Canopy policy (G3) & Cornwall Canopy Calculator



The development of Canopy Policy (G3)

- January 2019. Cornwall Council declared Climate Emergency
- July 2019. published a climate emergency action plan
- February 2020. Forestry team engaged, identified potential tree policy options
- March 2020. initial public consultation public supportive of protection & planting of trees
- April 2020. Cornish parish Canopy coverage assessed. Consideration of appropriate canopy target.
- July 2020. development of Cornwall Canopy Calculator & test example sites
- gained familiarity with BNG and considered impacts for trees
- considered canopy target impacts upon viability

- considered interplay with BNG
- December 2020. Refined final policy wording
- April 2021. DPD out to public consultation, minor policy amends made in response
- Revisions to calculator to address comment & incorporate select habitats
- July 2021 draft DPD received cabinet support.
- Sept 2021. Climate Change DPD supported by full council
- Nov 2021. Submitted to the Planning Inspectorate, now awaiting examination.



What's the Canopy policy?

G3 Par. 1

All major development should provide, through the retention of existing and/or the establishment of new, canopy coverage equal to at least 15% of the site area (excluding areas of the site that are priority habitat types) in accordance with a Cornwall Council approved calculator or metric.







What is Canopy

What is:

- existing and proposed individual/singular trees (all species)
- existing and proposed groupings/arrangements of trees (all species)
- existing native hedgerows, including those atop Cornish hedge
- proposed native hedgerows (including those atop Cornish hedges) within public realm green infrastructure and/or afforded appropriate buffers
- selected scrub and all woodland habitats (as defined by the The UK Habitat Classification System)

What isn't:

limited woody scrub habitats (i.e. lesser value/invasive)

- existing and proposed non-native shrub hedgerows (e.g. garden boundaries)
- proposed (new) native hedgerows (including those atop Cornish hedges) where these are not within public realm and/or afforded appropriate buffers
- other existing or proposed green infrastructure such as green walls and roofs.
- other existing or proposed 'non-canopy' habitats

Canopy - woodland, scrub & hedgerow habitats

Level 1	Level 2 code	e Label code Label code (Priority Habitats in Bold)					Level 5 code	Level 5 Label (Including Appex 1 Habitats)				
					w1a	Upland oakwood	w1a5	Western acidic oak woodland (H91A0)				
					w1b	Upland mixed ashwoods	w1b5	Lime-maple woodlands of rocky slopes (H9180)				
							w1b6	Other upland mixed ashwoods				
							w1c5	Beech forests on acid soils (H9120)				
					w1c	Lowland beech and yew woodland	w1c6	Beech forests on neutral to rich soils (H9130)				
							w1c7	Yew-dominated woodland (H91J0)				
							w1c8	Natural box scrub (H5110)				
				Broadleaved mixed and	w1d	Wet woodland	w1d5	Alder woodland on floodplains (H91E0)				
	w		w1	yew	WIU	wet woodland	w1d6	Bog woodland (H91D0)				
		Woodland and forest		woodland	w1e	Upland birchwoods						
					w1f		w1f5	Dry oak-dominated woodland (H9190)				
_						Lowland mixed deciduous	w1f6	Oak-hornbeam forests (H9160)				
stria						woodland	w1f7	Other Lowland mixed deciduous woodland				
erre					w1a	Other woodland; broadleaved	w1g6	Line of trees				
μ					w1g	Other woodiand, broadleaved	w1g7	Other broadleaved woodland types				
Terrestrial					w1h	Other woodland; mixed	w1h5	Other woodland; mixed; mainly broadleaved				
							w1h6	Other woodland; mixed; mainly conifer				
				Conifornus	w2a	Native pine woodlands		Caledonian forest (H91C0)				
			w2	Coniferous woodland	w2b	Other Scot's Pine woodland						
				woodiand	w2c	Other coniferous woodland						
			h2	Hedgerows	h2a	Hedgerow (priority habitat)						
					h3a	Blackthorn scrub	h3a5	West coast blackthorn scrub				
		Heathland			115a		h3a6	Other blackthorn scrub				
	h	& shrub	h3	Dense scrub	h3b	Hazel scrub	h3b5	Atlantic hazel				
		C Shi ub	115	Dense scrub			h3b6	Other hazel scrub				
					h3f	Hawthorn scrub						
					h3h	Mixed scrub						

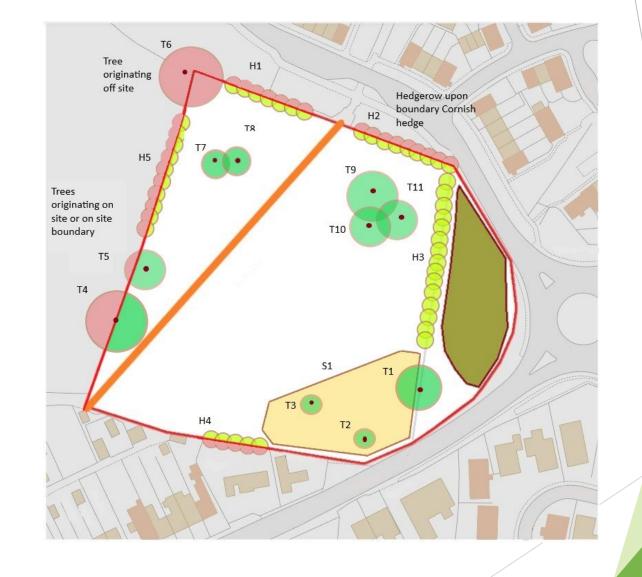
Adapted excerpt from UK habitat Classification V1-1 including correspondance_7 Sep 2020. Professional Edition Hierarchy sheet.







What about pre-existing canopy 'offsite'?







Must canopy provision be on the development site in order to comply with the policy?

Only canopy that is delivered (retained or established) within the application site boundary (i.e. within the red line) shall be considered canopy provision for the purposes of this policy.



What's the policy cont...

G3 Par. 2

Proposals to remove canopy on the site should be justified with applicants demonstrating that the proposal has explored all options to avoid or reduce harm to existing canopy before any removal, replacement or compensation is proposed.



What's the policy cont....

G3 Par. 3

Where a pre-development site already contains canopy that exceeds the 15% requirement, the development must not result in the net loss of canopy cover, as evidenced by the canopy calculator.



What's the policy cont...

G3 Par.4

Where there are significant ecological, historical, landscape or operational reasons to justify a canopy requirement of less than 15% on site and this can be fully evidenced, an alternative percentage of canopy provision shall be agreed with the Council and the proposal should at a minimum ensure no net loss of canopy.



Where 15% canopy cover might not appropriate:

- a significant, adverse impact upon the character, context, views of or from a heritage asset, its setting and its relationship with the wider landscape.
- a significant, adverse impact upon a designated landscape or upon the physical condition of a retained historic feature
- sites where aviation or the generation of renewable energy are the primary function. Canopy may obstruct visibility/flight paths at aviation sites or may prevent optimal outputs for solar farms,

- where canopy provision would have a demonstrably significant and adverse impact upon the
 - the balance of net gain (with biodiversity being comprised disproportionately of canopy)
 - provision of a 10% net gain (onsite)
 - priority and protected habitats
 - rare and/or protected species
 - the connectivity or enhancement of the local nature recovery network

What's the policy cont....

G3 Par.5

Minor development (with the exception of householder development and Change of Use not creating new dwellings) must demonstrate that it has explored all options in relation to canopy provision and taken appropriate measures to both avoid or reduce harm to existing onsite trees. Proposals shall include where appropriate and practicable provision of new canopy.



What's the policy.... last one

G3 Par.6

New canopy should provide a mix of species that are resilient to pests, diseases and climate change and should be delivered in sustainable locations, in a manner that supports its growth and spatial requirements. New canopy should positively contribute to the climate resilience of the site in a manner which protects and enhances existing canopy.

What is major /minor development?

Major

Minor

>9no. dwellings or unknown no. of dwellings but site > 0.5 Ha

<u>OR</u>

>1000m² floor space for commercial /retail or where site is >1Ha 1-9 dwellings or unknown no. of dwellings but site < 0.5Ha</p>

<u>OR</u>

<1000m² floor space for commercial/retail or where site is <1Ha





Cornwall Canopy Calculat 1. Site Summary	Version 1.5									
Site Name/ Address: Date:	Site, Development Ro Cornwall 01/04/2020	ad, New Town,	Applicant: Mr A. P. Plicant Assessor: Sir Veyor							
	Area m ²	% of net site area			Comments					
Application site area: Retained priority habitat excluded			2 x agricultural field							
from site area: Other area excluded from red edge area	1153 • 1072			exclusion: Lowland mead ain and way leave/corride						
Net site area Canopy provision requirements:	13363 2322	100.0% 17.4%								
Provision via retained canopy:	1,152	8.6%								
Provision via new canopy: Canopy provision total:	1,303 2,455	9.7% 18.4%								
Canopy provision balance:	133	1.0%								
KEY Enter value Drop-down menu Calculation Automatic lookup Result										



В	С	D	E	F	G	H	1 I	J	K	L	M	N	0	P	Q	R	S
Cornwal	Canopy (Calculator															
2. Retair	ed Canop	oy Calculator															
				KEY			1	Running Tota	18.4%							Canopym	4
Site Name/ Address: Site, Developme		Site, Development Road, New	1		Enter va	alue		Retained Ca		ру					Pre-	2322.2	
		Town, Cornwall				own men		8.6%	9.7%						Removed	1095.0	
Applicant:		Mr A. P. Plicant			Calcula		4								Retained	1152.2	
Assessor:		Sir Veyor			Automa												
Date:		01/04/2020	1		Result	1	J										
			Capo	ou Me acu	irements	at the 4	•					Deductions from	pre-existing on-	1			
Version 1.3	5				ts (for indi							site canopy are f					
	Ref.No.						Canopy	Alternatively			Canopy	Planned	% BPA		Canopy	Canopy	Give relevant information about the
	(e.g. T1, G2, S3, H4						area (m2)	enter Canopy	Root	Canopy	overlap to	canopy	Encroachmen		prior to	after	trees, groups and canopy types
Canopy	G2, S3, H4		I	_		l	(from	area (m2) (e.g.	Protection	outside	subtract	reduction	t due to	Remove	deductions		
type T	or W5)	Tree species (or group description)	North	Last	South	West	N,E,S,W)	from CAD)	Area (RPA)	site (m²)	(m²)	(m²)	development	Canopy	(m²)	s (m ²)	relevant). Including rationale for
Tree Tree	T1 T2	Quercus petraea Quercus petraea					120.0	120						Retain Remove	120.0	120.0	Overlaps S1 Overlaps S1
Tree	T3	Quercus petraea					17.5	16.5						Retain	16.5	16.5	Overlaps S1
Tree	T4	Acerpseudoplatanus					290.0	290	1	145				Retain	145.0	145.0	Atop CH. 50% canopy overhanging
Tree	T5	Alnus glutinosa					85.0			9.5				Remove	75.9	75.5	15% canopy overhanging adjacent
Tree Tree	T7 T8	Thuja occidentalis Thuja occidentalis					39.0 36.5				1.4			Retain Retain	37.0		Overlaps T8 Overlaps T7.
Tree	T9	Quercus ilex				<u> </u>	158.0				9.5			Retain	148.5		Overlaps 11. Overlaps T10 & T11. Pruning to short
Tree	T10	Pinus sylvestris					75.5	75.5			10.5			Remove	65.0	65.0	Overlaps T19 & T11. Declining. Short
Tree	T11	Pinus sylvestris					60.5				8		8%	Retain	52.5		Overlaps T9 & T10. RPA encroachm
Scrub Hedgerow	S1	Blackthorn scrub					1025.0) 1025) 120		60	88			Remove	937.0 60.0	937.0	Overlapped by T1, 2 & 3. Dense blac Hedgerow priority habitat. Mature. H
neagerow Hedgerow		Native mix Native mix				<u> </u>	120.0			90				Retain Retain	90.0		Hedgerow priority habitat. Mature. H Hedgerow priority habitat. Mature. H
Hedgerow		Native mix					350.0					55		Retain	350.0		Hedgerow priority habitat. Hacare.
Hedgerow	a H4	Native mix					105.0	105		49				Retain	56.0	56.0	Hedgerow priority habitat. Mature, H
Hedgerow	a H5	Native mix					243.0			127				Retain	116.0		Hedgerow priority habitat. Mature. H
						<u> </u>	0.0							Retain Retain	0.0		
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В	C	D	E	F	G	H		J K	L	M	N	0	
Cornwall Canop	by Calculator												
3. New Canopy	Calculator							Soil Calculat	or				
Application Number	: Site, Development Road, New		Running Total %	18.4%							KEY		1
Town, Cornwall			Retained Canopy	New Trees							KET	Entervalue	-
lite Name:	Mr A. P. Plicant		8.6%	9.7%								Drop-down menu	-
Assessor:	Sir Veyor		0.070	3.178	1							Calculation	1
Date:	01/04/2020						Canopy m ²	Soil m ³	1			Automatic lookup	1
						Total	1302.7	443.9				Result	1
/ersion 1.5									-				-
				Projected N	ew Canopy				s	ioil Requirement	5		1
				Projected									
				canopy overlap									
				for individual									Comme
		Projected		trees (m ²) OR					Available				Include
	Tree Species (including	canopy	Group Canopy Cover	Projected open		Canopy Cover Value	Canopy		Water Holding		Shared Soil		provid
	subspecies and varieties) OR	radius on	Area, pre reduction	space within		per tree, pre	Cover Value		Capacity	Soil Volume	&/or part of	Required Soil	Also in
New Canopy Ref.	alternative canopy type (ZZ)	plan (m)	(m²)	group (m²)	% reduction	reduction (m ²)	(m ²)	Soil Texture	(AWHC)	(m ³)	SuDS chain	Volume (m ³)	plantin
NT1 NT1	Pinus sylvestris Pinus sylvestris	2			0%	9.8		Clay Loam Clay Loam	0.18		No No	3.8	
NT3	Pinus sylvestris	2			0%	9.8		Clay Loam	0.18		No	3.8	
NH(CH) 1	ZZ Native Hedge (atop CH)	N/A	153.0			N/A	153.0	Clay Loam	0.18		Yes		51m of
NT4	Tilia tomentosa	2			0%	20.4	20.4	Clay Loam	0.18	7.9	No	7.9	Э
NT5	Acer pseudoplatanus subsp. Spaet	3			0%	29.5		Clay Loam	0.18			11.5	
NT6	Acer pseudoplatanus subsp. Spaer	3			0%	29.5		Clay Loam	0.18			11.5	
NT7 NT8	Acer pseudoplatanus subsp. Spaer	3			0% 0%	29.5		Clay Loam Clay Loam	0.18		No	11.5	
VT9	Crataegus monogyna Crataegus monogyna	1			0%	10.6		Clay Loam	0.18		No	4.1	
NT10	Crataegus monogyna	1			0%	10.6		Clay Loam	0.18		No	4.1	
NS1	ZZ Scrub	N/A	125.0			N/A	125.0	Clay Loam	0.18	51.7	No	51.7	
NG1		N/A	58.0			N/A	58.0	Clay Loam	0.18				3 No. A
NG2		N/A 2	71.1			N/A 10.7	71.1 10.7	Clay Loam	0.18			29.4 4.2	
NT11 NT12	Malus tschonoskii Malus tschonoskii	2			0% 0%	10.7		Clay Loam Clay Loam	0.18		No No	4.2	
VT13	Malus tschonoskii	2			0%	10.7		Clay Loam	0.18		No	4.2	
NT14	Malus sylvestris	3			0%	15.3		Clay Loam	0.18		No	5.9	
NT15	Malus sylvestris	3			0%	15.3		Clay Loam	0.18		No	5.9	
NT16	Malus sylvestris	3			0%	15.3		Clay Loam	0.18		No	5.9	
NT17	Pyrus calleryana	3			0%	6.2		Clay Loam	0.18		No	2.4	
NT18 NT19	Pyrus calleryana Pyrus calleryana	3			0% 0%	6.2		Clay Loam Clay Loam	0.18		No No	2.4	
NT20	Pyrus calleryana	3			0%	6.2		Clay Loam	0.18		Yes	1.9	
NT21	Pyrus calleryana	3			0%	6.2		Clay Loam	0.18		No	2.4	
NT22	Quercus petraea	1			0%	36.6	36.6	Clay Loam	0.18			14.2	
NT23	Quercus petraea	1			0%	36.6		Clay Loam	0.18			14.2	
NT24	Quercus petraea	1			0%	36.6		Clay Loam	0.18			14.2	
NT25 NT26	Sorbus aria Sorbus aria	2			0% 0%	8.8		Clay Loam Clay Loam	0.18		No No	3.4	
NT25	Sorbus aria	2			0%	8.8		Clay Loam	0.18		No	3.4	
NT28	Sorbus aria	2			0%	8.8		Clay Loam	0.18		No	3.4	
VT29	Sorbus aria	2			0%	8.8		Clay Loam	0.18		No	3.4	

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