600	159,000	222,689	-126,600	-177,311

Using forecast increase for costs & values to 2021																		
Case Study Ref	No of Dwgs	Net Area (ha)	Gross area (ha)	Net to Gross %	Market Dwelling Mix	%AH	S106/dwelling	Opening up/ Abnormal s costs	DCF Applied	Market Value Area	%Aff Rent	% Sh Ownership	Benchmark per ha	Site Benchmark	Scheme Residual Value 45%AH	Per gross ha Residual Value 45%AH	Scheme RV less site benchmark	Rv per ha less benchmark
CS1	25	0.714	0.714	100%	35dph mix	45%	s106 - £6,150 Bio - £500	-	No	NE	31.5%	13.5%	600,000	428,400	835,000	1,169,468	406,600	569,468
CS1	25	0.714	0.714	100%	35dph mix	45%	s106 - £6,150 Bio - £500	-	No	SW	31.5%	13.5%	400,000	285,600	323,000	452,381	37,400	52,381
CS2	40	1.143	1.429	80%	35dph mix	45%	s106 - £6,150 Bio - £500	-	Yes	NE	31.5%	13.5%	600,000	857,400	1,455,397	1,018,472	597,997	418,472
CS2	40	1.143	1.429	80%	35dph mix	45%	s106 - £6,150 Bio - £500	-	Yes	SW	31.5%	13.5%	400,000	571,600	623,866	436,575	52,266	36,575
CS3	80	2.286	2.857	80%	35dph mix	45%	s106 - £9,800 Bio - £500	187,891	Yes	NE	31.5%	13.5%	350,000	999,950	2,840,027	994,059	1,840,077	644,059
CS3	80	2.286	2.857	80%	35dph mix	45%	s106 - £9,800 Bio - £500	187,891	Yes	SW	31.5%	13.5%	300,000	857,100	1,113,150	389,622	256,050	89,622

costs & values increase to September 2018																		
Case Study Ref	No of Dwgs	Net Area (ha)	Gross area (ha)	Net to Gross %	Density	%AH	S106/dwelling	Opening up/ Abnormal s costs	DCF Applied	Market Value Area	%Aff Rent	% Sh Ownership	Benchmark per ha	Site Benchmark	Scheme Residual Value 45%AH	Per gross ha Residual Value 45%AH	scheme RV less site benchmark	Rv per ha less benchmark
CS1	25	0.714	0.714	100%	35dph	45%	s106 - £6,150 Bio - £500	-	No	NE	31.5%	13.5%	600,000	428,400	873,386	1,223,230	444,986	623,230
CS1	25	0.714	0.714	100%	35dph	45%	s106 - £6,150 Bio - £500	-	No	SW	31.5%	13.5%	400,000	285,600	387,781	543,111	102,181	143,111
CS2	40	1.143	1.429	80%	35dph	45%	s106 - £6,150 Bio - £500	-	Yes	NE	31.5%	13.5%	600,000	857,400	1,510,362	1,056,936	652,962	456,936
CS2	40	1.143	1.429	80%	35dph	45%	s106 - £6,150 Bio - £500	-	Yes	SW	31.5%	13.5%	400,000	571,600	722,477	505,582	150,877	105,582
CS3	80	2.286	2.857	80%	35dph	45%	s106 - £9,800 Bio - £500	187,891	Yes	NE	31.5%	13.5%	350,000	999,950	2,968,706	1,039,099	1,968,756	689,099
CS3	80	2.286	2.857	80%	35dph	45%	s106 - £9,800 Bio - £500	187,891	Yes	SW	31.5%	13.5%	300,000	857,100	1,344,124	470,467	487,024	170,467