

### TORBAY COUNCIL

# English Riviera UNESCO Global Geopark

## **Briefing Document for Planning**

Working Document V4 – updated 04/04/2024

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### **Executive Summary**

The English Riviera UNESCO Global Geopark (ERUGGp) is committed to work with all relevant partners to support the retention of the Geopark status which is a driver for education, community benefits, expansion of the tourism offer, and sympathetic regeneration bringing social and economic benefit to Torbay.

As the importance of the Bay's geology fulfils the critical underlying criteria for the UNESCO Global Geopark designation its consideration as part of the planning process alongside appropriate conservation, management, and enhancement of the geosites is fundamental to the retention of the status. This briefing document aims to raise awareness and understanding of the UNESCO Global Geopark designation within Torbay Council Planning Department and ensure best outcomes of conservation, management and enhancement for all sites of geological importance in relation to planning decisions. It is key to remember that the designation integrates many existing Sites of Special Scientific Interest (SSSI) and Regionally Important Geological Sites (RIGS), although the geological value of some exposures has yet to be recognised. As such any new or temporary exposures may reveal new sites of value worth recording and/or protection.

In 2019 the Geopark commissioned a Condition Assessment and Management Recommendations report covering all designated geosites within Torbay. The summary of the findings can be found in Appendix 4

Geopark procedures and recommendations in relation to planning applications for designated sites can be found <u>here</u> whilst those for undesignated and new exposures can be found <u>here</u>.

It must be noted that the UNESCO Global Geopark status imposes no additional legislation over and above that which already exists. Therefore, the decision to commission a survey, or for a survey and works to be added as part of planning conditions rests with the planning department and the cost with the applicant.



### **Mission Statement**

The English Riviera UNESCO Global Geopark is one of Earth's extraordinary places covering the whole of the unitary authority of Torbay. The Geopark celebrates, conserves, enhances, and protects the unique and diverse culture, heritage and environment of this naturally inspiring area. Working with multiple partners it is a driver for education, expansion of the tourism offer, and sympathetic regeneration through sustainable social and economic development. It enriches the lives and supports the development and well-being of the local community. The Geopark aims to reconnect human society at all levels to the local area, to the wider environment and to celebrate how Torbay's 400-million-year long history has shaped every aspect of our lives and our societies, and informs the future

### Background

#### **Current Status:**

UNESCO Global Geopark status is only ever awarded for a four-year period at a time. The ERUGGp Revalidation in 2023 was successful, and a **Green Card** was awarded to the English Riviera ensuring that the area, provided it continues to adhere to the UNESCO International Geoscience and Geoparks Programme Statutes and Guidelines, retains the status for the next four-year period.

#### Benefits of the UNESCO designation for Torbay

- UNESCO Global Geopark is the highest-level international designation the bay has.
- Torbay is the **only seaside resort in the England** to hold this highly **sought-after international designation**
- The UNESCO Global Geopark model is a driver for education, community benefits, expansion of the tourism offer, and sympathetic regeneration
- The UNESCO label is a **designation of quality** that provides the opportunity to promote the area at an international level
- Through the work of the UK National Commission for UNESCO the profile of the English Riviera is raised within DCMS and other relevant government departments and national level organisations
- The UNESCO designation is a tool that can be used to attract inward investment
- The UNESCO Global Geopark designation is the ultimate recognition of Torbay's **Naturally Inspiring** strapline
- The holistic nature of the designation supports and enhances **multi-disciplinary partnership at working** at the local, national and international levels and as such the Geopark umbrella brings together key partner organisations covering the entire unitary authority and beyond for a common goal (For membership of the Geopark Management Group see Appendix 1)
- In addition to the core partners the Geopark now has 26 local Associate Partners supporting the designation (For a list of all partners see Appendix 2)
- The UNESCO designation is a **hook for external funders** that makes local projects stand out
- The entire ethos of UNESCO Global Geoparks is to support their communities and the sustainable economic development of the territory. As such all of the Geoparks work and achievements, alongside all of the collective related work of the core, associate and artist

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partners (see Appendix 2) contribute to Torbay Councils four visions, **Thriving Community**, **Thriving Economy**, **Tackling Climate Change and Council Fit for the Future** 

- The designation, awarded in 2007 and covers the entire administrative area of Torbay
- The Geopark is a platform to engage Torbay with **Sustainable Development** such as climate change, clean seas, environment, responsible consumption and health and wellbeing initiatives

### UNESCO Global Geopark designation is not just about rocks, it is something to be proud of; it is about people, place, heritage, activity, creativity, engagement and involvement.

#### **International and National Context:**

- The **purpose of a Geopark** is to explore, develop and celebrate the links between that geological heritage and all other aspects of the area's natural, cultural and intangible heritage. It is about reconnecting human society at all levels to the local area, to the wider environment and to celebrate how our planet and it's 4,600 million year long history has shaped every aspect of our lives and our societies and will continue to do so in the future.
- As of September 2023, there are **195 UNESCO Global Geoparks** spread across **48 Countries** (9 in the UK). Each year new areas apply for this sought-after designation. The current list can be found here:

http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/unescoglobal-geoparks/

- There are 2 other UNESCO Geoparks in England (Black Country and North Pennines), 2 in Wales (Fforest Fawr - Brecon Beacons and GeoMon - Anglesey) 2 in Scotland (NW Highlands and Shetland Islands) and 2 in Northern Ireland (Cuilcagh Lakelands (cross-border) and Mourne Guillion Strangford)
- The designation is **recognised by UNESCO** (United Nations Education Science and Cultural Organisation and once awarded is reviewed and revalidated every 4 years.
- In November 2015 UNESCO fully recognised the work of the Global Geopark Network through the introduction of a new UNESCO Programme, The International Geoscience and Geoparks Programme (IGGP). All existing members of the Network became UNESCO Global Geoparks and as such are recognised on a par with the existing Programmes of UNESCO *e.g.*, World Heritage Sites and Biosphere Reserves.
- The UK National Commission for UNESCO recent report National Value of UNESCO to the UK (published June 2020), which features the ERUGGp, highlights the following key findings:
  - 1. UNESCO designations added a minimum of £151 million of financial benefit to the UK in one year
  - 2. UNESCO Designations make a rich and creative contribution to the UK's environment, culture and communities and are united in promoting peace and sustainable development agenda through conservation, research, education, capacity building and management and planning
  - 3. Investment in the UK's UNESCO designations would increase crossdisciplinary work and enhance their contribution to the UK economy and society, and the United Nations Sustainable Development Goals.

Audrey Azoulay, **UNESCO Director-General**, said: "At a time when we all look for solutions to build more resilient societies after Covid-19, UNESCO sites offer a wealth of concrete actions to reinvent our relationship with nature, to develop decent jobs and foster social cohesion.

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This report by the UK National Commission to UNESCO is a blueprint for sustainability, and I believe all Countries can take inspiration from this research." The full report can be found here <u>https://www.unesco.org.uk/national-value</u>

#### **Local Context**

- The designation is now embedded within Torbay strategic documents local plans and policies
- Within the ERUGGp there is a wealth of sites for the local community and visitors to explore and enjoy that share the stories of the Geopark including:
  - The nationally protected, award winning prehistoric **Kents Cavern** a Scheduled Ancient Monument and SSSI.
  - The beautiful landscape, incredible biodiversity, and Napoleonic history of **Berry Head National Nature Reserve.**
  - The fascinating heritage of **Torre Abbey**, also a Scheduled Ancient Monument.
  - **Occombe Farm** provides wonderful facilities that enables families to engage with the local environment, farming and farm animals in a colourful and exciting way for all to enjoy
- The spectacular coastline of the Geopark can be experienced through boat trips while for the more adventurous there are activities such as kayaking, climbing and coasteering.
- The designation provides both National and International profile, and networking opportunities.
- The designation provides opportunities to improve both social and economic sustainability
- The Coordinator of the English Riviera UNESCO Global Geopark is also a voting member of the Global Geopark Network Executive Board and completed a four-year term on the inaugural UNESCO Global Geopark Council (2016 – 2020)

#### **Introduction to the Geology**

All UNESCO Global Geoparks around the world celebrate their internationally significant geology and interrelated environment, heritage and culture. In Torbay, the geology at the heart of the designation covers four time periods, the Devonian, Carboniferous, Permian and Quaternary with discoveries being of such importance that they lead to the naming of the Devonian Period itself, changed the understanding of the antiquity of man and today are recognised through one of the highest concentrations of protected geological sites in the UK. Such a rich geological heritage and the sheltered aspect and subsequent micro-climate it created, has provided perfect habitats for specialist plants to thrive on the thin limestone soils, rare birds to find homes on the cliff ledges and farmland fringes, endangered bats to roost in the caves, whilst underwater sea horses shelter amongst sea grass. Geology has also shaped our human history with the natural harbour at Brixham developing into the 2<sup>nd</sup> largest fishing port in the country and the rich soils providing the ideal farming conditions for the early inhabitants of Torre Abbey and Cockington. What was once attractive to the cavemen of Kents Cavern is still attractive to the residents and visitors of today.

**Devonian – from around 420 to 360 million years ago:** The grey limestone rocks of the Bay, easily seen at Hopes Nose and Berry Head, were formed in warm tropical seas south of the equator. Corals and sponges abounded, building highly biodiverse reef-system. Meanwhile volcanoes blasted away, periodically blanketing the sea floor with ash and debris.

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**Carboniferous – from around 360 to 299 million years:** Huge tectonic forces moved the Devonian sediments northwards, and they were squashed, folded and faulted when two continents collided, and a giant mountain range formed as a result.

**Permian – from around 299 to 252 million years ago:** The mountains began to erode away in the middle of a some of the hottest deserts ever known, leaving the ancient limestone and other rocks exposed at the surface. All the red rocks of the bay were formed in this desert, at a similar latitude to the Sahara today. Meanwhile giant 1.5m millipedes scurried around the wadis where the mountains met desert plains.

**Quaternary – from around 700,000 years ago:** Although having arrived at the same latitude as today, the region saw dramatic oscillations from warm Mediterranean-style climates to bitterly, cold Ice ages. During glacial conditions the English Channel was waterless and the local caves records show that giant extinct animals such as mammoths and lions inhabited these landscapes, along with some the earliest traces of people in Britain.

### Purpose of English Riviera UNESCO Global Geopark planning Briefing Document

The ERUGGp is committed to work with all relevant partners to support the retention of the Geopark status for the social and economic benefit of Torbay. As the importance of the Bay's geology fulfils the critical underlying criteria for the designation its consideration as part of the planning process alongside appropriate conservation, management and enhancement of the geosites is fundamental to the retention of the status.

**Geosite** - is a site within the Geopark of significant geological interest, and in the context of this briefing document a designated site.

#### **Key Objectives**

- To raise awareness and understanding of the UNESCO Global Geopark designation within Torbay Council Planning Department
- To ensure best outcomes of conservation, management and enhancement for all sites of geological importance that contribute to the retention of the UNESCO Global Geopark designation
- To endeavour to ensure no designated site is lost or damaged as the result of a planning decision
- To highlight and raise awareness that the bay has a number of sites of potential geological value that are currently undesignated and further sites could come to light in the future via removal of buildings, temporary exposures and in cleared road cuttings
- To ensure sites of potential geological value are considered, surveyed and if relevant, designated and taken into account to prevent loss or damage
- To ensure all members of the Geopark Management Group understand the importance of the Groups role and responsibility re commenting on planning applications
- To ensure consistency of approach

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- To maximise opportunities for the improvement of sites via planning conditions and Community Infrastructure Levy funding for the benefit of the community of Torbay
- To preserve the geological and geomorphological integrity of sites
- To preserve site visibility and availability for scientific and educational use
- To ensure workable, ongoing access arrangement after completion
- To work to protect the value of sites from any subsequent risks from changes in management, for instance due to new land ownership, tenants, or residents.

### Scope

This briefing document outlines the ERUGGp commitment to work with the Torbay Council Planning Department to protect, conserve and enhance geodiversity features of importance. It clarifies the approach and procedures the Geopark Management Group will follow in relation to planning applications and pre-applications that are on or near designated sites and where undesignated features of potential geological value or interest (be that scientific, historical, or cultural) may be found or exposed through the planning process. This process is not intended to delay the development process and will work within existing timeframes and national legislation whist protecting designated and undesignated sites for the retention of the UNESCO Geopark Status.

# **Relevance of Geodiversity – Conservation, Protection and Enhancement**

The conservation, protection and enhancement of the geodiversity of Torbay strongly contributes to and is essential for the retention of the UNESCO designation. However, it should be noted that the designation does not bring any additional legislation or protection for either Geodiversity or Biodiversity. Protection of both is reliant on existing national legislature. Equally it should be noted that designated sites for biodiversity, historical or cultural value are also relevant and contribute to the retention of the UNESCO designation.

#### **Geosites of Scientific Importance**

The Geopark designation is based on the 32 designated sites of scientific importance. All of the sites are of international, national, or regional scientific importance as recognised through their various designations (International - Geological Conservation Review (GCR), National – Site of Special Scientific Interest (SSSI), Regional – County Geological Site\* (CGS) known in Devon as Regionally Important Geological and Geomorphological Site\* (RIGS). A table of all designations as of September 2020 can be found in Appendix 3. \* The designation nomenclature for CGS and RIGS is interchangeable as the two terms are effectively synonymous.

Sixteen of the Geosites are of *at least* national importance as selected through the national Geological Conservation Review (GCR), but fifteen of these are also of international importance, as recognized within Global Geosites categories established for the UK and Ireland. The most important GCR sites are Lummaton Quarry, a locality fundamental to the original characterisation of the Devonian time period by Sir Roderick Murchison and Professor Adam Sedgwick in 1839, and the Quaternary record at Kents Cavern, which includes a remarkable succession of use by at least three

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subspecies of hominid, *Homo heidelbergensis*, *Homo sapiens neanderthalensis* and *Homo sapiens sapiens*. The complete list of GCR sites is: Babbacombe Cliffs (Marine Devonian), Daddyhole (Marine Devonian), Dyers Quarry (Marine Devonian), Hope's Nose to Walls Hill (Marine Devonian), Hope's Nose (Mineralogy of SW England), Kents Cavern (Quaternary of SW England), Long Quarry (Marine Devonian), Lummaton Quarry (Marine Devonian), Meadfoot Sea Road (Marine Devonian), New Cut ( Marine Devonian), Oddicombe (Permian /Permo-Triassic), Roundham Head (Permian/ Permo-Triassic), Saltern Cove (Marine Devonian), Saltern Cove (Permian/ Permo-Triassic), Shoalstone (Permian / Permo-Triassic).

Details of GCR sites can be found on p. 4/5 of "Significance of the territory's geological heritage form the European/wider international perspective" here

<u>http://www.englishrivierageopark.org.uk/documents/Internationalsignificance.pdf</u> and within the following Geological Conservation Review volumes:

- Marine Devonian of Great Britain (2011) Proceedings of the Geologists' Association, Special Issue, Volume 122, Issue 4 Leveridge, B.E. (ed.) http://www.sciencedirect.com/science/journal/00167878/122/4
- **Permian and Triassic Red Beds and the Penarth Group of Great Britain** (2002) M.J Benton, E. Cook and P. Turner, http://jncc.defra.gov.uk/page-2967
- Quaternary of South-West England (1998) S. Campbell, C.O. Hunt, J.D Scorse and D.H. Keen http://jncc.defra.gov.uk/page-3007

A total of twenty of the geosites fall within the eleven nationally designated geological Sites of Special Scientific Interest (SSSI) areas. These are: Babbacombe Cliffs, Berry Head to Sharkham Point, Daddyhole, Dyers Quarry, Hope's Nose to Walls Hill, Kents Cavern, Lummaton Quarry, Meadfoot Sea Road, New Cut, Roundham Head, Saltern Cove.

All SSSI's are protected under Wildlife and Countryside Act 1981, as amended by the Countryside Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006. Although damage to SSSIs is rare, Defra/Natural England have the power to prosecute anyone found to be damaging a SSSI. The majority of SSSIs in the ERUGGp are leased to Torbay Coast and Countryside Trust (TCCT) by Torbay Council. TCCT cares for and protects these sites in accordance with a Service Level Agreement (with Torbay Council) and a Higher-Level Stewardship agreement (with Defra/Natural England). Under the Conservation of Habitats and Species Regulation 2017, many sea caves along the coast and reefs in the bay fall within the protected Lyme Bay and Torbay Special Area for Conservation (SAC), which provides greater protection in recognition of the European level significance of the area's natural heritage. Whilst other important species and habitats are covered by the Tor Bay Marine Conservation Zone. A number of the Geosites are Scheduled Ancient Monuments, which are protected by national legislation (Ancient Monuments and Archaeological Areas Act 1979).

**Fifteen of the geosites are recognised as Regionally Important Geological and Geomorphological Sites (RIGS).** This second group of designated sites were selected by the Devon RIGS Group against more general criteria than SSSI, which whilst scientifically focused, also emphasises educational

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value. Devon RIGS Group is a voluntary organisation. The aims and objectives for RIGS designation and use are overseen by **UK Geoconservation** and recognised by **Natural England**.

At least 20 geosites of educational interest and used by schools and universities: Out of our 32 sites only two Brixham Cavern and Sharkham Iron Mine are not accessible either on foot or viewed from the sea for education. Access to particularly sensitive sites is by special arrangement only such as Lummaton Quarry. Many of the sites are used independently by visiting academic institutions or through organised education visits with the Geopark partners (including accompanied boat trips).

#### Condition assessment and management recommendations Report – 2019

In 2019 the ERUGGp commissioned a survey and report to record the condition and to provide management recommendations regarding all of the geosites of the Geopark. The aim of the survey and report was to provide a systematic review of the condition of the notified geosites within the Geopark area which had not previously been available through any other process and can now be used to inform future management. Crucially, the report established a monitoring baseline against which to assess change and the development of an appropriate methodology through which both SSSI and RIGS sites can be assessed and compared. A summary of the condition and recommendations for each site can be found in Appendix 4

#### **Management of the Geosites**

The ERUGGp is not directly responsible for the management of any of the Geosites, this falls to a mix of organisations and private owners. However, it is hoped that the wider importance of the international UNESCO designation to Torbay will help positively influence and act as a catalyst and support for the individual geosite owners, to ensure the sites are appropriately managed, conserved and enhanced.

# English Riviera UNESCO Global Geopark Procedures and comments in response to planning application consultations

Upon notification from planning, pre-applications or applications will be assessed by the Geopark Coordinator. If appropriate, the head of the Geopark Scientific Panel and the Geopark Management Group (GMG) will be consulted and applications tabled at the next full GMG meeting.

All cases, be they pre-application consultations or main application will be reviewed in confidence and where needed members of the GMG will declare conflict of interest and not participate in advance of any discussions taking place.

All applications will be reviewed on an individual basis based on the information provided solely by the Torbay Council Planning department and upon the surveys and reports made by the specialist geologist. There will be no opportunity for individual applicants to discuss or present to the Geopark Coordinator, individual members, or the full GMG.

In general, the following approach and comments will be made – however, it must be noted that the UNESCO Global Geopark status imposes no additional legislation over and above that which

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www.globalgeopark.org www.unesco.org/new/en/natural-sciences/environment/earth-sciences/unesco-global-geoparks already exists. Therefore, the decision to commission a survey or for a survey and works to be added as part of planning conditions rests with the planning department and the cost with the applicant.

### **Planning Protocol**

1. Planning applications on designated geological sites (i.e., geological Site of Special Scientific Interest (SSSI), Regionally Important Geological and Geomorphological Site (RIGS)), or applications near (within 50m) of a site that involve: excavation, soak aways, vegetation clearance or works which might impact future management of a geological feature, such as access requirements or opportunities to record geological features during construction.

A planning application is submitted to the Local Planning Authority (LPA) and must be accompanied by a completed Wildlife and Geology Trigger List to be validated. The applicant is required to fill in the trigger list and identify whether their proposal is on or within 50m of a designated site geological site using the Local Plan Polices Map/DCC Environmental Viewer/Defra MAGIC Map / Map in Appendix 5 of this document.

- 2. Where the Wildlife and Geology trigger list identifies that a geology report is required, the report shall be prepared by an appropriately qualified geologist (including with demonstrable experience in the relevant field of geology, such as Devonian palaeontology and stratigraphy, Permian stratigraphy and sedimentology, Variscan tectonic processes and structures or Quaternary stratigraphy and palaeontology). As a minimum, the report should include:
  - Demonstration that the mitigation hierarchy has been followed (No reasonable alternative sites, adverse effects will be avoided where possible, unavoidable impacts will be mitigated or reduced and impacts that cannot be avoided or mitigated will be compensated, ensuring that development decisions will safeguard the natural environment).
  - Identify the condition of the geological interest and any additional features which may require consideration and protection.
  - Identify if the application proposals put the site at risk of damage or loss.
  - Must make reference to the Geopark Condition Assessment and management recommendations for Torbay's Geosites report (2019, as compiled by Dr. K.N. Page).
  - Identify if further field exploration, drilling of boreholes and excavations are required to inform the full report.
  - Consider and provides recommendations regarding access and interpretation (of the heritage, environment and geology of the site) as is appropriate to its location, including improvements to open access with on-site or digital interpretation or through establishment of procedures for access by arrangement for academic research and digital interpretation, if the site is privately owned sites and open access is not feasible.

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Note: Any clearance to facilitate the survey will need to consider the geodiversity and biodiversity value of a site and adhere to all relevant legislation.

- 3. The LPA will formally consult the Geopark Coordinator.
- 4. For SSSI sites the LPA will consult Natural England as part of the formal consultation.
- 5. For RIGS sites the LPA will consult the Devon RIGS group as part of the formal consultation.
- 6. The Geopark will assess the Geology Report (available on the planning portal). In order to support the retention of the UNESCO designation, and in line with any recommendations within the appraisal, the Geopark may comment that it would welcome:
  - The provision of a management plan containing clear goals for the management of identified features and defined areas of value to protect and enhance, commensurate with the sites importance, may be sought as a planning condition, prior to commencement of development. This maybe a stand-alone plan or may form part of a formal Landscape and Environmental Management Plan (LEMP).
  - Contributions for site management, including access improvements and interpretation, may be sought as appropriate (in accordance with the Planning Contributions and Affordable Housing SPD).
  - Where appropriate, continued academic access for research may be required (for sites where there is no public access) and some form of guarantee for such access may be sought
  - A scheme of monitoring to be introduced.

Based on the material circumstances of the feature/site, the above will be adapted to individual cases as required and the Geopark will make further recommendations where appropriate following consultation with the full board should that be felt necessary.

Please see the Flow Chart in Figure 1 below.

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#### ERUGGp Briefing Document for Planning V4 – updated April 2024



Figure 1 Planning Protocol Flow Chart

# 2. Planning applications on or near (within 50m) undesignated geological sites, new or temporary exposures of potential geological interest (old quarries, cliff faces, caves or cuttings) or applications that would expose a new geological feature.

As mentioned above, within Torbay there are eleven geological SSSIs and sixteen RIG Sites. It is known, however, that a number of sites of geological significance currently remain undesignated and unprotected, and these could be in the form of an old quarry, cliff face or cutting. In addition, sites subject to coastal erosion on the foreshore or cliff face may be affected by some activities<sup>1</sup>. Additionally, new works or road cuttings may temporarily or permanently expose new sites of significance. Should any of these scenarios be relevant then:

- 1. A planning application is submitted to the Local Planning Authority (LPA) and must be accompanied by a completed Wildlife and Geology Trigger List to be validated. The applicant is required to fill in the trigger list to identify whether a development is on or near a potential site of interest or/and is likely to create a new exposure (see wildlife and geology trigger list).
- 2. The Local Planning Authority will consult the Geopark and the Devon RIGS group at validation.
- 3. The Geopark will make an assessment and comment whether a Geology Report is required (i.e. Steps 2 to 5 of the planning protocol above should be followed). See the flowchart in Figure 1
- 4. Should features of significant geological interest or value be identified, the Geopark may additionally recommend to the RIGS group that the site be considered for designation. The Geopark may comment that planning seek appropriate funding to support this process through planning contributions.

#### Geological terms and understanding:

For clarity and to prevent misunderstandings, when considering Geopark comments, site surveys and when writing planning conditions, it is important to note the difference between *structural safety* and *structural geological* features. In particular, care should be taken to ensure the assessment and importance of structural geological features are not confused with aspects related to the structural safety of the site.

**Structural safety** – relates to the physical safety of the site in relation to loose rocks, the potential for landslide or rock fall or collapse and should be assessed separately by a structural engineer or geotechnical specialist.

**Structural geological features** – are the three-dimensional record in the rock that provide evidence of past tectonic activity, which is visible in the form of folds and faults of varying size and scale. Many sites in Torbay are of importance and designated because of their structural geological features. This geoscientific discipline is particularly relevant to the phase of tectonic activity at the end of the Carboniferous time period and the beginning of the Permian known as the 'Variscan

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<sup>&</sup>lt;sup>1</sup> These may be identified in the <u>South Devon and Dorset Shoreline Management Plan</u> (SSDSMP), or within the Undeveloped Coast under Policy C3 of the <u>Torbay Local Plan 2012-2030</u>.

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Orogeny', and which is recorded in the limestones and other rocks of the Geopark as folds, faults and mineralised fissures. Such sites are a key aspect of the designation.

It should be noted that structural safety of a site is purely the responsibility of the site owner and that safety is of relevance to individual site designation and the contribution of that site to the retention of the UNESCO status. Both structural safety and structural geological features are of relevance to the retention of the UNESCO Global Geopark status.

### Timing

ERUGGp is reliant on Torbay Council Planning Authority to notify and/or formally consult the Geopark Coordinator in respect of any relevant applications at the earliest convenience.

ERUGGp will endeavour to respond within the statutory consultation deadlines (usually 21 days from the date of the consultation letter). If discussion by the GMG is required but a meeting not scheduled to take place before the deadline for response the members will be consulted via email.

### **Document Management**

This document has been approved by the ERUGGp GMG in consultation with Torbay Council Planning Department as a trial briefing document so that the principles can be established but the flexibility to work through the protocol can be tested, adapted, and changed by both parties.

It will be published and then subsequently reviewed at the end of year one and then at least once every five years or to respond to changes in planning policy.

Torbay Council Planning Department will be consulted about and notified of any changes and be made aware of the implications of any such changes to the briefing document.

Version Number	Date approved	Reason for change
1	9 March 2022 -	Creation of policy as working
		uocument
2	25 September 2023	Annual review
3	09 October 2023	Review
4	04 April 2024	<b>RIGS in Torbay map added</b>

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### **Appendix 1 Geopark Management Group Membership**

GMG membership is made up of partners representing organisations that have a remit and/or a desire, to deliver the Geopark's ambitions in Torbay and to retain the designation.

- Chairman
- Geopark Coordinator
- Two Torbay Council Councillors determined by the current administration
- Torbay Council Service Manager for Culture and Events
- Torbay Council Senior Projects Officer, Culture and Events
- Torbay Council Marketing Officer, Culture and Events
- Chair of the ERUGGp Scientific Panel
- Kents Cavern private sector geosite operator
- Torbay Coast and Countryside Trust charitable trust delegated responsible for the management of 1750 acres of Torbay Council owned coastal, countryside and farming area which includes the majority of the sites of special scientific interest and a National Nature Reserve.
- English Riviera Tourism BID Company- responsible for destination marketing and in resort quality
- Torbay Development Agency– public sector economic regeneration of Torbay.
- **Torbay Community Development Trust** charitable organisation with a remit to make Torbay a place where all people feel included and can become involved in growing a thriving local community.
- Torquay Museum- charitable museums services provider
- Brixham Heritage Museum charitable museum service provider
- Torre Abbey– public sector historic house and gallery visitor centre
- Cockington Court art and craft centre, innovation centre and retail experience
- Local Schools representative primary and secondary education providers
- Local University representative scientific and further education establishment with specialism in Geosciences, Environmental Sciences and Marine Sciences

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### **Appendix 2: Geopark Core and Associate Partners**



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### Appendix 3: Table 1 English Riviera UNESCO Global Geopark designated geology sites (Sept 2020)

				Designation		
Site No.	Site Name	Site Owner/ Land	Grid Bef	GCB	SSSI	RIG
1	Babbacombe Cliffs: Marine Devonian.	TC	SX928662 TO SX930655	V		
2	Barcombe Mews Quarry, Shorton	Private	SX86SE1			$\checkmark$
3	Barton Quarry	Private	SX913671			$\checkmark$
4	Berry Head to Sharkham Point	тсст	SX937568, SX947565, SX937546		$\checkmark$	$\checkmark$
5	Black Head and Anstey's Cove	тсст	SX932654 TO SX9444633 AND SX9444628		√	$\checkmark$
6	Breakwater Quarry,Brixham	тс	SX95NW1			$\checkmark$
7	Brokenbury Quarry, Churston Ferrers	Private	SX855E1			$\checkmark$
8	Brixham Cavern	Private	SX925560			$\checkmark$

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9	Chapel Hill,Torre	тс	SX96NW1			$\checkmark$
10	Churston Cove- Churston Point	тсст/тс	SX920569			$\checkmark$
11	Crystal Cove to Goodrington	тсст/тс	SX896580- SX895595			$\checkmark$
12	Daddyhole:Marine Devonian	тсст	SX927628	$\checkmark$	$\checkmark$	
13	Dyers Quarry:Marine Devonian	тсст	SX922628	$\checkmark$	$\checkmark$	
14	Goodrington Quarry and Road Cutting	тс	SX892581 & SX893581			$\checkmark$
15	Hollicombe Head to Corbyns Head	тс	SX898619- SX908633			$\checkmark$
16	Hopes Nose to Wall's Hill	тсст	SX932654 TO SX944633 and SX944628	$\checkmark$	$\checkmark$	
17	Hopes Nose: Mineralogy SW	тсст	SX932654 to SX944633 and SX944628	$\checkmark$	$\checkmark$	
18	Hopes Nose and Thatchers Rock	тсст	SX932654 to SX944633 and SX944628		$\checkmark$	
19	Hopes Nose South	тсст	SX932654 to SX944633 and SX944628		$\checkmark$	$\checkmark$
20	Kents Cavern Quaternary SW	Private	SX934641	$\checkmark$	$\checkmark$	
21	Long Quarry: Marine Devonian	тсст	SX932654 to SX944633 and SX944628	$\checkmark$	$\checkmark$	

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22	Lummaton Quarry: Marine Devonian	тс	SX912665	$\checkmark$	$\checkmark$	
23	Meadfoot Sea Rd: Marine Devonian	тс	SX934633	$\checkmark$	$\checkmark$	
24	New Cut: Marine Devonian	Private	SX9353, SX6575	$\checkmark$	$\checkmark$	
25	Oddicombe: Permian-Triassic	тс	SX928662 TO SX930655	$\checkmark$	$\checkmark$	
26	Petitor, Maidencombe	тсст/тс	SX927663			$\checkmark$
27	Quarry Woods Quarry, Cockington	тсст	SX96SE1			$\checkmark$
28	Roundham Head: Permian Triassic	тсст/тс	SX898601	$\checkmark$	$\checkmark$	
29	Saltern Cove: Marine Devonian	тсст	SX895585	$\checkmark$	$\checkmark$	
30	Saltern Cove: Permian Triassic	тсст/тс	SX895585	$\checkmark$	$\checkmark$	
31	Sharkham Iron Mine	тсст	SX937568, SX947565, SX937546	$\checkmark$		$\checkmark$
32	Shoalstone: Permian- Triassic	тс	SX937568 , SX947565, SX937546	$\checkmark$		

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### Appendix 4 : Site condition assessment and

#### recommendations summary

Taken from *The Geological Heritage of the English Riviera UNESCO Global Geopark: Condition Assessment and management recommendations for Torbay's Geosites*. It should be noted that the recommendations and actions below are based on site conditions as of 2019 and are therefore reviewing and updating these against the current condition of each site at the time of a planning application will be required. Additionally more information, photos and comments can be found in the full report.

### Babbacombe Cliffs SSSI - Overall assessment: Favourable-maintained

**Interest Features:** Babbacombe Cliffs GCR site (Marine Devonian), Oddicombe GCR site (Permian-Triassic) (ESCC categories: Inland Outcrops (EO), Coastal Cliffs and Foreshore (EC)).

Unit 1: Exposures of Torquay Limestone Fm. in coastal slope, Babbacombe Downs (EO):
Unfavourable-no change
Unit 2: Exposures of Oddicombe Breccia behind Oddicombe Beach infrastructure (EO):
Unfavourable-declining
Unit 3: Foreshore and cliff exposures of 'Babbacombe Shales'/ Half Tide Rock (EC):
Favourable- maintained
Unit 4: Coastal cliffs and landslip in Oddicombe Breccia Fm. (EC): Favourable-maintained
Unit 5: Coastal Cliff and coastal slope exposures, Petit Tor Point (EC/EO). Favourable-maintained

#### **Recommendations and Action Points**

- 1. Initiate survey of exposures of Barton Limestone, etc. in wooded slopes of Unit 1 to identify key exposures for future clearance and maintenance programme. Winter survey is recommended when vegetation levels are low.
- 2. Survey exposures of Oddicombe Breccia in Units 2 and 4 and identify key areas to maintain as exposure and/ or restore exposure (including through vegetation clearance). Winter survey is recommended when vegetation levels are low.
- 3. Development of on-site and downloadable interpretation and educational materials for site visitors (including better positioning of existing sign-board/ boards). Developing links with beach café, etc, could be successful.

### Barcombe Mews CGS - Overall assessment: Favourable-maintained

Interest Feature: Permian (ESCC categories: Disused Quarries and Pits (ED)).

#### **Recommendations and Action Points**

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- 1. Identify contact point for quarry access and management (e.g. Resident's Group).
- 2. Ensure that vegetation and any tipped material is regularly cleared and face is inspected for any potential safety issues.
- 3. Provide information for local residents and visitors on the significance of site and liaise over levels and type of access which would be considered acceptable.
- 4. Re-digitisation of site boundary necessary to include documented interest features (Action Point added 2023)]

### Barton Quarry CGS - Overall assessment: Unfavourable – declining

**Interest Feature:** Marine Devonian (ESCC categories: Disused Quarries and Pits (ED ); Inland Outcrops (EO))

#### **Recommendations and Action Points**

- 1. Identify contact point for quarry access and management (e.g., Resident's Group) and Discuss significance of site with owners and managers to ensure aims of designation and management are fully understood.
- 2. Initiate survey of site to document surviving features and identify key areas for scientific study and vegetation clearance. Winter survey advised when vegetation is low.

### Berry Head to Sharkham Point SSSI - Overall assessment: Favourable-

maintained

*Interest Features*: Shoalstone GCR site (Permian-Triassic); Sharkham Point to Berry Head CGS (Marine Devonian, Permian, Mineralogy, Quaternary) (ESCC categories: Coastal Cliff and Foreshore (EC), Disused Quarries and Pits (ED), Finite Mineral, Fossil Or Other Geological Features (FM), Karst (IK), Caves (IC), Static (Fossil) Geomorphological (IS)).

**Unit 1:** Exposures of Sharkham Point Mb., Sharkham Point in cliffs, foreshore and coastal slope, including mineralisation: (EC): *Favourable–maintained* **Unit 2:** Exposures and talus of St. Mary's Bay Mb., St. Mary's Bay in cliff, foreshore and

coastal landslip (EC): Favourable–maintained

**Unit 3:** Exposures of Berry Head Mb. (including structural geology features), in cliffs, shore platform and coastal slope around Berry Head (EC): *Favourable–maintained* 

**Unit 4:** Exposures of Berry Head Mb. (Brixham Limestone Fm.) in Berry Head Quarry (ED): *Favourable–maintained* 

**Unit 5:** Exposures of Berry Head Mb. with Permian sandstone dykes in cliffs and foreshore of Shoalstone Beach (EC): *Favourable–maintained* 

**Unit 6:** Exposures of iron ore deposit of Sharkham Mine in coastal slope (ED): *Favourable– maintained* 

**Unit 7:** Raised Beach and platform at Shoalstone Beach (IS): *Favourable–maintained* **Unit 8:** Caves and passages in and under Berry Head (IC/ IK): Not assessed

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#### **Recommendations and Action Points**

- 1. Ensure that any proposals for coastal protection or other engineering works or development do not lead to the loss of key geological features, in particular around Shoalstone Beach and in St Mary's Bay.
- 2. Discourage unsustainable recreational fossil collecting to ensure that specimens remain available for other visitors to see.
- 3. Ensure that the conservation of bats in caves and other biological features is fully integrated with geoconservation objectives.
- 4. Promote the production and implementation of a Cave Conservation Plan for the Berry Head Caves.

### Breakwater Quarry, Brixham CGS - Overall assessment: Unfavourable -

declining

Interest Features: Permian (ESCC categories: Disused Quarries and Pits (ED)).

#### **Recommendations and Action Points**

- Ensure that vegetation growth is controlled and clearance undertaken to re-expose key areas of the site, for instance along the NE face (N.B. clearance of developing vegetation, especially trees, may improve long-term quarry face stability and hence safety – advice from appropriate technical specialist recommended).
- 2. If site clearance can be achieved, educational and interpretative use of the site can follow.

### Brokenbury Quarry, Churston Ferrers CGS - Overall assessment: Not

assessed

Interest Features: Structural Geology (ESCC categories: Disused Quarries and Pits (ED)).

#### **Recommendations and Action Points:**

- 1. Establish site access and complete condition assessment.
- 2. Ensure that vegetation growth and engineered stabilisation has not or does not lead to loss of exposure.
- 3. Investigated potential for improved access for educational and research groups in features of interest remain or can be recovered.
- The original CGS boundary from 1994 does not conform to the current site layout a new survey to document existing features followed by digitisation of a revised boundary is now required (Action Point added 2013)

Brixham Cavern CGS - Overall Condition Assessment: Not assessed (no public access)

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Interest Features: Quaternary (ESCC categories: Finite Mineral, Fossil or other Geological Feature (FM)).

#### **Recommendations and Action Points:**

- 1. Establish site access and complete condition assessment.
- 2. Initiate full engineering and environmental survey of cave to determine what measures might be required to stabilise conditions,
- 3. Incorporate recommendations of survey into a Cave Management Plan and implement

#### Chapel Hill, Torre CGS - Overall assessment: Favourable-maintained

**Interest Features:** Marine Devonian, Permian (ESCC categories: Disused Quarries and Pits (ED); Road, Rail and Canal cuttings (ER); Inland Outcrops (EO)).

Unit 1: Chapel Hill road cutting (ER): Favourable –maintained
Unit 2: Chapel Hill Quarry (ED): Favourable -maintained
Unit 3: Chapel Hill gardens (EO): Unfavourable –no change.

#### **Recommendations and Action Points**

- 1. Maintain roadside exposure (Unit 1), including removal of local surface coating, as practical.
- 2. Develop appropriate educational provision, including use of viewpoint. Consider including linked safety fencing along key areas of roadside exposure.
- 3. Winter survey of the woodland area is recommended to assess the scientific significance of the outcrops of Devonian limestone.

### Churston Cove to Churston Point CGS - Overall assessment: Favourable

maintained

**Interest Features:** Marine Devonian, Structural Geology (ESCC categories: Disused Quarries and Pits (ED); Coastal Cliffs and Foreshore (EC); Active Process Geomorphological (IA)).

Unit 1: Brixham Harbour Quarry (ED): Favourable –maintained.
Unit 2: Battery Gardens -Churston Cove (EC): Favourable –maintained.
Unit 3: Fishcombe Point to Elberry Cove (EC): Favourable –maintained.
Unit 4: The Grove-Marridge Wood quarries (ED): Unfavourable –no change
Unit 5: Churston Point (EC): Favourable –maintained.
Unit 6: Churston Cove Beach (IA): Favourable –maintained.
Unit 7: Elberry Cove (IA): Favourable –maintained.

#### **Recommendations and Action Points**

1. Ensure that coastal defence and other engineering or development works do not lead to a net loss of key exposures, in particular in the Brixham Harbour area.

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- 2. Survey coastal exposures not accessible form land, including disused quarries, to identify any key features that have not been documented.
- 3. Develop educational and interpretative provision, for instance through collaboration with beach cafes.

[4. Ensure that Structural Geology, Quaternary and Coastal Process features are also safeguarded (Action Point added 2023)]

#### Daddyhole SSSI - Overall assessment: Favourable – maintained

**Interest Features:** Daddyhole GCR site (Marine Devonian) (ESCC categories: Disused Quarries and Pits (ED); Coastal cliff and foreshore (EC)).

Unit 1-Triangle Point (EC): Favourable –maintained.
Unit 2–Daddyhole Quarry (ED): Favourable –maintained.
Unit 3–Daddyhole Cove (EC); Favourable –maintained

#### **Recommendations and Action Points**

- 1. Ensure that cliff stabilisation does that prejudice key exposures, whilst improving safe access to Triangle Point.
- 2. Place signs and/or interpretation to help protect sensitive exposures from irresponsible attempts to collect specimens.
- 3. Provide/ excavate steps to improve safe access for visitors to Triangle Point exposure, including marking recommended walking areas to reduce any potential damage to rock surfaces (e.g., polishing of key fossil-bearing surfaces).

### Dyers Quarry SSSI - Overall assessment: Favourable-maintained

**Interest Features:** Dyers Quarry GCR site (Marine Devonian) (ESCC categories: Disused Quarries and Pits (ED); Coastal cliff and foreshore (EC)).

Unit 1: Dyer's Quarry (ED): *Favourable-maintained* Unit 2: London Bridge and sea cliffs (EC): *Favourable-maintained* 

#### **Recommendations and Action Points**

- 1. Place signs and/or interpretation to help protect sensitive exposures from irresponsible attempts to collect specimens.
- 2. Consider improving access for guided visitors, in conjunction with safety works on slopes/ rock faces above.

### Goodrington Quarry and Road Cutting CGS - Overall assessment:

Unfavourable -declining

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**Interest Features:** Marine Devonian, Structural Geology (ESCC categories: Road, Rail and canal cuttings (ER); Disused cuttings and Quarries (ED)).

**Unit 1**–Goodrington Cutting East: *Unfavourable -declining* **Unit 2**–Goodrington Cutting West: *Unfavourable -declining* **Unit 3**–Goodrington Quarry: *Unfavourable -declining* 

#### **Recommendations and Action Points**

- Due to the very poor condition of the site, survey is essential (for instance in winter when vegetation is low) to determine if it is recoverable. Examination of the overgrown sections in the adjacent Waterside Road to the east is also recommended as preliminary examination during this survey indicated the presence of fossiliferous horizons (which are no longer easily accessible within the CGS).
- Topographical mapping and aerial images from 2023 as incorporated in this report suggest that the development observed from Location 5 lies outwith the CGS Boundary. Investigation of the area is nevertheless advised to confirm the extent to which any further development in this might have the potential to impact on Unit 3 [Note added in 2023].

### Hollicombe Head to Corbyns Head CGS - Overall assessment: Partially

destroyed

Interest Features: Permian (ESCC categories: Coastal Cliffs and Foreshore (EC)).

Unit 1-Hollicombe Head: Favourable-maintained
Unit 2-Hollicombe Beach: Partially destroyed.
Unit 3-Livermead Head: Favourable-maintained.
Unit 4-Corbyn's Head: Favourable-maintained.

#### **Recommendations and Action Points**

- 1. Ensure that no further cliff stabilisation and foreshore works lead to the loss of key exposures through liaison with TC (including investigating solutions to beach closures, etc)
- 2. Investigate potential for re-instatement of some areas of exposure at Hollicombe Beach.
- **3.** Develop educational and interpretative potential of publicly accessible areas.

#### Hopes Nose to Walls Hill SSSI (including Black Head to Anstey's Cove CGS and

Hopes Nose CGS) - Overall assessment: Favourable-maintained

**Interest Features:** Hopes Nose GCR site (Marine Devonian); Long Quarry GCR site (Marine Devonian); Hopes Nose GCR site (Mineralogy); Hope's Nose and Thatcher's Rock, Devon GCR site (Pleistocene-Quaternary of SW England); Black Head to Anstey's Cove CGS (Igneous rocks), Hopes Nose CGS (Structural Geology) (ESCC categories: Disused Quarries and Pits (ED); Coastal cliff and

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foreshore (EC); Finite Mineral, Fossil or other Geological Feature (FM); Static (Fossil) Geomorphological (IS)).

**Unit 1**-Hope's Nose Quarry, including rock faces and talus (Marine Devonian (GCR) Structural Geology (CGS)) (ED): *Favourable-maintained* 

**Unit 2**: Hopes Nose rock-platform exposure (Marine Devonian (GCR); Structural Geology (CGS)) (EC): *Favourable-maintained.* 

**Unit 3** –Hopes Nose sea-cliff (Marine Devonian (GCR); Structural Geology (CGS)) (EC): *Favourable-maintained* 

**Unit 4**-Long Quarry rock platform and adjacent coastal cliff (Marine Devonian) (ED): *Favourable-maintained* 

**Unit 5**–Long Quarry rock faces (Marine Devonian) (ED): *Favourable-maintained* **Unit 6**-Redgate Beach cliffs (Marine Devonian) (EC): *Favourable-maintained* 

Unit 7-New Quarry, Walls Hill (Marine Devonian) (ED): Unfavourable – no change.

Unit 8-Shelter Cove to Bathing Cove cliffs (Marine Devonian) (EC): Not Assessed.

**Unit 9**-Black Head to Anstey's Cove (Igneous Rocks/ Marine Devonian) (EC): *Favourable-maintained* 

Unit 10–Shennell Cove, Hopes Nose (Marine Devonian)(EC): *Favourable-maintained* Unit 11-Hope Cove to Brandy Cove (Marine Devonian)(EC): *Favourable-maintained* Unit 12–Hopes Nose (Mineralogy of SW England) (IM): *Partly destroyed*.

**Unit 13**–Hopes Nose Raised Beach (Pleistocene/ Quaternary of SW England) (IS): *Favourable-maintained* 

**Unit 14**–Thatcher's Rock Raised Beach (Pleistocene/ Quaternary of SW England) (IS): *Not assessed.* 

#### **Recommendations and Action Points:**

- 1. Investigate potential 're-opening' of footpath to Redgate Beach.
- 2. Improve interpretative and educational provision across the site to aid management. Collaboration with beach café proprietors may be productive.
- 3. Monitor Hopes Nose quarry and rock platform area and periodically clear rubbish/ take legal action against those responsible. In particular, the lighting of fires on limestone outcrops must be deterred as it can be extremely damaging.
- 4. Ensure that geological sampling is only for research and educational purposes. N.B. no sampling of fossiliferous etched limestone surfaces at Hopes Nose, Long Quarry and New Quarry should be considered acceptable unless there is an exceptional justification. Collecting of fossils from loose material in Hopes Nose Quarry is, however, permissible for educational reasons, providing that rare species are deposited in an appropriate institution.
- 5. Initiate regular inspection of Mineralogical Interest at Hopes Nose (e.g., monthly/ bimonthly) and take immediate legal action should any new collecting/ excavation take place.
- 6. Further survey of the New Quarry area is necessary to confirm the continued presence of some of the fossiliferous features recorded by Scrutton (1978) which were not seen during the current survey (e.g., *Hexagonaria* colonies.)

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- 7. Investigate potential to replicate areas of etched coral-stromatoporoid-rich limestone outcrop and Hopes Nose and elsewhere to safeguard features against damage/ abrasion and provide materials for research and public display.
- 8. Arrange boat access for survey of Thatcher's Rock and sections of the sites not readily accessible from land.

### Kents Cavern SSSI - Overall assessment: Favourable-maintained

**Interest Features:** Kents Cavern GCR site (Pleistocene-Quaternary of SW England) (ESCC categories: Finite Mineral, Fossil or other Geological Feature (FM); Caves (IC), Disused Quarries and Pits (ED).

Finite Mineral, Fossil or other Geological Feature (i.e. fossiliferous cave deposits) (FM): Favourablemaintained

Caves (IC) (i.e., physical structure of the cave system): Favourable-maintained

#### **Recommendations and Action Points**

Following from the above, the Cave Conservation Plan in place will determine priorities for management of the Cave system. Crucially, the document includes a detailed five-year conservation plan identifying necessary ongoing conservation practice and setting targets.

### Lummaton Quarry SSSI - Overall assessment: Favourable-maintained

**Interest Features:** Lummaton Quarry GCR site (Marine Devonian) (ESCC category: Disused cuttings and Quarries (ED)).

Unit 1–Lummaton Quarry rock faces and access corridor defined by fencing (ED): Unfavourable-declining
Unit 2-Lummaton Hill, Exposure of Lummaton Shell Bed facies on platform at top of quarry (IM): Favourable-maintained
Unit 3–Quarry floor occupied by industrial units and adjacent areas: Partly destroyed.

#### **Recommendations and Action Points:**

- 1. Commission survey, for instance funded by industrial Estate management to identify key geological features within Unit 1 and Unit 3 as a guide to future use of the site, including clearance of key exposures.
- 2. Ensure that former access to both upper and lower levels of quarry is re-instated including by controlling vegetation growth and maintaining gated access at base and enforcing 5m clear-zone agreed with EN in 1999.
- 3. Ensure that users of industrial units do not dump materials within the geological site boundary fence –ensure that TC enforces compliance.

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4. Monitor Unit 2 to ensure that no unconsented collecting takes place, involve operators of industrial units as observers if possible.

### Meadfoot Sea Road SSSI - Overall assessment: Favourable-maintained

**Interest Features:** Meadfoot Sea Road GCR site (Marine Devonian) (ESCC categories: Coastal Cliff and Foreshore (EC); Inland Outcrops (EO)).

**Unit 1**–Manor Gardens (former sea-cliffs, with tree and scrub cover, behind coastal road) (EO): *Unfavourable-declining.* 

**Unit 2**-Meadfoot Beach (foreshore exposures in western and central part of beacs (EC): *Favourable-maintained.* 

**Unit 3**–Kilmorie Cliff (and foreshore exposures) (EC): *Favourable-maintained*.

#### **Recommendations and Action Points**

- Initiate survey to locate other exposures of Meadfoot Group in Unit 1 and determine if these make a meaningful contribution to the scientific interest of the SSSI as a whole. If not, extension of the SSSI to include important fossiliferous sections to the East of the Kilmorrie site and denotification of most of the wooded coastal slopes may be appropriate.
- 2. Ensure that any further proposals to renovate or repair Meadfoot Sea Road or Ilsham Marine Drive below Kilmorie, adequately consider the geological interest.
- 3. Incorporation into self-guided trails and provision of interpretation appropriate, including in collaboration with beach cafes.

#### New Cut SSSI - Overall assessment: Unfavourable-declining

**Interest Features:** New Cut GCR site (Marine Devonian) (ESCC category: Road, Rail and Canal Cuttings (ER)).

Unit 1-New Cut: Unfavourable declining

#### **Recommendations and Action Points**

- 1. Identify ownership of roadside banks/ former cutting.
- 2. Improve and maintain exposure, following initial survey to locate fossiliferous features (ideally during winter when vegetation is low).
- 3. Ensure that any sampling is only for scientific purposes as the exposure is very small.

### Petitor-Maidencombe CGS - Overall assessment: Favourable-maintained

**Interest Features:** Marine Devonian, Permian (ESCC categories: Disused Quarries and Pits (ED), Coastal Cliffs and Foreshore (EC), Inland outcrops (EO)).

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**Unit 1**–Petit Tor Point: Coastal Cliff and foreshore (Marine Devonian) (EC):*Favourable-maintained* 

**Unit 2**–Petit Tor Quarry: Disused Quarries and Pits (Marine Devonian) (ED):*Favourable-maintained* 

**Unit 3**–Petit Tor Beach Coastal Cliff and foreshore (Marine Devonian, Permian) (EC):*Favourable-maintained* 

Unit 4–Petit Tor Combe (EO): Inland outcrops (EO): Unfavourable -no change
Unit 5–Roundhouse Point to Smuggler's Hole: Coastal Cliff and foreshore
(Permian)(EC): Favourable-maintained
Unit 6–Watcombe Beach: Coastal Cliff and foreshore (Permian)(EC): Favourable-maintained

Unit 7–Watcombe Head to Maidencombe to Herrings Cove; Coastal Cliff and

foreshore(Permian)(EC):Favourable-maintained

Unit 8-Giant's Rock, Watcombe: Inland outcrops (EO): Unfavourable -no change

#### **Recommendations and Action Points**

- 1. Ensure that the collection of samples from in-situ is only for scientific and educational purposes (including of Permian trace fossils and mineralised fault structures).
- 2. Initiate survey of Petit Tor Combe to locate key geological exposures and clear vegetation to improve access. Winter survey is advised, when vegetation levels are low.
- 3. Investigate management of the Giant's Rock area and investigate if some vegetation clearance is permissible, for instance of young growth trees, to better reveal the former cliff.
- [4. As the Giants Rock locality (=Unit 8) may lie outwith the CGS boundary, revision of the boundary is recommended (note added 2023)]

### Quarry Woods Quarry, Cockington CGS - Overall assessment:

Unfavourable -No change

Interest Features: Marine Devonian (ESCC categories: Disused Quarries and Pits (ED)).

#### **Recommendations and Action Points:**

- 1. Clear vegetation and maintain exposure.
- 2. Investigate potential for educational use.

### Roundham Head SSSI - Overall assessment: Favourable-maintained

**Interest Features:** Roundham Head GCR site (Permian-Triassic) (ESCC categories: Coastal Cliff and Foreshore (EC); Inland Outcrops (EO)).

Unit 1–Roundham Head Cliffs: Coastal Cliffs and Foreshore (EC): Favourable-maintained
 Unit 2-Little Beach: Coastal Cliffs and Foreshore (EC): Favourable-maintained
 Unit 3–Roundham Hand gardens: Inland outcrops (EO): Favourable-maintained

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#### **Recommendations and Action Points**

- 1. Ensure that cliff stabilisation and foreshore works do not prejudice key exposures, inc through liaison with TC and owners of cliff-top properties.
- 2. Due to location within one of the most visited areas of Torbay, the area has a great potential for interpretation, especially as some exposures are accessible beside surfaced paths

### Saltern Cove SSSI/ Crystal Cove to Goodrington CGS - Overall

assessment: Favourable-maintained

**Interest Features:** Saltern Cove GCR site (Marine Devonian); Saltern Cove GCR site (Permian-Triassic)) / Crystal Cove to Goodrington CGS (Mineralogy, Structural Geology, Igneous rocks, Pleistocene-Quaternary) (ESCC categories: Coastal cliffs and foreshore (EC); Finite Mineral, Fossil Or Other Geological Feature (FM); Finite Buried Interest (FB)).

**Unit 1**–Broadsands to Crystal Cove coast: Coastal Cliffs and Foreshore (EC) (Mineralisation, Permian, Structural Geology): *Favourable-maintained*.

**Unit 2**-Crystal Cove (FM) (Mineralisation, Permian, Structural Geology): *Favourable-maintained*.

**Unit 3**–Shell Cove -Saltern Cove coast (EC) (Marine Devonian, Igneous): *Favourable-maintained*.

**Unit 4**–Saltern Cove Goniatite Bed (FM) (Marine Devonian): *Favourable-maintained*. **Unit 5**-Waterside Cove to Goodrington coast (EC) (Marine Devonian, Permian, Structural Geology): *Favourable-maintained*.

**Unit 6**–Goodrington Sands: Finite Buried Interest (Pleistocene-Quaternary): *Favourable-maintained.* 

#### **Recommendations and Action Points**

- 1. Ensure that coastal defence and other works do not threaten bedrock exposures or Quaternary deposits, especially key features.
- 2. Encourage geological / archaeological survey / study of submerged forest deposits, including to delineate their extent and hence inform beach management activities.
- 3. Monitor key palaeontological and mineralogical features regularly (e.g., at least seasonally) to ensure that damaging specimen collecting is not taking place (e.g., Crystal Cove mineralised features, Saltern Cove Goniatite Bed and *Taenidium* blocks and exposures between Waterside Cove and Goodrington Sands.
- 4. Develop procedure and reach agreement to collect key loose blocks with *Taenidium*, or parts of key surfaces, remove them to a safe location for further study and use for educational and interpretative activities.

### **Appendix 5: Map of RIGS Sites in Torbay**

www.englishriviergeopark.org.uk

www.globalgeopark.org



### Regionally Important Geological Sites in Torbay

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