



Climate Change: Nature-based Solutions

Damian Offer Chief Executive



Climate Change: Nature-based Solutions

- 1. Background
- 2. TCCT Approach
- 3. Challenges

Damian Offer Chief Executive



<u>Background</u>

TCCT is an independent charity:

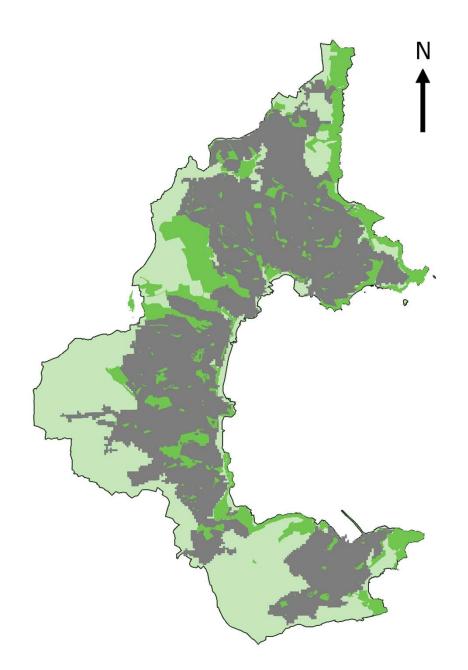
- Guardians of Torbay's special heritage for 20+ years;
- Protected, managed, restored and enhanced natural and built heritage (over 1,700a);
- Huge repository of knowledge and experience of Torbay's natural heritage and its management;
- Engaged with c.500k people about wildlife, environmental issues, food & farming and sustainable lifestyles.



<u>Background</u>

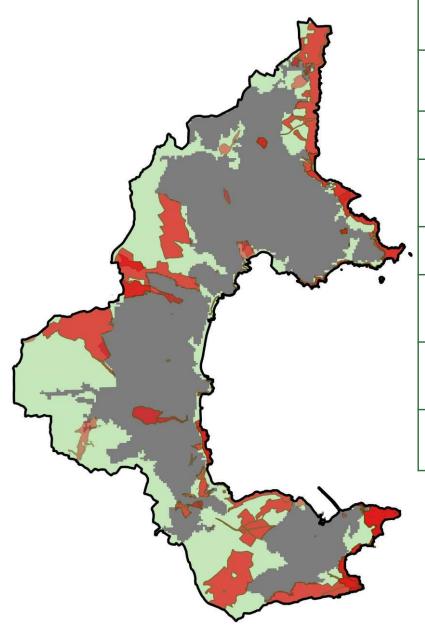
TCCT's Mission Statement

"To protect land, conserve nature and strengthen the bonds between people# and the natural world of Torbay"



Type	Area (ha.)	% of 6,287 ha
Built up area	3,200	51
Un-built area	3,100	49
Farmland	1,805	29
Woodland	440	7
Natural Heritage Designations	1,211	19
Accessible Greenspace	996	16

Legend
Torbay Built-up Area
Torbay_Greenspace



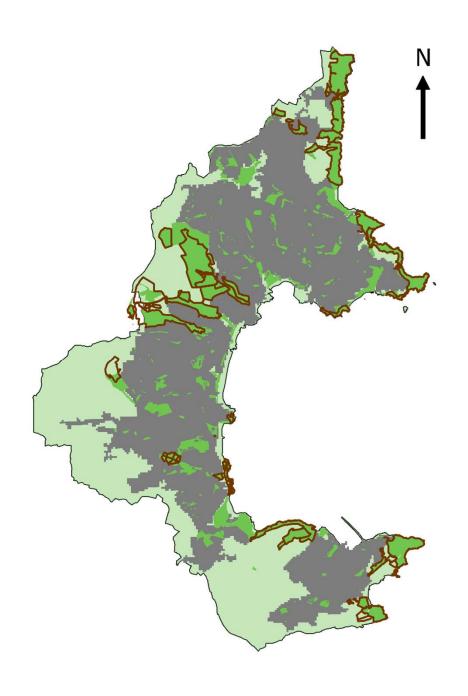
Designation	#	ha.	%
Special Area of Conservation	1	65	1.0
National Nature Reserve	1	44	0.7
Site of Special Scientific Interest	12	181	2.9
Local Nature Reserve	4	147	2.3
County Wildlife Site	31	767	12.2
Regionally Important Geological Site	10	7	0.1
Local Wildlife Site	50	?	?

Legend

Torbay Built-up Area 2011

Torbay Un-built Area

Natural Heritage Designation



- 1,700a of land
- >50% of Torbay's coastline
- >76% of Public Open Space
- >88% of Natural Green
 Space





Healthy, functioning ecosystems

- Protect
- Manage
- Enhance
- Restore
- (Create)

Woodland

Scrub & Hedgerows

Grassland

Organic Farmland

Wetland

Conserved heritage

Resilient habitats

Diverse Wildlife

Sense of place

Human health and well-being Carbon Storage

- Plants

Carbon Storage

- Soils

Soil protection

Flood water retention

Flood alleviation



	На	Protect,	Enhance and Maintain natural ecosystem functions
Woodland	170		
Scrubland & Hedgerows	?		
Grassland	338		
Organic Farmland	220		
Wetlands	?		



	На	Protect, Enhance and Maintain natural ecosystem functions	
Woodland	170	✓	 Replace conifers with native broadleaved Plant new woodlands and trees
Scrubland & Hedgerows	?		
Grassland	338		
Organic Farmland	220		
Wetlands	?		



	На	Protect, Enhance and Maintain natural ecosystem functions	
Woodland	170	✓	Replace conifers with native broadleavedPlant new woodlands and trees
Scrubland & Hedgerows	?	√	 Manage scrub on rotation; transitional habitats Favour thick, bushy hedges Plant new hedges; lay existing hedges on rotation
Grassland	338		
Organic Farmland	220		
Wetlands	?		



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Grassland	338	✓	 Retain permanent grassland; create new grassland Maintain low fertility levels; encourage diversity Cut for hay and/or graze
Organic Farmland	220		
Wetlands	?		



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Organic Farmland	220	✓	 Organic, extensive regime; native breeds Environmental, social, commercial balance Protect soil structure and organic content Minimum tillage
Wetlands	?		



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Wetlands	?	✓	Minimal interventionExtensive grazing



- Low carbon construction methods (e.g. straw bale buildings, larch planking roofs);
- Energy efficiency (insulation, double glazing, heat recovery units etc.);
- Occombe 100kW Solar array, warm water solar;
- Biomass operation (wood chip);
- Reduced paper usage;
- Flexible working reduced travel.



TCCT Contributions/Aspirations

- Improve ecosystem functions where sub-optimal;
- Plant more woodland & trees (but must be right trees in right places);
- Move to electric machinery and vehicles;
- EV charging at Occombe;
- Expand biomass operation; biomass at Occombe;
- Expand solar array, install on other properties;
- Greater outreach on environmental issues and encouraging sustainable lifestyles.



Challenges

- Limited land area limits opportunities;
- Multiple competing priorities (development, amenity, recreation, wildlife, flood alleviation);
- Requires multi-agency cooperation;
- Cost of implementing changes and adopting new technology (e.g. renewables etc.);
- Some 'solutions' won't be viable given local constraints (climate, topography etc.);