

THE TORBAY GREEN INFRASTRUCTURE DELIVERY PLAN

BUILDING A SUSTAINABLE
FUTURE FOR TORBAY



EXECUTIVE SUMMARY

This plan is the result of a partnership formed in 2010 by Torbay Council, Natural England and Torbay Coast and Countryside Trust with the aim of producing a clear strategic document to guide the delivery of a healthy green infrastructure network in Torbay over the next ten years.

A green infrastructure network is made up of interconnected open spaces that provide multiple environmental, economic and social benefits, linked together throughout the urban landscape and out to the wider countryside, coast and sea. These spaces provide a mix of functions including recreation, sustainable transport, education, wildlife habitat, flood risk management, local food production, energy production and ecosystem services.

The Green Infrastructure Delivery Plan has been produced through a process of stakeholder engagement and consultation, and in partnership with both Devon County Council and the neighbouring authorities of Teignbridge and South Hams. The Delivery Plan is part of the South West Green Infrastructure Network, which provides information and shares good practice between green infrastructure champions across the South West.

The Delivery Plan provides supporting evidence for Torbay Council's Core Strategy and is designed to help deliver the strategic objectives of that strategy, which are to regenerate Torbay and achieve economic prosperity. Ensuring that growth in Torbay is accompanied by a sustainable natural environment is paramount.

The Vision for Torbay's Green Infrastructure Delivery Plan is:

"To build a sustainable Torbay for the future that protects and enhances the health and beauty of our natural environment, serves the needs of local people and supports economic development"

The strategic aims of the Plan are to:

- Enhance biodiversity and landscape character
- Improve economic prosperity and support regeneration of the Bay
- Benefit people and create healthy communities
- Adapt to climate change
- Support a low carbon economy
- Safeguard ecosystem services

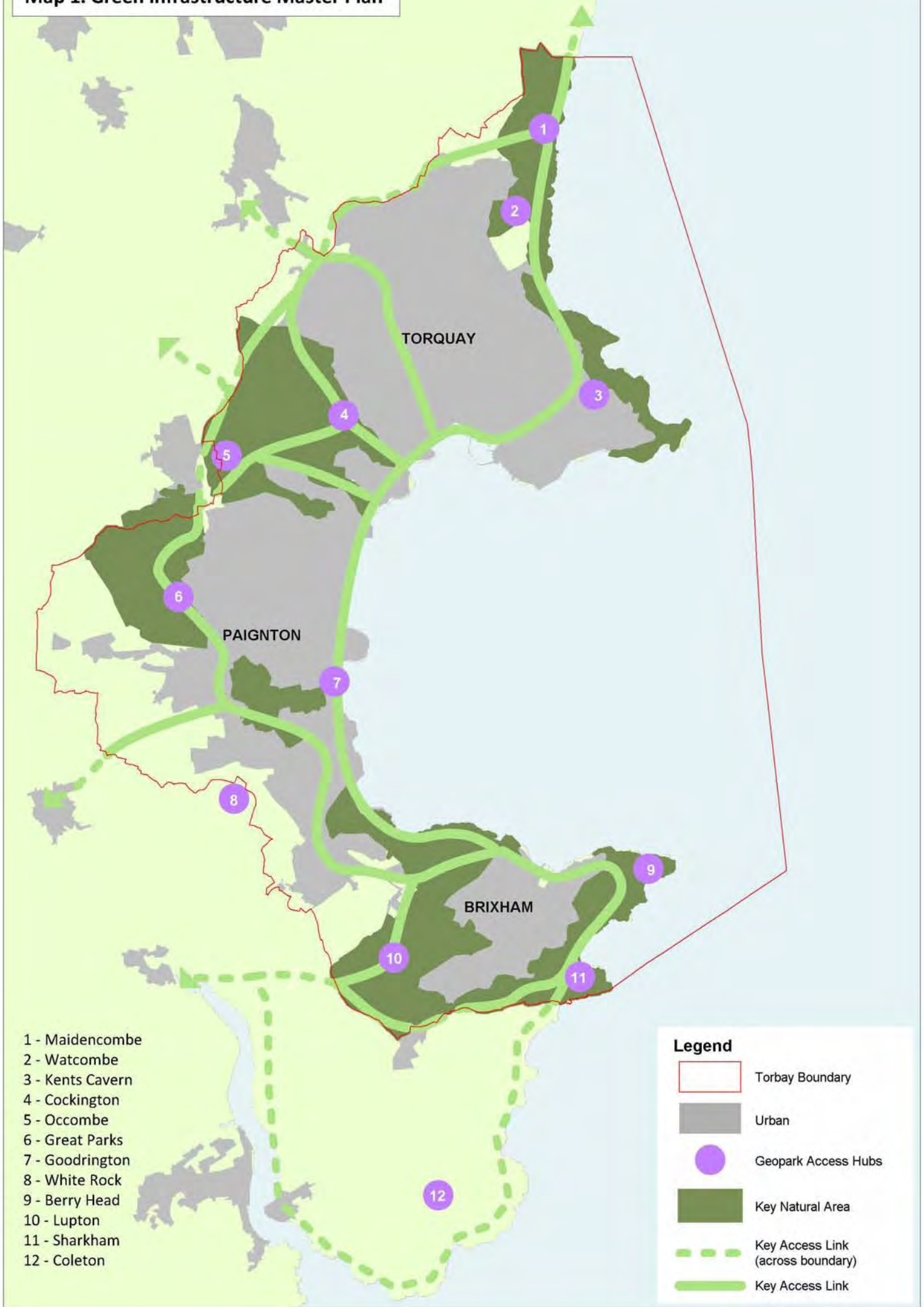
The Plan has been split in to four main sections:

- 1. Vision and Aims:** This section gives the vision and the overall aims of the Green Infrastructure Delivery Plan. It also shows the Green Infrastructure Master Plan map.
- 2. Green Infrastructure Themes:** This section flows from the overall aims of the Green Infrastructure Delivery Plan and look strategically at Torbay as a whole. The four themes are: Recreation, Travel and Health; Biodiversity and Landscape; Local Food; and Climate Change Mitigation and Water Quality
- 3. Green Infrastructure Delivery:** This section brings together the various themes onto a single map for each of four areas of Torbay, and highlights the way the different elements interact on the ground. The areas are: Torquay and Maidencombe; Cockington and Ocombe; Paignton; and Brixham with the Kingswear Peninsula.
- 4. Taking the plan forward:** This section describes how the project will be governed and monitored in the future. It explains some of the mechanisms for delivering green infrastructure in more detail including how the planning system as well as community engagement can be utilised and other funding options available.

Each theme map and delivery map show both existing and proposed Green Infrastructure assets in order to illustrate how the green infrastructure network will work as a whole.

The Green Infrastructure Master Plan (see Map 1) is an overview of the strategic links that will be developed across Torbay.

Map 1. Green Infrastructure Master Plan



- 1 - Maidencombe
- 2 - Watcombe
- 3 - Kents Cavern
- 4 - Cockington
- 5 - Occombe
- 6 - Great Parks
- 7 - Goodrington
- 8 - White Rock
- 9 - Berry Head
- 10 - Lupton
- 11 - Sharkham
- 12 - Coleton

Legend

-  Torbay Boundary
-  Urban
-  Geopark Access Hubs
-  Key Natural Area
-  Key Access Link (across boundary)
-  Key Access Link

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APRIL 2011

To find out more about the Torbay Green Infrastructure Delivery Plan contact us at:

Torbay Coast and Countryside Trust, Occombe Farm, Preston Down Road, Paignton, Devon TQ3 1RN

Email: info@countryside-trust.org.uk

Website: www.torbaygreeninfrastructure.org.uk

2. VISION AND AIMS -

The Vision for this Green Infrastructure Delivery Plan is to build a sustainable Torbay for the future that protects and enhances the health and beauty of our natural environment, serves the needs of local people and supports economic development.



Enhance biodiversity and landscape character: Green infrastructure provides opportunities to enhance the natural heritage of Torbay, by restoring and creating habitats for wildlife and protecting and improving the landscape, which brings in visitors from far and wide. Habitat and conservation restoration work needs to remain a priority at both biodiversity and geodiversity designated sites and connectivity between these sites strengthened.

Improve economic prosperity and support regeneration of the Bay: In recent years it has been recognised that the natural environment is more than a desirable and possibly optional outcome; it is in fact fundamental to sustainable economic growth. Maintaining the health of the environment provides a wealth of benefits which strengthen the economy and aid regeneration by offering more jobs, reduced need for healthcare, pride of place, improved tourism, better adaptation for climate change and increased property values.

Benefit people and create healthy communities: High quality green infrastructure encourages leisure and exercise activities such as walking and cycling, which address issues such as obesity, heart disease and high stress. Outdoor education can be an important part of a child's development and green infrastructure provides access to open air classrooms and opportunities to explore nature first hand.

Adapt to climate change: Our climate is changing and it is now established that we need to adapt in response. Green infrastructure offers mechanisms to limit the effects of climate change by, for example, reducing the threat

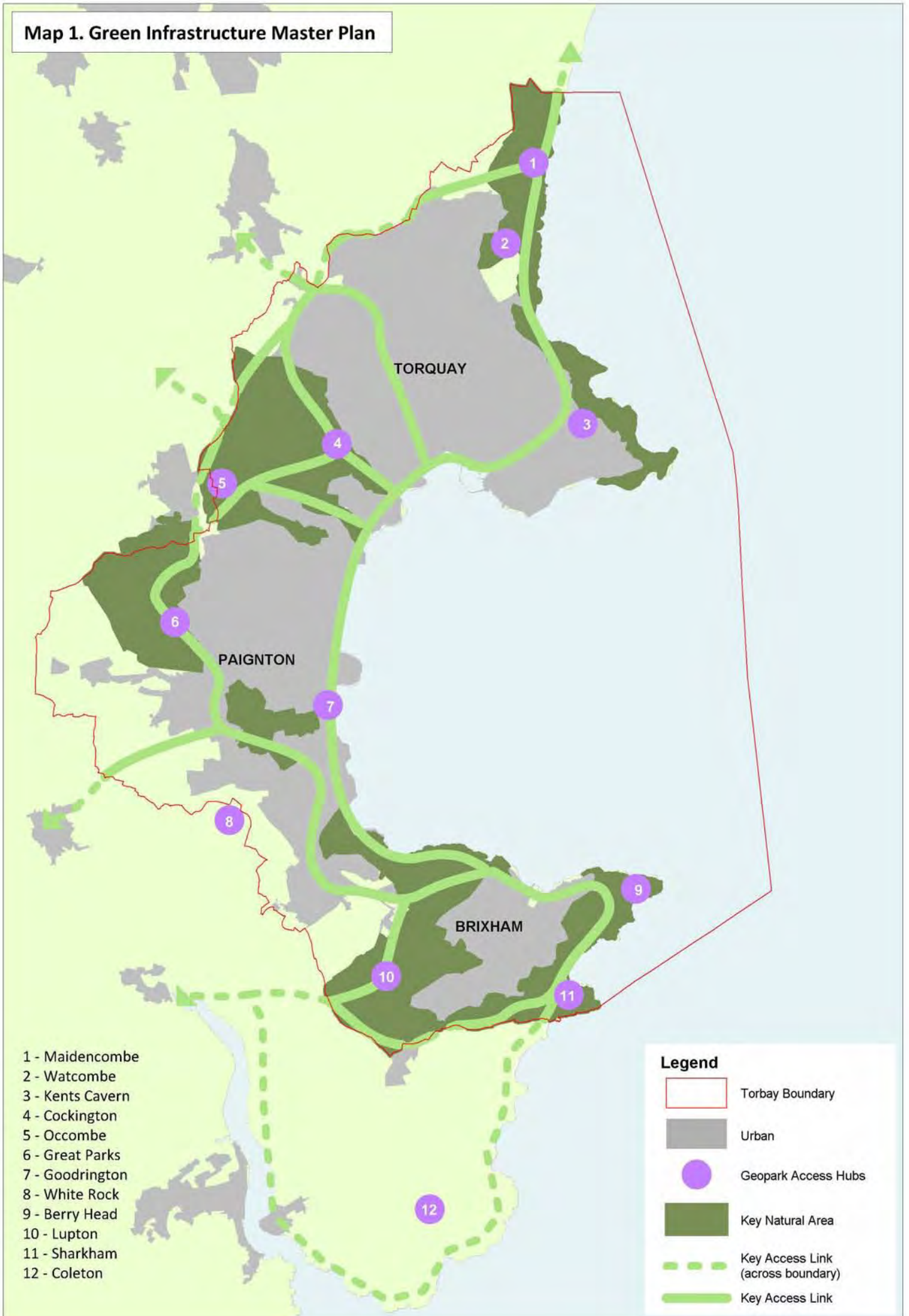
of flooding through incorporating sustainable urban drainage systems in new developments and restoring wetlands and ponds, which will store run-off.

Support a low carbon economy: In the light of global warming and peak oil, green infrastructure has an important role in helping the move towards a low carbon economy. For example, a cycle network throughout Torbay will reduce the need to use cars and provides sustainable transport links. And a good network of urban trees and woodlands reduces the urban heat island effect and also provides shelter and insulation from cold temperatures, reducing the need for air conditioning in summer time and heating in winter. Woodlands also store carbon and provide a source of sustainable fuel. This Green Infrastructure Plan supports the work of the Low Carbon Plan, which takes the lead in taking Torbay towards a low carbon economy.

Safeguard ecosystem services: The natural environment provides a huge range of services that we rely on; these include direct products such as sustainable energy, medicines, clean water, clean air and food, as well as indirect products such as jobs in the tourism industry, which depends upon an attractive environment.

The Green Infrastructure Master Plan (page 8) is an overview of the strategic links that will be developed across Torbay.

Map 1. Green Infrastructure Master Plan



3. GREEN INFRASTRUCTURE THEMES -

3.1 RECREATION, TRAVEL AND HEALTH -



3.1.1 Background

Torbay's distinctive landscape provides a wealth of opportunities to explore the great outdoors and access its natural benefits. The Bay's rich environmental assets, including beaches, sheltered waters, the coast path, country parks and nature reserves, are used by millions of people every year.

The English Riviera is a popular tourist destination and the natural environment is one of the main draws to the area. In 2007 it was designated a Global Geopark, a status that is awarded to areas that use their natural and cultural heritage – and in particular their geological heritage – to help regenerate their society and economy. The English Riviera Geopark is one of Torbay's main tourism "attack brands" through which a more sustainable tourism offer is being developed, including a broad range of outdoor activities and events based upon the Geopark.

Torbay's green infrastructure offers many opportunities for outdoor sport and recreation including canoeing, coastering, sailing, horse riding and cycling. Increasing the outdoor recreational and sport offer will have wider benefits for the local community.

People who live within 500 m of accessible green space are 24 per cent more likely to meet recommended levels of physical activity. Reducing the number of sedentary individuals in the population by just 1 per cent could reduce morbidity and mortality rates valued at £1.44 billion for the UK¹.

Nearly a fifth of Torbay's population is obese and has a higher than expected incidence of mental health problems and research shows that access to green space is closely linked to health indicators. About 19,000 people in Torbay live in areas that are within the top 20% most deprived in the country² and these are often the areas with the least access to greenspace and the communities that most need it. Increasing recreational trails and accessible greenspace will encourage people to live healthier, more active lifestyles and provide further benefits in reducing carbon emissions and congestion.

Natural play is not only enjoyable to children, allowing them freedom when they play, but is also a therapy for depression, obesity and Attention Deficit Disorder. Children in Torbay are becoming more alienated from the natural world, with a growing trend in the number of children and young people choosing to stay in to play computers or watch TV. The Torbay Play Strategy (2005 – 2010) identified that children wanted to have the freedom to play out with friends, but with the provision of feeling safe.

¹ Lawton, J.H. et al (2010) Making Space for Nature: a review of England's wildlife sites and ecological network. Report to Defra.

² Index of Multiple Deprivation, 2007.

3.1.2 Existing Recreation, Travel and Health Assets

- Current network of greenspace, parks, gardens, allotments
- English Riviera Global Geopark status
- 22 miles of coast path and many other walking trails and circuits in addition e.g. John Musgrave Trail, the Greenway Walk.
- Sheltered Bay with sandy beaches providing opportunities for maritime leisure e.g. diving, sailing, kayaking
- Natural Play sites e.g. Indigos in Brixham
- Cockington Country Park and Berry Head National Nature Reserve
- 50% of the coastline is undeveloped
- Successful programme of environmental education activities and events

3.1.3 Strategic Recreation, Travel and Health Delivery

The Recreation, Travel and Health map identifies a network of recreational trails, Geopark visitor centres, adventure activity centres, environmental education centres and natural play sites. It also highlights the areas in the Bay with the least access to greenspace and identifies new locations for Country Parks.

Cycleways will provide on or off road links throughout Torbay and promote sustainable transport for commuting and recreation. Possibly delivered through the Torbay Local Transport Plan (LTP3) over the next 15 years.

Green Trails are mixed use routes which offer a range of recreational links throughout Torbay. These may comprise one of or a mix of; footpaths, bridleways, cycleways, mountain bike routes and all ability access trails.

Greenspace Focus Areas are where there is a clear need to improve accessible greenspace and this is particularly the case in disadvantaged areas. The Natural England Accessible Natural Greenspace standard recommends that people living in towns and cities should have an accessible natural greenspace of at least 2 hectares in size, no more than 300 metres (5 minutes walk) from home.

Natural Play is where the natural environment is used for children's play. This might be through the forest school approach or a local wildspace, where children have the freedom to play. The strategic map identifies existing and new sites for natural play and where there is a need for improving access to the natural environment.

Geopark Access Hubs allow residents and visitors to find out more about the Geopark and discover more about exploring the local area, either by foot or by bicycle.

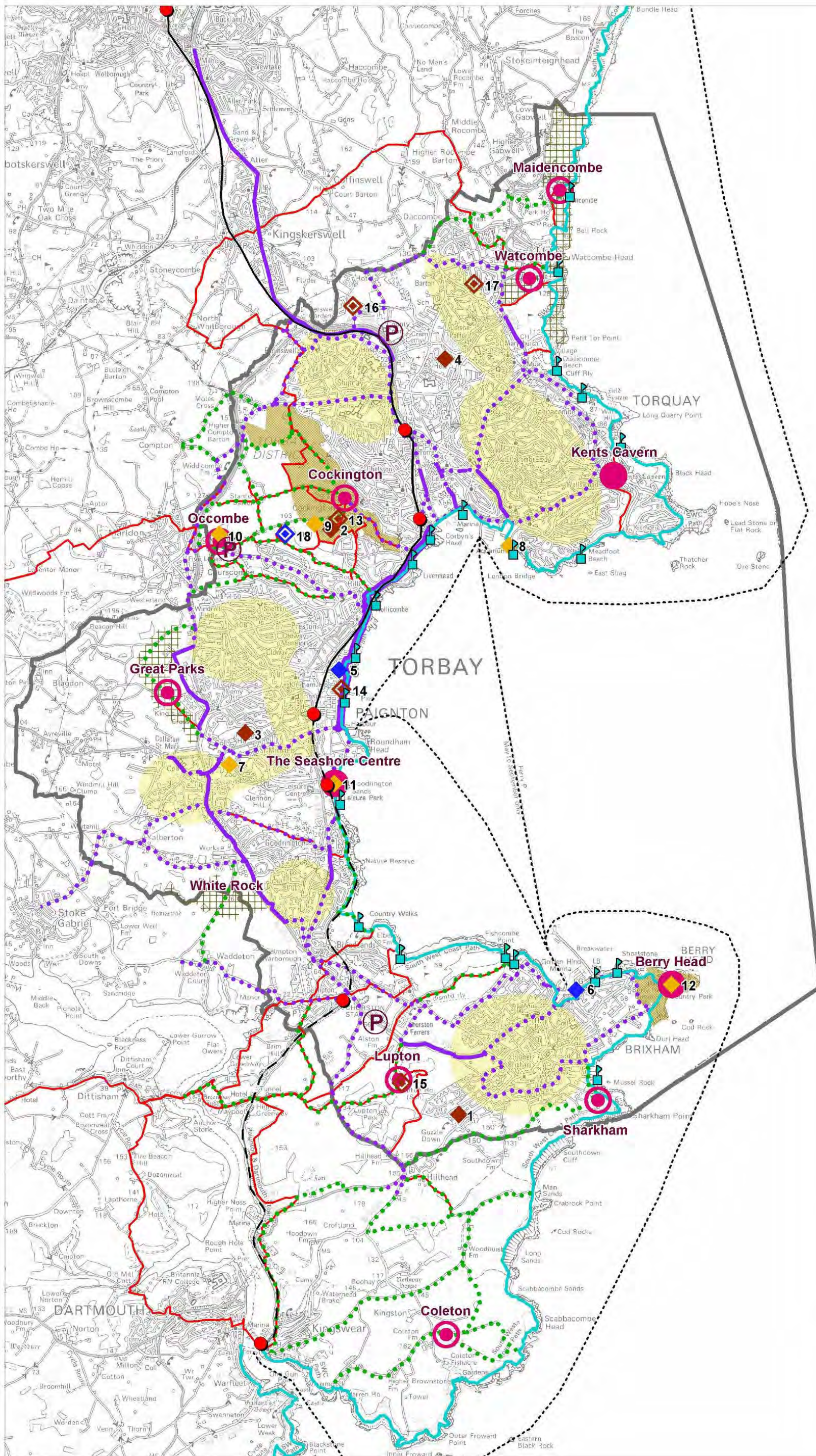
Coastal Access Network connects Torbay's accessible beaches through walking or cycling routes. Torbay's beaches and the connecting Coast Path are an important open space asset for both the local community and holiday makers.

Country Parks provide important accessible natural green space which offers a wide range of opportunities for recreation, health and education and improves the quality of life for local communities, as well as providing important habitats for wildlife.

Outdoor Sport Operators will be encouraged to develop enterprises and initiatives designed to enable use of this infrastructure, for example by providing the specialist equipment – e.g. mountain bikes, kayaks – that people need to make the most of the new opportunities.

Torbay Green Infrastructure Delivery Plan

MAP 2: Strategic Recreation, Travel and Health



Legend

- Torbay Boundary

EXISTING GI ASSETS

- Key Strategic Footpaths
- Cycleways
- Railway Station
- Ferry Links
- Railway
- Geopark Access Hub
- Country Park

Natural Play

- 1 Indigos
- 2 Manscombe Woods
- 3 Primley Woods
- 4 Fort Apache

Adventure Activity Centre

- 5 Parkfield House
- 6 Grenville House

Environmental Education Centre

- 7 Paignton Zoo
- 8 Living Coasts
- 9 Warren Barn
- 10 Occombe
- 11 The Seashore Centre
- 12 Berry Head

Coastal Access Network

- Torbay Beaches
- South West Coast Path

PROPOSED GI ASSETS

- Cycleways
- Green Trails
- Park and Ride with Cycle Hire
- Geopark Access Hub
- Accessible Green Space Focus Area
- Country Park

Natural Play

- 13 Gamekeepers Fields
- 14 Geopark play
- 15 Lupton
- 16 Willows
- 17 Woodend Project

Adventure Activity Centre

- 18 Scadson Woods Bike Trail

Further details on existing GI assets can be found in the appendix

Source: Torbay Council

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Table 2. Strategic Recreation, Travel and Health Delivery Table -

Main Objective	Action	Stakeholders and Delivery Mechanism	Funding	Cost approx
Create a network of recreational trails and connected sustainable transport links	RTH1. Link existing cycleways to create a network for recreation and travel	TC, TCCT, National Trust	Developer contributions, Local Transport Plan 3	Approx. £100k per km
	RTH2. Build the National Cycleway Network linking beyond Torbay by working with neighbouring authorities to provide good cycle links across boundary.	South Hams Council , Teignbridge Council, TC and TCCT, Sustrans	Local Transport Plan 3	Approx. £100k per km
	RTH3. Create Green Trails	ERTC, TCCT and TC	Grants, Developer contributions	Range
	RTH4. Establish cycle hire facilities and Park and Ride	ERTC, TC	Local Transport Plan (LTP3), Grants	Medium
Improve the quality and quantity of Natural Play provision particularly from the most deprived wards	RTH5. Create and enhance accessible wild play space/equipment throughout Torbay	TC, TCCT, Play Torbay, Department of Health, the community	Grants, Department of Health, developer contributions	High
Improve outdoor sport offer across Torbay e.g. canoeing, mountain biking, snorkelling	RTH6. Work with tourism providers, sport clubs to create new opportunities for outdoor activities and sport	ERTC, TCCT, TC, NHS		Low
Establish new Country Parks and Geopark Access Hubs	RTH7. Establish new Country Parks at Great Parks, Maidencombe and White Rock. Aim to increase the number of Country Parks in Torbay from 2 to 5	Developers, TC	Developer contributions	High
	RTH8. Establish new Geopark Access Hubs at Maidencombe, Cockington, Ocombe, Great Parks, Lupton House and Sharkham Point	TC, TCCT, Developers	Developer contributions	High
	RTH9. Produce sustainable travel plans alongside development of new access hubs	TC, TCCT		Low
Create accessible greenspace for everyone in Torbay following ANGST standards	RTH10. Create new greenspace as part of housing development schemes	Developers, TC	Developer contributions	Range
	RTH11. Install better signage, directing people to green space and coastal areas	TC		Medium
Improve access to beaches and coastline through a Coastal Access Network	RTH12. Improve access, signage and facilities at beaches	TC, TCCT, SeaTorbay, ERTC	Grants, developer contributions	Range
	RTH13. Improve links between beaches and inland recreational facilities	TC, TCCT, SeaTorbay	Grants, developer contributions	Range
	RTH14. Create a coastal cycling route where suitable which will be part of the National Cycle Network	Sustrans, TC	Developer contributions, Local Transport Plan 3	High
	RTH15. Ongoing management of the South West Coast Path	TCCT, SW Coast Path	Grants, developer contributions	£800/km per year

Cost scale: Low (£10k and under), Medium (£10k – 100k), High (£100k and over) -

Stakeholders: TCCT (Torbay Coast and Countryside Trust), TC (Torbay Council), NE (Natural England), ERTC (English Riviera Tourism Company) -

3.2 BIODIVERSITY AND LANDSCAPE -



3.2.1 Background

The natural landscapes and wildlife of Torbay are valuable, not only in their own right but also to the local community and the economy.

Torbay is fortunate to have a high concentration of existing designated conservation sites (NNR, SAC, SSSIs etc) close to urban conurbations. This biodiversity enriches the Bay and offers many benefits, including flood risk reduction, recreational opportunities, health improvements and community cohesion.

However, there are increasing pressures on this valuable resource. Climate change, habitat loss and fragmentation are the greatest threats to the Bay's natural environment and to protect it for the future we need to plan and act now. The legal status of designated areas and protected species helps to ensure these assets are protected. But, to allow Torbay's wildlife to move and adapt to more favourable habitats as the climate changes, conservation efforts need to operate on a landscape-scale as well as on a protected site basis, and ensure there is connectivity between sites across the Bay. Habitat restoration and conservation work needs to remain a priority in key natural areas. The strategic wildlife network linking the key sites needs to be strengthened, with targeted action to create a natural landscape that is more resilient to future climate change.

To conserve the Bay's wildlife for the future, biodiversity delivery needs to be embraced by a wide stakeholder group including landowners and the local communities, developers and the local authority.

3.2.2 Existing Biodiversity and Landscape Assets

- The South Hams Special Area of Conservation (SAC), which includes Berry Head SAC, designated for the limestone grassland, greater horseshoe bat roost and sustenance zone and protected under European law.
- A Marine Special Area of Conservation (SAC) for sea caves and reefs.
- Internationally important limestone grasslands.
- 12 Sites of Special Scientific Interest (SSSI) for biodiversity and geological conservation.
- Torbay is home to 8% of the UK population of the rare Cirl Bunting.
- The Biodiversity Steering Group co-ordinates biodiversity delivery and has drawn up the Torbay Local Biodiversity and Geodiversity Action Plan (2006 – 2016).

3.2.3 Strategic Biodiversity and Landscape Delivery

To ensure the Key Natural Areas are interlinked throughout Torbay and out to the wider hinterland, wildlife corridors connect these areas to form a network. The map shows the strategic biodiversity and landscape network, which is split into five components:

Key Natural Areas are areas that have existing statutory nature conservation or landscape designations e.g. South Hams Special Area of Conservation (SAC), South Devon Area of Outstanding Natural Beauty (AONB), Sites of Special Scientific Interest (SSSIs) and non-statutory designations e.g. County Wildlife Sites (CWS) and County Geological Sites (CGS/RIGS). Most of these areas are already in positive management and conservation work will continue at these sites to continue to enhance biodiversity and landscape. In order to plan strategically for a coherent and connected ecological landscape network we have included some areas of non-designated land within the Key Natural areas.

Urban Wildlife Corridors serve as wildlife ‘highways’ through built up areas, which will help to green the urban areas. Urban habitats are named as a priority wildlife habitat in the Torbay Local Biodiversity and Geodiversity Action Plan (2007). Urban habitats provide wildlife havens for butterflies, bumblebees, pond species and birds such as house sparrow, swifts and song thrush among others. Planting trees, hedgerows and wildflowers on roadsides and in parks will not only benefit wildlife but also the community, creating a more attractive place to live and work.

Rural Wildlife Corridors link up the Key Natural Areas and provide essential habitats for wildlife to move through the landscape and make sure populations do not become isolated and fragmented. Creating a mixed use, more traditional agricultural landscape, with a variety of boundary types, wildflower strips at field edges, mature trees and traditional orchards, will allow biodiversity to flourish and move out to the wider rural hinterland.

Greater Horseshoe Bat Sustenance Zone is a 4 km radius circle centred on the roost at the Berry Head SAC. It has been identified by the South Hams SAC – Greater horseshoe bat consultation zone planning guidance (Natural England, 2010) and is intended to ensure development within these areas is managed to ensure that there is no disturbance to greater horseshoe bat habitat.

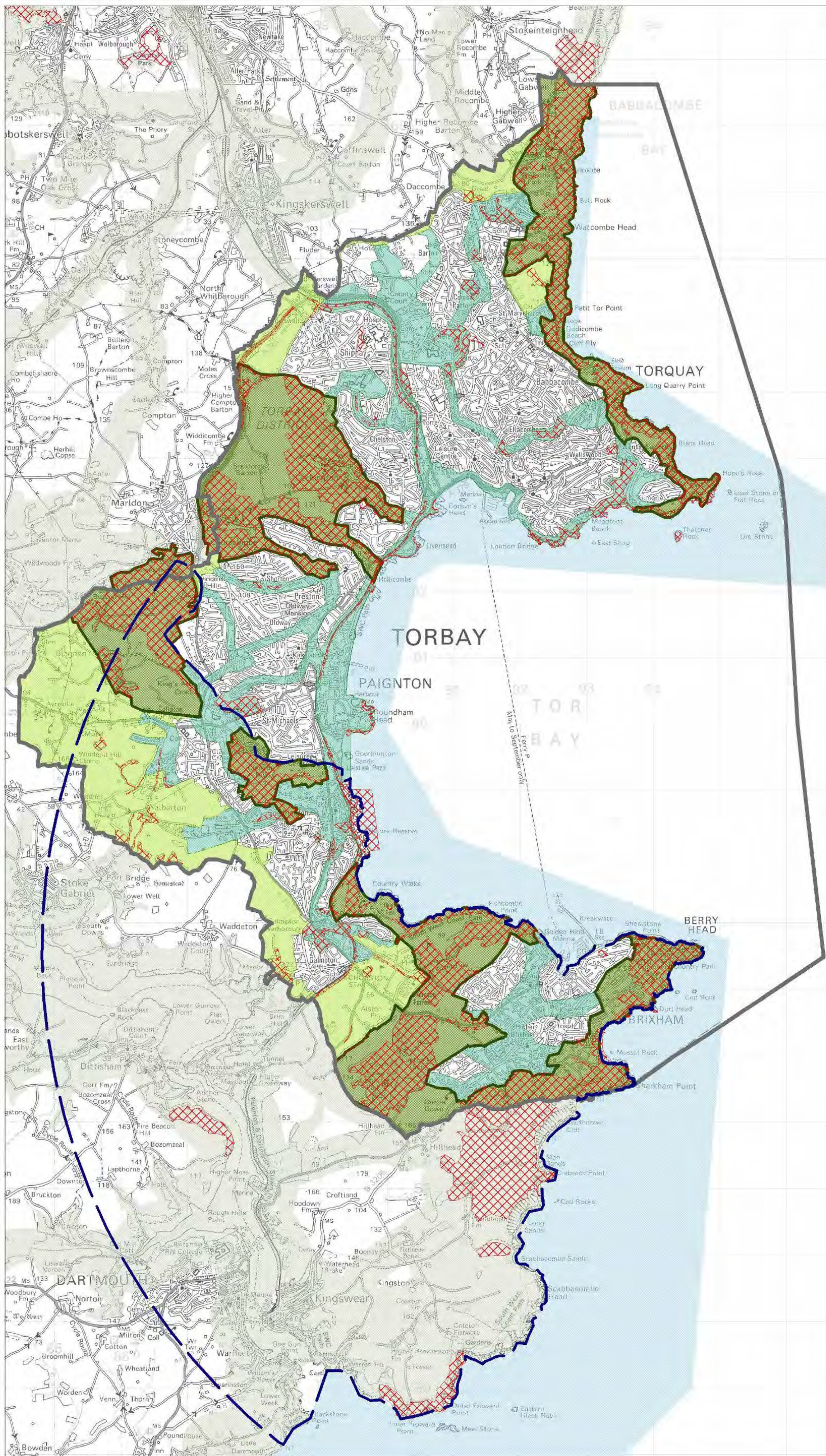
Wildlife Restoration Zones (not shown on map) are areas where focused biodiversity restoration will take place. The habitats where restoration work will be targeted are:

- **Limestone Grassland** – Sites include Berry Head, Durl Head, Sharkham Point, Dyer’s Quarry to Daddyhole, Hopes Nose, Walls Hill, Fishcombe and Primley.
- **Wetlands** (sites highlighted in the Climate Change and Water Quality Theme)
- **Woodlands** (sites highlighted in the Climate Change and Water Quality Theme)
- **Orchards** (potential sites highlighted in the Local Food Theme)
- **Marine Habitats** (Marine Wildlife Area shown on Strategic Biodiversity and Landscape map)
- **Mixed Farmland** – Sites at Occombe, Maidencombe area and Berry Head and surrounding landscape
- **Parkland** – Cockington Country Park and Lupton Estate

Action plans for their future conservation are detailed in the Torbay Biodiversity and Geodiversity Action Plan (2006 – 2016).

Torbay Green Infrastructure Delivery Plan

MAP 3: Strategic Biodiversity and Landscape



Legend

-  Torbay Boundary
- EXISTING GI ASSETS**
-  Existing Designated Natural Sites
-  Candidate Marine Special Area of Conservation
-  Berry Head Bats Sustenance Zone
- PROPOSED GI ASSETS**
-  Key Natural Area
-  Urban Wildlife Corridors
-  Rural Wildlife Corridor
-  Bat Flightpaths and strategic Nature Areas - Show important wildlife corridors cross boundary

Further details on existing GI assets can be found in the appendix

Source: Natural England, DCC

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Table 3. Strategic Biodiversity and Landscape Delivery -

Main Objective	Action	Stakeholders and Delivery Mechanism	Funding	Cost approx
Enhance and restore biodiversity and landscape in Key Natural Areas and establish restoration zones	BL1. Conserve landscape character and increase biodiversity at Key Natural Areas: Maidencombe to Hopes Nose; Cockington and Occombe; Westerland Valley and Clennon; Lupton to Elberry Cove; and Berry Head to Sharkham Point	TCCT, TC, RSPB, NE, landowners and public bodies	Environmental Stewardship, HLF, SITA Trust and developer contributions	Range
	BL2. Restore biodiversity in targeted Wildlife Restoration Zones	TCCT, TC, RSPB, NE, landowners and public bodies	Environmental Stewardship , HLF, SITA Trust and developer contributions	Range
	BL3. Increase partnership working and wider stakeholder delivery, especially through the South Devon Integrated Biodiversity Delivery Area (IBDA)	Environmental Stewardship and existing partnerships e.g. Torbay BAP partnership, IBDA, SeaTorbay and wider stakeholder groups	HLF	Low
To create and enhance urban wildlife corridors	BL4. Street tree planting	TC		Low
	BL5. Plant and manage a network of native hedgerows	Environmental Stewardship and through creation of new cycleways and footpaths	Environmental Stewardship , grants	Medium
	BL6. Implement appropriate management measures on roadside verges -	TC, Joint Venture Company	TC – reorient budget	Low
	BL7. Manage greenspace for biodiversity e.g. wildflower meadows, - trees/hedges and ponds etc	TC, TCCT, Parks Groups	TC – reorient budget	Low
	BL8. Reduce luminosity of street lamps and turn off in early mornings	TC, NE		Low
	BL9. Protect privately owned greenspace from development	TC		Low
	BL10. Engage the local community with their local urban wildlife and encourage wildlife friendly gardening in private gardens through an event and volunteering programme	TC, TCCT, BTCV, Parks Groups and Friends of Groups	Grants, community enterprises	Medium
To create and enhance rural wildlife corridors	BL11. Manage and strengthen the rural wildlife corridors for biodiversity with a mosaic of appropriate habitats and mixed farming	TCCT, TC, RSPB, National Trust, private landowners, SHDC	Environmental Stewardship , developer contributions	Range
Protect and enhance Torbay’s most important species	BL12. Restore and enhance key habitats for Torbay’s priority species e.g. Cirl Buntings, Greater Horseshoe Bat, Small Blue Butterfly and both species of Seahorse	RSPB, NE, TCCT, TC	Environmental Stewardship, grants, developer contributions	Range
Planning for wildlife	BL13. Strategic wildlife network map to be a planning constraint layer	TC		Low

	BL14. Development proposals considered in context of the wildlife network and opportunities to improve connectivity and biodiversity enhancement of wildlife corridors and development site considered at early design stage	TC, NE, Developers, TCCT, EDC	Developer contributions	Range
	BL15. Ensure biodiversity standards e.g. provision for urban biodiversity are set out in developer guidance and validation documents	TC, TCCT, NE		Low
	BL16. Use the South Hams SAC - Greater Horseshoe Bat Consultation Zone Planning Guidance (2010) to ensure strategic habitat is protected	TC planners, NE and Developers		Low

Cost scale: Low (£10k and under), Medium (£10k – 100k), High (£100k and over) -

Stakeholders: TCCT (Torbay Coast and Countryside Trust), TC (Torbay Council), SHDC (South Hams District Council), EDC (Torbay Economic Development Company). -

3.3 LOCAL FOOD -



3.3.1 Background -

Providing space for local food production such as orchards, allotments and community growing areas is a key aspect of the Bay's future green infrastructure.

Growing local food encourages people to lead more active, healthy lifestyles and generates community cohesion, creating a hub where people can meet and socialise. Sustainable food production is a component in creating a low carbon society and it helps the Bay become more resilient to future food insecurity. Local food has fewer food miles, and therefore less associated carbon emissions, and also helps support the local economy.

Local food production has fluctuated over the last 100 years, with the Second World War seeing a huge increase in local food production and national food self-sufficiency. Since then many of Torbay's orchards have either been built on or converted to farmland, whilst land available for allotments has dramatically reduced.

3.3.2 Existing Local Food Assets

- Local farm shops at Ocombe Farm and Churston
- One Planet Food Project at Ocombe Farm
- Lupton Trust Local Food Project
- 21 allotments totalling 15 hectares
- 45 hectares of orchards

Local food or the local food movement is a "collaborative effort to build more locally based, self-reliant food economies - one in which sustainable food production, processing, distribution, and consumption is integrated to enhance the economic, environmental and social health of a particular place"¹

3.3.3 Strategic Local Food Delivery

At a Torbay Local Food Summit held in 2009 an allotment shortage, lack of community growing areas and local producer outlets in towns were identified as some key issues around local food production in Torbay. There are already good examples of local food projects and this plan aims to harness and spread the good work that is already happening, and use this to create a strategic network of Local Food Hubs around the urban towns of Torquay, Paignton and Brixham.

The Local Food Strategic map identifies local food hubs, orchard enhancement zones and areas for new potential allotments.

¹ Feenstra, G. (2002) Creating space for sustainable food systems: lessons from the field. *Agriculture and Human Values*. 19(2).

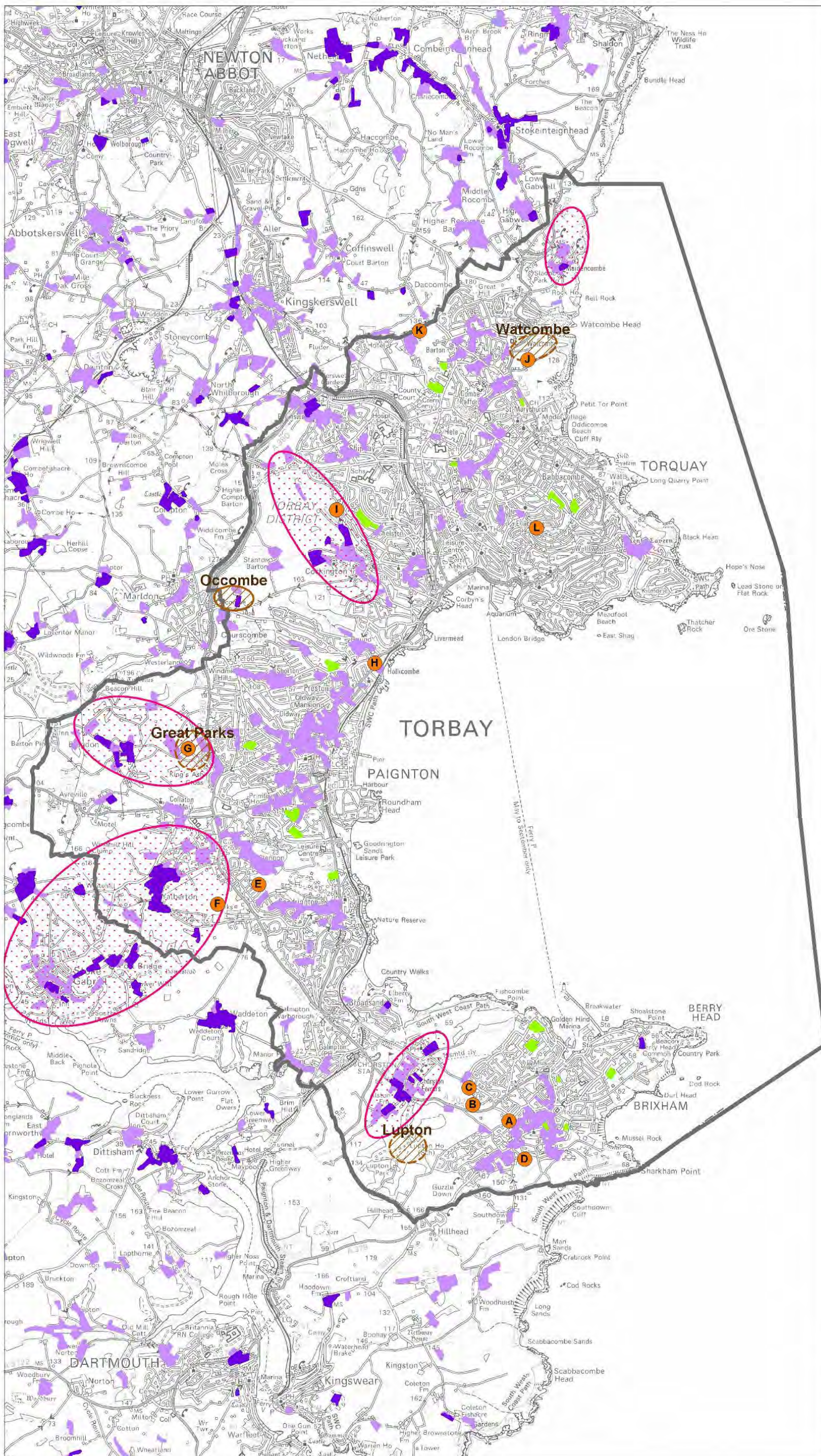
Local Food Hubs will act as focal points where the community can be involved with local food and can take part in community organised activities and events. The food hubs may be run through Community Supported Agriculture Schemes.

Orchard Enhancement Zones: The Delivery Plan has identified five orchard enhancement zones. These were chosen as areas where orchards can be restored, current orchards expanded and historically where traditional orchards were found. Orchards are also places that are important to wildlife and places that people can enjoy. Individual orchards could be adopted and run by local community groups.

Allotments: Potential new areas of search for allotments have been identified and more should be sought alongside new development.

Torbay Green Infrastructure Delivery Plan

MAP 4: Strategic Local Food



Legend

-  Torbay Boundary
-  Historic Orchards

EXISTING GI ASSETS

-  Existing Food Hub
-  Existing Orchards
-  Existing Allotments

PROPOSED GI ASSETS

-  Proposed Food Hub
-  Orchard Enhancement Zone

Proposed Allotments

-  Mathill Road
-  Wayside
-  Copythorne Road
-  Chiseldon Farm
-  Roselands
-  Great Parks
-  South Devon College
-  Great Parks
-  Hollicombe
-  Nut Bush Lane
-  St Marychurch
-  Watcombe
-  Kingskerswell Road

Further details on existing GI assets can be found in the appendix

Source: Natural England, Torbay Council

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Table 4. Strategic Local Food Delivery Table

Main Objective	Action	Stakeholders and Delivery Mechanism	Funding	Cost approx
Provide more accessible growing space	LF1. Allotment creation: 2000 new allotments over 10 years and in the long term allow all residents to have access to growing space local to them	Incorporate new allotments in new major housing developments	Developer contributions	Medium
	LF2. Garden share scheme: Match people who are keen to garden with people who have gardens to share. Focus growing on fruit and vegetables	Community Groups		Low
	LF3. Local food hubs: Focus effort on establishing at Great Parks, Lupton House and Watcombe and continue at Occombe Farm	Through housing development or other grant-funded programmes	Grants and developer contributions	High
	LF4. Community Enterprise: Provide information and support to local community groups that want to set up community food growing projects	TCCT, TC, BTCV, Community Groups		Low
Plant edible trees and hedges	LF5. Plant nut and fruit trees in urban areas: Planting for the purpose of foraging for wild food such as apples, hazel nuts, blackthorn (sloes) etc.	Parks Groups and TC	Grants and developer contributions	Medium
	LF6. Orchard enhancement and restoration: Plant 2 ha per year per orchard enhancement zone and expand and restore existing orchards focusing on orchard enhancement zones	Community Groups Environmental stewardship NE	Developer contributions	£75k per year
	LF7. Create a network of native edible hedgerows: Planting for the purpose of foraging for wild food such as blackberries, blackthorn (sloes), hazel etc.	Through new cycle/footpath network. Environmental stewardship NE	Environmental Stewardship	Medium
Local food plan	LF8. Produce a local food plan for Torbay: Aiming to deliver sustainable local food delivery throughout Torbay	TCCT		Low

Cost scale: Low (£10k and under), Medium (£10k – 100k), High (£100k and over)

Stakeholders: TCCT (Torbay Coast and Countryside Trust), TC (Torbay Council)

3.4 CLIMATE CHANGE AND WATER QUALITY -



3.4.1 Background -

Green infrastructure can help to reduce the impact of flood events by creating natural sea defences and reducing surface water run-off. Sustainable urban drainage systems use reed-beds to help improve water quality. Woodlands provide fuel that reduces our dependence on fossil fuels.

There is now strong evidence that the climate is changing and future predictions are that we will experience more extreme weather events such as flooding and droughts. By 2080 the mean annual temperature in Torbay could increase by up to 3.9°C, with a potential maximum summer temperature of 4.9°C higher than at present¹. Trees and vegetation can help to counteract the urban heat island effect, by reducing temperatures and offering shade. They also act as a carbon sink.

Woodlands can play an important role in the battle against climate change. They are not only a biomass energy source but also offer carbon reduction benefits, amenity benefits and important biodiversity habitats. Harvesting wood through woodland thinning does not only provide a substitute fuel to gas, oil and coal but also allows more sunlight to reach the woodland floor, allowing flora to flourish which creates a more biodiverse habitat. The trees remaining in the woodland can continue to grow, absorbing more carbon dioxide, thus reducing the amount in the atmosphere.

Summer rainfall is predicted to reduce in Torbay by up to 50% whilst winter rainfall could increase by up to 20%.² Furthermore, with individual storm events forecast to become more frequent and intense Torbay could face a 90cm rise in relative sea level (sea level measured relative to a local tide gauge benchmark). Areas within Torbay that are at risk from flooding include parts of Higher Brixham, Paignton town centre, Kings Ash Road, Totnes Road, Occombe Valley and Torquay town centre, together with the coastal areas around Torquay, Paignton and Brixham.

Green infrastructure can help to reduce the impact of flood events by creating natural sea defences, and reducing surface water run-off. By planting and restoring wetlands and greening the Bay with trees, parks and gardens, sustainable soakaways and natural water storage are created, at the same time providing greenspace for wildlife and people.

Wetlands, in particular reedbeds, can also act as natural sewage treatment, which reduces the amount of pollution in our river systems and help to improve water quality on our beaches. The Water Framework Directive (WFD) is now the umbrella directive for water quality improvements and for assessing aquatic ecosystems. The aim of WFD is to achieve Good Ecological Status (GES) by 2027 in all water bodies. Green infrastructure projects are just one way that -

Urban flooding costs £270 million a year in England and Wales and it has been predicted that this will increase to between £1 and £10 billion a year by 2080 unless preventative action is taken.³

1. Torbay Council, A Climate Change Strategy for Torbay (2008-2013)
2. Torbay Council, A Climate Change Strategy for Torbay (2008-2013)
3. Parliamentary Office of Science and Technology 2007. Urban Flooding.

improvements for WFD can be delivered. Where a GI project directly (or indirectly) delivers water quality or habitat improvements then there is a clear link with WFD objectives.

3.4.2 Climate Change and Water Quality Assets

- Wetland areas at Clennon Valley, Broadsands, Mansands and Young's Park
- Current extensive areas of woodland
- Local Transport Plan and Strategic Flood Risk Assessment.
- Torbay Climate Change Strategy and emerging Sustainable Energy Assessment

3.4.3 Strategic Climate Change and Water Quality Delivery

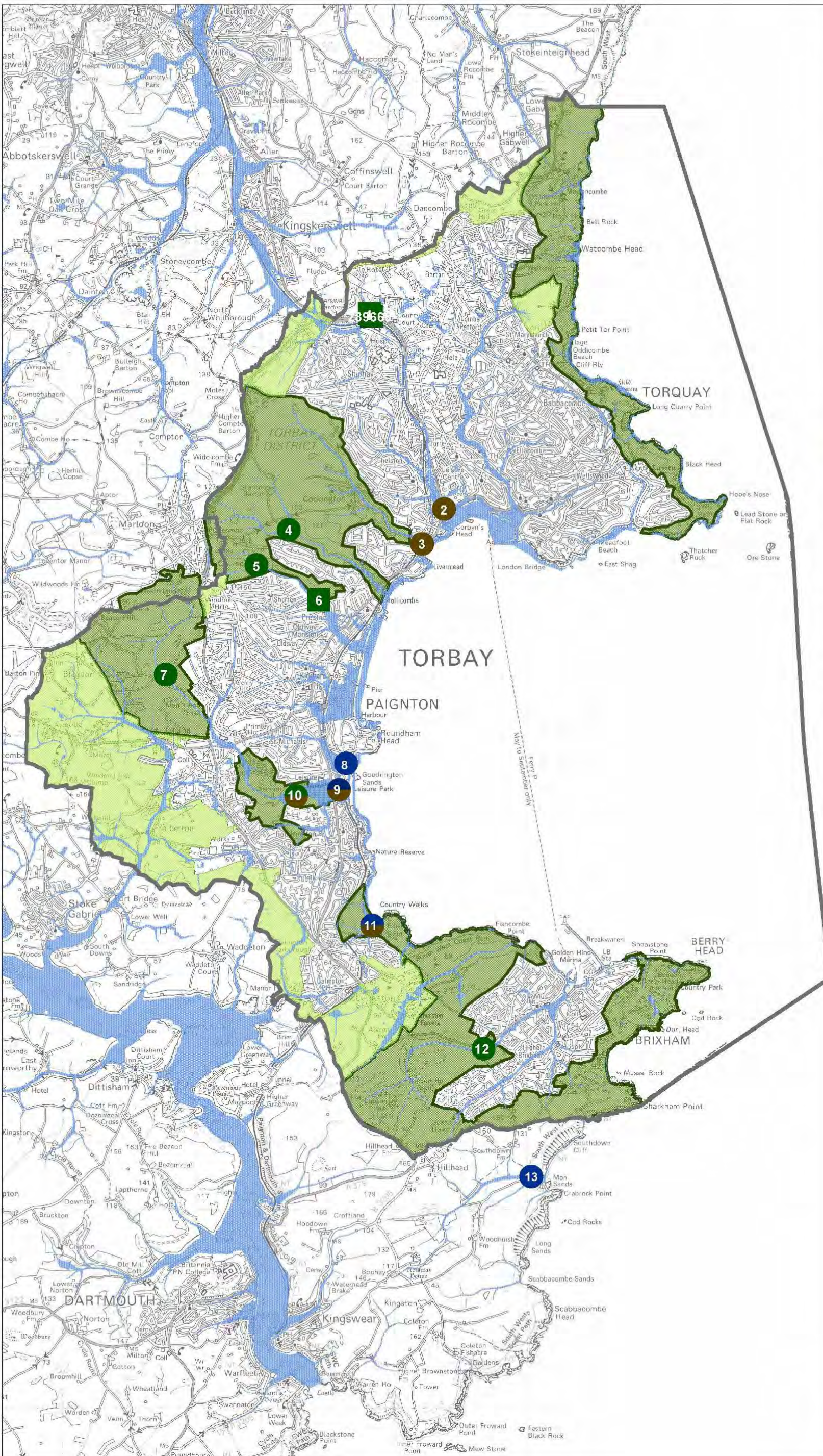
The Strategic Climate Change and Water Quality Map identifies the creation of a network of flood attenuation ponds and sites for future managed realignment of the sea wall, as identified in the Strategic Flood Risk Assessment. It also shows the key wildlife areas and rural wildlife corridors, where woodland planting will be focused.

Proposed wetland creation/enhancement will not only provide flood alleviation, bathing beach water quality improvements and defence against coastal erosion but will also provide places for people to enjoy the natural environment. These wetlands will also provide rich biodiversity habitats and act as "stepping stones" for birds between bigger areas of reedbeds outside the Bay at Slapton Sands and the Teign and Exminster Marshes. Areas of managed realignment have been identified at Broadsands and Young's Park which could also offer natural sea defences and act as a second line of defence if the sea wall is breached.




Key Natural Areas and Rural Wildlife Corridors are where new woodland planting will be focused to create a mosaic of biodiversity rich habitats.

Torbay Green Infrastructure Delivery Plan

MAP 5: Strategic Climate Change and Water Quality



Legend

-  Torbay Boundary
-  Flood Risk Areas - Includes flood zones 2 & 3 and Areas susceptible to Surface Water Flooding (less)
-  Existing Flood Alleviation Asset with Multifunctional Benefits

PROPOSED GI ASSETS

-  Proposed Wetland Creation/Enhancement for Flood Alleviation
-  Proposed Wetland Creation/Enhancement for Bathing Water Quality Improvements
-  Proposed Wetland Creation/Enhancement for Defence Against Coastal Erosion

Areas to focus appropriate woodland planting

-  Key Natural Area
-  Rural Wildlife Corridor

Site Name

- 1 - The Willows
- 2 - The Kings Gardens
- 3 - Livermead Hotel
- 4 - Scadson Woods
- 5 - Occombe Woods
- 6 - Coombe Valley Park
- 7 - Great Parks Reservoir
- 8 - Youngs Park
- 9 - Splashdown Carpark
- 10 - Clenon Ponds
- 11 - Broadsands
- 12 - West Brixham
- 13 - Mansands

Further details on existing GI assets can be found in the appendix

Source: Torbay Council, Environment Agency

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Table 5. Strategic Climate Change and Water Quality Delivery

Main Objective	Action	Stakeholders and Delivery Mechanism	Funding	Cost (approx)
Rainwater management and flood remediation	CC1. Sustainable Urban Drainage Systems: schemes for new and existing developments (upgrading existing properties)	TC, EDC, Developers and minor retrofit by home/building owners	Developer contributions	Low
	CC2. - Upper catchment attenuation: Wetland creation/improvement, opening up culverted watercourses and remove any restrictions to their flow and seek to restore or improve any loss of flood plain storage by providing suitable riverside margins	EA, TC, EDC, Developers, NE	Developer contributions, Environmental stewardship	Range
	CC3. - Urban 'greening': Tree planting and green roadside verges to reduce run-off from hard surfaces	TC, EDC, The Woodland Trust, Developers	TC and developer contributions	Low
	CC4. - Natural coastal flood defences: Restore and extend reedbeds at Broadsands, Clennon and Young's Park	TC, EDC, TCCT, Developers, EA	Developer contributions	Medium
	CC5. - Restoration of watercourses: Encourage the restoration of heavily modified water bodies to more natural watercourses (de-culverting, removing flow restrictions, channel restoration and bank side habitat enhancement and buffer zones). This will not only reduce flood risk but also benefit wildlife and water quality	TC, EA, Developers	Grants, developer contributions	Range
Renewable energy through biomass and woodfuel	CC6. Woodland Planting: Plant substantial network of woodlands across Torbay that connect to the wider landscape and enhance biodiversity. Aim to plant 10 hectares per year within key natural areas and rural wildlife corridors. Also, improve management of existing woodlands	EDC, Landowners, developers, woodland trust and forestry commission	Grants, developers and landowners	£36k per year
Water quality improvements	CC7. - Reedbed creation/enhancement: Help to improve water quality on our beaches while providing habitat improvements	TC, EDC, EA, NE	Developer contributions and grants	Range

Cost scale: Low (£10k and under), Medium (£10k – 100k), High (£100k and over)

Stakeholders: TCCT (Torbay Coast and Countryside Trust), TC (Torbay Council), EA (Environment Agency), EDC (Torbay Economic Development Company)

4.3 PAIGNTON

4.3.1 Background

This area spans from the top of Paignton down to the coast at Goodrington Sands and Broadsands. It has the largest area of reedbeds in Torbay at Clennon Ponds, and includes the coastal reedbeds at Young's Park and Broadsands. Reedbeds were once extensive in Torbay and now only small remnants remain at these sites. The park that surrounds Clennon Ponds is an important recreational asset, popular with dog walkers and wildlife enthusiasts. Whitley Wildlife and Conservation Trust manage an area to the west of Clennon Ponds, including an area of limestone grassland at Primley Park. The Paignton Zoo Environmental Park is also part of the Whitley Wildlife Conservation Trust.



The Westerland Valley lies to the north west of the Clennon Valley and is a County Wildlife Site due to its importance for wildlife, including the rare Cirl bunting. The area known as Great Parks neighbours the Westerland Valley and has been identified as a new area for a Country Park and Local Food Hub, due to the lack of access to greenspace in the bordering urban areas. The need for a new Country Park has also been recognised at White Rock.

There are accessible sandy beaches with good visitor facilities and an underwater Local Nature Reserve at Saltern Cove. The Seashore Centre, a Geopark Gateway Site run by Torbay Coast and Countryside Trust, sits adjacent to Goodrington beach and has interactive interpretation on the local marine life and runs educational visits and events with schools and the local community.

The Clennon Valley area is an important green lung for the urban areas of Paignton and there are many opportunities and benefits to increasing and improving the green infrastructure offer in this area, including enhancing wetland features, reducing flood risks and developing new recreational facilities.

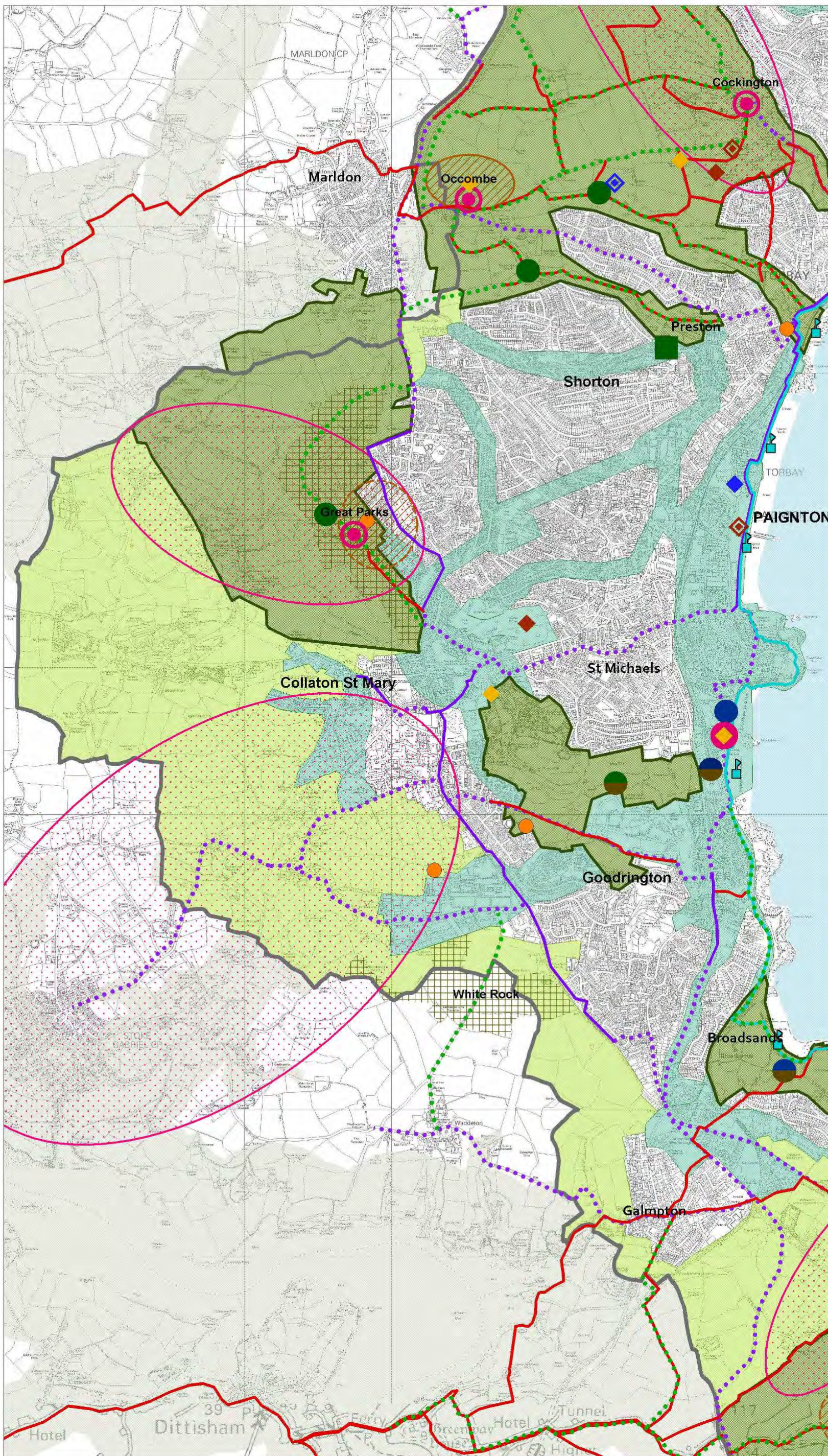
4.3.2 Key Green Infrastructure Assets























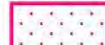






- Wetland areas at Clennon Valley and Young's Park with small pockets of reedbeds.
- Whitley Wildlife Trust manage an area of ancient woodland and limestone grassland
- The Seashore Centre, a marine education centre based at Goodrington and managed by Torbay Coast and Countryside Trust.
- A marine Local Nature Reserve at Saltern Cove.
- A Natural Play area at Primley Woods, run by Whitley Wildlife Conservation Trust.
- South West Coast Path

Torbay Green Infrastructure Delivery Plan

MAP 8: Green Infrastructure Delivery Paignton



Legend

-  Torbay Boundary
- EXISTING GI ASSETS**
-  Key Strategic Footpaths
-  Cycleways
-  South West Coast Path
-  Torbay Beaches
-  Natural Play
-  Environmental Education Centre
-  Adventure Activity Centre
-  Geopark Access Hub
-  Bat Flightpaths and Strategic Nature Areas
-  Food Hub
-  Existing Wetland with Multifunctional Benefits
- PROPOSED GI ASSETS**
-  Cycleways
-  Green Trails
-  Geopark Access Hub
-  Natural Play
-  Adventure Activity Centre
-  Country Park
-  Allotments
-  Food Hub
-  Orchard Enhancement Zone
-  Key Natural Area
-  Rural Wildlife Corridor
-  Urban Wildlife Corridor
-  Proposed Wetland Creation/ Enhancement for Bathing Water Quality Improvements
-  Proposed Wetland Creation/ Enhancement for Flood Alleviation
-  Proposed Wetland Creation/ Enhancement for Defence against Coastal Erosion

Further details on existing GI assets can be found in the appendix

Source: Torbay Council, Natural England

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Table 8. Paignton Key Green Infrastructure Projects and Priorities (next 10 years) -

Project	Project Aim	Project partners	Funding	Costs	Ongoing management
Wetland Creation and Enhancement	Enhance and extend existing wetland around Clennon Valley and Goodrington to help remediate the threat of flooding in these areas	TC, EA, SWW, EDC	Developer contributions	£100k (capital)	TC, Community Groups, TCCT
	Create wetland at Great Parks as a flood attenuation scheme with benefits to people and wildlife	TC, EA, EDC	Developer contributions	£50k (capital)	To be confirmed
Establish two new Country Parks and a Geopark Access Hub	Establish new Country Park at Great Parks and new Geopark Access Hub	TC, EDC, TCCT, Community	Grants and developer contributions	£1 million (capital) 50k per yr (revenue)	To be confirmed
	Establish a new Country/Woodland Park at White Rock	TC, EDC, Community, TCCT	Grants and developer contributions	£400k (capital) £20k per yr (revenue)	To be confirmed
New Marine Geopark Access Hub	Expand or relocate The Seashore Centre at Goodrington to improve access and its capacity to offer marine events and educational visits	TCCT, EDC	Grants and developer contributions	£500k (capital) £50k per yr (revenue)	TCCT
Recreational routes	Create good cycle links from the coast up to Yalberton	Landowners, EDC	Developer contributions, Local Transport Plan 3	Approx. £100k per km	Landowners
	Create a Great Parks cycle route	Landowners, EDC	Developer contributions	Approx. £100k per km	Landowners
	Extend coastal cycle route to Broadsands	TCCT, EDC	Grants and developer contributions	Approx. £100k per km	TCCT
Coastal Access Network	Improve coastal access and interpretation	TC, TCCT, EDC	Developer contributions, grants	£150k (capital) £800/km of coast path per year (revenue)	TCCT, TC, South West Coast Path
Local food delivery	Create a Food Hub in the Great Parks area to link the community to a local food growing project	TCCT, Community groups, EDC	Developer contributions and grants	£75k (capital)	Community Enterprise
	Orchard enhancement zone: Linking existing orchards down to South Devon College to encourage local food education Blagdon community orchard project	Community group, EDC	Developer contributions, grants	2 ha at £15k per yr (capital)	Community Group

Stakeholders: TCCT (Torbay Coast and Countryside Trust), TC (Torbay Council), EA (Environment Agency), SWW (South West Water), EDC (Torbay Economic Development Company)

4.4 BRIXHAM AND KINGSWEAR PENINSULA

4.4.1 Background

The Brixham and Kingswear Peninsula area sits within the South Devon AONB and is important for its very high quality wildlife and heritage, and as a popular tourist attraction. The area crosses the administrative boundaries of Torbay Council and South Hams Council as the geography of the peninsula requires a holistic view to ensure good delivery of green infrastructure. The value of the natural environment in this area is recognised through the high number of nature conservation and geologically important sites; ranging from the Special Area of Conservation at Berry Head through to County Geological sites. The Greater Horseshoe Bat maternity/hibernation roost at Berry Head and the commuting links and surrounding foraging habitat is crucial for the bats survival. These commuting links are highly vulnerable due to the constrained nature of the roost at Berry Head and the extent of urban development close to the roost. The marine environment in this area is also important, with seagrass beds at Elberry and Fishcombe Cove, and a marine SAC that extends from the northern tip of Torbay to Dartmouth.



Brixham town, built around the Harbour, is a busy fishing port with a fish market and marina. The nearby limestone headland of Berry Head National Nature Reserve is the main recreational green space for the town but is also recognised for its internationally important limestone grasslands, a colony of breeding guillemots and the greater horseshoe bat roost. The Napoleonic War era fortifications are an important heritage asset and have recently been restored. Berry Head is also one of the gateways to the English Riviera Geopark and has a new visitor centre and cafe.

Sharkham Point lies to the south west of Berry Head and is currently under-used by visitors. Better facilities and access at Sharkham would make it more attractive to visitors, take some of the visitor pressures off Berry Head and act as a gateway to the coast path and the Kingswear peninsula.

To the north of Brixham is the 120 hectare Lupton Estate consisting of an extensive landscaped parkland and woodland. The Lupton Trust took over Lupton House and garden in 2009 to regenerate the house and gardens and turn it into a community enterprise with local food growing and learning. The countryside surrounding Brixham and the Lupton Estate has high landscape value and is of heritage significance, particularly the village of Churston and its surrounding countryside.

The coastal strip that stretches south of Berry Head to Kingswear is stunning with steep valleys, beaches and seascapes and is one of the most inspiring sections of the South West Coast Path in Devon. Currently, this section is mainly used by keen hikers, due to the steep terrain and a network of shorter trails from Brixham would allow this area of coastline to become more accessible and attractive to a wider audience. Much of the Kingswear Peninsula is managed by the National Trust, with Coleton Fishacre House and Gardens and Greenway being popular visitor attractions.

The whole of the Brixham and Kingswear Peninsular area is a valuable green infrastructure asset and the area has tremendous potential to become a high quality green tourism offer with a healthy wildlife-rich landscape that is accessible by all.

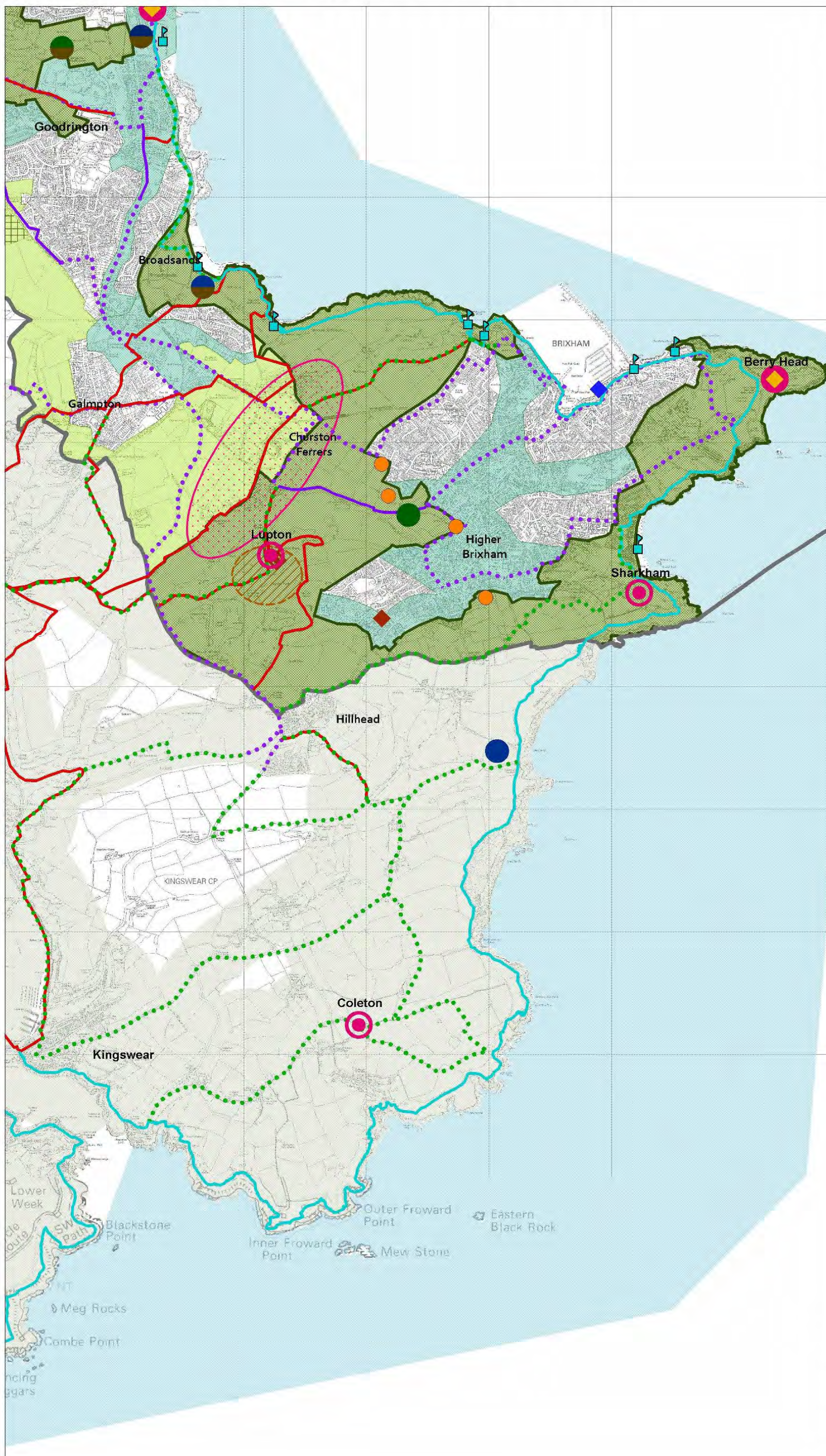


4.4.2 Key Green Infrastructure Assets

- South Hams SAC, Berry Head National Nature Reserve and SSSI.
- Greater horseshoe bat maternity roost (65-75 bats) and hibernation roost (up to 200 bats) at Berry Head with and surrounding commuting and foraging links
- South Devon Area of Outstanding Natural Beauty covers 337 square kilometres, of which 6.5 square kilometres are within the Torbay boundary.
- The cliffs at Berry Head are nationally important for its guillemot colony, forming the largest breeding colony on the English Channel Coast. The waters off Berry Head are designated an Area of Special Protection because of this.
- National Trust land and properties at Coleton Fishacre and Greenway on the Kingswear Peninsula.
- South West Coast Path.
- Berry Head National Nature Reserve with limestone grasslands, greater horseshoe bat colony and Napoleonic forts.
- Lupton House and gardens (recently taken over by the Lupton Trust) and grounds.
- Indigos 'Go Wild' natural play area.
- Marine Special Area of Conservation (SAC).

Torbay Green Infrastructure Delivery Plan

MAP 9: Green Infrastructure Delivery Brixham and Kingswear Peninsula



Legend

Torbay Boundary

EXISTING GI ASSETS

- Key Strategic Footpaths
- Cycleways
- South West Coast Path
- Torbay Beaches
- Natural Play
- Environmental Education Centre
- Adventure Activity Centre
- Geopark Access Hub
- Bat Flightpaths and Strategic Nature Areas

PROPOSED GI ASSETS

- Cycleways
- Green Trails
- Geopark Access Hub
- Natural Play
- Allotments
- Food Hub
- Orchard Enhancement Zone
- Key Natural Area
- Rural Wildlife Corridor
- Urban Wildlife Corridor
- Proposed Wetland Creation/ Enhancement for Bathing Water Quality Improvements
- Proposed Wetland Creation/ Enhancement for Flood Alleviation
- Proposed Wetland Creation/ Enhancement for Defence against Coastal Erosion

Further details on existing GI assets can be found in the appendix

Source: Natural England, Torbay Council

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Table 9. Brixham and Kingswear Peninsula Key Green Infrastructure Projects and Priorities (next 10 years) -

Project	Project Aim	Project partners	Funding	Costs	Ongoing management
Horseshoe Bats	Improve and increase favourable management of feeding areas and flight routes for the Greater Horseshoe bat in both rural and urban areas around Brixham. Increase the area of cattle grazed pasture and enhance hedgerow network in these areas	TCCT, NE	Grants, Environmental Stewardship and developer contributions (bio-offsetting)	£100k (capital) 20k per yr (revenue)	Landowners
Berry Head to Sharkham Wildlife Restoration Zone	Limestone grassland grazing on coastal strip and continued scrub management	TCCT, NE	SITA, Environmental Stewardship	£50k(capital) £10k per yr (revenue)	TCCT, Landowners
Create Geopark Access Hub at Sharkham	Improve facilities and access at Sharkham point to help take visitor pressure off Berry Head and act as a gateway to the Kingswear peninsula	TCCT	Grants and developer contributions	£0.5 million (capital) £50k per yr (revenue)	TCCT
Create recreational trails linking Brixham with South Hams	Work in partnership with South Hams Council and National Trust to create a walking and cycling circuit between Berry Head, Sharkham to Kingswear and the River Dart	TCCT, TC, South Hams District Council	Developer contributions, grants	Approx. £100k per km	Landowners
	Create a Brixham cycling route (part of key inland cycle route). Subject to landowners agreement	TC, Landowners	Developer contributions, Local Transport Plan	Approx. £100k per km	Landowners
Coastal Access Network	Improve coastal access and interpretation	Developer contributions, grants	TC, TCCT	£150k (capital) £800/km of coast path per year (revenue)	TCCT, TC, South West Coast Path
Wetland Creation and Enhancement	Create a flood attenuation pond on western edge of Brixham (subject to landowners agreement and planning permission)	TC, EA, EDC	Developer contributions	£50k (capital)	To be confirmed
	Broadsands wetland restoration project: Restore wetland to alleviate flooding, enhance biodiversity; improve water quality and amenity benefits. Include coastal defence improvements and intertidal habitat creation by making modifications to the outfall structure	Developer contributions, EA	TCCT, TC		TC, TCCT
Lupton Estate	Create a new Geopark Access Hub /Community Centre at Lupton House	Lupton Trust	Grants	£300k	To be confirmed
	Create community garden at Lupton House. Start a produce market on the estate which will also supply a local food shop in Brixham town centre	Groundwork, Lupton Trust	Grants	£25k (capital)	Groundwork, Lupton Trust
	Conserve, enhance and restore parkland and veteran trees at the Lupton Park Estate to highlight the importance of parkland for its ecological, historical and cultural value	Lupton Park Estate, NE	Grants and Environmental Stewardship	£100k+	Lupton Park Estate
	Orchard Enhancement Zone at Lupton and Churston	Lupton Trust, Community Group	Grants, developer contributions	2ha at £15k per year (capital)	Lupton Trust, Community Group
	Restoration of Italian formal gardens	English Heritage (acquired)		£200k	Lupton Trust

Stakeholders: TCCT (Torbay Coast and Countryside Trust), TC (Torbay Council), NE (Natural England), EDC (Torbay Economic Development Company)

5. TAKING THE PLAN FORWARD

5.1 PROJECT GOVERNANCE

The success of this plan is dependent on strong partnership work and active engagement from a wide range of stakeholders. A Green Infrastructure Officer is required to coordinate the work of the delivery plan; engage with stakeholders; engage with developers and planners with master planning; and seek funding for green infrastructure projects.

Currently the arrangements for most efficiently steering the Green Infrastructure Delivery Plan and supervising the work of staff working on Green infrastructure are not fixed. One proposal that has been suggested is that the Torbay Local Environment and Access Forum (Torbay LEAF) will steer the work of the delivery plan and it will follow the suggested structure shown below. A LEAF Champion will promote the work of the plan and champion its delivery with both the public, Torbay Council and other agencies.



5.2 DELIVERING GREEN INFRASTRUCTURE THROUGH THE SPATIAL PLANNING SYSTEM

Main Objectives:

- ***The Green Infrastructure Delivery Plan informs site allocations in development plan process***
- ***Green infrastructure considered at an early stage with planners and developers and integrated into site master planning***
- ***Green infrastructure delivery funding included in the Community Infrastructure Levy (CIL)***
- ***Ongoing monitoring and enabling of Torbay's green infrastructure through the appointment of a Green Infrastructure Officer***

Torbay is a growth area which must accommodate a large amount of development in coming years. Green infrastructure is an essential element in creating sustainable communities that enjoy a good quality of life. Future increases in population will not only put more pressure on the existing green infrastructure, but will require the provision of new green infrastructure. Grey and green infrastructure need to be considered holistically; if undue priority is given to grey infrastructure, at the expense of the natural environment, the result can be a series of disconnected and inadequately-managed natural elements. This will deliver far fewer public benefits than could otherwise be provided.

Green infrastructure needs to be at the heart of future planning and development in Torbay and should be seen as a critical part of the considerations embedded at the start of any development project.

Table 10. Existing national government policy guidance for delivery of green infrastructure

- ***PPS1: Delivering Sustainable Development (2005)***
- ***PPS (supplement to PPS1): Planning and climate change (2007)***
- ***PPS12: Local Spatial Planning (2011)***
- ***PPS3: Housing (2006)***
- ***PPS5: Planning for the historic environment (2010)***
- ***PPS9: Biodiversity and Geodiversity (2005)***
- ***PPG17: Planning for Open space, sports and recreation (2002)***
- ***PPG13: Transport (2011)***
- ***PPG25: Development and Flood Risk (2010)***

The planning system in Torbay plays an important role in implementing this Delivery Plan. There are many national planning policies in place that can be used to deliver green infrastructure (Table 10). There are also national requirements for information to be submitted with certain planning applications that can include green infrastructure e.g. Design and Access Statements. To further help delivery of green infrastructure in Torbay a 'Local List' will be produced that identifies the local information requirements that could be required to support planning applications. The 'Local List' will reflect what is important locally and will include a validation checklist. Green infrastructure requirements will be identified in both the 'Local List' and the validation checklist and will provide applicants access to further guidance where necessary.

The proposed green infrastructure planning framework has been designed to ensure that green infrastructure is considered with all appropriate planning applications (Table 11).

Table 11. Green Infrastructure Planning Framework -

Stage in planning process	Delivery Mechanism	Stakeholder
1. Pre-application stage	Local list completed with planning application submission.	Developers and planning officers
	Leaflet promoting green infrastructure in development design sent out with every appropriate planning enquiry	Planning Officers
	Planning officer alerts green infrastructure stakeholders e.g. TCCT to planning application so that green infrastructure can be incorporated in master planning stage	All relevant stakeholders
	Planning contributions for green infrastructure delivery from development sought if applicable.	Developers and planning officers
	Strategic Biodiversity Network map to be discussed with applicant (planning constraint layer)	Planning Officer and green infrastructure stakeholders
2. Validation and determination of application	Planning application is validated	Planning Officer
	Application is considered against national and local planning policies relating to green infrastructure	Planning Officer
	Planning application determined alongside planning conditions or a planning obligation e.g. design of development	Planning Officer/ Member (Development Management Committee)
3. Implementation and Monitoring	Green infrastructure onsite delivery and ongoing maintenance	Developers
	Green infrastructure offsite delivery through Community Infrastructure Levy	Green infrastructure Coordinator/Planning Officer
	Ongoing monitoring of green infrastructure delivery	Green infrastructure Coordinator

5.2.1 Delivery through development -

Developers should be expected to incorporate green infrastructure into planned developments and take into account the wider green infrastructure plans for the Bay. Green infrastructure needs to be considered at an early stage so that its full benefits and functions can be realised. Both a 'Local List', which will have a chapter on delivering green infrastructure through development, and a green infrastructure leaflet and website, will help to raise awareness of green infrastructure with developers in Torbay.

There are many things a developer can do to deliver green infrastructure that not only help the developer to meet statutory requirements, but also add many social and environmental benefits.

5.2.2 Developer contributions

Developer contributions are an important mechanism for funding and delivering this Delivery Plan and could fund both onsite and offsite green infrastructure.

Development Site Acceptability (onsite delivery): Development site acceptability contributions (Section 106) are sought to make the development acceptable in terms of its direct impact on the site and relate to works that must be carried out to render the development workable. Development site acceptability includes many aspects of green infrastructure including cycle tracks, flood protection, biodiversity and environmental quality. The contributions need to demonstrate that they will be spent locally to the application in order to address the need for green infrastructure arising from that development e.g. wildlife mitigation.

Sustainable Development Contributions (offsite delivery): Sustainable development contributions include the wider community infrastructure that is required to make the development sustainable and acceptable in spatial planning terms. This covers greenspace, recreation, stronger communities and sustainable transport. Green infrastructure is critical to sustainable development and an infrastructure levy will be the mechanism for sustainable development contributions in the future. Torbay Council is working on an infrastructure plan that will help guide the delivery of the levy. Establishing a ring fenced green infrastructure delivery fund within this levy is an important mechanism for offsite green infrastructure delivery in the future. The delivery area tables identify priority actions to be funded by developer contributions for the next 10 years.

5.3 FUNDING

There is currently no direct funding for taking forward the delivery plan and a key piece of work will be to source funding for delivery. Funding also needs to be sought for a Green Infrastructure Officer. Joint working between neighbouring authorities could include a shared Green Infrastructure Officer, joint grant bids and funding of projects.

5.3.1 Public-sector funding

Funding opportunities from the public sector are likely to be limited over the coming years. However, green infrastructure offers multiple benefits and provides services across the public sector e.g. health, social welfare, flood risk, transport and for a relatively low cost can offer high benefits. The projects included in this plan should be promoted and delivery sought in relevant strategies and plans e.g. Local Transport Plan 3.

5.3.2 Developer contributions

Developer contributions should be sought for both onsite and offsite development green infrastructure delivery. The 'Local List' and leaflet will promote green infrastructure delivery with planners and developers.

5.3.3 Grants

Grant funding opportunities are available to financially support specific project delivery. Some of the potential funding streams for green infrastructure delivery are highlighted below:

- **LIFE + Funding (European Funding):** Open to public or private bodies and aims at co-funding actions in the field of nature conservation (LIFE plus Nature and Biodiversity) and co-funding information and communication activities for the environment (LIFE plus Information and Communication).
- **Interreg (European Funding):** Projects that promote cooperation across Europe and the exchange of knowledge and best practice. The environment is a priority with sub-themes below this including climate change, biodiversity and preservation of natural heritage and cultural heritage and landscape.
- **Heritage Lottery Fund (National):** This grant will fund heritage projects of all sizes, with grants from £3000 to over £5 million. The aims of the grant are to conserve the UK's heritage and help more people learn and take an active part in their heritage.
- **Higher Level Stewardship (HLS):** A agri-environmental grant awarded by Natural England, which aims to deliver significant environmental and public access benefits in priority agricultural areas.
- **SITA Enriching Nature Programme (National):** This grant currently supports projects with a focus on species or habitat that have been identified as a priority UK Biodiversity Action Plan.

5.3.4 Community Enterprises

Community enterprises are business owned and managed by the community they serve. They put people before profit and see the social, economic and environmental benefits they can bring to a community as more important than profit-making. They also aim to be self-sustaining and rely on selling their services to generate income, not on grants and donations. Any profit made by the business is used for the benefit of that community and not for private gain. This model could be used by community partnerships to foster delivery and guardianship of local green infrastructure e.g. local food hubs and food growing areas or areas of local wildlife interest.

5.3.5 Tourism

The visitor pay-back model is based on the concept of visitors 'valuing' the destination. What makes Torbay special for the visitor is its natural environment and this model connects the financial conservation management of this natural environment and the Geopark with the visitor. Tourism businesses often provide the link between the conservation management and the visitor.

5.4 NEIGHBOURHOOD PLANNING & COMMUNITY ENGAGEMENT

Neighbourhood planning is a change to the planning system laid out in the emerging Localism Bill, which is currently being debated by parliament. The Localism Bill will shift power from central government back into the hands of individuals, communities and councils. It is thought that neighbourhood planning will be led by two types of body – town/parish councils or 'neighbourhood forums'. The neighbourhood forums will be made up of community groups agreed by the local planning authority. Neighbourhood forums will be able to use their new neighbourhood plans to establish general planning policies for the development and use of land in a neighbourhood. This will be known legally as the 'neighbourhood plan.' Documents such as the Green Infrastructure Plan will underpin the preparation and formulation of these plans.

In the meantime, community partnerships in Torbay have already recognised the importance and value of green infrastructure in their neighbourhood, and community groups and 'Friends of Groups' have already begun to foster ownership of their local green spaces. There are many ways in which the local community can engage with green infrastructure from volunteering at a local nature reserve through to setting up a community enterprise owned local food hub.

5.5 MONITORING DELIVERY

The Green Infrastructure Delivery Plan is a live document and the Green Infrastructure Officer will monitor delivery and annually review delivery against actions drawn up in the plan. The annual report will be presented at the Local Environment and Access Forum. Case studies that demonstrate project delivery and showcase success will be shown on the Torbay Green Infrastructure website and promoted to partners.

GLOSSARY

Accessible Natural Green Space Standard (ANGSt) -	Natural England standard recommends everyone should have access to an area of green space bigger than 3 hectares within 5 minutes walk or 300m from their home.
Area of Outstanding Natural Beauty (AONB) -	A statutory designation that exists to conserve and enhance the beauty of the landscape of an area of countryside considered to have significant landscape value, and is designated by Natural England.
Country Park	Sites that provide a wide range of opportunities for recreation, health and education and improve the quality of life for local communities.
Designated natural sites	Sites which have a statutory landscape or wildlife designation and are protected by law.
Developer Contributions	Contributions made by a developer towards the infrastructure, facilities, services etc. either by paying money for works to be carried out or by directly providing facilities or works either on or off-site, required to remedy the impact of development.
Ecosystem Services	Services provided by ecosystems that benefit humans and are necessary for a healthy planet like oxygen production, water purification, pollination, soil formation and nutrient recycling.
English Riviera Global Geopark	Geoparks aims to protect geo-diversity and to promote geological heritage to the general public as well as to support sustainable economic development of the area, primarily through the development of geological tourism. English Riviera received international recognition for its rich geological, historical and cultural heritage in 2007 and incorporates the whole of Torbay and so follows the Torbay Council Unitary Authority boundary exactly.
Environmental Stewardship	An agri-environment scheme that provides funding to farmers and other land managers in England to deliver effective environmental management on their land.
Flood attenuation	Managing water catchments to reduce the amount or severity of surface water flooding in vulnerable areas.
Green Infrastructure (GI)	Green infrastructure is a network of multi-functional green space, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities
Integrated Biodiversity Delivery Area (IBDA)	Eight pilot areas have currently been selected through the England Biodiversity Group to showcase integrated biodiversity restoration at a landscape-scale. Partnerships have been set up to take forward the IBDA's to maximise opportunities for biodiversity and utilise current funding opportunities better. The South Devon IBDA stretches from the Tamar to the Exe and extends to the southern boundary of Dartmoor National Park.
Landscape Character	A combination of topography, natural and man-made patterns which together contribute to the appearance of the landscape.
Local Development Framework (LDF)	The LDF consists of a 'portfolio' of documents which collectively, will provide and deliver the spatial planning strategy for Torbay. The Local Development Framework shapes the future of Torbay to 2026. The LDF is the basis for making important decisions about the direction of growth and development in Torbay. It looks at issues such as the provision of new housing, jobs and community facilities. The framework also ensures that consideration is given to the protection of the environment in decision making.
Low-carbon economy	An economy which has a minimal output of greenhouse gas emissions, particularly carbon dioxide, into the biosphere. Carbon plays an important role in energy generation but has brought about higher pollution and global warming. Moving to a low carbon economy not only addresses Climate change, it makes business sense.
National Nature Reserve (NNR)	A national designation designed to protect some of the finest sites in England for wildlife and geology, and provide great opportunities for people to experience nature.

Natural Play	Sites that offer children the opportunity to play in many different types of wild and semi-wild places. These spaces are all important in offering children and young people access to nature and promoting their engagement with the physical world around them.
Site of Special Scientific Interest (SSSI)	SSSI's are legally protected under the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006.
Special Area of Conservation (SAC)	SACs are areas which have been given special protection under the European Union's Habitats Directive. They provide increased protection to a variety of wild animals, plants and habitats and are a vital part of global efforts to conserve the world's biodiversity.
Strategic Nature Areas	Strategic Nature Areas (SNAs) are landscape scale areas of land that have been selected by Biodiversity South West as being important areas for the conservation and expansion of particular habitat types in Devon. These areas are part of the South West Nature map.
Sustainable Urban Drainage Systems (SUDS)	A wide range of techniques which are designed to reduce the potential impact of new and existing developments, with respect to environmental impact from surface water drainage e.g. the use of grass swales, porous paths, wet and dry ponds, storm water wetlands.
Torbay Core Strategy	The Core Strategy is the part of the Local Development Framework that sets out the broad aims and objectives for sustainable development in Torbay over the next 15-20 years. It outlines how the Council will deliver strategic development needs including housing, employment, leisure and retail. The Core Strategy will provide a framework for meeting the priorities of the Community Plan and Mayor's vision, where these involve the use of land.

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BUILDING A SUSTAINABLE
FUTURE FOR TORBAY

