cornwall environmental consultants LTD







Poldhu Cove
Beach Dune Management Plan

CEC3683 Making Space for Sand
13 October 2026

Document Control

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Rev A			
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Disclosure

The information, opinion and advice which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct and the British Standard for Biodiversity – Code of Practice for Planning and Development (2013). We confirm that the opinions expressed are our true and professional bona fide opinions

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Site and methods	
Purpose of report	To provide a Beach Dune Management Plan to guide restoration of habitats at Poldhu Cove to recognise the challenges of coastal change.
Site assessed	Poldhu Cove – Site 10
Area (ha)	0.3 ha
Location:	**Grid reference:** SW 66638 20000 **What3words:** easygoing.banks.spurned
Planning Authority Involved	Cornwall Council
Survey Methods	UK Habitat Classification Biodiversity Net Gain Condition Assessment
Date of Assessment	UK Habitat Classification: August 2023 BNG Condition Assessment: June 2025
Weather on date of assessment	UK Habitat Classification - Overcast, ~18°C BNG Condition Assessment: Sunny, ~17°C

1. Introduction

1.1. Background

1.1.1. Making Space for Sand is being delivered through Cornwall Council in collaboration Cornwall Wildlife Trust (CWT), University of Plymouth (UoP), South West Coastal Monitoring (SWCM) and Cornwall Community Flood Forum (CCFF). The project is funded by DEFRA as part of the Flood and Coastal Resilience Innovation Programmes (FCRIP), which are managed by the Environment Agency (EA). The programmes will drive innovation in flood and coastal resilience and adaptation to a changing climate.

1.1.2. The aim of the Making Space for Sand Project is to enable the creation of sustainable and resilient communities that can capitalise on their natural resource to increase economic and resilience opportunities. Encouraging the more sustainable use and development of the coastal fringe, will allow for a more natural, ecosystem approach to coastal management to be taken where traditional coastal protection is not possible.

1.1.3. Four zones have been identified to define the beach/dune area and are defined as:

1.1.4. Beach Zone – The wet beach area has been defined using Mean Low Water Spring (MLWS) and Mean High Water Spring (MHWS) contours extracted from all LiDAR data captured by SWCM. The Beach Zone will therefore encompass the area between the MHWS and MLWS contours, with volumes for this area extracted from each LiDAR surface.

1.1.5. Mobile Zone – This area is defined as the active dune face and embryo dune1 from MHWS +1 m to the back of the mobile area, often distinguished by vegetation depth or urban development. The Mobile Zone has been defined using aerial imagery from 2007 to 2021 and historic OS maps and has been verified through site visits.

1.1.6. Fixed Zone – This area is defined by permanent dune vegetation that may also include scrub or invasive species, effectively denoting vegetation atop sandy soil.

1.1.7. Developed Zone – This is defined as urban development areas (i.e., car parks, unnatural grassy areas, roads, houses etc.) which have been built atop previously present dune systems.

1.1.8. For the purpose of this report efforts have been concentrated on the Mobile and Fixed Zones as shown in Figure 1.

1.2. Aims and objectives

1.2.1. This report details the specific plans for the dunes at Poldhu Cove, it is supported by the overarching strategic document CEC3683 Beach Dune Management Plan Strategic Overview.

1.3. Site location

1.3.1. Poldhu Cove (Figure 1) is located on the western side of the Lizard Peninsula, on the south coast of Cornwall. The site is positioned about 1 mile northwest of Mullion. The site has a small, shallow embayment with cliffs to the north and south. To the top of the northern cliffs is a golf course (which in turn borders Church Cove). The site is owned and managed by the National Trust, there is a small car park on the adjacent side of the road to the east which is also operated by the National Trust.

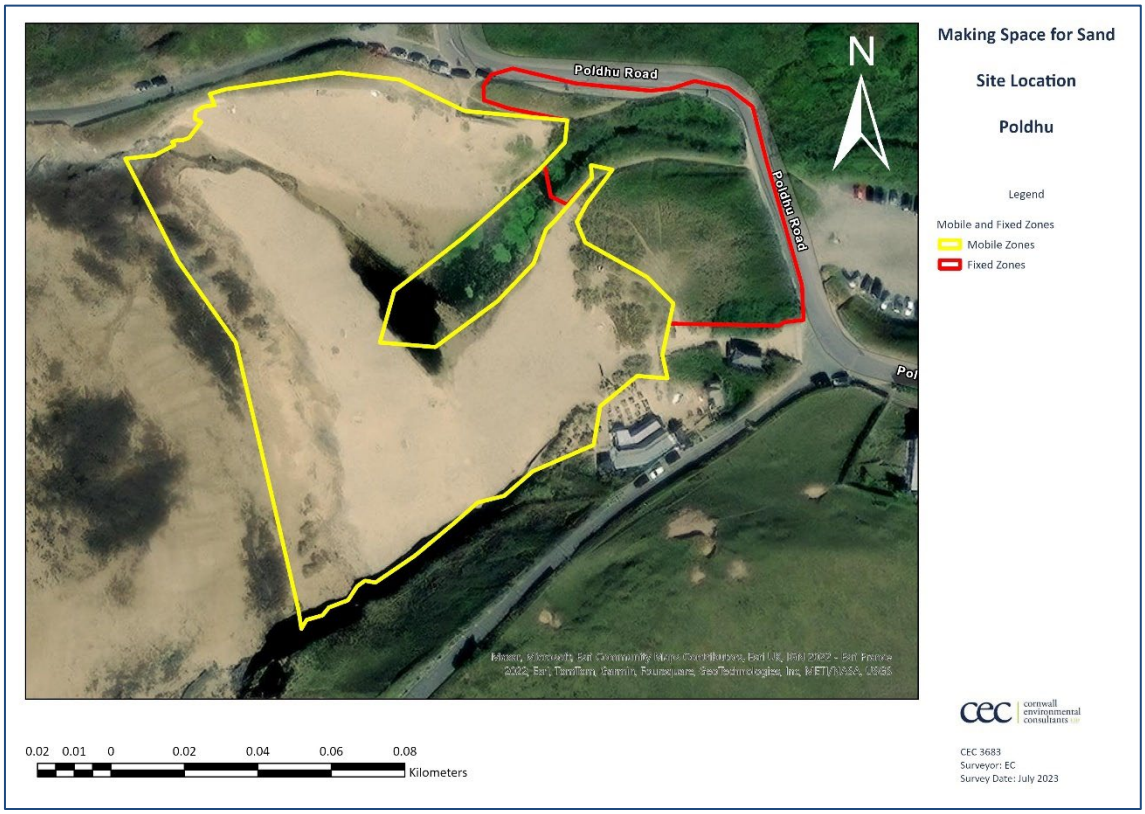


Figure 1: Site Location at Poldhu Cove showing Mobile and Fixed Zones

1.3.2. Poldhu Cove is a small dune complex nestled between cliffs on the west side of the Lizard Peninsula. The dune complex comprises a small section of embryo dune, with some dune grassland, fragmented patches of marram, and a large section of mixed and bramble scrub to the rear. The northern section of the site has a small watercourse flowing through from east to west which discharges to the sea at Poldhu Cove, this is flanked by reedbeds. The site is constrained by the road to the rear of the dune complex.

2. Shoreline Management Plan Policy Units

2.1.1. Shoreline Management Plan 2011 SMP2 - Cornwall Council

2.1.2. The Shoreline Management Plan (SMP), specifically SMP2 for Cornwall and the Isles of Scilly, is a strategic, long term coastal management policy document adopted by Cornwall Council. It provides a broad assessment of how the coast is likely to change over time and sets out recommended approaches for managing coastal erosion and flood risk in a sustainable way, more information about this plan can be found in the Beach Dune Strategic Overview Document.

2.1.3. Poldhu Cove dune is within Policy Development Zone 6 (PDZ 6) under Management Area (MA) 16. There are two Policy Units (PU's) associated with Poldhu Cove, PU16.1 is associated with the undefended cliffs and coves (Table 1) and PU16.3 is associated with Poldhu Cove, the beach and the dunes (Table 2). Within PU16.3 the assigned policy for all times frames is No Active Intervention. For the dune area, this means that the dunes should be allowed to respond naturally to sea level rise and continue to provide natural defence. There is also the sub policy of Local Activity Only, where works to repair or construct short stretches of defences within a long length of otherwise NAI shoreline might be permitted to provide local protection (e.g. to a slipway, access point or isolated properties).

Table 1: PU16.1 - Undefended Cliffs and Coves

Timeframe	SMP Policy	Sub Policy
Medium Term (2025 -2055)	No Active Intervention	Do not defend
Long Term (2055 - 2105)	No Active Intervention	Do not defend

Table 2: PU16.3 - Poldhu Cove

Timeframe	SMP Policy	Sub Policy
Medium Term (2025 -2055)	No Active Intervention	Local Activity Only
Long Term (2055 - 2105)	No Active Intervention	Local Activity Only

2.1.4. N.B the short-term timeframe ended in Cornwall in 2025.

2.1.5. Poldhu Cove and its small dune system are likely to experience increasing pressure, due to its south westerly orientation, it is exposed to the full effects of increasing storminess and sea level rise.

2.1.6. Poldhu Cove has been managed historically under a hold the line policy and low masonry walls at the rear of the northerly part of the beach protect the position of the Poldhu Road. These walls are currently maintained by the National Trust. The assessment of erosion risks indicates that there is no difference to the retreat and evolution of the beach under either the No Active Intervention (NAI) or With Present Management (WPM) scenario, WPM assumes that existing coastal management practices continue, including the maintenance of existing defences. However, in this location, the walls are situated beyond the limit of wave incursion and are therefore not considered to influence the predicted evolution of the beach. Equally, flood risk is unchanged under either scenario. Therefore, the preferred approach is to continue management under a PU16.3 NAI policy (Table 2) which does not preclude maintenance of the walls. This approach is also consistent with the National Trust's Shifting Shore strategy, which supports working with natural coastal processes while adapting the management of coastal assets over time.

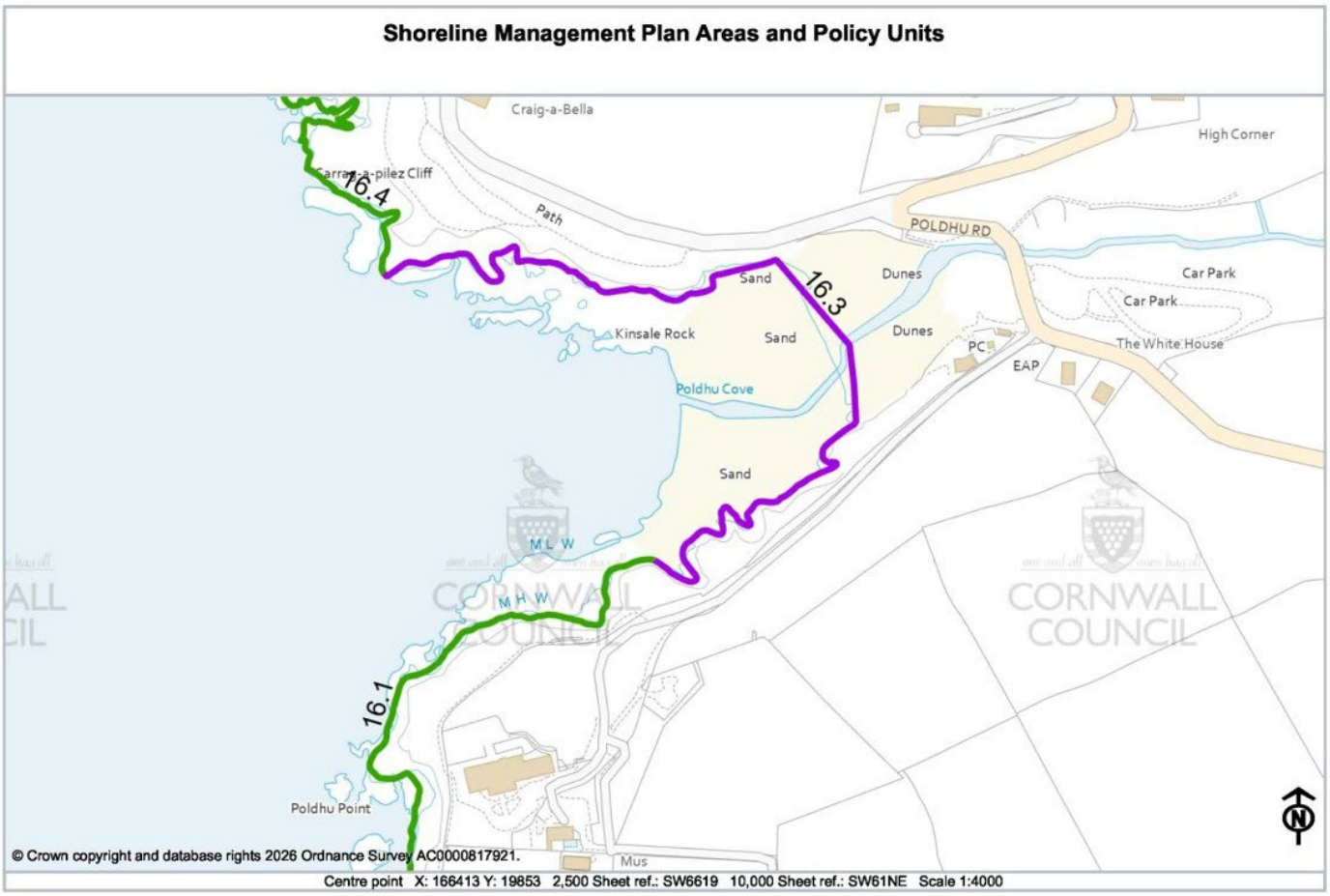


Figure 2: Shoreline Management Plan Areas and Policy Units

3. Historical Imagery and Mapping Change

3.1. Historical Imagery

3.1.1. A review of available historical map imagery (Georeferenced Maps viewer – Map images – National Library of Scotland, 2025) has been undertaken to assess the change in the dune at Poldhu Cove.



Figure 3: Historical Mapping from Poldhu Cove circa 1830-1880

3.1.2. The earliest available images date from the 1830-1880s, the most significant feature is the intertidal sand bank just above the low water mark of ordinary tides, the mapping suggests that the beach is a mix of shingle, pebbles and coarse sediment, with stones, with localised areas of sand. The symbols to the east of the map indicate salt marsh or tidal marsh vegetation which is still apparent today. The dune area appears to be in much the same place as it is currently, in the area at the top of the beach adjacent to the road, which was already in place at this time.

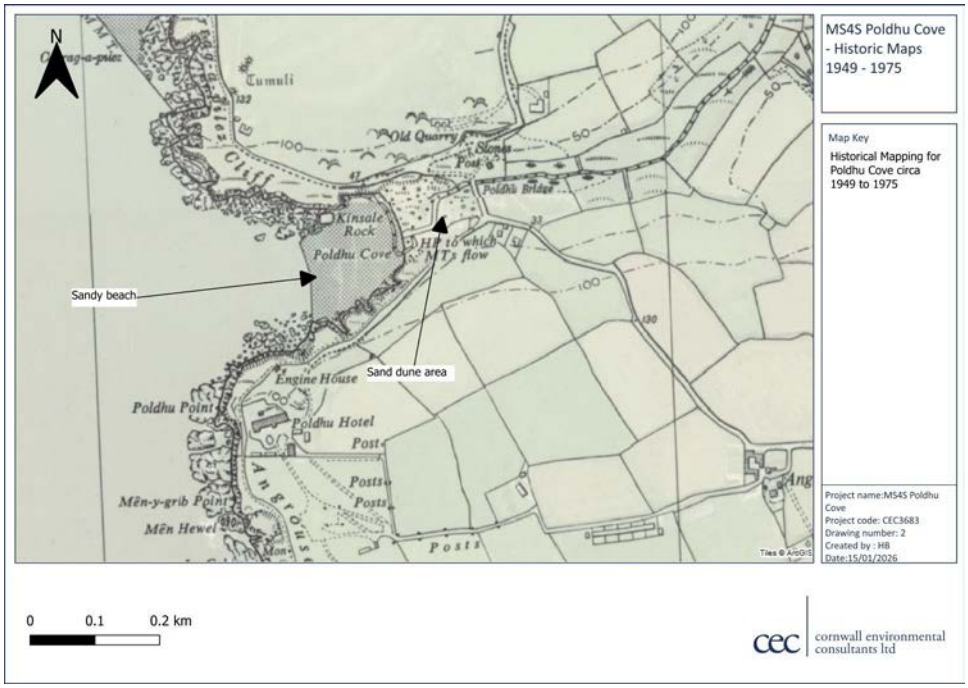


Figure 4: Historical Imagery from Poldhu Cove circa 1949-1975

3.1.3. Imagery from 1949–1974 indicates that the former tidal sand bar had, by this time, been absorbed into the main beach, resulting in a noticeably larger continuous sand area. The positions of both the sand dunes and the saltmarsh appear broadly unchanged from earlier mapping, suggesting that these features remained relatively stable during this period.



Figure 5: Aerial Imagery of Poldhu Cove (Date range 2014 – 2021)

3.1.4. Present day aerial photography shows that most of the observable change at Poldhu Cove has occurred within the sandy area of the beach. The only substantial development within the cove has been the

construction of the car park immediately south of the salt marsh. The main dune area remains broadly in the same location as shown on historic mapping, with no significant landward or seaward migration. As in the past, the movement of wind-blown sand is constrained by the road that forms a physical barrier at the back of the beach.

4. Historical Features and Designations

4.1. Historic Features

4.1.1. A review of historical features has been undertaken using Cornwall Council's historic and natural environment mapping. See Figure 6.

4.1.2. Historical Features within the dune include:

- WW2 Minefield – now demolished

4.1.3. Historical Features within 200m of the site include:

- WW2 building and pillbox
- 19th century engine house, pavilion and still existing bridge
- Medieval field boundaries
- Prehistoric, bronze age burial site and possible barrow

4.1.4. Coastal erosion and dune mobility may expose currently buried archaeological and historical features within the dune system. If archaeological remains or previously unrecorded historical features are exposed during management works or through natural erosion processes, works in the immediate area should cease and advice sought from Cornwall Council's Strategic Historic Environment Service (Historic Environment Record team).

4.1.5. Cornwall Council Historic Environment Service: https://www.cornwall.gov.uk/her Email: her@cornwall.gov.uk Tel: 0300 1234 202.

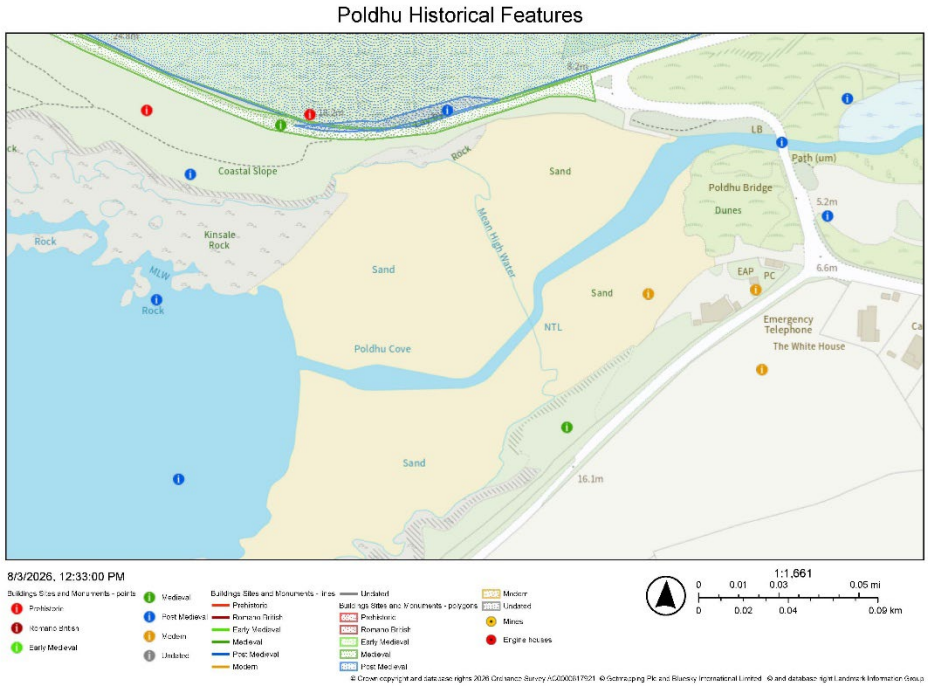


Figure 6: Historical Features within and adjacent to the Poldhu Cove Dune Area

4.2. Biological, Landscape and Geological Designations

4.2.1. Table 3 below identifies the statutory and non-statutory biological, landscape and geological designations assigned to Poldhu Cove and the coastline adjacent to the cove.

Table 3: Biological, landscape and geological designations affecting the site.

Category	Designation Type	Name / Status	*Designated for
Biological	Marine Special Area of Conservation (SAC)	Lizard Point (adjacent)	Annex 1 Habitats: 1170 Reefs
Biological	Special Area of Conservation (SAC)	The Lizard – covers the site	Annex 1 Habitats: 1230 Vegetated Sea Cliffs of the Atlantic and Baltic Coasts 3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. 3170 Mediterranean temporary ponds * Priority feature 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths 4040 Dry Atlantic coastal heaths with Erica vagans * Priority feature
Biological	Special Protection Area (SPA)	None	N/A
Biological	Marine Conservation Zone (MCZ)	None	N/A
Biological	Site of Special Scientific Interest (SSSI)	Baulk Head to Mullion	Maritime grasslands; maritime rock-crevice community; strandline vegetation; wet grassland; extensive reedbeds (breeding warblers, Odonata, rare bryophytes)
Biological	Local Nature Reserve (LNR)	None	N/A
Biological	County Wildlife Site (CWS)	None	N/A
Landscape	Cornwall National Landscape	South Coast – Western ID4	“soft profile” landscape characteristics; tall cliffs with small coves; the Helford river
Landscape	Conservation Area	None	N/A
Geological	Geological Site of Special Scientific Interest (SSSI)	None	N/A
Geological	Cornwall Geo Conservation Site	None	N/A
NB: Not all of the designations identified above fall within or directly overlap the site; some are adjacent to the dune system and have been included for ecological context. Dune restoration and management activities are unlikely to adversely affect these adjacent designations and would not normally require specific consent where works do not directly affect the designated site or its qualifying feature.			

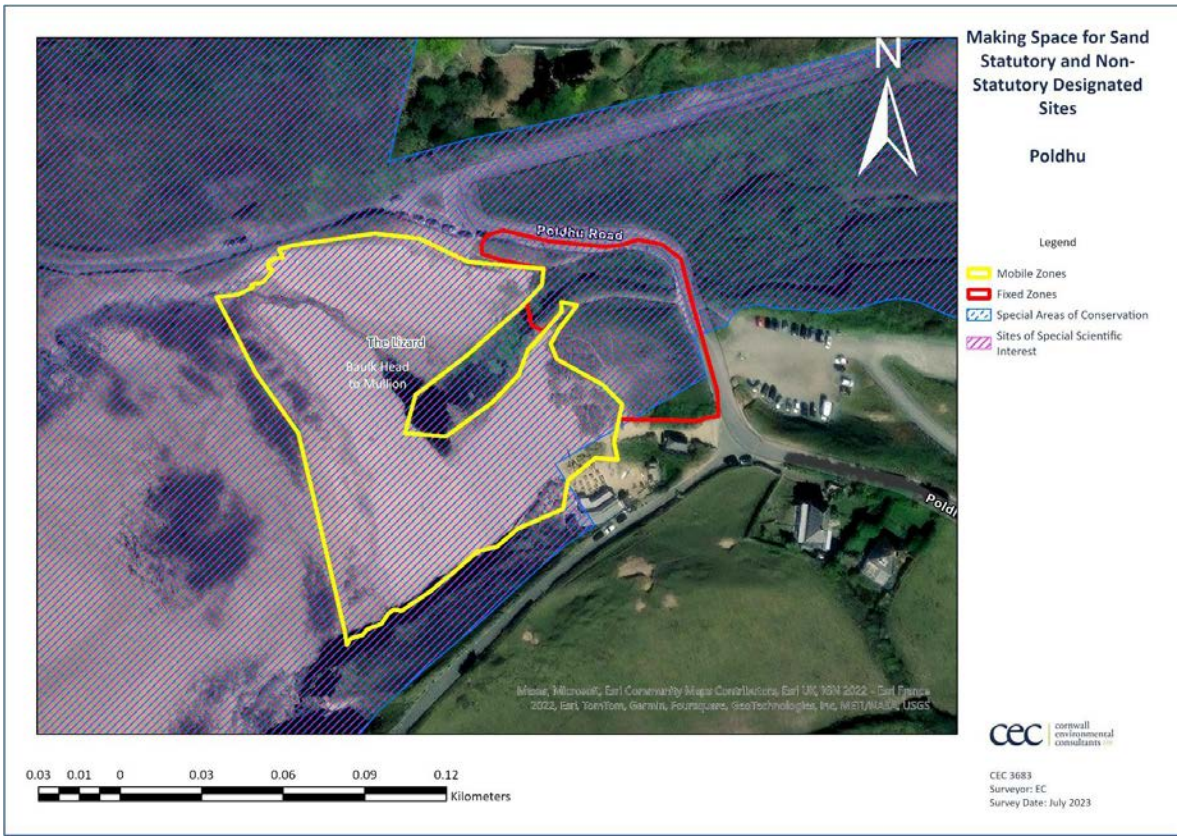


Figure 7:Biological Designated Sites in relation to Mobile and Fixed Zones

5. Ecology

5.1. Baseline

5.1.1. A UK Habitat Classification baseline survey for Poldhu Cove was undertaken in August 2023, and a BNG condition assessment took place in June 2025, see Figure 8.

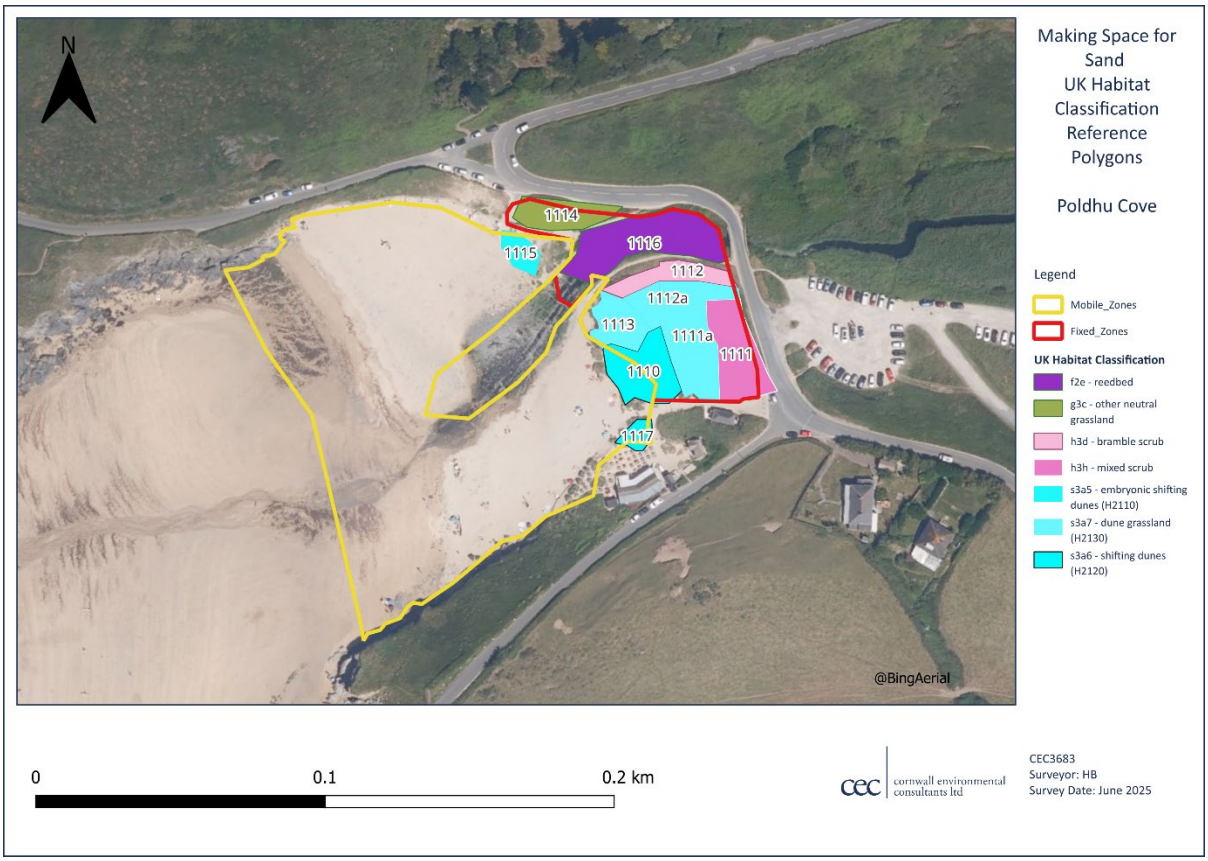


Figure 8: Baseline Habitats

5.2. Reference Ecosystems

5.2.1. Through the assessment of historic mapping, it is assumed that the reference ecosystem is a mosaic of embryo dune, shifting dune with marram and dune grassland. Although this habitats extent is remaining and growing a significant amount has been dominated by scrub causing over stabilisation and is also under pressure from invasive species.

5.2.2. The UK Habitat Classification of embryonic dune references the species sea rocket, lyme grass and sand couch, for shifting dune with marram refences the species marram, sea sandwort and sea couch. For dune grassland the species referenced are red fescue, lady's bedstraw, pyramidal orchid and wild thyme.

5.3. Habitat Mapping

5.3.1. As an output of the Making Space for Sand project habitat mapping was carried out at this location. This was done based on UK Habitat Classification, with a project specific methodology for scrub habitat. This was due to there being no suitable classification of 'dune scrub'. As a result, any scrub on dunes was mapped within the scrub broad habitat category in order to make more meaningful restoration gains to

dune habitat.

5.4. Site survey recorded habitats.

5.4.1. Across the site 0.3ha of vegetated habitat was mapped. Bare sand extending towards the seaward edge was not mapped.

Embryo Dune (s3a5)

5.4.2. Seaward of the dune complex, along the strandline is a small area of embryo dune (polygon 1115) this is 0.01ha, ~4% of the site area. Species recorded in this habitat type include sea rocket and sea kale, these species are typical of this habitat and will start to bind the sand to allow further dune formation.

5.4.3. The natural shift of the river mouth has the potential to impact this habitat in cases of a high amount of water flowing downstream. The habitat could also be impacted by storm and erosion damage.

5.4.4. Although the SMP notes periods of sand loss and historic sand removal pressures along the wider beach, recent University of Plymouth data, as part of the wider partnership of the MS4S proect have shown indicates that the dune-face itself is currently experiencing localised accretion. This accumulation of sand is beneficial for dune development, helping to initiate embryo dunes and support the natural successional process.

Shifting Dune (s3a6)

5.4.5. To the south and west of the dune complex is Shifting Dunes with Marram (s3a6) area which equates to ~0.05ha, approximately 15% of the site. This habitat type refers to polygon 1110 and 1117 shown in blue on the above Figure 3. All polygons classify as open dune under the Phase 1 habitat classification.

5.4.6. This habitat is classified as a Habitat of Principal Importance. A number of footpaths cross this habitat and it is frequently used by visitors. Marram grass is the dominant species within this habitat.

Dune Grassland (s3a7)

5.4.7. The dune grassland at Poldhu Cove (polygons 1111a, 1113 and 1112a) equates to 0.036ha, approximately 30% of the survey area.

5.4.8. There are a number of footpaths which intersect this habitat linking access to the car park to the rear, some have boardwalks to prevent excessive footfall within the dune grassland itself.

5.4.9. Species recorded within the dune area include those typical of this habitat type with many large stands of marram remaining along the seaward edge (from a shifting dune habitat, which in this case was not of sufficient size to be recorded individually) and red fescue being a dominant grass. Sea bindweed, sea holly and sea carrot are scattered throughout the dune grassland area, along with some less specialist species such as cock's foot, Yorkshire fog, black mustard and hogweed.



Figure 9: Cock's foot (photo by W. Baulch)



Figure 10: Yorkshire fog (photo by Rasbak)



Figure 11: Black mustard photo by (K. Schnieder)



Figure 12: Hogweed photo by (M. Thunherr)

Scrub

Mixed Scrub (h3h)

5.4.10. The mixed scrub is shown in polygon 1111, at an area of 0.05ha, ~14% of the site. Scrub composition is bramble, blackthorn and tamarisk - the latter being considered invasive in the dune habitat. The scrub in this block is very dense with little in the way of glades or rides. Scrub is an important habitat in its own

right, and is part of the successional process of dunes, however it is becoming dominant at Poldhu Cove threatening the dune habitat if not managed.

Bramble (h3d)

5.4.11. To the north of the mixed scrub is an area of bramble dominated scrub, equating to ~0.02ha, ~7% of the site and this habitat type refers to polygon 1112. Bramble provides habitat shelter and foraging for several species, including birds, however, it is considered a negative indicator species on dunes and should be managed to ensure it doesn't become dominant.

Reedbed (f2e)

5.4.12. There is a proportionally large area of reedbed to the north of the dune complex. This is fed through a small watercourse which runs west to east and intersects the dune area. Reedbed is classed as a Habitat of Principal Importance.

5.4.13. Reedbeds cover 0.08ha, approximately 21% of the site and are shown in polygon 1116. The predominant species within this area is common reed (*Phragmites australis)*.

5.4.14. Reeds provide valuable habitat to a number of birds, providing nesting opportunities and feeding grounds. Dryer areas of reed beds can provide a burrowing habitat for voles, water shrews, harvest mice and otter. The submerged root areas provide a nursery function for fish species.

5.4.15. Reeds have the capacity to provide valuable filtration function, reducing the levels of nutrients and heavy metals into water courses, this in turn will help to provide protection for the dune habitat.

Grassland (g3c)

5.4.16. At the northern most section of the site is an area of other neutral grassland. This habitat type covers an area of 0.03ha, ~8% of the site, and is shown by polygon 1114.

5.4.17. This area is of high footfall and disturbance. The sward height is very short, ~4cm. The high level of impact on this habitat has led to its classification of other neutral as opposed to dune grassland (a habitat type it has potential to be should it not be subject to such high recreational pressure).

5.4.18. Species within this area include red fescue and cock's foot as well as common herbaceous species such as daisy and ribwort plantain, as species more characteristic of dune grassland such as buckshorn plantain and lady's bedstraw.

5.4.19. Breakdown of the Habitat types and their percentage cover can be seen in Table 4.

Table 4: Breakdown of baseline habitats - Poldhu Cove

Habitat Type	Percentage Cover
Embryonic Shifting Dunes	4%
Dune Grassland	30%
Shifting Dunes	15%
Mixed Scrub	13%
Bramble Scrub	7%
Reedbeds	23%
Grassland	8%

5.4.20. The data collected at Poldhu Cove shows that there is a scrub cover which will over stabilise the dune and decrease its resilience. The presence of scrub at this density will cause an increase in organic matter in the substrate which, when breaking down, will increase the nutrient loading on the dunes, detrimental to the desired dune habitat.

5.4.21. The Poldhu Cove dune habitats show a moderately healthy ecosystem, supporting important species such as sea bindweed, and sea holly. These species contribute to the biodiversity and ecological value of the area. However, the predominant habitat of scrub is a threat to this as it risks over stabilisation of the dunes, and reduction in the footprint of the dune habitat.

5.4.22. The dune at Poldhu Cove is accreting, and there is a small area of embryo dune, which is essential for stabilising the sand and maintaining the dune structure, as well as providing the succession of habitat needed for dune systems.

5.4.23. An increase in Biodiversity Net Gain could be achieved by removing the bramble and mixed scrub.

5.5. Biodiversity Net Gain (BNG)

5.5.1. A BNG Baseline assessment was undertaken in June 2025. The baseline results are shown in Table 5.

Table 5: Biodiversity Net Gain Baseline

The baseline	Coastal Sand Dunes	2.84
	Scrub (mixed)	0.12
	Scrub (bramble)	0.24
	Other neutral grassland	0.28
	Reedbeds	1.59
Total		5.07

5.5.2. The baseline BNG assessment for Poldhu Cove shows that despite occupying a smaller proportion of the site area, coastal sand dunes have a significantly higher BNG score than that of the scrub habitat.

5.5.3. The key opportunity for enhancement at Poldhu Cove is scrub control, particularly the area of mixed scrub that is dominated with the non-native species tamarisk (polygon 1111) and the bramble scrub (polygon 1112) which are over-stabilising the area and not allowing natural succession to take place.

5.5.4. Opportunities for Biodiversity Net Gain include the removal of scrub species including the non-native species to allow these areas to return to Coastal Sand Dune habitat over a 30-year period, this would see an increase in the BNG units ranging from 0.10 which is 1.96% (if condition assessment: poor) and 0.41 which is 8.06% (if condition assessment: good).

6. Coastal Change

6.1.1. Coastal change refers to the natural and human induced processes that will change features of the coastline. These can be caused by a number of factors, either in isolation or combination. These include erosion, sediment deposition, sea level rise, storm events and human activity. Observations of change can be made, however they cannot be entirely managed and so building resilience is fundamental to adapt to these changes.

6.2. Topographic Data

6.2.1. Between 2007 and 2024, the period considered within this report, there have been a total of 39 topographic surveys at Poldhu Cove since 2007, four of which are full coverage surveys and 35 are interim surveys.

6.2.2. Analysis of topographic data over this time period suggests the beach has been accreting slowly to 0.24% of the average beach area per year. The lowest recorded combined area was during the 2014 spring interim, following the highly energetic winter period which saw a 21% loss of material from the 2013 full coverage survey see Figure 13.

6.2.3. The beach has since recovered to pre-2014 levels, with the highest recorded combined area during the 2022 autumn interim. A weak seasonal trend is visible at Poldhu Cove, whereby the autumn interim data is more accreted than the spring interim.

6.2.4. Analysis of the combined profile (the combination of the mobile and beach zone) can be seen in the below graph. This shows that Poldhu Cove has been accreting at 6.5 m^2 y^{-1}.

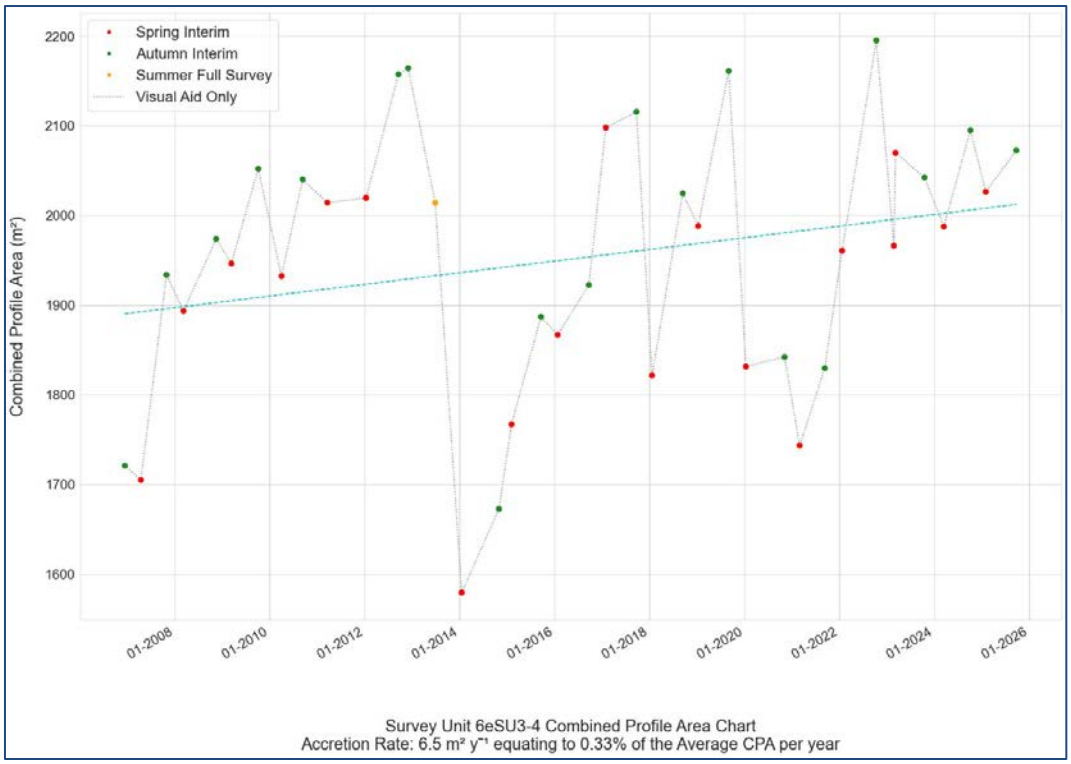


Figure 13: The combined profile analysis for Poldhu Cove, including spring (red), summer (yellow) and autumn (green) surveys completed between 2007 and 2024

6.3. LiDAR data

6.3.1. In addition to the topographic surveys, LiDAR (Light Detection and Ranging) is used to gather data. This is a remote sensing technology that measures distances to the Earth's surface, creating precise, 3D maps of environments. It is increasingly used in topographic surveys, and environmental monitoring. See Figure 14 for the Beach Zone Volume over time and Figure 15 for the Mobile Zone (dune) Volume over time. The The R^2 values show how well the trend line explains the variation in the data, with values closer to 1 indicating a stronger fit and values closer to 0 indicating a weaker fit.

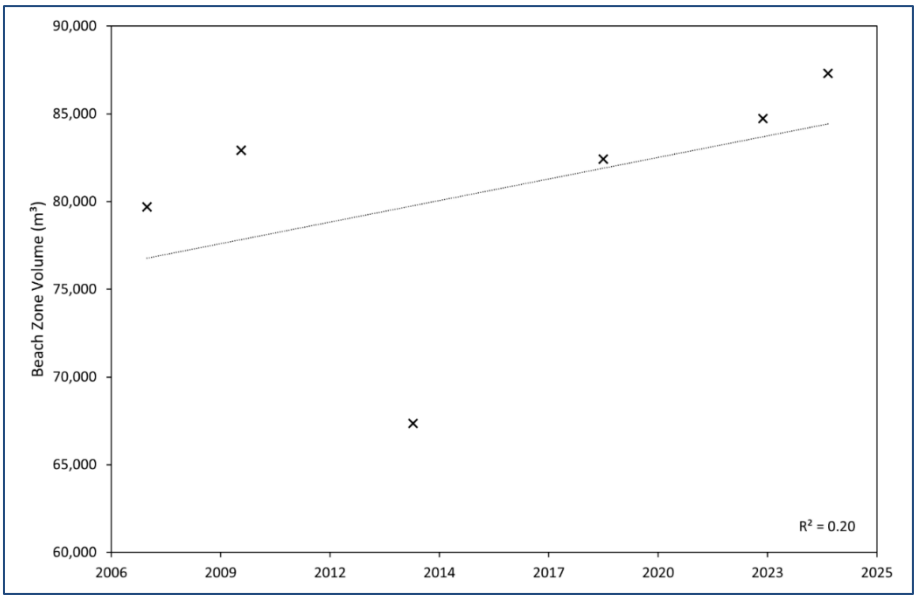


Figure 14: Beach Zone Volume from 2007 to 2023 LiDAR data

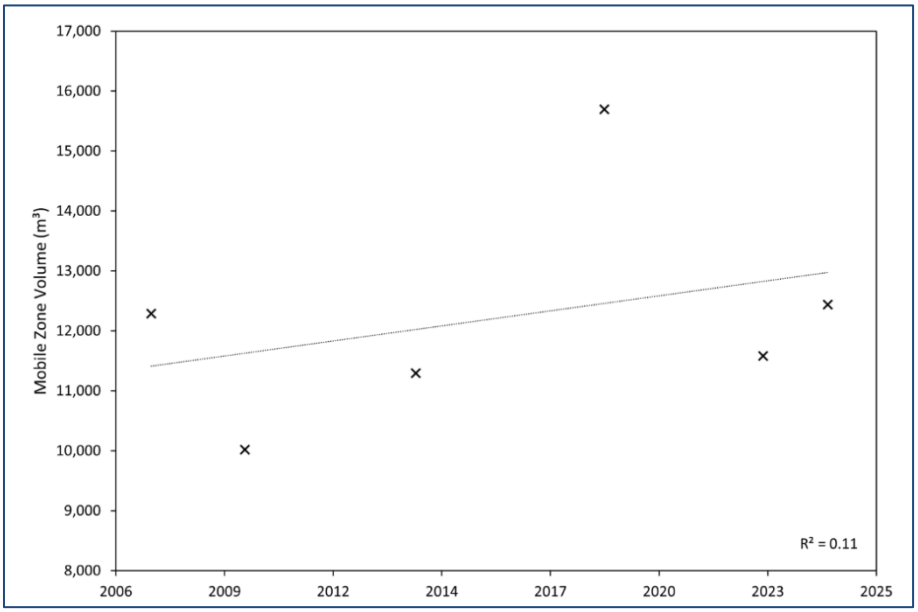


Figure 15: Mobile Zone Volume from 2007 to 2023 LiDAR data

6.3.2. Beach volume extracted from 5 LiDAR flights since 2007 (Figure 14) LiDAR comparisons show that Poldhu Cove's beach system has undergone repeated cycles of accretion and erosion over the past 16 years.

Between 2007 and 2010, the beach experienced widespread accretion across both the lower and upper beach areas, including gains along the dune toe, although a consistent band of erosion was present around mean sea level and along the Poldhu stream.

6.3.3. The Beach Zone has also remained stable (with gradual gain) between 2007 and 2023 despite a large fluctuation of volume in 2014 following the 2013/14 storm season, where a 20% loss in material was seen following the 2010 survey see Figure 14.

6.3.4. LiDAR data from the Mobile Zone shows gradual accretion between 2007 and 2023, the highest recorded volume was during the 2019 survey which saw a 26% increase since the 2014 survey see Figure 15.

6.3.5. The dune toe has moved seaward since 2007 and 2022, with fluctuations in movement seaward and landward, the most seaward position of the dune toes was recorded by the 2019 LiDAR.

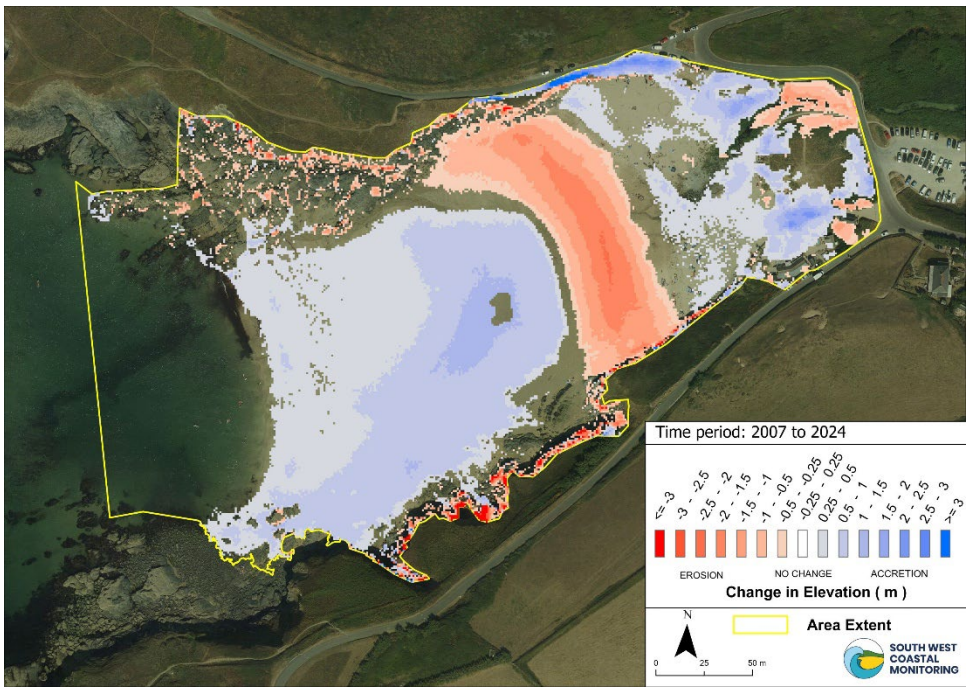


Figure 16: LiDAR Change in elevation model

6.3.6. Figure 16 shows the overall change in elevation across the beach and mobile zone areas as a visual model from 2007 to 2024, showing accretion of material in blue and erosion in red. This reflects a dynamic sediment system, with both erosion and accretion occurring across the beach and dune complex. Whilst some lowering of beach levels is evident through the centre of the bay and along sections of the dune edge, this is balanced by widespread sediment deposition elsewhere.

6.4. Dune Toe Modelling

6.4.1. Sediment is defined as natural material that has broken down by weathering and erosion, this includes sand, silt and clay. Movement of sediment on beach areas forms part of natural geomorphological process, however changes in weather including more extreme storm events can result in a greater loss of sediment from our beaches.

6.4.2. The toe of the dune is defined as where the dune and beach separate, the data collected defines this as the vertical limit of the beach profile that is impacted by wave action. This has been determined by the

sum of Mean High Water Spring level, and the wave runup height during 1% exceedance events.

6.4.3. In the case of Poldhu Cove, it can be seen from the report that the modelling from 2007-2020 shows that the dune is advancing (~0.72m/yr) and gaining volume (~0.85m^3/m/yr). The report also shows that significant sediment was lost during the winter storms of 2013/2014. This data is presented in the time series change graphs shown in Figure 17 and Figure 18.

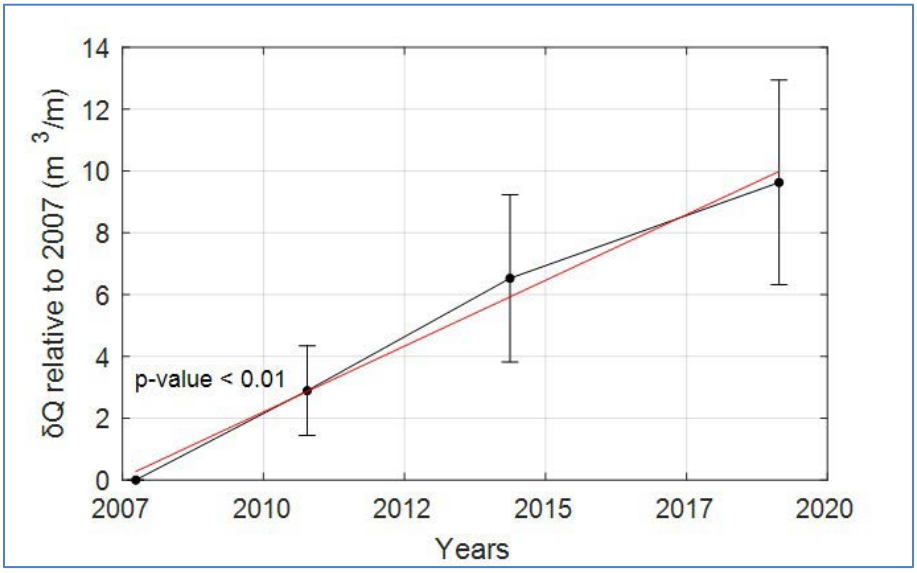


Figure 17: Time series change for change in dune volume at Poldhu Cove from 2007 - 2019

6.4.4. Figure 17 shows the change in dune volume, as calculated by LiDAR data, from 2007 to 2019. This shows that the dune is advancing with the black dots indicating the value relative to 2007, the error bars showing potential error in the LiDAR data and the red line showing the linear regression. This shows that since analysis started, the volume gain has been ~9.5m^3/m.

6.4.5. Figure 18 below shows the change in the dune toe position from 2007 to 2019, derived from LiDAR data relative to 2007. Again, with the black dots showing the value, the error bars showing standard deviation of the longshore distribution, the red line showing linear regression. This shows accretion since analysis began of 8m in total.

6.4.6. Please note that the p-value shows how likely the observed data would be if there were no real effect: small p-values suggest the data are unlikely under that assumption, and large p-values suggest the data are compatible with no effect. In this case both p-values are 0.01 which suggests that the results are statistically significant.

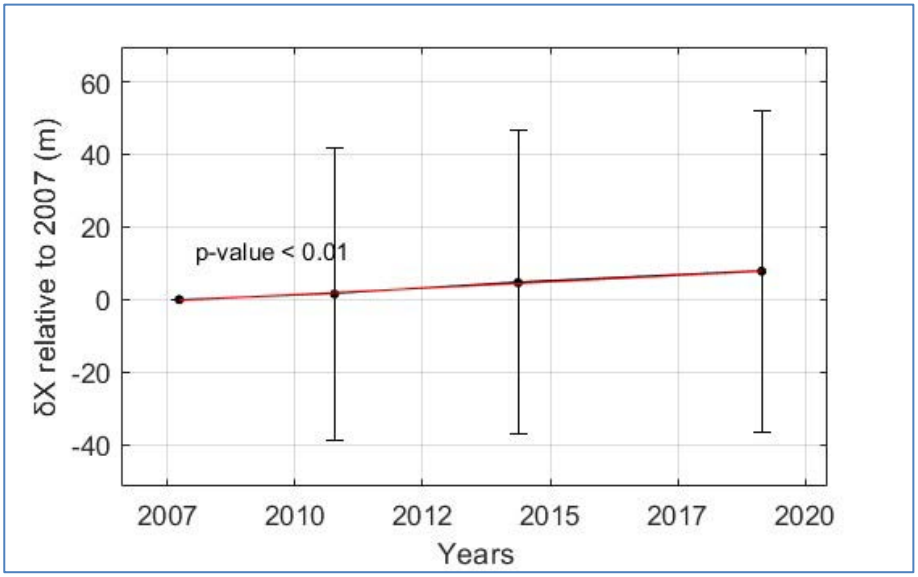


Figure 18: Time series change in dune toe at Poldhu Cove 2007 - 2019

6.5. Predicting Future Change

National Coastal Erosion Risk

6.5.1. The National Coastal Erosion Risk Mapping (NCERM) is an initiative by the Environment Agency to project areas in England at risk from coastal erosion. The dataset was updated in 2024 and published in early 2025 (data.gov.uk).

6.5.2. This mapping provides a baseline of coastal erosion for the coastline of England. The national coastal erosion risk map (NCERM) shows the areas at risk of coastal erosion until 2105. Predicting the exact position of an eroding shoreline over time is difficult. The influence of sea level rise on erosion rates in the longer term is also uncertain. The rate of erosion can vary depending on the geology and the natural processes at the coast. Hard rocks are worn away slower than softer material such as sand. This means erosion may not be the same along a stretch of coast.

6.5.3. Erosion risk zones displayed on the map include the area between the backshore feature (such as a cliff) and the Mean High Water Spring (MHWS) tidal position. These are shown for three climate change scenarios:

6.5.4. Present Day (2020) –uses historical erosion rates to provide future projections without calculating any additional impacts of climate change and rising sea levels. Shown in Figure 19 and Figure 20 as beige

6.5.5. Climate Change Higher Central –uses sea level rise data from 70th percentile (UK Climate Projections 2018 (UKCP18) Representative Concentration Pathway (RCP)8.5 climate projection. Shown in Figure 19 and Figure 20 as light purple.

6.5.6. Climate Change Upper End –uses sea level rise data from 95th percentile UKCP18 Representative Concentration Pathway (RCP) 8.5 climate projection. Shown in Figure 19 and Figure 20 as dark purple.

6.5.7. This means using the Climate Change Upper end as an example, that 95% of the possible scenarios fall below this level, while 5% fall above it. The RCP 8.5 value is a scenario used in climate modelling that considers the continued growth and production of greenhouse gas emissions. When planning for coastal change these worst-case scenarios, through more precautionary, help ensure that coastal management is, in the longer term, more resilient.

6.5.8. Unless otherwise stated, the erosion risk zones are based on the scenario that the Shoreline Management Plan (SMP) policy for the area has been delivered. A change in the policy, or the ability to deliver the policy intent, may affect the erosion projections.

6.5.9. The map provides the best estimate of coastal erosion risk at a national scale. It uses the best available national and local data along with methods which can be applied at a national scale. The erosion projections associated with NCERM are intended for guidance and cannot provide details for individual properties. The NCERM data considers the predominant risk at the coast and frontages considered to be more at risk from flood risk or areas of complex cliff are not always included.

NCERM Projections

6.5.10. The NCERM projection lines show the latest projected erosion lines based on a range of different scenarios. For the example of modelling how this may impact the mapped habitats in Poldhu Cove, the projections of 'No Future Intervention' for the long term (to 2105) have been used.

6.5.11. The area at risk of coastal erosion for Poldhu Cove under No Future Management with Present Day Climate is 1m by 2055 and 3m by 2105, for Climate Change Higher Central it is 12m (2055) and 37m (2105) and for Climate Change Upper End it is 15m (2055) and 48m (2105) see Figure 19 and Figure 20.

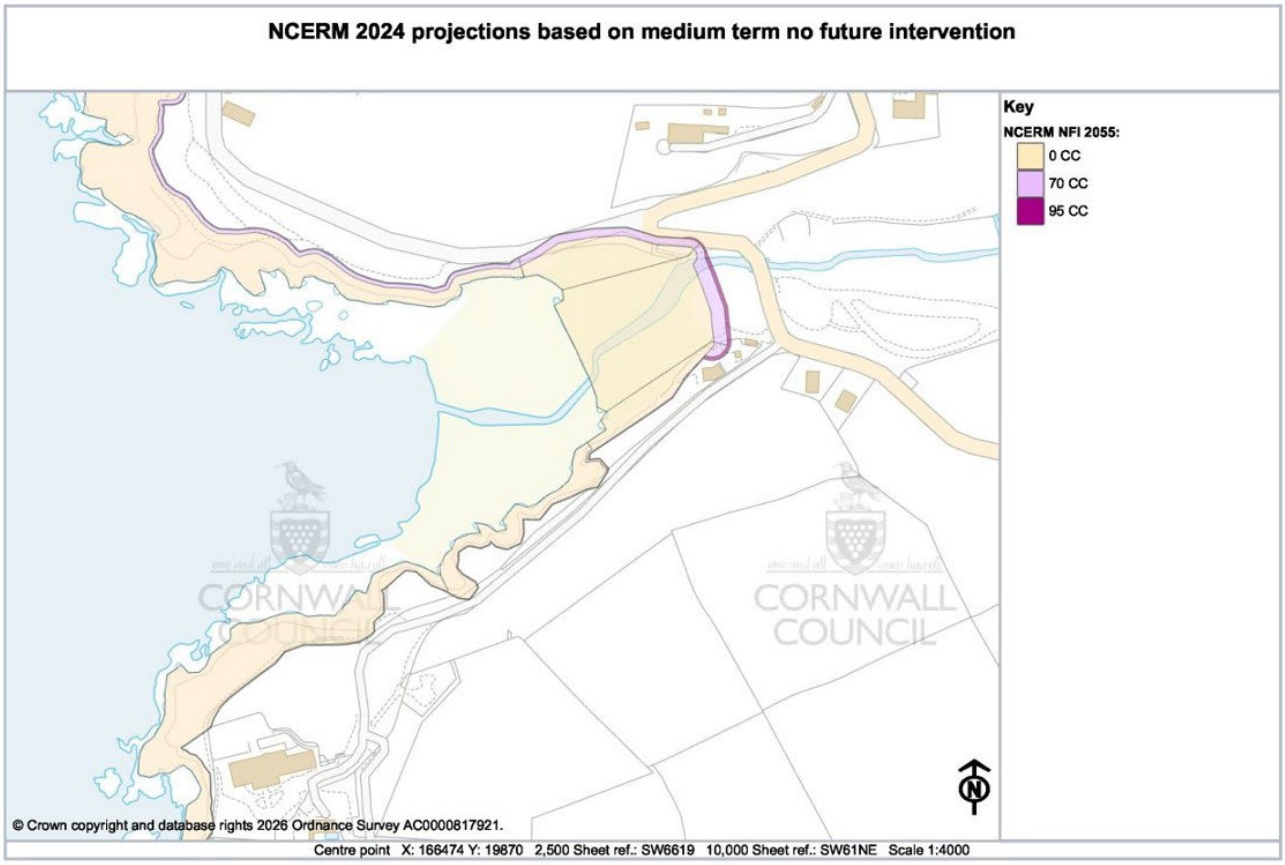


Figure 19: NCERM medium term projections, based on no future intervention

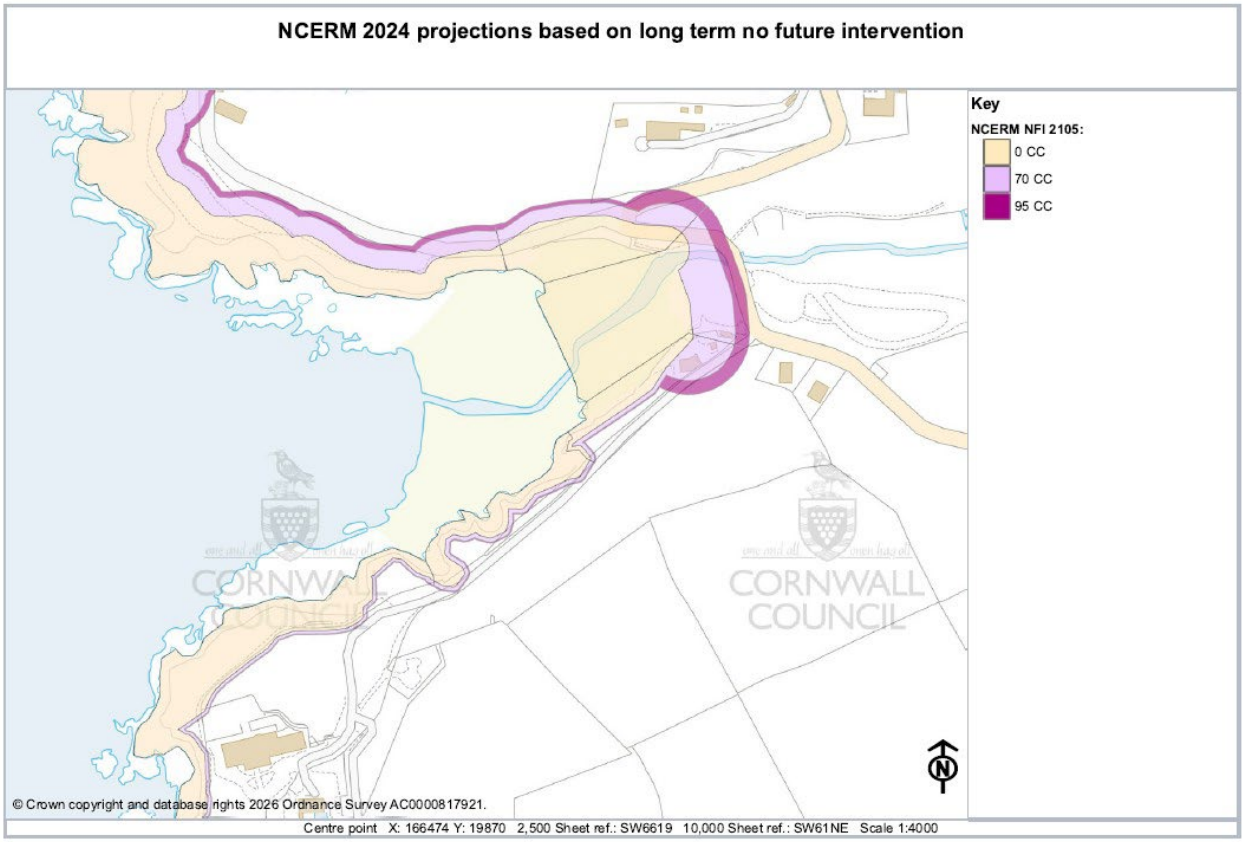


Figure 20: NCERM projections based on long term no future intervention

Bruun Rule Projections

6.5.12. As part of the Making Space for Sands project, the University of Plymouth have analysed 31 dune systems within the Making Space for Sand project, full results can be seen in the Dune Evolution Report and accompanying paper 'Predicting dune evolution on a regional scale for coastal management' (Brodie et al 2025). The main aim of the paper is to develop and evaluate an approach for coastal managers to predict the future position of the beach-dune interface as a result of sea level rise (SLR) along a varied coastline.

6.5.13. To achieve this aim, the following objectives have been set:

- (1) quantify dune change (dune toe position and dune sediment volume) for 31 Cornish dune sites using airborne LiDAR;
- (2) develop a robust methodology for extracting the environmental parameters required for applying the Bruun Rule;
- (3) apply the Bruun Rule to 31 Cornish beach-dune sites;
- (4) relate the historic rates of dune change with the Bruun Rule predictions; and
- (5) evaluate the use of the Bruun Rule in combination with historic rates of retreat for predicting the impact of SLR on dune systems on a regional scale

6.5.14. In the case of Poldhu Cove, the estimated retreat of the dune using the Bruun Rule is ~0.19m/year, this would equate to a total retreat of ~25m from the 2020 toe position by 2100 based on 50% confidence.

6.5.15. At Poldhu Cove beach, sediment is currently eroding from the upper shore and/or dune toe and there is a decrease in the volume of sediment further inland. With sea level rise the estimated rate of retreat at the location is 25m (0.19m per year) by 2100.

6.5.16. Where projections and modelling take place, a 'confidence interval' is applied. The confidence interval is a range of values in which the true value lies. In the case of the Bruun rule projections, where there is a 5% confidence, this indicates a low probability of this occurrence, whereas a 95% confidence indicates an almost certain chance. The Bruun rule projection lines are shown at 50% confidence, meaning that there is an equal chance of the dune to retreating to this point as not, with the 90% interval applied (the range from 5%-95%).



Figure 21:Elevation changes, historic dune toes and Bruun Rule projection lines for Poldhu Cove

6.5.17. The visual presented in Figure 21 shows projected changes in elevation and the dune toe at Poldhu Cove.

6.5.18. The areas shaded blue show an increase in elevation, this is from the accumulation of sediment. The visual shows that across the length of the current dune toe there will be elevation due to increase of sediment from the beach area. The deeper the shade of red or blue, the greater the level of erosion or accumulation.

6.5.19. The dotted black line shows the dune toe location in 2007, the solid black line marks the edge of the dune toe and/or the top of the beach as seen by data collected in 2019/2020.

6.5.20. The solid green line marks the projected rate of erosion by 2100 at 50% confidence, by using the Bruun Rule. This assumes the highest baseline climate change scenario where emissions continue to rise throughout the twenty-first century, Representation Concentration Pathway (RCP 8.5).

6.6. Habitat loss from modelling predictions

6.6.1. By using the modelling and the baseline habitat data, predictions in habitat loss can be calculated.

Table 6: Projected Habitat Loss and Retention from NCERM Mapping

Habitat Type	Area Loss	% Loss	Area Retained	% Retained
Dune grassland	0.109	100	0	0
Reedbed	0.077	100	0	0
Embryonic shifting dunes	0.014	100	0	0
Other neutral grassland	0.031	100	0	0
Bramble scrub	0.026	100	0	0
Mixed scrub	0.049	96	0.002	4
Shifting Dunes with Marram	0.055	100	0	0
TOTAL	0.361	99	0.002	0.6

6.6.2. Analysis of the mapped habitat information (Table 6) shows that under this scenario, there will be a loss of 0.361ha of habitat, 99% of the land mapped. Within this, a total of 0.178ha of dune habitat is at risk of being lost.

6.6.3. The exercise of predicting habitat loss from projections is repeated in below, made under the Bruun Rule projections.

6.6.4. Using the predicted dune toe line from the Bruun rule data, the potential habitat loss up to 2100 can be estimated.

6.6.5. If this prediction were to hold true, a total habitat loss is projected to be 0.031ha.

Table 7: Habitat Loss and Retention for Poldhu Cove from the Bruun Rule

Habitat Type	Area Loss	% Loss	Area Retained	% Retained
Dune grassland	0.008	7	0.102	93
Reedbed	0.002	3	0.076	97
Embryonic shifting dunes	0.014	100	0	0
Other neutral grassland	0.001	3	0.03	97
Bramble scrub	0	0	0.026	100
Mixed scrub	0	0	0.051	100
Shifting Dunes with Marram	0.006	11	0.049	89
TOTAL	0.031	8	0.32	92

6.6.6. The loss and retention data from the Bruun Rule projections draws few parallels to that of the NCERM

projections, the following limitations must be considered when comparing the data:

- The projections are from two different scenarios – NCERM showing no future interventions, at 5% confidence up to 2105 and Bruun being 50% confidence up until 2100.
- Bruun projections are limited to the sandy dune area only, meaning that where the 'line' stops, and extension had to be made to extend to the edge of the mapped habitat area.

6.6.7. When considering both datasets, there is a much greater proportion of habitat loss from the NCERM projections, with a complete loss of the important embryonic shifting dune and shifting dunes with marram habitat. Total loss of the embryonic shifting dunes loss is also seen in the Bruun Rule projections, however significantly fewer shifting dunes with marram habitat is lost until this prediction.

6.6.8. Within the NCERM predictions, there is a total loss of other neutral grassland, this is however retained under Bruun Rule.

6.6.9. A complete loss of reedbed habitat is predicted by NCERM and some reedbed habitat is lost under Bruun too due to rising sea levels. Increased saltwater inundation into the remaining reedbed is also likely, which would further stress the habitat and lead to additional decline.

6.6.10. Whichever modelling approach is applied—whether the Bruun Rule or NCERM—the long-term trajectory points toward coastal dune squeeze. Both frameworks indicate that rising sea levels and ongoing shoreline adjustment will drive landward migration of the beach–dune system while fixed backshore constraints limit that movement. As a result, the dunes will become progressively narrowed reducing their capacity to dissipate wave energy and buffer inland areas from erosion and flooding. The modelling suggests that the current degree of natural resilience and coastal protection will be sustained only in the short to medium term, after which their protective effectiveness is likely to diminish without adaptive management or additional space for landward migration.

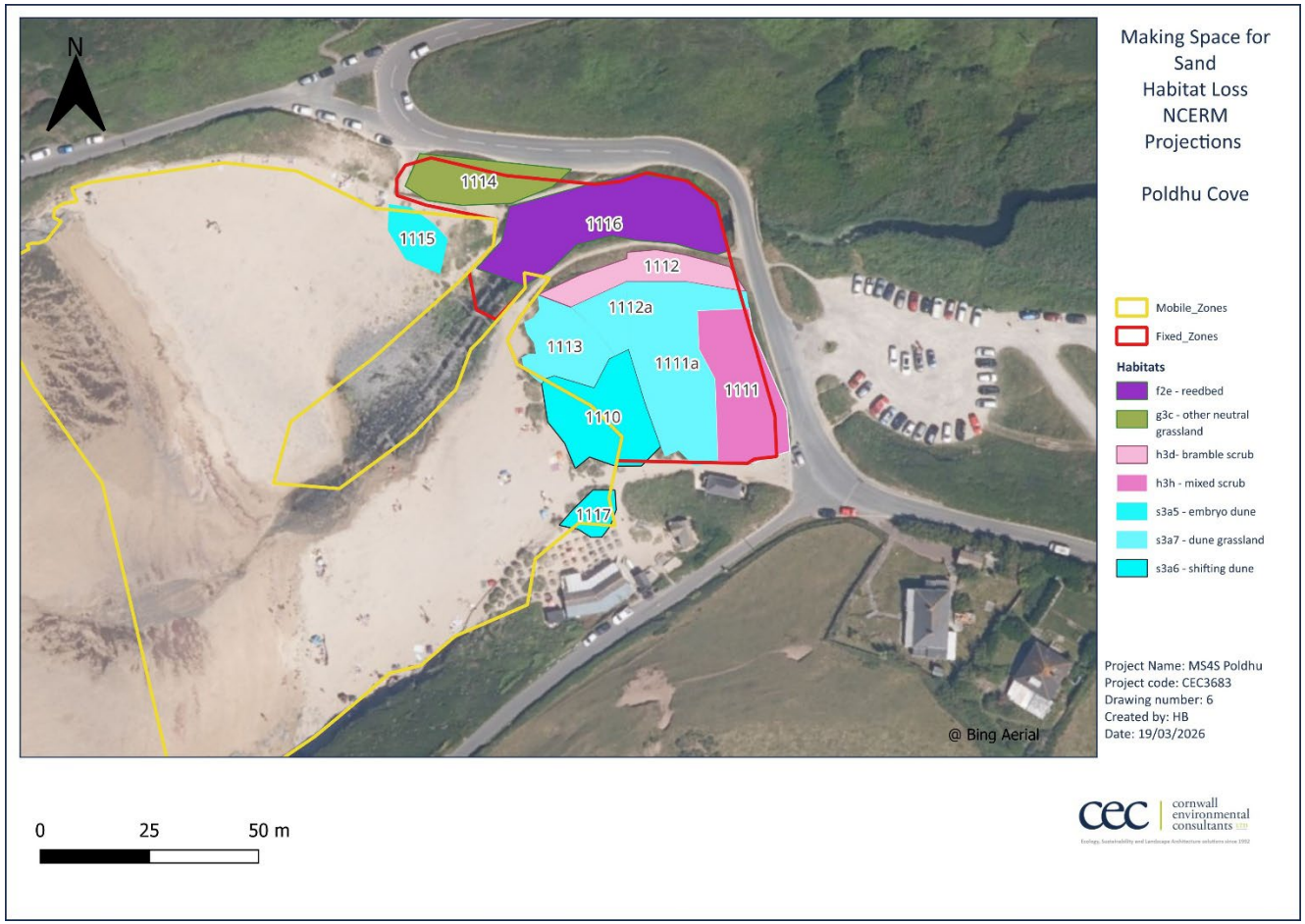


Figure 22: Projected Habitat Loss (NCERM)

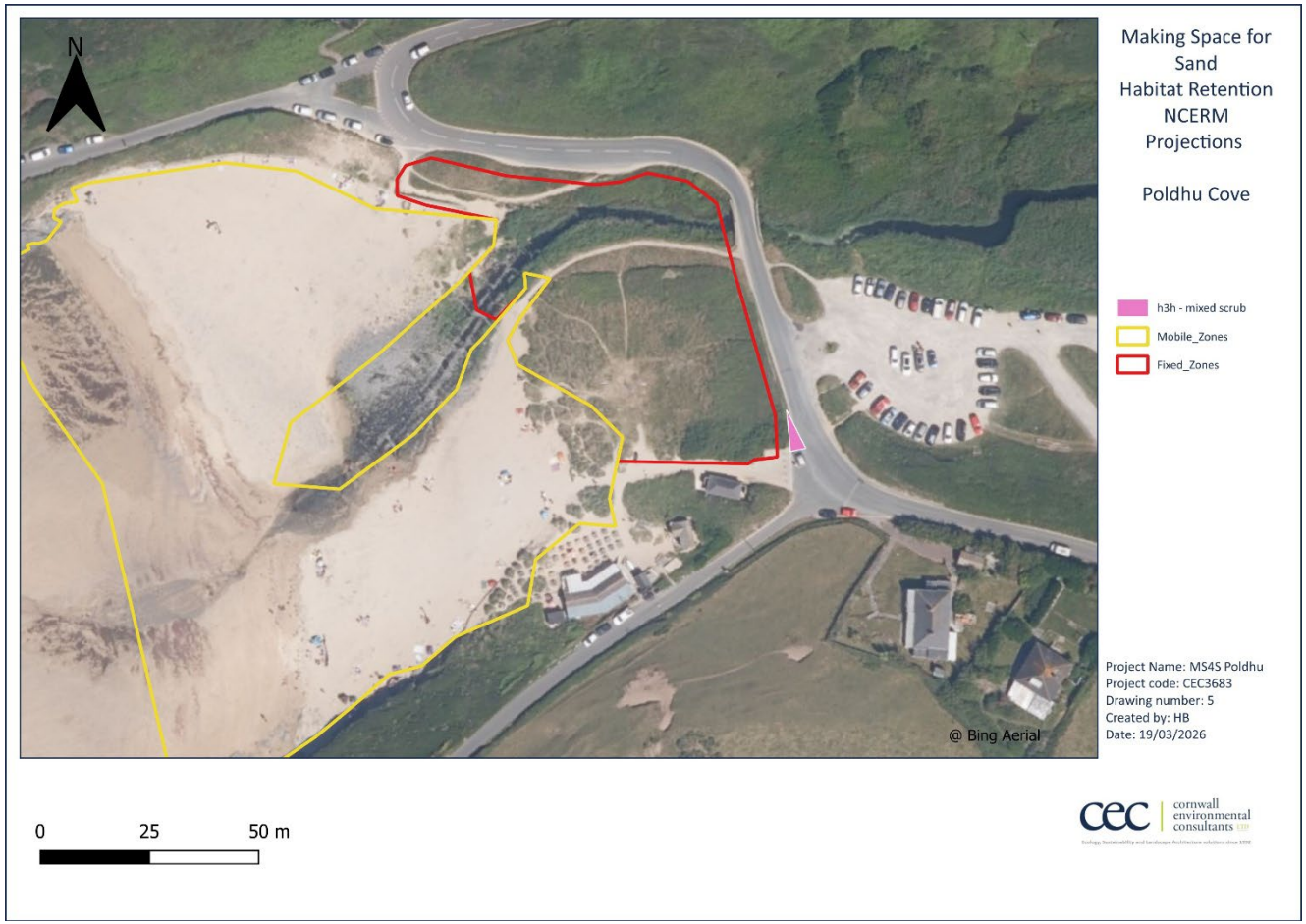


Figure 23: Projected Habitat Loss (NCERM)

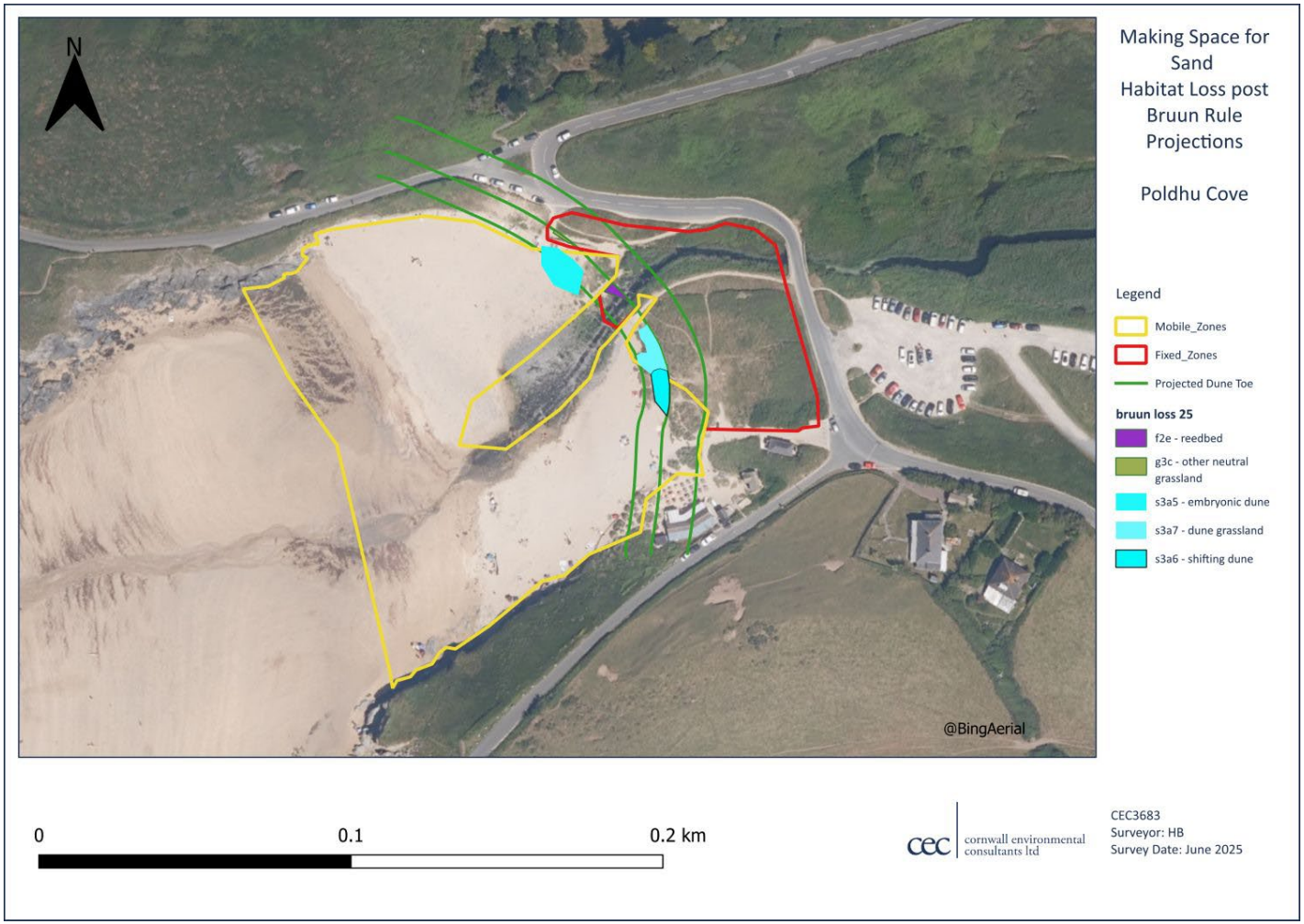


Figure 24: Projected Habitat Loss (Bruun Rule)

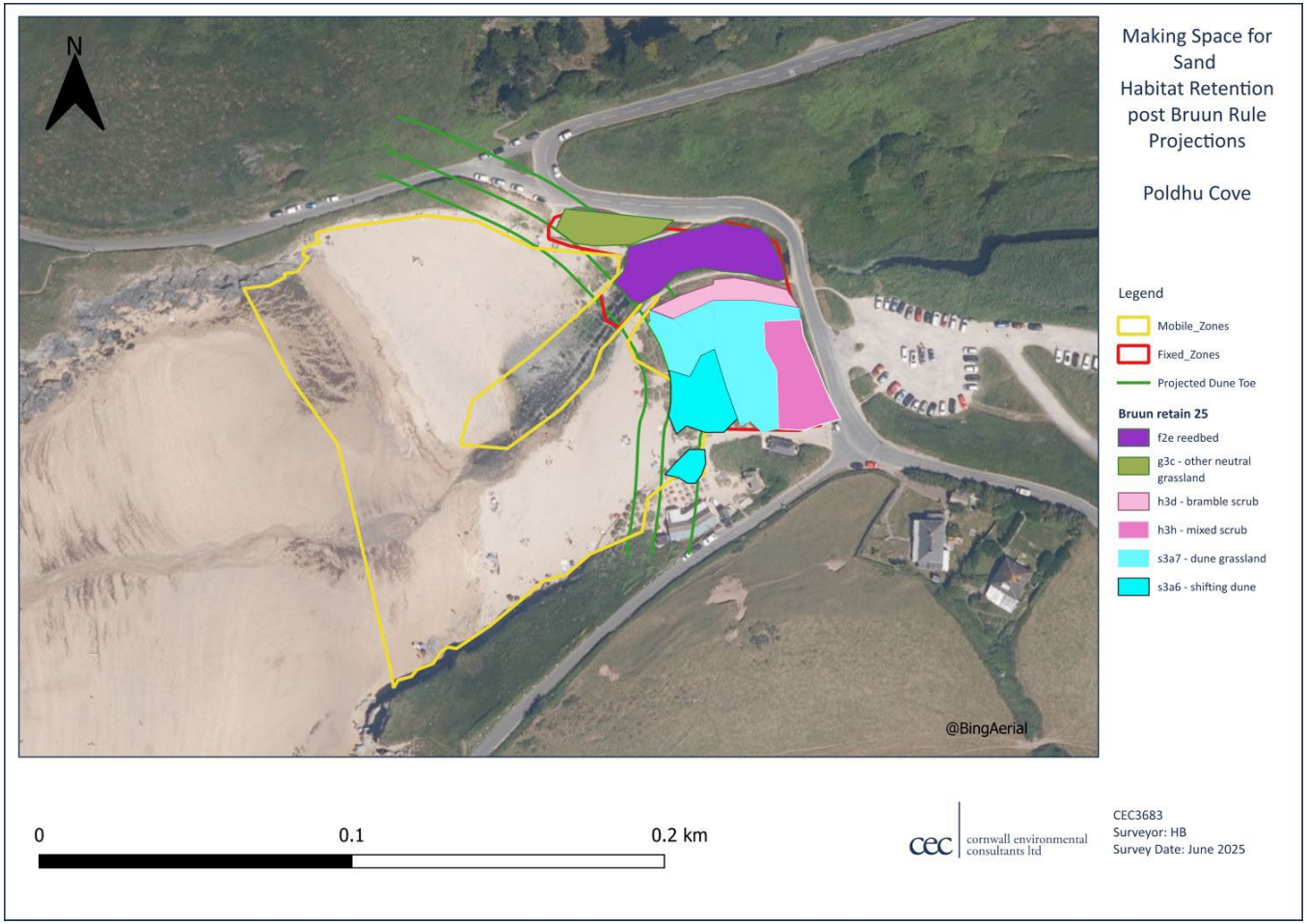


Figure 25: Projected Habitat Retention (Bruun Rule)

6.7. Infrastructure at risk

6.7.1. A map showing the relationship between the projected NCERM erosion extents and adjacent infrastructure are provided below in Figure 26.

6.7.2. Looking at the Poldhu map the erosion zones encompass or approach a range of assets in particular the café, the surf lifesaving club, the toilet block and sections of the local road. These assets provide important access, recreational and economic functions within Poldhu Cove and could become increasingly vulnerable as coastal change progresses.

6.7.3. It is important to note that the NCERM projections represent a potential future shoreline position, rather than the point at which impacts first occur. As the coastline retreats towards the projected erosion extents, areas landward of the erosion line are likely to experience increasing coastal influence, including erosion, storm damage, tidal inundation and disruption to access. Consequently, infrastructure may be affected before the projected erosion line directly reaches an asset. The NCERM projections should therefore be used as a strategic indicator of future risk and help inform long-term adaptation planning.

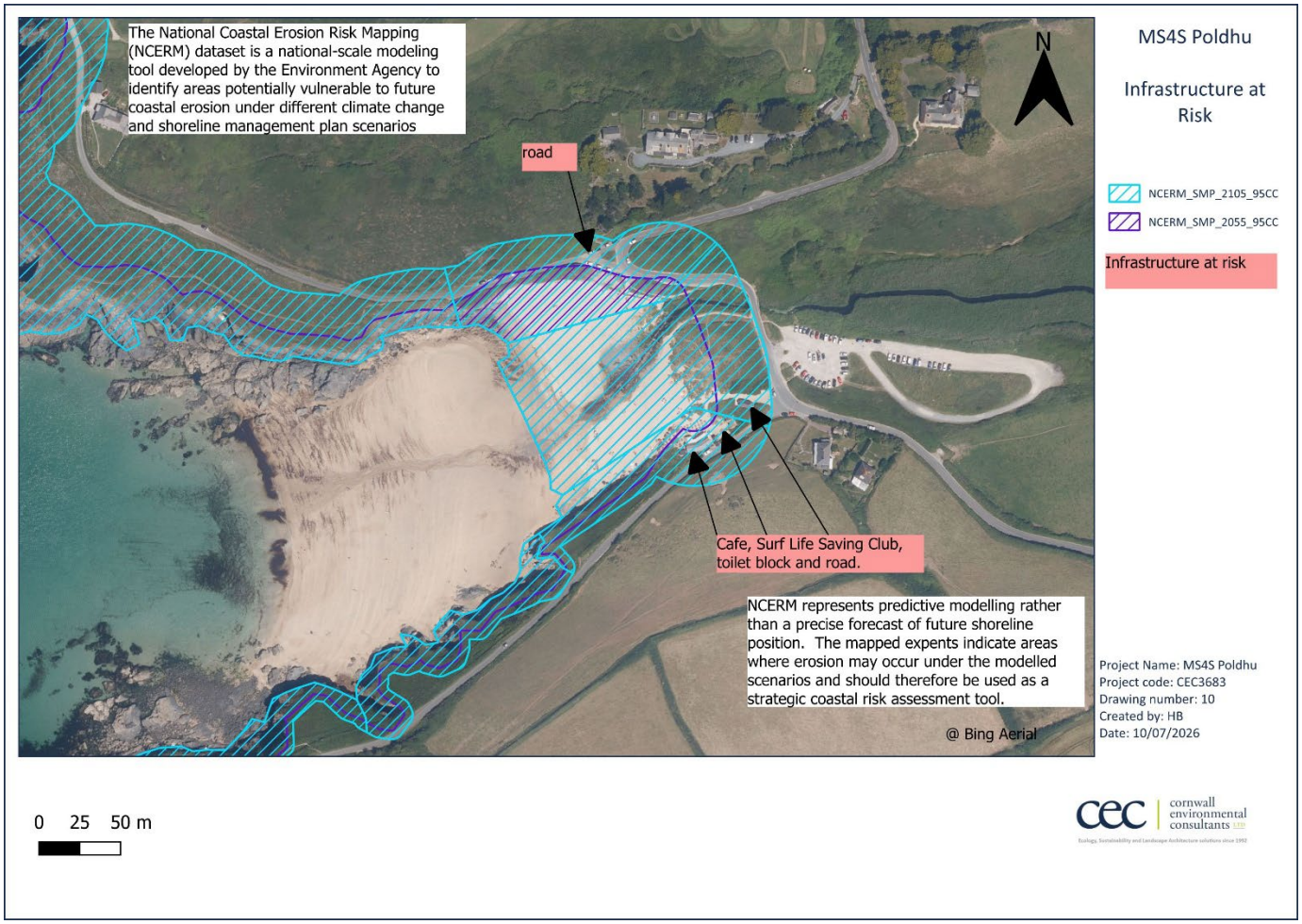


Figure 26: Infrastructure at risk Poldhu

7. Management Plan

Full details for the timelines for management and seasonal restriction can be found in the document CEC3683 Beach Dune Management Plan Strategic Overview.

7.1. Strategic Context and Vision

7.1.1. Poldhu Cove lies within a naturally dynamic dune system that forms an important buffer against coastal flooding and erosion. Under the Shoreline Management Plan for this frontage (PU 16.1 and PU 16.3 – No Active Intervention), the long-term approach is to allow natural processes to continue shaping the coastline. In line with this policy direction, the long-term management intent at Poldhu Cove is to:

- Maintain and enhance a resilient, naturally functioning dune system
- Support natural sediment accretion and dune mobility
- Improve ecological condition through targeted habitat restoration
- Reduce pressures that limit natural dune processes
- Promote long-term stewardship and monitoring in partnership with the community

7.1.2. The dune system at Poldhu Cove is valued as a designated site, a priority habitat, a natural coastal defence, and a key ecological and landscape feature. It provides a transitional zone between marine and terrestrial environments and supports a suite of characteristic species associated with embryonic dune, shifting dune and dune grassland habitats.

7.2. Baseline Condition and Key Issues

7.2.1. Evidence gathered through ecological survey, habitat mapping and BNG assessment indicates that the Poldhu Cove dune system is affected by three principal pressures:

1. Habitat Condition – Scrub Encroachment and Over-Stabilisation

7.2.2. Dense areas of scrub, including bramble and mixed scrub with non-native tamarisk, are over-stabilising the dune, increasing nutrient loading and reducing the extent of open dune habitats. This constrains natural dune mobility and limits the development of embryo and shifting dunes, which are essential to a healthy dune system.

2. Natural Coastal Processes and Morphological Change

7.2.3. The frontage is experiencing ongoing accretion, with embryo dune formation supported by recent geomorphological studies. However, the dune toe and strandline remain sensitive to storm erosion and seasonal fluctuations. Under SMP policy (PU 16.1 and PU 16.3 – No Active Intervention), such changes are anticipated and should not be artificially resisted.

7.2.4. Management must therefore work with natural processes by:

- Supporting the continued development of embryo and shifting dunes
- Avoiding interventions that would restrict natural sediment movement
- Enhancing the natural buffering capacity of the dune system through ecological restoration

3. Localised Pressure from Footfall and Access

7.2.5. High recreational use is causing trampling and very short sward height in some areas, resulting in a shift away from dune grassland towards other neutral grassland in places. Boardwalks and defined paths help reduce pressure, but continued management is needed to prevent further habitat degradation.

7.2.6. Active intervention is required to restore dynamic dune processes and improve the ecological condition of the dune system.

7.2.7. The long-term objective for the dune system at Poldhu Cove is to maintain a resilient, mobile and naturally functioning dune habitat capable of adapting to coastal change. Improvement of ecological condition, particularly through targeted scrub control, will strengthen the dune's ability to act as an effective natural coastal defence.

7.2.8. Support from the landowner, alongside ongoing community engagement and monitoring, will be essential to achieving long-term conservation outcomes for this priority habitat.

7.3. Required Consent

7.3.1. Any works that are taking place within the dune environment must be done with the landowner's consent in the case of Poldhu Cove at the time of writing this is the National Trust.

7.3.2. As Poldhu Cove is within The Lizard SAC, Lizard Point MSAC and Baulk Head to Mullion SSSI, consent from Natural England must be sought before any works commence.

7.4. Past/Recent Management

National Trust

7.4.1. The site is owned and managed by the National Trust, evidence from the habitat surveys undertaken in 2023 and the BNG condition surveys in 2025 indicated that some scrub clearance has already taken place, with observable changes in scrub extent between the two surveys.

7.4.2. For the purposes of this plan, references to 'the landowner/manager' include the National Trust as the current custodian of the site and any successor organisation that may assume responsibility in the future.

Cornwall Wildlife Trust

7.4.3. At the time of writing, a Cornwall Wildlife Trust (CWT) Community Engagement Officer, funded through the MS4S project, has been liaising with National Trust ranger who works with a community group on the nearby Penrose Estate, with the intention of supporting additional management work at Poldhu Cove dunes. However, due to an ongoing planning application relating to proposed works at the toilets, all parties agreed it was prudent to pause further activity until the outcome of the application - and any associated habitat works - was confirmed.



Figure 27: Area of dune grassland where scrub clearance work had been undertaken.

7.5. Future Management

7.5.1. Management of the Poldhu Cove dune system must respond to its current ecological condition, ongoing erosion and limited capacity for landward roll-back, within the context of Shoreline Management Plan policy (PU 16.1 and 16.3 No Active Intervention) the overarching approach is therefore to restore natural dune function, improve ecological resilience, and work with – rather than resist – coastal processes.

7.5.2. Erosion projections indicate that significant retreat of the coastline is likely over the lifetime of this plan. Whilst maintaining and enhancing the existing dune habitat remains a priority, long-term management must recognise that adaptation to coastal change will be required. The existing road currently limits the ability of the dune system to migrate landward in response to sea-level rise and continued erosion, increasing the risk of coastal squeeze if its position remains unchanged. In the longer term, consideration may also need to be given to the landward realignment of the adjacent car park to provide sufficient space for natural dune rollback. At the same time, several existing assets, including the café, RNLI building and public toilets, lie within the projected erosion zone and are likely to become increasingly vulnerable over time. Early consideration of long-term adaptation options, including the potential realignment of the road and relocation or replacement of vulnerable facilities where appropriate, would help maintain public infrastructure while allowing the dune system to respond naturally to future coastal change.

Table 8: Future Management at Poldhu Cove

Action	Short Term	Medium Term	Long Term	Who
INNS / Scrub clearance	When planning application and associated habitat	Monitor regrowth, control when found, adjust control	Maintain long-term suppression of scrub and any INNS. Integrate INNS	Landowner with support from Community groups

Action	Short Term	Medium Term	Long Term	Who
	enhancement has been confirmed (tamarisk to be removed as part of planning application). Reduce dense bramble from core dune. Retain buffer along the road to prevent sand blowing onto the carriageway. Record locations using GIS or phone photos. Begin small volunteer task sessions to prevent spread.	methods if not working. Continue digitising INNS mapping if funding becomes available.	monitoring into rolling dune-condition assessments. Ongoing monitoring of overtly mobile sediment that might have been released from the INNS.	
Salt tolerant species planting (Including marram)	No planting is planned in the short term	Small-scale marram plug planting in areas where natural colonisation has not taken place for 2 years. Use planting to encourage dune mobility and resilience. Protect new planting from wind and trampling.	Maintain dune vegetation structure, allowing roll-back behind the beach as sea level rises. Shift planting areas landward as natural retreat occurs.	Landowner responsible Community groups to assist.
Access Management	Review existing informal paths and desire lines. Install low-impact temporary measures (e.g. rope guidance or small marker posts). Discourage trampling in embryonic dune areas. Maintain boardwalk.	Introduce more durable access controls (e.g., chestnut paling) where trampling persists. Re-align access routes where erosion or dune roll-back requires it.	Work with landowners and relevant authorities to ensure that future adaptation of access routes and adjacent infrastructure supports natural dune rollback and does not unnecessarily constrain coastal processes Ensure access does not restrict natural coastal adjustment per SMP (No Active Intervention.	Landowner
Intellectual Access (Signage and Education)	Install simple, low cost information boards explaining dune sensitivity, pick up after your dog, INNS issues, and MS4S project goals.	Replace temporary signage with durable, long-life panels if funding becomes available. Develop seasonal education material or guided walks	Maintain long-term interpretation programme led by NT & community. Refresh signage as dune conditions and climate-change pressures evolve.	Landowner with support from Community groups

Action	Short Term	Medium Term	Long Term	Who
Management of Overtly Mobile Sediment	When scrub is removed adjacent to the road, ensure some is retained to stop sand blowing into the road. Volunteer walkovers twice yearly and post-storm to record sand drift onto access areas and the road. Identify any developing blowouts or areas losing vegetation.	Apply targeted interventions such as temporary fencing, marram planting, or consider changing the line of the path if mobility increases	Maintain roll-back space for dunes in line with SMP policy (No Active Intervention), allowing natural dune evolution.	Landowner with support from Community groups
Infrastructure Adaptation Planning	Review NCERM erosion projections alongside existing infrastructure to identify assets likely to be affected during the lifetime of the plan.	Work with landowner, Cornwall Council and stakeholders to investigate future adaptation options for vulnerable infrastructure, including road, car park, café, toilet block, and RNLI building	Develop and implement an adaptation strategy that allows the dune system to migrate landward where practicable. This may include road realignment, relocation of the car park and relocation or replacement of vulnerable buildings as they become increasingly at risk from coastal erosion	Landowner, Cornwall Council and other stakeholders
Monitoring and Review	Baseline photos; annual checks of mobile sand, scrub regrowth and trampling hotspots. Refer to SWCM beach profiles and LiDAR datasets for erosion/accretion trend interpretation. Record any emergence of embryonic dunes near the upper beach	Conduct structured ecological assessments every five years (funding dependent). Review dune toe movement and habitat change using SWCM datasets.	Full site review every 10 years to realign management with SMP and evolving dune morphology	Landowner with Ecologist
Community Stewardship	Strengthen involvement of landowner/manager and local community group members in regular work parties. Provide basic training for INNS identification and dune-friendly visitor engagement.	Develop a trained local stewardship network capable of supporting ongoing dune restoration and monitoring.	Establish long-term community custodianship, embedding dune awareness into local culture and NT membership activity.	Landowner / Community Groups

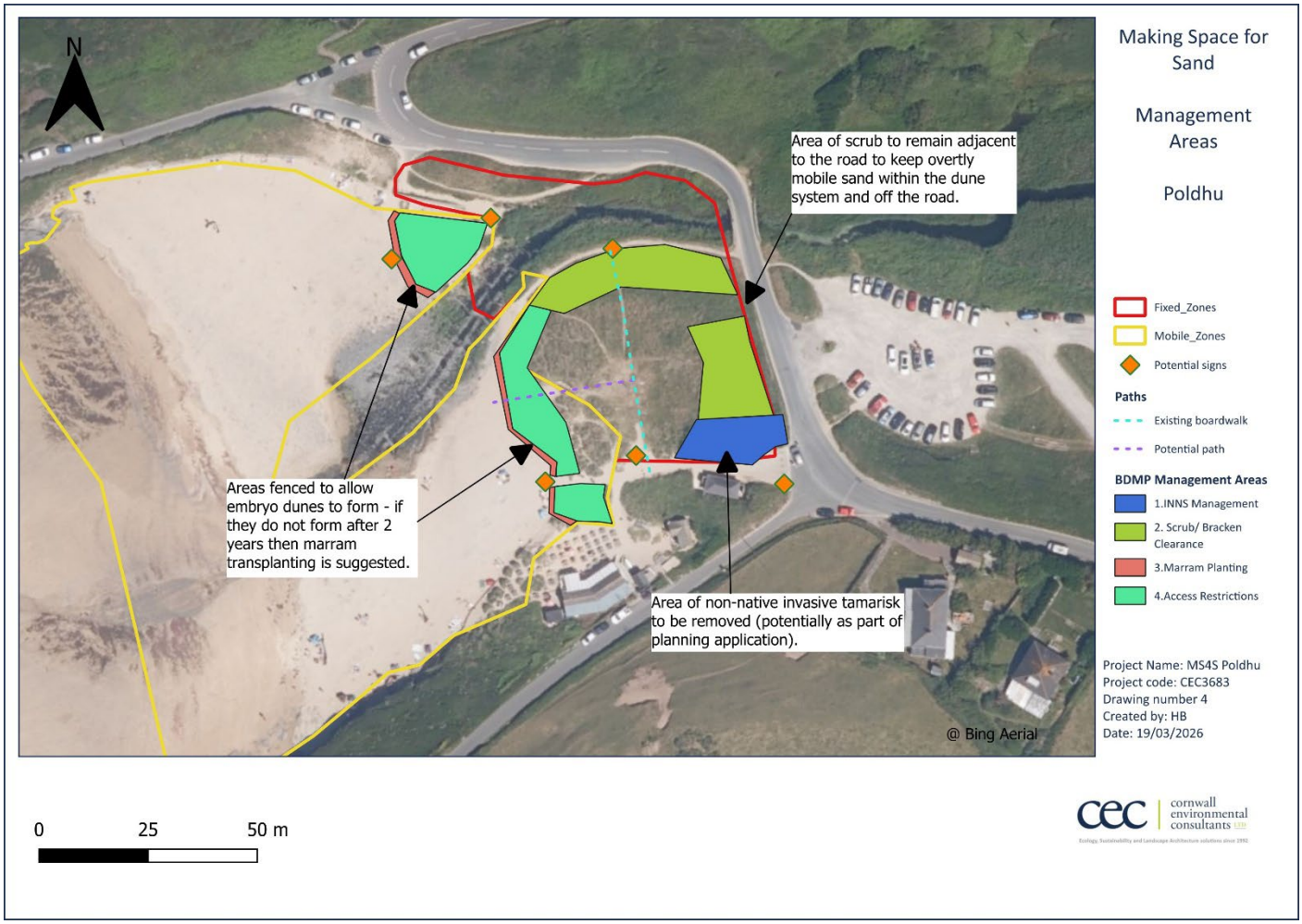


Figure 28: Management Areas

7.6. Short-term Management Activities

INNS and scrub management activities

7.6.1. Short-term plans for management at Poldhu Cove should be focused on stopping the spread of invasive species and scrub across the site. See Table 9 (8.1.5) for the advantages and disadvantages of different INNS and scrub removal techniques and Table 10 (8.1.8) for information on responsible removal of INNS for the Poldhu Cove site.

7.6.2. The removal of invasive tamarisk is expected to be undertaken as part of planning permission for the refurbishment of the toilet block at the time of writing, and because this work falls within a Biodiversity Net Gain (BNG) commitment it will require monitoring for a 30-year period. If tamarisk re-establishes, it will be required to be removed, and the area must also be monitored for natural recolonisation by native dune species. Should no natural colonisation occur, transplanting of marram grass may be required to support dune restoration. As these actions form part of the BNG obligations, they will be delivered by the landowner, with ecological advice provided through the HMMP, and therefore sit outside the scope of this Beach Dune Management Plan.



Figure 29: Invasive tamarisk (background) shifting dune (foreground)

7.6.3. When the bramble scrub is removed, a narrow strip should be retained along the road edge to act as a sheltering buffer. This will help reduce wind-blown sand being transported onto the carriageway and maintain safe access while allowing the remainder of the dune system to regain mobility.

Salt Tolerant Species Planting (Including Marram)

7.6.4. For areas where scrub/INNS removal has taken place, or sand build up is taking place and natural colonisation remains limited after two to three years, planting should be undertaken to stabilise priority areas and enhance dune biodiversity. Any planting should be used strategically, supporting rather than constraining natural dune mobility. Guidance on transplanting and planting marram, as well as the use of other appropriate salt tolerant species, is provided in Section 8.2 and should be followed to ensure interventions are consistent with natural dune processes.

Access management

7.6.5. In general, fragmentation can be advantageous for dune habitat, especially where areas of dense invasive species or scrub have over stabilised the habitat. However, sometimes there may be areas, such as areas of new planting, embryonic dune, or in areas where there are high visitor numbers, where footfall is undesirable. The creation of paths through the scrub introduces controlled disturbance through footfall.

7.6.6. Three areas have been identified (see Figure 28) where public access should be restricted initially to support dune recovery. In the northern section, restrictions are required to protect existing embryonic dunes, which are highly sensitive to trampling. In the southern section, access should be limited to allow the foredunes to accumulate sand and develop new embryo dunes. These restrictions should be

temporary to support early-stage dune formation.

7.6.7. Review the existing network of informal paths and desire lines and identify zones where trampling impacts dune vegetation or where over stabilisation would benefit from more visitor footfall. Install low impact temporary measures such as listed in Table 13 to redirect visitors away from sensitive areas.



Figure 30: Example of paths through dunes, post and rope fencing from Porthtowan

Intellectual Access (Signage and Education)

7.6.8. To help the public understand the dunes, why management is taking place, why they might not be able to go to places they could before, why they need to monitor their dogs and pick up after them etc. it is advisable that signs be installed.

7.6.9. Install simple, low-cost interpretation boards explaining dune ecology and natural coastal processes, the importance of allowing dune systems to evolve naturally, habitat restoration activities, invasive non-native species management, responsible dog ownership and the role visitors can play in protecting the site. Interpretation should also explain the effects of climate change and coastal erosion, including why access routes and other infrastructure may need to adapt over time. QR codes and digital media can

provide more detailed information, seasonal updates and opportunities for community involvement.

7.6.10. See Section 8.4 for sign ideas ranging from budget friendly to top of the line, Figure 28 shows access points onto the dunes where signs may be useful.

Management of Overtly Mobile Sediment

7.6.11. The area most susceptible to overtly mobile sand at Poldhu Cove is the main public entrance, where high footfall has created a zone of exposed bare sand. At present, the existing tamarisk is trapping much of this wind-blown sediment; however, as this vegetation is expected to be removed, it will be important to closely monitor the area for increased sand movement. To prevent further erosion and allow natural dune species to recolonise, temporary fencing—such as the measures described in Table 13 should be installed. This fencing should remain in place until dune grasses and other pioneer species establish sufficiently to trap and stabilise the sand.

7.6.12. It is advisable to undertake walkover inspections immediately after the works are completed, at regular intervals thereafter, and following significant storm events. These walkovers should record any sand drift onto roads, car parks or adjacent vegetation, and identify the early formation of blowouts or areas where vegetation cover is being lost. Early detection will allow timely management intervention and help maintain dune stability. This monitoring could be undertaken by trained volunteers as part of ongoing community stewardship.



Figure 31: Example of chestnut paling and marram planting to trap sand

Infrastructure Adaptation

7.6.13. Although no immediate changes to infrastructure are proposed, the implications of future coastal erosion should be recognised from the outset. The latest NCERM erosion projections should be reviewed alongside the location of the road, car park, café, RNLI building and public toilets to identify assets likely to be affected during the lifetime of this plan. Early engagement between Cornwall Council, landowners and other stakeholders is encouraged to raise awareness of future risks and begin considering long-term adaptation options.

Monitoring and Review

7.6.14. Monitoring is an integral part of dune management. For the short-term fixed-point photography could be used every six months to monitor vegetation recovery, INNS progression and dune geomorphology.

7.6.15. Access infrastructure and signage should also be monitored regularly by the landowner, to ensure they remain effective in directing footfall and preventing erosion where not needed and fragmentation where it is. Responsibility for managing windblown sand affecting adjacent roads or neighbouring properties will remain with the landowner

7.6.16. Ongoing geomorphological change at Poldhu Cove is monitored through the regional South West Coastal Monitoring Programme which provides periodic beach profile, topographic and aerial survey data to inform adaptive dune management and five-year review updates.

Community Stewardship

7.6.17. When the time is right, initial community stewardship activity should focus on practical scrub removal and monitoring of overtly mobile sand, volunteers could be provided with basic training for INNS identification and dune-friendly visitor engagement, to encourage responsible dog owners and discourage trampling through the dunes.

7.7. Medium Term Management

7.7.1. The medium-term focus should shift from initial restoration towards adaptive management. Monitoring undertaken during the early years of the plan should be used to evaluate the success of management measures, refine techniques where necessary and respond to changes in dune morphology and coastal processes. This period should also be used to develop longer-term adaptation strategies, ensuring that future management, visitor access and infrastructure can respond proactively to sea-level rise, coastal erosion and natural dune rollback.

Habitat restoration

7.7.2. Review the effectiveness of scrub and invasive non-native species control using monitoring results and modify management techniques where required. Where natural colonisation remains limited two to three years after vegetation removal, undertake targeted planting of marram or other appropriate salt-tolerant species to stabilise priority areas and encourage dune development. Any planting should support, rather than constrain, natural dune mobility.

Access Management

7.7.3. Review visitor movement and habitat responses to determine whether additional sensitive areas require protection or whether previously restricted areas can accommodate increased access. restriction or over stabilised areas may be identified for unrestricted access.

7.7.4. Introduce more durable access management in areas where trampling persists. Realign paths where erosion or dune roll back requires rerouting. Ensure access changes support dune recovery and maintain visitor safety.

Intellectual Access

7.7.5. Review the effectiveness of interpretation based on visitor behaviour, emerging management issues and changes in dune condition. Replace temporary signs with more durable panels where funding allows, updating information to reflect habitat restoration, responsible visitor behaviour and the need for long-term adaptation to coastal change.

Management of Overtly Mobile Sediment

7.7.6. As scrub reduces, it is likely that mobile sediment will increase. Targeted interventions such as temporary fencing, marram planting, or brushwood bunds can be implemented however, any stabilisation techniques should remain light-touch, focusing on priority areas only, where necessary to protect essential infrastructure or public safety and should be designed to support protection without constraining natural dune processes or limiting the system's ability to roll back.

7.7.7. Monitoring of access and visitor movement may indicate that it would be beneficial to adjust visitor access routes so they follow a slightly curved alignment, rather than a straight corridor through the dunes. Curved paths help to interrupt wind flow, reducing the likelihood of wind funnelling directly through access points and transporting overtly mobile sand onto the road. By breaking up the wind's pathway, this approach supports both visitor management and sand containment, while remaining compatible with natural dune processes. Paths can be delineated by techniques listed in Table 13 (8.3.1).

Infrastructure Adaptation

7.7.8. As monitoring and erosion projections are updated, infrastructure adaptation planning should become an integral part of long-term site management. Opportunities to realign the road and, where appropriate, relocate the adjacent car park should be explored to provide sufficient space for natural dune rollback and reduce the risk of coastal squeeze. At the same time, adaptation strategies should be developed for the café, RNLI building and public toilets, recognising that these assets are likely to become increasingly vulnerable to coastal erosion. Considering future relocation or replacement before they become at immediate risk will help maintain visitor facilities while improving the long-term resilience of the coastline.

Monitoring and review

7.7.9. Ideally, ecological condition will be assessed by a qualified ecologist undertaking vegetation surveys every five years. Specifically, looking at dune condition, assessing whether INNS have returned, and whether areas of bare sand are naturally be colonised by native dune species, these surveys will inform whether more INNS removal is required and whether supplementary planting is necessary to restore habitat or stabilise sand.

7.7.10. Monitoring should also include periodic review of NCERM erosion projections and observed shoreline change to assess the vulnerability of adjacent infrastructure and inform future adaptation planning.

Community Stewardship

7.7.11. Develop a skilled, trained stewardship group capable of supporting ongoing restoration, monitoring and public awareness activities. Strengthen relationships between the landowner and community volunteers.

Long Term Management

7.7.12. In the long term, management will focus on maintaining a dynamic, naturally functioning dune system that is able to respond to sea-level rise and ongoing coastal erosion. Landward migration of the dune system will become increasingly important and sufficient space should be retained wherever practicable to allow natural dune rollback. The long-term viability of the existing highway and adjacent car park should be reviewed in light of projected coastal change, recognising that their current alignment may increasingly constrain natural dune evolution and contribute to coastal squeeze. Similarly, beach infrastructure, including the café, RNLI building and public toilets, is likely to become increasingly vulnerable to erosion over the lifetime of the plan and should be considered within long-term adaptation planning. Decisions should be guided by monitoring, updated erosion projections and partnership working to ensure both the dune system and essential visitor infrastructure remain resilient to future coastal change.

Delivery of the long-term management strategy will require ongoing partnership working between Cornwall Council as Coast Protection Authority, the landowner, infrastructure owners, environmental organisations and community groups, with management reviewed periodically in response to monitoring and updated coastal change projections.

Habitat Restoration

7.7.13. Continue low-level surveillance and control of invasive non-native species and bracken, allowing native dune communities to respond naturally to coastal change. Any supplementary planting should only be undertaken where necessary to support dune recovery and should remain consistent with natural dune processes.

Salt-tolerant Species Planting (Including Marram)

7.7.14. Vegetation structure should be maintained in a way that allows the dune system to roll back naturally as sea levels rise. Planting zones may need to shift landward to track retreating foredunes and planting should continue to support natural dune processes rather than fixing dune positions.

Access Management

7.7.15. Plan for the long-term adaptation of access routes as the dune system migrates. Access infrastructure, including routes serving the car park, should remain flexible and be reviewed periodically to ensure it supports natural dune rollback, maintains visitor safety and does not unnecessarily constrain coastal processes in accordance with SMP "No Active Intervention" policy.

Management of Overtly Mobile Sediment

7.7.16. Where opportunities arise, ensure sufficient rollback space is retained to allow the dune system to evolve naturally in accordance with the SMP "No Active Intervention" policy. Long-term management should support natural sediment movement rather than restraining it, intervening only where necessary to protect essential infrastructure or public safety.

Infrastructure Adaptation

7.7.17. In the long term, management should work with natural coastal processes rather than attempting to resist them. Where monitoring and updated erosion projections demonstrate that adaptation is required, opportunities should be taken to realign the road and, where appropriate, relocate or redesign the adjacent car park to provide space for natural dune rollback and reduce the risk of coastal squeeze. Vulnerable infrastructure, including the café, RNLI building and public toilets, should be managed through an agreed adaptation strategy that considers phased, timely relocation or replacement as erosion progresses, ensuring that visitor facilities continue to be provided from locations that remain sustainable under future coastal change.

Monitoring and Review

7.7.18. Continue periodic review of ecological condition, coastal monitoring data and NCERM projections, updating management in response to observed change and the timing of future adaptation requirements.

Community Stewardship

7.7.19. Community stewardship should become embedded within the long-term management of the site, complementing the work of the landowner and partner organisations through ongoing restoration, monitoring and public engagement.

8. Appropriate Management Techniques

8.1. Invasive Non-Native Species (INNS) Management

8.1.1. Landowners have a legal and ethical duty to manage INNS.

8.1.2. The invasive non-native species having the greatest detrimental impact on the dune habitats at Poldhu Cove is tamarisk. As noted previously, this species is scheduled for removal under the current planning application, with all arisings to be disposed of via a licensed waste contractor. Tamarisk is particularly problematic within dune systems because it over-stabilises the sand, suppressing the natural shifting dynamics upon which many native pioneer species depend. Its dense growth also shades out and outcompetes dune vegetation, leading to reduced plant diversity and altering the ecological structure of the dune system. Should the planning application not proceed, removal of this tamarisk stand should still be undertaken as part of ongoing site management to restore natural dune processes and improve habitat condition.

8.1.3. INNS other than tamarisk were not recorded within the dunes at the time of survey; however, montbretia, Japanese rose and beach daisy were identified immediately adjacent to the dune system. Regular monitoring should therefore focus on these species in particular, with their removal undertaken promptly in the short and medium term to prevent establishment and support their complete eradication from the dunes. In the longer term, continued monitoring remains essential, with any new growth removed at the earliest opportunity before these species can take hold again.

8.1.4. Scrub removal and INNS removal follow broadly similar techniques—both involve targeted cutting, extraction of root systems where feasible, and careful removal of arisings—and therefore the same methods outlined in the accompanying table can be applied to both activities.

8.1.5. See Table 9 for potential scrub/invasive species removal methods and how appropriate they are in this area.

Table 9: Modes of INNS and Scrub Management

Management Type	Advantages	Constraints	Suitable course of action for the site
Heavy plant	Fast for large areas of invasives Effective at removing large root systems Invasives less likely to grow back Less physically demanding	Requires good site access for machinery Limited by access to dunes Not suitable for sensitive areas – may damage good surrounding habitat Expensive – machinery and operative	No the dune is too small for heavy plant
Small plant	Fast removal of above ground plant material Effective at weakening persistent species Minimal set up required	Limited by very steep slopes May damage surrounding vegetation (but more able to select than heavy machinery)	Yes – for tamarisk and scrub area. More selective than heavy machinery, so reduced (but still present) risk of

	Ideal for narrow access	Require equipment and trained operative Risk of regrowth	collateral damage.
Hand digging	Very precise Minimal impact on surrounding vegetation Minimal set up required	Labour intensive Slow progress – can lead to disheartened volunteers Risk of re-growth	Yes – ideal for targeting small areas of INNS if they are found. Can also be used for scrub removal because the patches of INNS are small enough to be manageable, and there is a volunteer group ready and willing, although progress might be slow.
Herbicide Treatment	Can treat inaccessible areas Effective for persistent species If done correctly (i.e. weed wipe, spot spraying) reduces off-target damage to other dune vegetation. Best used when infestations are localised, preventing the species from forming dense thickets. Less physically demanding	Risk of poisoning nontarget animals and plants if not applied carefully. Timing is restricted to late summer to early autumn due to high leaf area and good herbicide uptake. Chemical use may be limited by site sensitivity, proximity to water, other legal restrictions. Requires careful handling and legal compliance Will need a trained professional to carry out. May need repeat applications Not popular with the public	Not suitable in this location as the INNS and scrub are more suitably controlled by manual or mechanical means. See Section 8.1.6 and 8.1.7 where its use is discussed.
Cutting back plants to prevent seed dispersal	Can remove a large amount of vegetation quickly Less physically demanding than removing roots	Works for some species better than others – at Poldhu Cove the species use rhizomes more than seeds to disperse so would not be effective.	No – the species at Poldhu Cove spread vegetatively and so this method would not be effective.
Grazing (sheep or goats)	Good for large areas Can reach rough terrain Can create habitat diversity Low cost compared to machinery	Selective feeding may leave invasive species Risk of over grazing and losing specialist species Animal husbandry and fencing required	No – Poldhu Cove dunes are too small to support animals.

8.1.6. The use of herbicides within dune systems should be considered only as a last resort for the control of

invasive non-native species where there is a clear ecological justification. Alternative management approaches should be considered first, and herbicide should only be used where non-chemical methods are unlikely to provide effective control, would result in greater ecological damage, or are not realistically achievable due to site constraints, available resources or the scale of the infestation. Sometimes herbicides are used within designated areas because the habitats are so delicate, and this is the least disruptive way of dealing with invasives, but this should be discussed and agreed by Natural England.

8.1.7. Where herbicide use is deemed necessary, application should be undertaken by trained and certified operators using the minimum quantity required to achieve the management objective. Herbicides should be applied in a highly targeted manner, for example through stump treatment, weed wiping or spot application to regrowth, rather than through broad-scale spraying. This helps minimise impacts on non-target species, reduces damage to surrounding dune vegetation and supports the long-term restoration of naturally functioning dune habitats.

8.1.8. After removing INNS, disposal is an important part of the process, see Table 10 for disposal methods and suitability for Poldhu Cove.

Table 10: Disposal of Invasive Species

Disposal type	Advantages	Constraints	Suitable course of action for the site
Burying INNS (with permit)	Allows on-site disposal Suitable for rhizomatous plant material such as Japanese rose	Requires an environmental permit. Conditions of permit must be followed. Not suitable for sensitive habitats without permission	No– There is not enough space on site to bury
Burying INNS without permission	Cost effective Avoids need for permit	Must comply with RPS178 conditions Only allowed on land of low habitat value (Sand dunes are not considered low value)	No – Not enough space
Burning INNS on site	Reduces volume of waste Effective for killing plant material so regrowth doesn't occur	Requires a D7 exemption Must comply with local byelaws Poor air quality	No – As the area has high visitor numbers even off season.
Composting	Low cost On site disposal	Not suitable for some INNS as some fragments may survive composting and regrow – therefore monitoring is required	Yes – An area of low value habitat, adjacent to the car park could be used – must be monitored for re-growth

Off-site disposal (licenced waste carrier)	Most secure and compliant disposal method Suitable for contaminated soil and plant material Full audit trail via waste transfer notes	Requires use of a licensed waste carrier Waste must be taken to an authorised landfill or disposal site. Higher cost	Yes – suitable for large scale disposal

*Never chip invasive species, many of them can grow from small pieces.

8.2. Marram planting and other salt tolerant species

8.2.1. No planting is planned in the short term; however, the planting of marram and other salt tolerant plants may be required in the medium term in areas where INNS or scrub removal has been successful and no natural colonisation has occurred after 2 years. There may also be a requirement for planting in the future if erosion should become an issue perhaps due to a scarp being created during a storm and stabilisation may be required. Establishing vegetation in this area helps reduce erosion, enhances habitat quality and promotes dune resilience.

8.2.2. In areas where marram is to be used to stabilise sand, planting should be undertaken during the spring or autumn growing season see Table 11 For advice on planting. Then monitoring of this area should be conducted in particular noting as to whether other species colonise. If after two to three years it is still solely marram, the planting of other salt tolerant species for biodiversity is advised.

8.2.3. When it comes to sourcing marram, it is always best if it can be harvested from an area nearby where it is abundant. This is because the grass will be suited to the conditions, it helps to continue the particular genetics of the grass in the area, and it is also sustainable and cost effective. The best time to divide mature marram grass clumps is during late spring to early summer or in early autumn, when milder conditions support root recovery and avoid the stress of frost or flowering.



Figure 32: Example of marram transplanting from local source to fill in area at Marazion in June 2025.

Table 11: Marram planting

Action	Timing	Method
Harvesting marram – to be done if there is an area of marram grass that is plentiful and close to the location	Planting to be undertaking immediately after harvesting. Optimal time for this is late spring/early summer or early autumn, to avoid extreme temperatures or flowering time.	Plants selected for removal should be green and young. Plants may be removed by using a spade, the objective is to loosen the root system within the sand. This can be achieved by carefully inserting the spade alongside the target roots and moving it back and forth to loosen the sand, allowing the plant to be pulled out by hand. Removed plants should retain as much healthy root material as possible.
Planting marram	Marram grass may be planted at any time of year, but preferably September to April. March is the most favourable planting month, as there are less environmental impacts to contend with such as storms, frost and sea swells	Holes or slots to be dug roughly 30 – 50 cm apart, loosely in a checkerboard pattern to ensure good coverage, while avoiding an overly regular planting arrangement. Divide the marram grass into small bundles for planting. Plant the marram grass as deep as possible to allow for any sand movement before it is established.
Shielding marram from wind	At the same time as planting.	If the marram is planted in a windblown area the new plants will show signs of stress and planting may fail, so some kind of shielding may be necessary, Table 13 for shielding and fencing techniques.

8.2.4. As mentioned previously, following scrub and invasive species control, it is recommended to monitor the cleared areas. Assessment should focus on natural recolonisation and recovery of dune vegetation which is preferable to active planting. Allowing natural regeneration supports native biodiversity and reduces management intervention. However, If after two to three years no species are found to be growing in the area, the planting of marram and other salt tolerant plants is recommended to enhance the botanical diversity within the dunes. See Table 12 For suitable species.

Table 12: Suitable species for planting into the dunes.

Common name	Scientific Name
Lady's bedstraw	*Galium verum*
Sand sedge	*Carex arenaria*
Sea bindweed	*Calystegia soldanella*
Sea holly	*Erygium maritimum*
Sea rocket	*Cakile maritima*
Sea spurge	*Euphorbia paralias*



Figure 33: Sea holly - salt tolerant species

8.3. Access

8.3.1. Table 13 outlines a range of management measures used to manage and direct public access in sand-dune systems, helping to protect sensitive habitats from trampling and erosion in some areas, but also help to fragment other areas. Many of these techniques can also be applied to shield newly planted vegetation or to trap and stabilise highly mobile sand, supporting dune restoration and recovery. Table 13 summarises each method, describing its main advantages and disadvantages, and indicates whether it is suitable for access management, planting protection, or sand-retention objectives

Table 13: Types of access management, new planting shielding and sand retention.

Method	Pros	Cons	Suitable for access	Shield new planting	sand retention
Chestnut Paling	Excellent sand-trapping ability Visually acceptable / traditional coastal appearance Durable and biodegradable Effective at forming embryo dunes Doubles as an access-control measure	Higher cost than other materials Needs maintenance after storms Can become buried, needing re-setting Potential trip hazards if damaged Leaves behind metal when degrades	Yes	Yes	Yes
Plastic / geotextile netting	Low cost Lightweight and easy to install, good for temporary works Reasonably effective at sand capture	Significant microplastic and debris risk Short lifespan Wildlife entanglement risk Can look untidy when weathered	Yes	Yes	Yes
Recycled Christmas trees	Extremely effective at trapping sand Fully biodegradable Quick to create embryo dunes Good community involvement activity	Short-lived (1–2 years) Requires large, clean supply – only available at certain times of year Needs anchoring to prevent blow-around Can look messy	Yes	Yes	Yes
Bark mulch / brash / dune matting	Reduces surface wind speed Helps stabilise blowouts Creates microsites for germination	Can wash away in storms Adds nutrients (undesirable in dune systems) May import weed seeds Provides minimal physical access control	No	Yes	Yes
Post and Rope Barriers	Excellent at directing public access Cheap and quick to install Low visual impact Flexible and easily moved	No sand-trapping function People sometimes step over Ropes sag / vandalism risk	Yes	No	No

Method	Pros	Cons	Suitable for access	Shield new planting	sand retention
Straw	Reduces wind erosion effectively Very cheap Fully biodegradable Useful for emergency stabilisation	Very short lifespan Introduces nutrients High weed-seed risk Can blow away without secure staking Not typically used in the UK	No	No	Yes
Boardwalks **	Extremely effective at guiding access Protects vegetation completely Accessible (pushchairs, wheelchairs) Long lifespan	Expensive Requires engineering May become buried in mobile dunes The line of the path may become lost due to coastal change. Can become hazardous if not kept in good condition Can't move the path. Visually prominent	Yes – short term only	No	No
Wire fencing (grazing enclosures)	Allow control grazing. Protects planting from trampling Long lasting compared with rope	Can appear visually intrusive Expensive	Yes	Yes for protection but not wind	No

8.3.2. NOTE**: The existing boardwalk provides an effective means of managing visitor access by concentrating footfall and reducing trampling of sensitive dune habitats. Whilst boardwalks are widely recognised as an effective access management tool, they require ongoing maintenance and can become buried, undermined or damaged as dune systems naturally evolve. At this site, NCERM projections indicate that the current boardwalk location is unlikely to remain sustainable in the medium to long term due to anticipated coastal change. Any future boardwalk provision should therefore be designed with flexibility in mind, allowing it to be relocated or adapted as the coastline continues to evolve.



Figure 34: Boardwalk at Poldhu

8.4. Signage

8.4.1. Clear, well-placed signage is an important tool for gaining public support for dune-management work, helping visitors understand why certain interventions are happening and encouraging responsible behaviour. Good signs can guide people onto designated paths, remind dog walkers to pick up after their pets, and explain the purpose of activities such as scrub clearance, fencing or temporary access restrictions. By providing simple, positive messages, signage helps build trust and reduces conflict, making visitors more likely to cooperate with conservation efforts. Signs can vary widely in cost—from durable, professionally printed interpretation boards to lower-cost options such as laminated A4 signs used during short-term works. Using a mixture of permanent and temporary signs gives managers flexibility to communicate both long-term messages and timely updates about ongoing habitat restoration.

Ideas for signs

8.4.2. Install interpretive signage explaining:

- Why dunes move
- Why invasive species are removed
- What special species may be living here
- Why fencing is necessary
- Role of marram grass

8.4.3. Use QR codes linking to:

- Dune management updates
- Volunteer opportunities
- Biodiversity monitoring results
- South West Coastal Monitoring data
- The history of the area

- Trails through and around the dunes

8.4.4. Another way to increase awareness and understanding of the dunes is to work with the volunteers to deliver seasonal guided walks.

8.4.5. See Figures 35-42 on the next page for examples of signs that can be used on the dunes.

8.5. Biodiversity Net Gain

8.5.1. The success of the management techniques outlined above will be measurable through Biodiversity Net Gain (BNG). As noted in Section 5.3.26, opportunities for achieving BNG at this site include the removal of invasive non-native species (such as tamarisk) and the implementation of targeted scrub management within the dune polygons. These actions, combined with allowing the habitat to naturally accumulate sand and undergo natural recolonisation by appropriate salt-tolerant species, (supported by planting if necessary) will increase species diversity, improve habitat condition and strengthen long-term dune resilience.



Figure 35: Example of small disk explaining why access is restricted



Figure 36: Example of small disk sign showing the way through the scrub at Widemouth



Figure 37: Simple cost-effective signpost



Figure 38: Example of a sign highlighting a special species



Figure 39: Example of interpretation board – history trail at Summerleaze, Bude



Figure 40: Example of rubbing trail at Par Sands



Figure 41: Example of interpretation board at Widemouth Bay



Figure 42: Example of interpretation board at Par Sands

9. Monitoring

Overview

9.1.1. Monitoring is an essential part of dune management at Poldhu Cove, helping the National Trust and partner organisations understand how the dune system responds to scrub removal, tamarisk clearance, visitor pressure, overtly mobile sand, and ongoing coastal processes. As there is currently no dedicated funding for a formal monitoring programme, this plan proposes a pragmatic, low-cost approach that makes use of National Trust Rangers, CWT involvement, volunteers, and freely available external datasets such as the South West Coastal Monitoring programme and the NCERM erosion projections. This will help identify whether the road, car park, café, RNLI building and public toilets are becoming increasingly vulnerable to coastal erosion and inform future adaptation planning. The objective is to identify when adaptation planning should begin, rather than waiting until coastal change has placed infrastructure at immediate risk. If future grants or partnerships become available, the programme could be expanded to include more detailed ecological and geomorphological assessments

INNS and Scrub Management

- Record INNS and scrub locations using GIS, mobile mapping apps, or geo-referenced photos to maintain an evolving site baseline.
- Use fixed-point photography to track regrowth, vegetation recovery and changes in dune structure.
- Undertake regular walkover surveys to identify early regrowth, new patches, or encroachment into dune grassland.
- Identify areas where INNS or scrub threatens dune grassland or early successional species and review effectiveness of control at those locations.
- Carry out follow-up removal of INNS, scrub or young regrowth to prevent re-establishment.
- Integrate INNS / scrub checks into wider dune condition monitoring, including mapping of persistent species.

Monitoring Vegetation Recovery in Cleared Areas

- Use fixed-point photographs every six months to track natural regeneration.
- Record whether bare sand is colonised by pioneer species (e.g., marram, sand couch) or whether scrub is returning.
- If areas remain bare after two years, supplementary planting may be required when resources allow.
- Future grants could support structured vegetation surveys or planting programmes

Path and Visitor Access Monitoring

9.1.2. Because Poldhu Cove experiences high visitor pressure and overtly mobile sediment around the public entrance

- Paths and desire lines should be monitored at least once per summer season.

- Monitoring should record any new trampling, widening of informal access routes, or vegetation loss resulting from footfall.
- These observations can guide low-cost interventions such as temporary access restrictions, minor realignment of rope-guided paths, or improved signage where visitors enter sensitive embryo dune areas.
- If funding becomes available, more durable access controls—such as chestnut paling fencing or improved boardwalk infrastructure—could be introduced where needed, provided they do not restrict natural dune mobility.

Overtly Mobile Sand

9.1.3. Poldhu Cove already experiences overtly mobile sand, particularly near the main entrance where high footfall keeps sand surfaces bare.

- Walkover inspections should be used to identify new blowouts, sand accumulation on access routes or onto the road, and changes in vegetation linked to increased mobility.
- Sand movement should be monitored following storm events and after scrub removal, as both can temporarily increase mobility.
- Any stabilisation measures introduced should remain light-touch and consistent with natural dune dynamics.

Professional Ecological Survey (Funding Dependent)

9.1.4. A full dune condition assessment undertaken by a qualified ecologist every five years would provide valuable insights into vegetation composition, scrub extent, INNS presence and overall dune health.

9.1.5. While this is not currently feasible without external funding, the monitoring evidence gathered through volunteer and ranger-led surveys will strengthen future funding applications and help ensure that any eventual professional assessment is well informed.

South West Coastal Monitoring Programme (SWCM)

9.1.6. The South West Coastal Monitoring Programme provides long-term, standardised coastal data for the region, including biannual topographic beach surveys, periodic LiDAR coverage and aerial imagery, all freely available for Poldhu Cove.

9.1.7. These datasets track changes in beach levels, dune toe position and sediment movement over time, and the SWCM interactive dashboard allows users to view historic profile change and generate beach-unit reports.

9.1.8. These datasets should be reviewed at least every five years, alongside local ecological monitoring, to support adaptive management—particularly in relation to storm impacts, beach recovery and longer-term erosion trends that influence dune mobility at Poldhu Cove.

Infrastructure and Coastal Change

9.1.9. NCERM projections indicate that, over the longer term, coastal erosion is likely to affect several assets at Poldhu Cove, including the public toilets, café and RNLI building. Whilst no immediate intervention is required, these projections should be reviewed alongside South West Coastal Monitoring Programme data and site inspections to identify whether coastal change is occurring as anticipated.

- Monitor changes in the distance between the dune edge and key infrastructure during routine site inspections.
- Review NCERM projections and SWCM data every five years to assess whether the anticipated rate of coastal change remains consistent with observed conditions.
- If monitoring indicates that infrastructure is becoming increasingly vulnerable, consider adaptation measures such as relocation, redesign or managed removal where appropriate, recognising that long-term coastal change is expected to continue

Table 14: Monitoring Plan

Timescale	Monitoring focus	Activities	Frequency	Lead/Responsibility
Short term	INNS/ Scrub	Inspect, map and record INNS, scrub; remove priority areas; remove regrowth	As much as possible	Volunteers / Landowner
	Cleared Areas	Monitor natural recolonisation, vegetation establishment, photo points	Yearly	Ecologist (if funded) /Landowner
	Path & visitor access	Check desire lines; note trampling; suggest low-cost adjustments	Annual (summer)	Landowner with volunteer help
	Mobile sand/erosion risk	Walkovers; note sand drift; after storms	Twice annually + storms	Landowner with volunteer help
Medium Term	INNS control	Targeted eradication of regrowth; annual mapping review	Annually	Landowner
	Vegetation and Dune Recovery	Evaluate regeneration; introduce marram/other species if recovery limited after 2-3 years; monitor cover and diversity	Annually	Landowner
	Access & Habitat Response	Review effectiveness of access management; refine access path if needed	Annually	Landowner
	Sediment mobility	Assess sediment mobility; and review any changes in erosion risk to adjacent infrastructure using site inspections, SWCM data and NCERM projections.	Ongoing	Landowner
	Infrastructure vulnerability	Review NCERM projections alongside SWCM monitoring and site inspections to assess whether the café, public toilets, RNLI building and other infrastructure are	Every 5 years	Landowner

Timescale	Monitoring focus	Activities	Frequency	Lead/Responsibility
		becoming increasingly vulnerable to coastal erosion. Identify when adaptation planning should begin		
Long Term	INNS Eradication	Maintain low-level surveillance; rapid response to any establishment	As required	Landowner
	Ecological Review	Ecologist site review; assess habitat condition, species composition and dune resilience	Every 5 – 10 years	Ecologist / Landowner
	Geomorphological Trends	Review long-term topographic data to identify shoreline/dune changes.	Ongoing / via monitoring programme	South West Regional Monitoring Programmer
	Infrastructure Adaptation	Review and implement adaptation measures where monitoring indicates increasing erosion risk, including consideration of relocation, redesign or managed removal of infrastructure where appropriate	As required	Landowner
	Adaptive Management	Review management strategy; ensure alignment with SMP & policy; adjust interventions	Every 5 – 10 years	Landowner and Ecologist

9.2. Funding

9.2.1. At the time of writing, a Community Engagement Officer funded through the MS4S project is available to support National Trust volunteer activity at Poldhu Cove. However, due to ongoing planning application works, this engagement has been temporarily paused and is unlikely to resume before the project concludes.

9.2.2. As the area is under a No Active Intervention policy there is unlikely to be any public funding for flood or erosion management, so in the future other sources of funding will be required.

9.2.3. Finding community and environmental grants is easiest when you use a combination of databases, government services, environmental organisations and corporate or charitable funders. Helpful places to look include:

9.2.4. Grant search databases

9.2.5. GrantFinder, Grants Online, and Funds Online – large databases covering national and local funding.

- Charity Excellence Framework – free “Funder Finder” tool.
- 360GrantNav – lets you explore UK funder data.
- My Funding Central – for smaller charities and community groups.

9.2.6. Government and local authority portals

- Find a Grant (GOV.UK) – official government funding search.
- Local councils – often run "Community Chest," climate funds, community ownership funds, or small local grant schemes.
- DEFRA – supports environmental and biodiversity initiatives.
- Landfill Communities Fund – delivered through bodies like Enovert for local green projects.

9.2.7. Environmental organisations and trusts

- The Wildlife Trusts – share opportunities for community nature work.
- Groundwork – grants and support for environmental improvements.
- National Lottery Community Fund – major funder of community led projects.
- Environmental Funders Network (EFN) – connects to environmental philanthropic funders.

9.2.8. Corporate and foundation schemes

- Aviva Community Fund – resilience and climate related projects.
- Veolia Environmental Trust – biodiversity and green space improvements.
- Tesco Stronger Starts and Asda Foundation – small local community grants.
- Naturesave Trust – conservation and sustainability funding.

9.2.9. Energy and sustainability specific funding

- Community Energy Fund – renewable energy projects.
- Salix Finance – public sector decarbonisation.
- Ashden Trust – climate and sustainable development focus.

9.2.10. Tips for searching

- Use keywords like "biodiversity," "climate action," "sustainability," "green space," "community garden."
- Contact local CVS (Council for Voluntary Service) for tailored advice.
- Check local supermarkets – many run small community grant schemes

10. Pictogram

KEY DUNE SPECIES



Daucus carota – Wild carrot a perennial with leaves divided into narrow leaflets, and dense umbels (umbrella-like) flowers which initially look reddish, but bloom into white flowers from June to September.



Eryngium maritimum – Sea holly, upright branching stems up to 60cm, cone of thistle like greenish-white or blue flowers with a ruff of spiny bracts, July to September

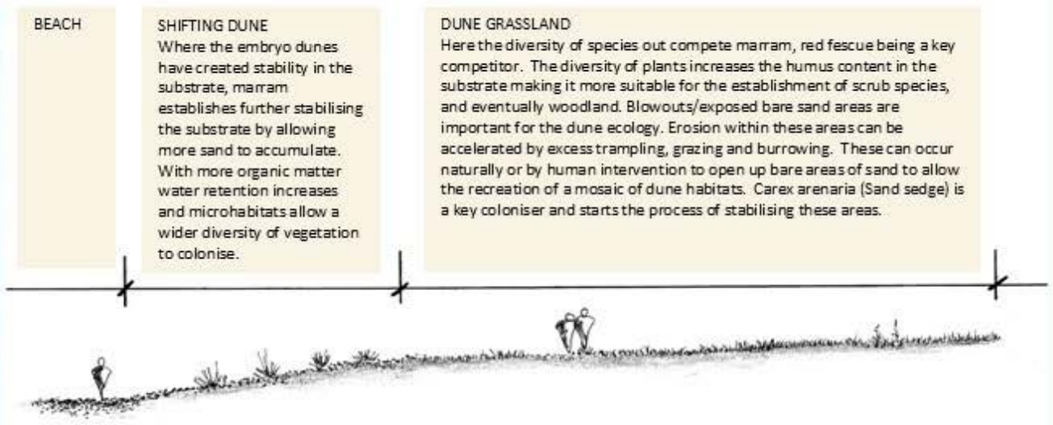


Ammophila arenaria – Marram grass, dense grey/green spiky tufts of rolled, long, thin leaves, flowers July and August, it's fibrous roots stabilise the dunes.





Calystegia soldanella – Sea bindweed is a trailing, rhizomatous perennial up to 1m across but only 10cm tall. Succulent stems, kidney shaped leaves, pink upward facing trumpet-shaped flowers with five white stripes in summer.



OPPORTUNITIES AND CONSTRAINTS

1. Poldhu Cove is within the Lizard Special Area of Conservation (SAC) designated for its Annex 1 habitats such as Vegetated Sea Cliff of the Atlantic and Baltic Coasts, and European Dry Heaths. It is also within the Baulk Head to Mullion Site of Special Scientific Interest (SSSI) designated for its maritime grasslands, rock-crevice communities and strandline vegetation to name just a few.

2. Scrub control – Scrub, tamerisk and bramble are encroaching into the dune area from the surrounding land outside the site area. Efforts should be made to control the spread of these plants, to protect the sensitive dune ecosystem. Removal of scrub will improve the dune condition.

3. Invasive species – - Currently Japanese rose and montbretia are found adjacent to the site, monitoring is required to ensure these species do not spread. If they are found on site, as plants listed under Schedule 9 of the Wildlife and Countryside Act 1981 as invasive species they should be removed.

4. Improvement in communication and direction of access through and around the dunes will enable new areas to build, and, if over stabilised, access can aid the process of creating instability again.

UNWANTED PLANTS IN THE DUNE ECOSYSTEM



Tamarisk is a non-native, invasive shrub although not listed on Schedule 9, it is still a non-native invasive species. it establishes readily on foredunes. Tamarisk forms dense, woody thickets that cast shade and displace native dune vegetation.



Crocosmia x crocosmiiflora - Montbretia is a vigorous, clump forming perennial listed on Schedule 9 of the UK Wildlife & Countryside Act as an invasive species. It has long thin pale green leaves which grow from a corm.



Rosa rugosa - Japanese rose, listed on Schedule 9 of the UK Wildlife & Countryside Act as an invasive species. A suckering shrub which can develop new plants from its roots, as well as producing up to 800 seeds/year. Creates dense spiney thickets up to 1m tall smothering native dune vegetation.

Photographic credits – Cornwall Environmental Consultants : Dr Sally Lucker – Budding Nature : Cornwall Wildlife Trust

POLDHU COVE Making Space for Sand

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12. List of Appendices

A. Schedule 9 Wildlife and Countryside Act 1981 as amended Part II

B. Condition Assessments

PART II

PLANTS

Common name	***Scientific name***
[F18Alexanders, Perfoliate]	[F18Smyrnium perfoliatum]
[F18Algae, Red]	[F18Grateloupia luxurians]
[F18Archangel, Variegated Yellow]	[F18Lamiastrum galeobdolon subsp. argentatum]
[F18Azalea, Yellow]	[F18Rhododendron luteum]
[F19[F18Balsam, Himalayan]]	[F19[F18Impatiens glandulifera]]
[F18Cotoneaster]	[F18Cotoneaster horizontalis]
[F18Cotoneaster, Entire-leaved]	[F18Cotoneaster integrifolius]
[F18Cotoneaster, Himalayan]	[F18Cotoneaster simonsii]
[F18Cotoneaster, Hollyberry]	[F18Cotoneaster bullatus]
[F18Cotoneaster, Small-leaved]	[F18Cotoneaster microphyllus]
[F18Creeper, False Virginia]	[F18Parthenocissus inserta]
[F18Creeper, Virginia]	[F18Parthenocissus quinquefolia]
[F18Dewplant, Purple]	[F18Disphyma crassifolium]
[F19[F18Fanwort]]	*[F19[F18Cabomba caroliniana]]*
[F18Fern, Water]	*[F18Azolla filiculoides]*
[F18Fig, Hottentot]	*[F18Carpobrotus edulis]*
[F18Garlic, Three-cornered]	[F18Allium triquetrum]
[F19Hogweed, Giant]	[F19Heracleum mantegazzianum]
[F19[F18Hyacinth, water]]	*[F19[F18Eichhornia crassipes]]*
[F20Kelp, Giant]	[F20Macrocystis angustifolia]
[F20Kelp, Giant]	[F20Macrocystis integrifolia]
[F20Kelp, Giant]	[F20Macrocystis laevis]
Kelp, Giant	Macrocystis pyrifera

***Changes to legislation:** Wildlife and Countryside Act 1981, SCHEDULE 9 is up to date with all changes known to be in force on or before 06 May 2026. There are changes that may be brought into force at a future date. Changes that have been made appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes*

[F20Kelp, Japanese**]**	**[**F20Laminaria japonica**]**
[F18Knotweed, Giant**]**	**[**F18Fallopia sachalinensis**]**
[F18Knotweed, Hybrid**]**	**[**F18Fallopia japonica x Fallopia sachalinensis
[F18Knotweed, Japanese**]**	**[**F18Fallopia japonica**]**
[F21Knotweed, Japanese**]**	**[**F21Polygonum cuspidatum**]**
[F18Leek, Few-flowered**]**	***[**F18 Allium paradoxum**]***
[F18Lettuce, water**]**	***[**F18 Pistia stratiotes**]***
[F18Montbretia**]**	**[**F18Crocosmia x crocosmiiflora**]**
[F19**[**F18Parrot's-feather**]]**	***[**F19**[**F18 Myriophyllum aquaticum**]]***
[F19**[**F18Pennywort, Floating**]]**	***[**F19**[**F18 Hydrocotyle ranunculoides**]]***
[F18Potato, Duck**]**	**[**F18Sagittaria latifolia**]**
[F19**[**F18Primrose, Floating Water**]]**	**[**F19**[**F18Ludwigia peploides**]]**
[F19**[**F18Primrose, Water**]]**	**[**F19**[**F18Ludwigia grandiflora**]]**
[F18Primrose, Water**]**	**[**F18Ludwigia uruguayensis**]**
[F18Rhododendron**]**	**[**F18Rhododendron ponticum**]**
[F18Rhododendron**]**	**[**F18Rhododendron ponticum x Rhododendron maximum**]**
[F19**[**F18Rhubarb, Giant**]]**	**[**F19**[**F18Gunnera tinctoria**]]**
[F18Rose, Japanese**]**	**[**F18Rosa rugosa**]**
F22	**F22**
. . .	. . .
[F18Seafingers, Green**]**	**[**F18Codium fragile**]**
[F21Seafingers, Green**]**	**[**F21Codium fragile tomentosoides**]**
[F20Seaweed, Californian Red**]**	**[**F20Pikea californica**]**
[F20Seaweed, Hooked Asparagus**]**	**[**F20Asparagopsis armata**]**
Seaweed, Japanese	Sargassum muticum
[F20Seaweeds, Laver (except native species)**]**	**[**F20Porphyra spp except -**]**
	[F20p. amethystea**]**
	[F20p. leucosticta**]**
	[F20p. linearis**]**
	[F20p. miniata**]**
	[F20p. purpurea**]**
	[F20p. umbilicalis**]**

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[F18Stonecrop, Australian Swamp (otherwise known as New Zealand Pygmyweed)**]**	**[**F18Crassula helmsii**]**
[F20Wakame**]**	**[**F20Undaria pinnatifida**]**
[F19**[**F18Waterweed, Curly**]]**	***[**F19**[**F18*Lagarosiphon major***]]***
[F23**[**F18Waterweeds**]][**F23Waterweeds (except Nuttall's Waterweed)**]**	**[**F23**[**F18All species of the genus Elodea.**]][**F23All species of the genus Elodea, except Elodea nuttallii**]**

Textual Amendments

F18 Entries in Sch. 9 Pt. 2 added (E.W.) (6.4.2010) by The Wildlife and Countryside Act 1981 (Variation of Schedule 9) (England and Wales) Order 2010 (S.I. 2010/609), **art. 2(4)**

F19 Words in Sch. 9 Pt. 2 omitted (E.W.) (1.12.2019) by virtue of The Invasive Alien Species (Enforcement and Permitting) Order 2019 (S.I. 2019/527), art. 1(1), **Sch. 4 para. 1(3)(b)(i)** (with art. 1(2)(4)) (as amended by S.I. 2019/1213, regs. 1, **2(2)**)

F20 Words in Sch. 9 Pt. 2 added (17.3.1992) by S.I. 1992/320, **art. 3**

F21 Entries in Sch. 9 Pt. 2 removed (E.W.) (6.4.2010) by virtue of The Wildlife and Countryside Act 1981 (Variation of Schedule 9) (England and Wales) Order 2010 (S.I. 2010/609), **art. 2(5)**

F22 Words in Sch. 9 Pt. 2 omitted (E.) (4.5.2021) by virtue of The Wildlife and Countryside Act 1981 (Variation of Schedule 9) (England) Order 2021 (S.I. 2021/236), arts. 1(b), **2(3)**; and words in Sch. 9 Pt. 2 omitted (W.) (10.9.2025) by virtue of Legislation (Procedure, Publication and Repeals) (Wales) Act 2025 (asc 3), s. 9(2)(d), **Sch. 1 para. 53(b)**

F23 Words in Sch. 9 Pt. 2 substituted (E.W.) (1.12.2019) by The Invasive Alien Species (Enforcement and Permitting) Order 2019 (S.I. 2019/527), art. 1(1), **Sch. 4 para. 1(3)(b)(ii)** (with art. 1(2)(4)) (as amended by S.I. 2019/1213, regs. 1, **2(2)**)

Note. The common name or names given in the first column of this Schedule are included by way of guidance only; in the event of any dispute or proceedings, the common name or names shall not be taken into account.**]]**

Condition Sheet: COASTAL Habitat Type

UK Habitat Classification (UKHab) Habitat Types

Sparsely vegetated land - Coastal sand dunes
Sparsely vegetated land - Coastal vegetated shingle
Sparsely vegetated land - Maritime cliff and slopes

Habitat Description

See UKHab

On-site or off-site, site name and location		**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	

Condition Assessment Criteria		Habitat parcel reference										
		27939193	27939194_2	27939195	27939201	27939203	27939396					
		Grid reference										
		SW 66630 19960	SW 66634 19984	SW 66626 19999	SW 66591 20023	SW 66653 19992	SW 66633 20005					
		Criterion passed (Yes or No)										Notes (such as justification)
A	The parcel represents a good example of its specific habitat type, with characteristic indicator species present in the typical successional stages, transitions and or mosaics, at sufficient cover and frequency to be a good example.[1] **Note - this criterion is essential for achieving Good condition.**	Yes	Yes	Yes	Yes	Yes	Yes					
B	Vegetation structure (sward height variation, zonation) is varied and not uniform.	Yes	Yes	Yes	Yes	Yes	Yes					
C	Naturally open ground or bare surfaces are present as part of a sequence of colonisation and succession.	No	Yes	No	Yes	Yes	No					
D	Coastal processes needed to support the habitat are functional and are not modified by hard engineering or other forms of negative intervention.	No	No	No	No	No	No					
E	The landform reflects the interaction of coastal processes and geology, and there is a varied topography present supporting the relevant range of habitat types.	Yes	Yes	Yes	Yes	Yes	Yes					
F	There is an absence of invasive non-native species[2] (as listed on Schedule 9 of WCA[3]). Combined cover of species indicative of suboptimal condition[4] and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	Yes	Yes	Yes	Yes	No	Yes					(27939203) Three cornered leek
G	Any scrub (including bramble *Rubus fruticosus* agg.) present accounts for less than 10% of the area within the habitat or bare substrate matrix. Blocks of scrub or woodland, which might be desirable in their own right should be classified and mapped separately.	No	Yes	Yes	Yes	Yes	Yes					
H	Water quality and quantity (for example, seasonal fluctuations in dune slacks or seepages on cliff slopes) is sufficient to support the range of water-dependent parts of the habitat.	Yes	Yes	Yes	Yes	Yes	Yes					
Essential criterion achieved (Yes or No)		Yes	Yes	Yes	Yes	Yes	Yes					

Number of criteria passed		5	7	6	7	6	6					
Condition Assessment Result (out of 8 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**										
Passes 7 or 8 criteria including essential criterion A	Good (3)		Yes		Yes							
Passes 5 or 6 criteria; OR Passes 7 criteria excluding essential criterion A	Moderate (2)	Yes		Yes		Yes	Yes					
Passes 4 or fewer criteria	Poor (1)											

Suggested enhancement interventions to improve condition score

Notes

Footnote 1 - Professional judgement should be used alongside the UKHab description.

Footnote 2 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 3 – Wildlife and Countryside Act 1981 (as amended).

Footnote 4 - General coastal species indicative of suboptimal condition: creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , bramble, white willow *Salix alba* hybrids, sea buckthorn *Hippophae rhamnoides* (only outside its restricted native range), and non-native garden plants.

Grassland species indicative of suboptimal condition: creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* and cow parsley *Anthriscus sylvestris* .

Heathland species indicative of suboptimal condition: bracken *Pteridium aquilinum.*

There may be additional relevant species local to the region and or site.

Condition Sheet: WETLAND Habitat Type

Habitat Types

Grassland - Floodplain wetland mosaic and CFGM - See the Statutory Biodiversity Metric User Guide.
Wetland - Blanket bog
Wetland - Depression on peat substrates (H7150)
Wetland - Fens (upland and lowland)
Wetland - Lowland raised bog
Wetland - Oceanic valley mire [1] (D2.1)
Wetland - Purple moor grass and rush pastures
Wetland - Reedbeds
Wetland - Transition mires and quaking bogs (H7140)

Habitat Description

For Oceanic valley mires - see EUNIS

See the Statutory Biodiversity Metric User Guide for Floodplain wetland mosaic (FWM) and coastal and floodplain grazing marsh (CFGM). For CFGM also see the below:

Coastal and floodplain grazing marsh UK BAP Priority Habitat description

Priority Habitat Inventory (England) - data.gov.uk

All other wetland habitats - see UK Habitat Classification (UKHab):

UKHab

On-site or off-site, site name and location		**Survey date and Surveyor name**	
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)		**Habitat parcel reference**	27939198
		Grid reference	SW 66634 20022

Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**
Core Criteria - must be assessed for **all wetland habitat types**:			
A	The water table is at, or near the surface throughout the year - this could be open water or saturation of soil at the surface. There is no artificial drainage, unless specifically to maintain water levels as specified above. **Note - this criterion is essential for achieving Good condition.**	Yes	
B	The parcel represents a good example of its specific habitat type - the appearance and composition of the vegetation closely matches its UKHab description, with vascular and non-vascular characteristic indicator species consistently present.[1]	Yes	
C	The water supplies (groundwater, surface water and or rainwater) to the wetland are of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.	Yes	
D	Cover of scrub and scattered trees are less than 10%.	Yes	
E	Cover of bare ground is less than 5%.	Yes	
F	There is an absence of invasive non-native plant species[2] (as listed on Schedule 9 of WCA[3]) and species indicative of suboptimal condition[4] make up less than 5% of ground cover.	Yes	
Additional Criterion - must be assessed for **Fen and Purple moor grass and rush pasture** habitats only:			
G	No more than 25% of the habitat area has a continuous cover of litter (such as dead vegetation) preventing regeneration.	Yes	
Additional Criterion - must be assessed for **Bog** habitats only:			

H	Sphagnum moss *Sphagnum* spp. and cottongrasses *Eriophorum* spp. are at least Frequent[5]. Cover of ericaceous dwarf shrubs[6] is less than 75%.	No											
Additional Criterion - must be assessed for **Reedbed** habitats only:													
I	The reedbed has a diverse structure with between 60% and 80% reeds *Phragmites australis* . Other areas may include open water (at least 10%), species-rich fen[7] and or wet woodland.	Yes											
Additional Criterion - must be assessed for **Floodplain wetland mosaic and CFGM** only:													
J	All ditches recorded within the habitat achieve Good condition as assessed using the Ditch condition sheet.	No											
Essential criterion achieved (required for Good condition) Yes or No:		Yes											
Number of criteria passed		8											

Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**
Results for habitats requiring assessment of 6 criteria (Depression on peat substrates (H7150) and Oceanic valley mire [1] (D2.1)):		
•Passes 5 or 6 core criteria, including criterion A.	Good (3)	Yes
•Passes 3 or 4 core criteria; OR •Passes 5 core criteria but fails criterion A.	Moderate (2)	
•Passes 2 or fewer core criteria.	Poor (1)	
Results for habitats requiring assessment of 7 criteria - core criteria and additional criterion specified for habitat type - all habitat types except Depression on peat substrates (H7150) and Oceanic valley mire [1] (D2.1):		
•Passes 5 or 6 core criteria including criterion A; AND •Passes additional criterion G, H, I or J (choose the one specified for the habitat type).	Good (3)	
•Passes 4 or 5 of 7 criteria; OR •Passes 6 of 7 criteria but fails criterion A or additional criterion G, H, I or J (choose the one specified for the habitat type).	Moderate (2)	
•Passes 3 or fewer criteria.	Poor (1)	

Suggested enhancement interventions to improve condition score

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)													
UK Habitat Classification (UKHab) Habitat Types													
Grassland - Lowland calcareous grassland **Grassland - Lowland dry acid grassland** **Grassland - Lowland meadows** **Grassland - Other lowland acid grassland** **Grassland - Other neutral grassland** **Grassland - Tall herb communities (H6430)** [Not to be confused with the Tall forbs secondary code – see UKHab guidance for details.] **Grassland - Upland acid grassland** **Grassland - Upland calcareous grassland** **Grassland - Upland hay meadows** **Sparsely vegetated land - Calaminarian grassland**													
Habitat Description													
ukhab – UK Habitat Classification													
On-site or off-site, site name and location		**Survey date and Surveyor name**											
		Survey reference (if relating to a wider survey)											
Limitations (if applicable)		**Habitat parcel reference**											
		27939202											
Condition Assessment Criteria		**Grid reference**											
		SW 66608 20036											
		Criterion passed (Yes or No)											**Notes (such as justification)**
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).[1] **Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**	Yes											
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	No											
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens[2].	No											
D	Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) is less than 5%.	Yes											
E	Combined cover of species indicative of suboptimal condition[3] and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species[4] (as listed on Schedule 9 of WCA[5]) are present, this criterion is automatically failed.	Yes											
Additional Criterion - must be assessed for all non-acid grassland types													
F	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). **Note - this criterion is essential for achieving Good condition for non-acid grassland types only.**	No											

Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		No										
Number of criteria passed		3										
Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**										
Acid grassland types (Result out of 5 criteria)												
Passes 5 criteria	Good (3)											
Passes 3 or 4 criteria	Moderate (2)											
Passes 2 or fewer criteria	Poor (1)											
Non-acid grassland types (Result out of 6 criteria)												
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)											
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	Yes										
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)											

Suggested enhancement interventions to improve condition score

Notes

Footnote 1 - Professional judgement should be used alongside the UKHab description.

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* , white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris* . There may be additional relevant species local to the region and or site.

Footnote 4 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.

Footnote 5 – Wildlife and Countryside Act 1981 (as amended).

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