

Growth Option 1 – Below Trend this equates to a 25% reduction in development based on past trends, and would deliver about 1,750 dwellings per annum, including 500-600 affordable homes. (35,000 homes over 20 years)

Sustainability Criteria	Score	Comments
Climate factors	+++	Efficient use of space. Using existing stock so not necessarily stimulating renewables market. Dependent on policy for retrofit.
Waste	++	New build will generate construction waste. Less construction means less waste. New build will have better facilities for recycling, but this depends on design and policies. More housing means more waste and more impact on climate change. Depends on the behaviour of householders. Unsure because increased population means more waste creation.
Minerals & Geodiversity	+++	Low growth means less demand for mineral extraction. Low growth doesn't stimulate the use of secondary aggregate as much as high growth due to economies of scale. Tends to just use primary aggregate. Unless specified in a policy to use secondary aggregate.
Soil	+++	Low growth will have less impact on soil.
Air	+++	Less growth means less impact on water. Extent to which it has negative impact depends on design and location.

Water	+++	Less growth means less land take so better for biodiversity.
Biodiversity	+++	Less growth means less land take and less impact on landscape.
Landscape	+++	Less growth means less land take and less impact on landscape and seascape. The extent of impact is dependent on design, distribution and location of development.
Maritime	+++	Less growth means less impact on maritime environment. The extent of impact is dependent on design, distribution and location of development.
Historic Environment	+++	Less growth means less impact on land and maintaining the quality and distinctiveness of the historic environment. The extent of impact is dependent on design, distribution and location of development.
Design	+-	Depends on local policies. Low growth has possibility
Social Inclusion	-	Less growth means less social housing provision and less opportunity for social inclusion. Less housing means less services are available. The extent of impact is dependent on policy, distribution and location of development.

Crime & Anti Social Behaviour	?	New build can 'design out crime'. Low housing provision means more homeless so perhaps more 'fear of crime'. The extent of impact is dependent on policy and design of development.
Housing	--	Low growth means less provision for housing to meet local needs.
Health, Sport & Recreation	?	The extent of impact is dependent on design, distribution and location of development.
Economic Development, Regeneration & Tourism	+-	Low growth won't stimulate housing industry which will have knock on effects on the economy. Less housing will mean less impact on the environment which is more positive for tourism.
Education & Skills	?	No change. The extent of impact is dependent on design and distribution of development. Below trend won't support services and facilities.
Transport & Accessibility	+-	Low growth should mean less congestion and emissions. However, it will make transport provision less viable and won't be good for service provision.
Energy	-	Low growth won't stimulate energy conservation and low carbon technology market. The extent of impact is dependent on design, distribution and location of development.

Growth Option 2 – Trend Based this reflects trends in development over the past 20-25 years and would deliver 2,250 new homes, including 700-800 affordable homes per annum. (45,000 over 20 years)

Sustainability Criteria	Score	Comments
Climate factors	++	Not as good as the below trend option but better than medium – high growth options.
Waste	-	Worst construction waste aspects than the below trend option. Actual rate of recycling and composting depends on design of development.
Minerals & Geodiversity	++	Worse than below trend but better than medium-high options. Construction and local distinctiveness as they might require use of local mineral resources.
Soil	++	Increased impact on soil due to increased requirement for more intensive farming, but much less than high growth option.
Air	++	Increased impact on air due to increased traffic but much less than high growth options.
Water	++	Increased impact on water resources and use due to increased demand but much less than high growth options.
Biodiversity	++	Increased impact on biodiversity due to increased impacts but much less than

		high growth options.
Landscape	++	Increased impact on biodiversity due to increased impacts but much less than high growth options.
Maritime	++	Increased impact on maritime environment due to increased development and population but much less than high growth options.
Historic Environment	++	Increased impact on the historic environment due to increased development and population but much less than high growth options.
Design	+-	Low growth means more opportunities to control design, but high growth presents opportunities to design a new 'Cornish vernacular'. (Overall comment: cumulative impacts are important to consider).
Social Inclusion	-	Still not delivering to meet housing needs.
Crime & Anti Social Behaviour	?	Not able to see direct tangible correlation apart from 'designing out crime'.
Housing	-	Meeting 5% more identified housing need than the below trend option.

Health, Sport & Recreation	+-	Higher growth may reduce open space where people undertake informal sport and recreation activities and lead to unhealthy lifestyles, but higher levels of growth can provide more facilities for formal sport and recreation.
Economic Development, Regeneration & Tourism		Reflects trend so status quo.
Education & Skills	?	Depends on population make-up and design and location.
Transport & Accessibility	-	More growth increases emissions and congestion but still not at a high enough level to make public transport viable.
Energy	+-	Dependent on design, location and distribution. May still not be at a level to achieve real benefits from renewables etc but any increase in housing leads to increased consumption from users as well as associated infrastructure (street lighting etc).

Growth Options 3 and 4 (combined) – Population and Household Growth Projections: this reflects recent trends in population and household growth in Cornwall and would deliver 2,400 new homes, including 720-840 affordable homes per annum. If migration levels decrease or increase this would affect the number of new homes required.

Cornwall County Council Response to Revised Household Projections (2007): this reflects the Cornwall County Council response to the South West Regional Assembly and would deliver 2,640 new homes, including 800-950 affordable homes per annum. (48,000 – 52,800 over 20 years)

Sustainability Criteria	Score	Comments
Climate factors	+	Climate factors are negative but far less so than later options hence given positive in relative terms.
Waste	--	More housing construction equals more waste but possibility of local facilities for recycling, reuse, recovery etc.
Minerals & Geodiversity	+	More impacts unless policies promote secondary aggregates. Increasing risk of sterilising resources. Positive only relative to impacts of higher growth.
Soil	+	Increased impact on soil as growth increases.
Air	+	Increasing impact as growth increases although dependent on distribution and locations (e.g. valleys).
Water	+	Increasing impacts due to increasing demand and potential surface water run-off, i.e. facilities for clean water supply and sewage treatment needed,

		and risk of flooding from surface water (the latter dependent upon design standards).
Biodiversity	+	Increasing impacts as growth increases, although possibility to develop wildlife corridors for mitigation.
Landscape	+	Visual impacts increasing due to higher growth, but also need to avoid flood plain areas.
Maritime	+	Increasing impacts as growth increases due to more people undertaking maritime activities (fishing, coastal walking, boats) plus diffuse run-off from hard surfaces.
Historic Environment	+	Increasing impacts as growth increases and more risk of erosion and unsympathetic development.
Design	+ -	Low growth means more opportunities to control design, but high growth presents opportunities to design a new 'Cornish vernacular'. (Overall comment: cumulative impacts are important to consider).
Social Inclusion	+	Growth starting to decrease the level of housing need by increasing supply.
Crime & Anti Social Behaviour	?	Not able to see direct tangible correlation apart from 'designing out crime'.
Housing	+	Delivering 5-6% more housing than trend based growth, hence more

		provision.
Health, Sport & Recreation	+-	Opportunities for recreation in coast and countryside being reduced due to more development and more population pressure. However, more opportunities for formal recreation.
Economic Development, Regeneration & Tourism	+-	Positive for economic development due to increase in construction developments etc but negative impact on tourism due to landscape impacts.
Education & Skills	?	Depends on population make-up and design and location.
Transport & Accessibility	--+	Congestion and emissions getting worse but small opportunity to locate services so as to reduce travel and make public transport more viable.
Energy	+-	Dependent on design, location and distribution. May still not be at a level to achieve real benefits from renewables etc but any increase in housing leads to increased consumption from users as well as associated infrastructure (street lighting etc).

Growth Options 5 and 6 (combined) – Cornwall Towns Study: this study examined how spatial planning in Cornwall could improve sustainability. It would deliver 2,800 new homes, including 850-1,000 affordable homes per annum. **Strategic Housing Market Assessment Growth:** this study suggests that an additional 3,140 households will form in Cornwall each year. Some 1,570 households each year will require some assistance in terms of housing. (56,000 – 62,800 over 20 years)

Sustainability Criteria	Score	Comments
Climate factors	-	Felt to be at a “tipping point” for Cornwall and starting to see potentially significant impacts. However some issues could be mitigated by design, distribution and location of development/s.
Waste	--	Increased level of construction waste is directly correlated to the level of development (unless mitigated against thru design and build) however it does provide opportunities to design in enhanced recycling and composting facilities, but overall participation rates will depend on behaviour of the occupants.
Minerals & Geodiversity	-	More impacts unless policies promote requirement to use secondary aggregates. A correlated increase in relation to risk of sterilising resources. Relatively less negative than highest growth options.
Soil	-	Increased requirement to look at using undeveloped land for housing and

		associated infrastructure development. Conflict of land use between housing and food production.
Air	-	Increased development linked to increased impact on air quality and air pollution.
Water	-	Linear trend. Increasing impacts due to increasing demand and potential surface water run-off, i.e. facilities for clean water supply and sewage treatment needed, and risk of flooding from surface water (the latter dependent upon design standards).
Biodiversity	-	Increasing impacts as growth increases, although possibility to develop wildlife corridors for some mitigation.
Landscape	-	More housing development increases the likelihood of visual impacts on the landscape. However it's overall impact is dependent on design, distribution and location.
Maritime	-	Increasing impacts as growth increases due to more people undertaking maritime activities (fishing, coastal walking, surfing, boats) plus impacts of diffuse run-off from hard surfaces.
Historic Environment	-	Increasing impacts as growth increases and more risk of erosion from population pressure. Increased need to compromise between development and

		historic conservation perhaps. Level depends on design and location.
Design	+ -	Increased development could lend itself to the design of a new vernacular style for Cornwall. Potentially there is also an opportunity to benefit from economies of scale in terms of infrastructure provision, materials, renewables and planning gain.
Social Inclusion	+	Growth starting to decrease the level of housing need by increasing supply.
Crime & Anti Social Behaviour	?	Not able to see direct tangible correlation apart from 'designing out crime'.
Housing	+	Delivering 9 and 10% more housing than trend based growth, hence more provision Best use of land, lifetime home provision and mix of tenure depends on design.
Health, Sport & Recreation	+ -	Mental health potentially negatively affected through loss of green spaces. Opportunities for informal recreation using the natural environment (green/blue space) is reduced due to more development and more population pressure in those locations. However there are more opportunities for formal recreation facilities and the viability of them.

Economic Development, Regeneration & Tourism	+-	High growth could stimulate the economy and boost jobs in construction. However, there are questions if enough jobs can be stimulated within the local economy to support the increased population arising from high housing growth projections and fluctuations within the economy could lead to dereliction as housing developments are no longer economically viable (potential impact on tourism). Housing growth may increase pressure on existing industries in Cornwall to cease functioning due to perceived noise, disturbance etc e.g. farming, fishing, timber working.
Education & Skills	?	Too many dependents i.e. distribution, design, location and make up of resident population.
Transport & Accessibility	--+	Congestion and emissions getting worse but increased opportunity to locate services more locally so as to reduce travel and make public transport more viable.
Energy	--+	Dependent on design, location and distribution. Could be at a level to achieve real benefits from renewables etc but any increase in housing leads to increased consumption from users as well as associated infrastructure (street

		lighting etc). Cornwall already unable to be self sufficient regarding energy production. Some forms of renewable energy generation will be jeopardised due to competition from land use purposes.
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Growth Option 7– Regional Strategy Proposed Changes: this was the target proposed for the South West region and would deliver 3,410 new homes for Cornwall, including 1,000-1,200 affordable homes per annum. (68,200 over 20 years)

Sustainability Criteria	Score	Comments
Climate factors	--	Increasing impacts and consequences of climate change on the County and increased levels of emissions. These could be minimised through the designing in of significant adaptation and mitigation measures.
Waste	--	Increased level of construction waste is directly correlated to the level of development (unless mitigated against thru design and build) however it does provide opportunities to design in enhanced recycling and composting facilities, but overall participation rates will depend on behaviour of the occupants.
Minerals & Geodiversity	--	More impacts even if policies promote the use of sustainable construction materials. It is questionable about how much demand for materials can be met through the use of secondary aggregates or recycled construction materials. A correlated increase in relation to risk of sterilising resources. Relatively less negative than highest growth option.

Soil	--	Increased requirement to look at using undeveloped land for housing and associated infrastructure development. Conflict of land use between housing, renewable energy generation to meet housing energy demand and food production as less land is available and that which is available is used more intensively.
Air	--	Correlated increase as development linked to increased impact on air quality and air pollution.
Water	--	Linear trend. Increasing impacts due to increasing demand and potential surface water run-off, i.e. facilities for clean water supply and sewage treatment needed, and risk of flooding from surface water (the latter dependent upon design standards).
Biodiversity	--	Increasing impacts as growth increases, although possibility to develop some mitigation measures.
Landscape	--	More housing development increases the likelihood of visual impacts on the landscape. However it's overall impact is dependent on design, distribution and location.
Maritime	--	Increasing impacts as growth increases due to more people undertaking maritime activities (fishing, coastal

		walking, surfing, boats) plus impacts of diffuse run-off from hard surfaces
Historic Environment	--	Increasing impacts as growth increases and more risk of erosion from population pressure. Increased need to compromise between development and historic conservation perhaps. Level depends on design and location.
Design	+-	Increased development could lend itself to the design of a new vernacular style for Cornwall. Potentially there is also an opportunity to benefit from economies of scale in terms of infrastructure provision, materials, renewables and planning gain
Social Inclusion	++	Growth starting to decrease the level of housing need by increasing supply. Links to design on how balanced communities they are.
Crime & Anti Social Behaviour	-	Starting to see creeping urbanisation and potentially conflict due to higher density of population although this depends on distribution and design.
Housing	++	Delivering 13% more housing than trend based growth, hence more provision. Best use of land, lifetime home provision and mix of tenure depends on design and build.

Health, Sport & Recreation	+ + --	Mental health potentially negatively affected through loss of green spaces. Opportunities for informal recreation using the natural environment (green/blue space) is reduced due to more development and more population pressure in those locations. However there are more opportunities for formal recreation facilities and the viability of them.
Economic Development, Regeneration & Tourism	+ + --	High growth could stimulate the economy and boost jobs in construction. However, there are questions if enough jobs can be stimulated within the local economy to support the increased population arising from high housing growth projections and fluctuations within the economy could lead to dereliction as housing developments are no longer economically viable (potential impact on tourism). Housing growth may increase pressure on existing industries in Cornwall to cease functioning due to perceived noise, disturbance etc e.g. farming, fishing, timber working.
Education & Skills	?	Too many dependents i.e. distribution, design, location and make up of resident population. Increasing housing growth and associated population could

		lead to provision of HFE but it depends on the make up of the occupants
Transport & Accessibility	---+ +	Congestion and emissions getting worse but increased opportunity to locate services more locally so as to reduce travel and make public transport more viable.
Energy	---+ +	Dependent on design, location and distribution. Could be at a level to achieve real benefits from renewables etc but any increase in housing leads to increased consumption from users as well as associated infrastructure (street lighting etc). Cornwall already unable to be self sufficient regarding energy production. Some forms of renewable energy generation will be jeopardised due to competition from land use purposes.

Growth Option 8 – High (National Housing & Planning Advisory Unit) Growth: this level of growth is proposed to enable the supply of housing to meet demand and would deliver 4,000 new homes, including 1,200-1,400 affordable homes per annum. (80,000 over 20 years)

Sustainability Criteria	Score	Comments
Climate factors	---	Ever increasing impacts and consequences of climate change on the County and increased levels of emissions. These could be minimised through the designing in of significant adaptation and mitigation measures.
Waste	---	An increased level of construction waste is directly correlated to the level of development (although it could be mitigated to a certain extent thru design and build). With the highest growth option there could be opportunities to provide more localised waste management and treatment facilities but overall participation rates will depend on the behaviour of the occupants.
Minerals & Geodiversity	---	Very significant impacts to both primary and secondary aggregate resources. It is likely that a significant level of mineral resources will be sterilised through requirements for land for development.

Soil	---	Significant conflicts arising from competition between different land use requirements. Land available for food production will be required to be used much more intensively.
Air	---	Correlated increase as construction of the development and associated infrastructure are linked to increased impact on air quality and air pollution.
Water	---	Linear trend. Increasing impacts due to increasing demand and potential surface water run-off, i.e. facilities for clean water supply and sewage treatment needed, and risk of flooding from surface water (the latter dependent upon design standards). Higher growth options may require enhanced standards for sewage treatment. May start to see a conflict with land use between demand for more reservoirs and sewage treatment plants with housing , employment, biodiversity, tourism requirements.
Biodiversity	---	Increasing impacts as growth increases, although possibility to develop some mitigation measures.
Landscape	---	More housing development increases the likelihood of visual impacts on the landscape. However it's overall impact is dependent on design, distribution and

		location.
Maritime	---	Increasing impacts as growth increases due to more people undertaking maritime activities (fishing, coastal walking, surfing, boats) plus impacts of diffuse run-off from hard surfaces
Historic Environment	---	Increasing impacts as growth increases and more risk of erosion from population pressure. Increased need to compromise between development and historic conservation perhaps. Level depends on design and location.
Design	+-	Increased development could lend itself to the design of a new vernacular style for Cornwall. Potentially there is also an opportunity to benefit from economies of scale in terms of infrastructure provision, materials, renewables and planning gain
Social Inclusion	+++	Growth starting to decrease the level of housing need by increasing supply. Links to design re how balanced communities are.
Crime & Anti Social Behaviour	-	Starting to see creeping urbanisation and potentially conflict due to higher density of population although this depends on distribution and design and services provided.
Housing	+-	Delivering 19% more housing than trend based growth, hence more

		provision. Best use of land, lifetime home provision and mix of tenure depends on design and build. Could be a risk to saturating housing market from over supply. Links to economy as potential loss of desirability and lack of employment opportunities.
Health, Sport & Recreation	+++---	Mental health potentially negatively affected through loss of green spaces. Opportunities for informal recreation using the natural environment (green/blue space) is reduced due to more development and more population pressure in those locations. However there are more opportunities for formal recreation facilities and the viability of them.
Economic Development, Regeneration & Tourism	+++----	High growth could stimulate the economy and boost jobs in construction. However, there are questions if enough jobs can be stimulated within the local economy to support the increased population arising from high housing growth projections and fluctuations within the economy could lead to dereliction as housing developments are no longer economically viable (potential impact on tourism). Housing growth may increase pressure on existing

		industries in Cornwall to cease functioning due to perceived noise, disturbance etc e.g. farming, fishing, timber working. Links to housing. Green Jobs might be compromised due to reduced land available for renewable energy generation.
Education & Skills	?	Too many dependents i.e. distribution, design, location and make up of resident population. Increasing housing growth and associated population could lead to provision of HFE but it depends on the make up of the occupants
Transport & Accessibility	--- ++	Congestion and emissions getting worse but increased opportunity to locate services more locally so as to reduce travel and make public transport more viable.
Energy	--- ++	Dependent on design, location and distribution. Could be at a level to achieve real benefits from renewables etc but any increase in housing leads to increased consumption from users as well as associated infrastructure (street lighting etc). Cornwall already unable to be self sufficient regarding energy production. Many forms of renewable energy generation will be jeopardised due to competition from land use purposes.

