

## Slapton Line Partnership Meeting 25<sup>th</sup> January 2019, Follaton House

Cllr Graham Burton (Slapton Parish Council)  
Peter Chamberlain (Devon County Council Environment Manager),  
Vicky Croughan (Communications, South Hams District Council),  
Eamon Crowe (Team Leader, Natural England)  
Martin Davies (Environment Agency)  
Alan Denbigh (Chair, Slapton Line Partnership)  
Roger English (Manager South AONB)  
John Fewings (Neighbourhood Highway Team, Devon County Council)  
Dan Field (Senior Specialist in Engineering, South Hams District Council)  
Cllr Richard Foss (South Hams District Council Councillor for Allington and Strete)  
Cllr Kate Gill (Chair, Strete Parish Council)  
Cllr Val Mercer (Slapton Parish Council)  
Andy Pratt (Head of Slapton Ley, Field Studies Council)  
Cllr Piers Spence (Chair, Stokenham Parish Council)  
Simon Tonge (Executive Director of the Whitley Wildlife Conservation Trust (WWCT))

Apologies :

Cllr Julian Brazil (Devon CC Cllr for Kingsbridge & Stokenham & South Hams DC Cllr for Stokenham)

**1. Minutes of the meeting of the 7<sup>th</sup> March:**

Were approved. Matters arising dealt with below.

**2. Revised Strategy**

The current strategy for response to road damage dates back to 2006 following a wide-ranging assessment by specialist coastal consultants. The main plank of this was to use reactive realignment (retreating the road after damage) to maintain the continuity of the A379. Anticipatory planning permission and environmental mitigation measures were put in place at two specific locations, north of the Slapton junction to speed up any response.

Since agreeing this, a series of storms has resulted in damage to and repair of some of the defences for Torcross, erosion of the (protective) beachhead, extensive damage to the road, and subsequent retreat of the road in the locations where the planning preparations had been made.

A Beach Management Plan was commissioned in 2017 to re-assess the fundable and feasible options now available to manage the road. The most significant event, Storm Emma, occurred as the finishing touches were made to the Beach Management Plan and the information contained in this was used to secure emergency funding to retreat and repair the road. The BMP also recommended repairing sea defences (now completed) and upgrading inland routes both of which are underway.

In order to better understand the current situation, a Vulnerability Assessment<sup>1</sup> was then completed which divides the road into 50m sections (see Appendix) each being classified as: “highly vulnerable”, “vulnerable” or “less vulnerable”. These were based on what the impact

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<sup>1</sup> Slapton Line Vulnerability Assessment, Report provided by: Coastal Marine Applied Research, University of Plymouth Enterprise Ltd. December 2018

of an indicative storm of the nature and magnitude of Storm Emma, an easterly storm, (like those of 2001 which resulted in the previous retreat) which caused maximum beachhead recession of 10.5m. This classification was primarily based upon assessing the available landward space to potentially retreat the road, and the beachhead buffer seaward of the road. It showed that of the 67 landward retreat points, 46 were classified as either vulnerable or highly vulnerable.

Alan Denbigh presented a draft strategy proposal to the meeting which drew on the above information, splitting the line into three sections north and south of Sands Lane (to Slapton) plus a middle section around the central car park, with recommendations made for each.

In considering the options the meeting took into account a number of points:

- There is limited space in which to retreat (68% having just '2 storms width' buffer gained by retreat).
- Limitations within one section will potentially impact that whole section's viability - each is only as good or only as good as the weakest link for which there are many spread across the whole line. Scenario testing needed to both support this decision, and be clear on where money would be spent, and also provide a clear exit strategy.
- Engineering considerations (eg run-in and run-out of retreated sections)
- Principle funding will to be sought through the Environment Agencies Flood Defence Grant in Aid (FDGiA) **which cannot be applied to proactive realignment**. The reason being that it will be difficult to prove exactly where the next section of road will fail and therefore justify value for money. Furthermore, damage leading to eventual permanent closure of a section of the road - a likely future scenario, may also result in a reduction in the amount of overall funding available.
- Making Torcross more resilient was seen as a priority including considering the potential impact on car parking here and the need to consider longer term orientation of defences around the north of Torcross. The meeting suggested re-defining the sections according to the relevant strategies so perhaps the middle and southern section could be joined together, and considering Torcross as a separate section.
- As the road will ultimately fail, planning now should take into account the long term future and any need for further flood defences to Torcross.
- Ecological considerations (including locations of notified species) and the compromises already made.

The meeting agreed that the conclusion was, that with the latest retreat, there is now insufficient room to retreat the road any further and this should be the clear unambiguous approach adopted for the entire line. Hence the strategy should be to abandon managed retreat, but to consider the following mitigation:

- Ongoing routine management and remedial measures whilst the road can be maintained in a safe condition following damage, including consideration of reducing to single track working where this is feasible.
- Existing sea wall and rock armour defences should be maintained.
- Scenario plans should include short, medium and long-term visions including for the likelihood:

- That of the two sections north or south of Sands Rd, one is likely to fail before the other and we should consider the knock-on effects on local traffic flows, car parks and signage.
  - Should include a policy for car parking options, bearing in mind impacts on each of the car parks through closures and with particular focus on Torcross (whether car parking here should be extended). It was acknowledged that the memorial car park would continue to diminish and would need to be closed, a decision for which would need to be made by SHDC and would be safety rather than financially driven
- Ensuring that the inland routes are improved in order to reduce impact for local journeys

In developing the plans there is a clear need to consult local residents and produce communications including short medium and long term outline plans.

The discussion included consideration that further damage to the line would need consideration giving to the long term impact on the defences at the north end of Torcross and car parking and that this should ultimately take priority over the road.

The revised approach has implications for the Shoreline Management Plan – in that the new policy for the road becomes No Active Intervention and that the boundary of Torcross has to move north. It will also need to be taken to the Coastal Authorities Group and will influence the Coastal Change Management Area – which restricts development plans.

**Action:**

- Next steps for strategy, revise and circulate to Partnership using a telephone conference to agree the final version. Share with MP followed by public consultation ideally by the end of May. (PC, AD, DF to start this off)
- A statement was agreed to be shared with parish councils (Vicky Croughan) : *The Slapton Line Partnership, is developing a draft policy agreement, yet to be formalised, on the future of the Slapton Line. Once formalised, this information will be shared with the public during consultations later in the year.*
- Graham Burton and John Fewings to meet to discuss the options around the memorial car park.
- Set up public consultation by end of May
- Further actions would be triggered by this process.
- Andy Pratt requested that the FSC should be involved in the planning process of taking the strategy forward.

### 3. Memorial Re-Siting

Graham Burton presented Slapton Parish Council's proposal for moving the memorial in the middle car park which is now threatened by erosion to a location on a wide verge (owned by Devon CC) higher up on Sands Rd on the (see box). There is the potential for temporary car parking provided by the landowner during summer months.

The height of the monument would make it likely to need planning permission and Roger English considered that it has some potential negative impact on the landscape (eg glint and glare from parked cars).

An alternative proposal from Strete PC was put forward by Kate Gill to site the memorial in the site adjacent to Strete Gate carpark (site of the former Strete Manor Hotel) on land now owned by the WWCT. The meeting, keen to progress with moving the monument, selected the Slapton proposal by a clear majority.

Peter Chamberlain agreed for DCC to provide engineering design, dismantle and move the monument asking colleagues to provide liaison. Roger English asked for a landscape design.

It was agreed that a realistic target complete was September (and prior to next winter).

**Action :** Peter Chamberlain and John Fewings to initiate engineering design.

### 4. Inland Routes

John Fewings announced that the alternative one-way signage system was being abandoned as not everyone adhered to it undermining its effectiveness. It was more realistic to assume that people will work out which routes work best for themselves.

He said that it should be noted that the inland route would never be up to the same standard as the A379, it would only ever be a minor route, but the works would improve flow. The proposed work would invest £200k into improving passing bays – reinforcing these and improving the 'unofficial' ones. A further £400k would be invested in other engineering works including junctions.

**Action:** The meeting was happy that this plan proceeded.

Graham Burton added that he had had a useful meeting with John Fewings to discuss the Slapton traffic survey with residents – which seeks suggestions to investigate options such as an informal one-way system within Slapton and installing warning signs for commercial vehicles.

### 5. Concluding the BMP

It was noted that the BMP had performed a useful function in identifying potential funding and recommending 4 of the 5 measures that have or are being enacted (reactive realignment, rock revetment repairs, sea wall repairs, inland route improvements). It would be useful to complete the technical summary by updating it with the most recent storm events and measures taken.



It would provide a useful reference document, evidence of all the options considered and a potential basis for further funding. Discussions will take place with the EA, following completion of the strategy, so that the BMP is finalized in an effective manner. It is important that all the findings and recommendations tie up.

**Action** A summary document should be completed Alan/Dan

#### **6. Portaloos for Memorial Car Park**

Slapton PC has proposed to pay for a trial of portable toilets in the Memorial Car Park for holiday season times with a plan to enact firstly at Easter.

Note the car park is outside the SSSI but Eamon Crowe said that the toilets should be secured (spiked) in place to prevent overturning and spillage.

Permission would be required from SHDC contact: Emma Widdecombe Senior Specialist (Environmental Services).

**Action:** Dan Field to contact Emma in the first instance.

## APPENDIX

### Slapton Line Partnership 2019 Strategy Update - Draft Discussion Document

#### 1. Previous Strategy (from 2006)

In early 2001 an easterly storm caused extensive damage to the A379 road just north of the Sands Rd junction to Slapton village. As a result of this the road was retreated up to 20m inland over a 300m section. An extensive assessment of the coastal conditions and future management options was commissioned from consultants Scott Wilson which in 2006<sup>2</sup> recommended that:

The road should continue to be maintained by a combination of:

- Proactive realignment of the road north of the junction of the A379 and the road to Slapton village (the Partnership agreed to reactive realignment throughout and implemented pre-emptive planning permission and Environmental Impact Assessments on these designated sections either side of the retreated section)
- Reactive realignment of the road at any other location.
- Localised movement of shingle to provide temporary protection to short lengths of the road.

A number of other measures were advised:

- Regular surveys to monitor the beach and the ecology of the shingle barrier and Ley.
- Local residents and businesses should be informed of the objectives and encouraged to undertake adaptive measures in anticipation of the eventual long-term closure of the road.
- The key principles of the Management Policy should be incorporated into other local plans such as the Local Development Framework, the Devon Local Transport Plan and the Shoreline Management Plan.
- The Slapton Line Partnership should periodically review the management policy.
- When it becomes apparent that maintaining the road link is no longer sustainable (either in part or in whole), then the road should be closed and the measures developed in the adaptation plan for road abandonment should be put into being.
- Existing defences at the (middle) car park should not be maintained or improved. New defences should not be built and the edge of the car park should be allowed to erode. Some minor works may be undertaken to improve the visual aspect of this area.
- The existing defences to the road at Torcross should remain, but not be enhanced.

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<sup>2</sup>Slapton Coastal Zone Management Main Study Volume 4: Executive Summary Prepared by Scott Wilson

## 2. Beach Management Plan

Since 2001 the beach has continued to erode, lowering the protective effect of shingle beach levels, increasing the vulnerability of the road and resulting in the potential need for increased reactive engineering works to maintain the road.

Following a series of south-westerly storm events in early 2014, the largest of which caused increasing levels of damage to the Torcross sea defences<sup>3</sup>, the SLP took the decision to commission a Beach Management Plan (BMP). The purpose of this was to review the current management policy and identify what activities could be undertaken to reduce flood and coastal risk over the next 20 years. The BMP also looked at what funding routes may be available to support any management activities.

Key conclusions from the study were that:

- From the interventions examined in the BMP only two were feasible and fundable (from national flood funding sources) for the Slapton Line<sup>4</sup>, viz:
  - Maintaining the integrity of sea wall defences going north from Torcross : the main sea wall (owned, maintained and funded directly by the Environment Agency), 2 concrete sections over 100 years old approx. 60 m in length – (both now repaired with sheet piling), and a section of rock revetment partially denuded by movement approx. 750m
  - Reactive realignment of the road – where possible with pre-emptive planning permission (pro-active realignment would not get funded as it would be difficult to demonstrate that a particular location is at risk more than any other chosen section)
- Significant shingle movements were ruled out as the analysis concluded they would provide reliable protection (a pre-requisite for funding is a degree of certainty of protection resulting) only if used together with groyne structures, making them unaffordable within the funding available and creating long-term maintenance issues.
- There could be up to a maximum of £1.7 million available through the Environment Agency's FDGiA funding route which would support some measures (based on two fundable elements: linking to Torcross flooding and the commercial damage that would occur to the area through disruption of tourism-related traffic).

Storm Emma arrived before the BMP was formally signed off by the SLP which meant that there was a need to consolidate the findings.

## 3. Storm Emma Impacts

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<sup>3</sup> Resulting in the EA extending the depth of the sheet piling on the Torcross main sea defence from 6m to 12m and DCC/SHDC repairing an ageing section of concrete sea wall directly north of Torcross with sheet piling.

<sup>4</sup> Options Appraisal Report CH2M Jacobs for SLP - Section 4.1 Preferred Options – With Current FCERM-GiA Funding

In March 2018 Storm Emma caused significant damage to the A379. Easterly waves caused erosion of the shingle beach and large volumes of shingle to be removed from the northern section. This loss of material resulted in the adjacent A379 being damaged in two sections; north and south of the length retreated in 2001 (as anticipated in the Scott Wilson report).

An emergency request to the Department of Transport secured funding (outside of normal flood management funding) of £2.5m enabling the road to be retreated (along with other, related, resilience and adaptation measures).

Following Storm Emma it was evident that, where the road wasn't damaged, the shingle beachhead had retreated closer to the road along the length of the line. As a result a **vulnerability assessment** was commissioned to both quantify this retreat and assess the likely consequence of further damage following a similar storm event.

The assessment involved the line being broken into 50m sections with each being classified as being "highly vulnerable", "vulnerable" or "less vulnerable". This classification was primarily based upon assessing the available landward space to potentially retreat the road, and the beach-head buffer seaward of the road<sup>5</sup>.

Further information on the assessment methodology is provided within the extracts from the vulnerability assessment in the Appendix.

Ecological information along the full length of Slapton Line was gathered prior to Storm Emma and, subsequently, updated and carefully reviewed when preparing the plans for the realignment of the A379. This has enabled areas of sensitivity and constraint (due to their habitat or presence of notable or protected species) to be identified. This information is summarised in the 'Wildlife Report – A379 Between Torcross and Strete Gate' produced in March 2018, as well as in the Environmental Statement which accompanied the planning application for the northern section of the road realignment in June 2018. This information has been taken into account alongside the vulnerability assessment in considering the scope for further retreat of the road.

#### **4. Long Term Strategy**

The damage caused by Storm Emma resulted in the section of A379 extending between Sands Road and Strete Gate being closed for approximately 7 months.

It was felt that the completion of the A379 repair work represented an appropriate time for the SLP to review the existing Slapton Line coastal zone management policy and agree a coordinated way forward. This is effectively in accordance with the recommendation of the original Scott Wilson report.

With a combination of periodic, powerful, southerly and easterly storms causing the Slapton beach to recede, it is clear that the point beyond which it is practical, economic, or environmentally acceptable to further retreat/repair the road is fast approaching. In the past 18 years two major easterly storms have struck, resulting in significant damage to the road and necessitating retreat of the road in different sections of between 17-20m. In addition, other significant southerly storms have struck, though these have caused damage at the Torcross sea wall end (the southerly storms

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<sup>5</sup> Plus an indication of the beach health at 4m above sea level

tend to have the reverse effect of easterlies, removing shingle from the southern end of the beach, depositing it on the northern end).

The preliminary findings of the vulnerability assessment suggest that any long-term maintenance strategy could address the line in three sections:

- *Northern*; extending for approximately 1400m between Sands Rd (Ch 2216m) to Strete Gate (Ch 3570m). This section incorporates the 2018 road realignment.
- *Middle*; extending for approximately 400m between Sands Rd (Ch2216m) junction and to a position just south of the memorial overflow car park (Ch 1816m).
- *Southern*; extending for approximately 1800m between a position just south of the memorial overflow car park (Ch 1816m) and Torcross slipway Ch 0m).

Sections 4.1 to 4.3 look at each section in further detail and include a draft long-term strategy for each.

#### 4.1 Northern Section

The key observations from the vulnerability assessment include:

- *Seaward Buffer*: Of the 28 x 50 m sections, 17 are considered as being vulnerable.
- *Seaward Buffer*: Of the 28 x 50 m sections, 5 are considered highly vulnerable. This frontage includes a section of the realigned 2018 reinstatement.
- *Landward Retreat*: Both the engineering and environmental constraints suggest that it is no longer viable for the road to be moved back further in this location.

**Suggested Recommendation:** Ongoing routine management and remedial measures (e.g. clearance of shingle), provided that safe use of the current alignment of this length of the A379 can be maintained. Acceptance that significant damage to the road will result in this section being permanently abandoned, with potential implications for the 'A road' status of adjoining sections of the A379. Coastal adaptation strategy to be developed with early community involvement.

#### 4.2 Middle Section

The key observations from the vulnerability assessment include:

- *Seaward Buffer*: This frontage experienced the highest amount of erosion during Storm Emma with almost 11m lost within the Memorial Car Park.
- *Seaward Buffer*: Of the 8 x 50 m sections, 3 are considered as being vulnerable. This includes the location of the existing memorial.
- *Seaward Buffer*: Of the 8 x 50 m sections, 5 are considered less vulnerable.

- *Landward Retreat*: Compared to the Northern section there would appear to be an increased landward buffer available to facilitate a further realignment within the middle section. However, habitat sensitivity and the occurrence of protected species present a significant challenge to the environmental acceptability of any realignment here.

**Suggested recommendation:** Ongoing routine management and remedial measures (e.g. clearance of shingle), provided that safe use of the current alignment of this length of the A379 can be maintained. Acceptance that, in this location, the primary form of protection will be provided by an ever-diminishing Memorial car park which, at some point, will become unusable and therefore need to be closed by South Hams District Council. Agreement that a parking strategy should be formalized by the SLP to address short, medium and long term issues with possibly the consideration of alternative summer overflow locations. In the interim, there will be no advance planning for any potential realignment of the road given the complexities of likely environmental conflicts.

### 4.3 Southern Section

The key observations from the vulnerability assessment include:

- *Seaward Buffer*: This frontage is afforded some degree of protection by historically placed rock armour which extends for approximately 750 metres. The existing rock is variable in both grade and condition and the degree of protection difficult to quantify.
- *Seaward Buffer*: Of the 36 x 50 m sections, 25 are considered as being highly vulnerable. These sections generally correlate with rock armour extent.
- *Seaward Buffer*: Of the 36 x 50 m sections, 11 are considered vulnerable.
- *Landward Retreat*: There would appear to be an opportunity to retreat the road further with buffers measured in excess of 30m. However, further discussion would be required to understand all potential constraints which this approach.

**Suggested recommendation:** In the light of the dilemmas associated with further interventions in this area, no specific recommendation is offered. Instead, the Partnership is asked to consider the most appropriate policy approach.

It is worth noting that that maintenance of the existing rock armour falls in line with current acceptance and is also likely to represent the best case for securing external funding. To maintain short term resilience the Storm Emma emergency funding provided by the Department of Transport has recently been used to support the reconstruction of a 60m section of the seawall, north of Torcross, as well as some rock armour re-stacking. This was a prudent short-term approach requested by SLP.

Despite these measures, the area remains vulnerable to future storm damage, particularly in the event of the beach being denuded, so undermining the limited, existing, defences. On that basis, maintaining the protection of the A379 in the location over the medium to longer term will require the significant upgrading of the sea defences, the realignment of the road, or a combination of the two.

The primary risk with the reliance upon improved sea defences is that this conflicts with environmental objectives and the strategy set out in the current Shoreline Management Plan. Whilst emergency repairs have been allowed, the required upgrading of defences, including the importation of additional rock armour, is unlikely to gain the necessary consent or to be financially viable.

The alternative option of planning for a future re-alignment of the road could, in principle, be achieved. There would appear to be space for some landward retreat and, whilst this would impinge upon designated ecological interests, the sensitivity and protected species constraints are less here than in the other two sections. However, this would require interim works to maintain the existing coastal defences, whilst also hoping for future emergency funding to implement a reactive road realignment. At the same time, the realignment of the road would be likely to impact on the availability of car park spaces at Torcross, with no apparent way in which this visitor impact might be mitigated.

## 5. Adaptation

Permanent failure of any section will cause increased journey times and local congestion, with particular pinch points including Slapton and Strete.

Adaptation will need to remain a common theme for inclusion within any future strategy. This strategy should build upon previous work that has been undertaken.

**Development of adaptation proposals themed *Slapton Line – Living with a Changing Coast* with consultation and consisting of:**

**i. Consultation and Communications Programme**

(eg) South Devon AONB to work with the community (project funding).

Work to start now to inform and consult about possible future scenarios and adaptation needed in terms of planning for the future.

**ii. Measures to reduce disruption**

**a. Progress back road enhancements** in 2019 to address localised safety and congestion issues. [Note: such measures will not change the general character and constraints of these minor lanes.]

**b. Summary of bus routes responses in the different scenarios**

**c. Communication** to better inform residents as well as visitors about which routes to use and how best to access the area.

**d. Encouragement of car-sharing** – eg creation of Slapton Car Share club – supported by Carshare Devon.

**e. Revision of signage** for temporary and permanent closure.

**f. Revisiting restrictions on goods vehicle routes**

**g. Possible additional measures to improve congestion in Slapton village**

With failure of one road section, it is likely that there would still be access to the A379 through Slapton to either the northern or southern section. With ultimate failure of both sections there may be access only to a much-reduced car park (or it may be closed at this point). Should additional traffic measures be considered in Slapton eg one-way traffic loop within Slapton? Would closing the middle car park early to reduce the amount of traffic travelling through Slapton help (notices at Slapton Village – no vehicle access to Slapton beach?). What impact would re-siting of the memorial have?

**h. Improved car parking** – see below

**iii. A new Sustainable Tourism vision for the area**

Develop Funding Proposal for creation of a Torcross Destination and the Slapton National Nature Reserve (In conjunction with SHDC and DCC but led by South Devon AONB) including:

**a. Creation of Recreational Access-for-all Path**

Previous work suggests that Torcross is a popular destination for people with

mobility issues owing to the flat accessible walkways. The ultimate loss of the complete highway spec road presents an opportunity to provide recreational access to the area with a high-grade path from the remnants of the road. Additional considerations include:

- How to best link where damage has occurred between relict road and where erosion has interrupted this.
- When further damage occurs a strategy for removing displaced road structure and interfacing with the beachhead.

**b. Around the Ley footpath**

Re-examine potential for a round-the-Ley path. Revisit idea (and existing landowners) for a route skirting the Nature Reserve.

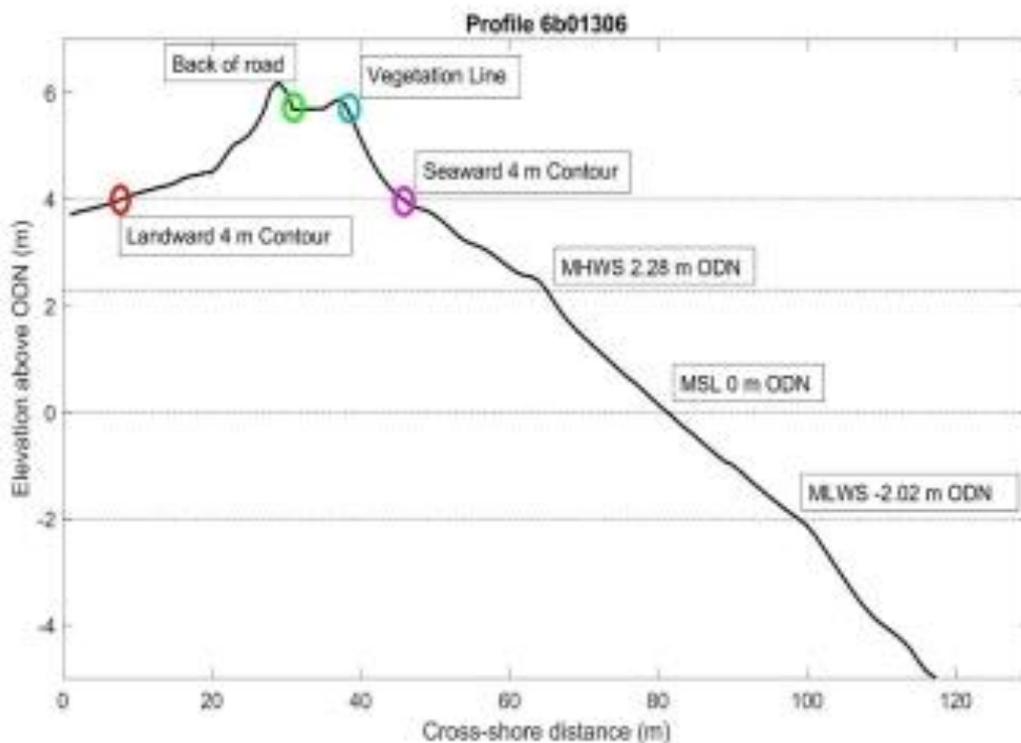
**c. Revamped car parking**

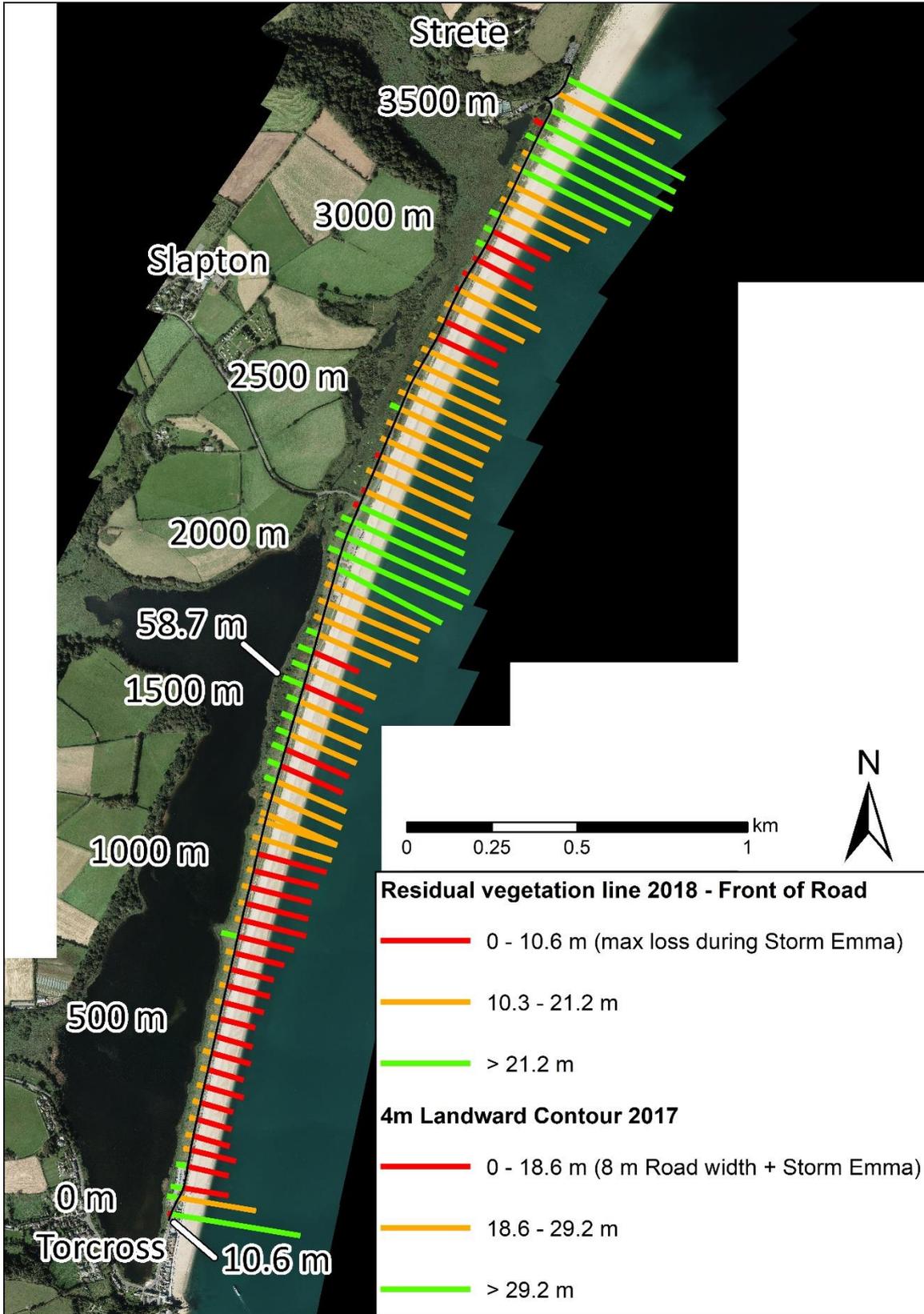
Is there scope for (long-term) additional (summertime temporary) car park space (In the 'lee' of the newly sheet piled section at Torcross) stretching into the nature reserve. Also redesign the road space to create additional parking.

- i. **Memorial Car Park** – Some pre-planning for response at the various stages of further erosion. Also needs to take into account re-siting of the memorial.
- ii. **Strete Gate** – extend existing parking.
- iii. **Stokeley Farm** – Is there potential additional parking space for Torcross here?

**Appendix – Extracts from Vulnerability Assessment (CMAR Plymouth University Dec 2018)**

Vulnerability Level	Distances from the back of A379 road		
	4m Landward	Vegetation Line	4m Seaward
highly vulnerable	< 18.6m 8m road width plus one Storm Emma recession	< 10.6m One Storm Emma recession	< 15.2m One Storm Emma recession
vulnerable	18.6m < and < 29.2m 8m road width plus two Storm Emma recessions	10.6m < and < 21.2m Between one and two Storm Emma recessions	15.2m < and < 30.4m Between one and two Storm Emma recessions
less vulnerable	> 29.2m More than 8m road width and two Storm Emma recessions	> 21.2m More than two Storm Emma recessions	> 30.4m More than two Storm Emma recessions





## Vulnerability Table

Profile	Chainage (from mid Torcross)	4m landward contour (edge of Ley to back of road) post road retreat	Vegetation Line Seaward buffer post Emma May 2018
PCO6b01243	3570	N/A	24.46
PCO6b01244	3520	N/A	19.46
PCO6b01245	3470	N/A	30.03
PCO6b01246	3420	13.32	29.44
PCO6b01247	3370	34.36	30.74
PCO6b01248	3320	21.52	26.86
PCO6b01249	3270	28.85	22.8
PCO6b01250	3219	19.78	18.05
PCO6b01251	3170	21.16	15.26
PCO6b01252	3122	33.41	11.81
PCO6b01253	3072	29.39	8.4
PCO6b01254	3025	29.79	6.11
PCO6b01255	2976	13.85	7.94
PCO6b01256	2925	16.75	11.44
PCO6b01257	2872	15.05	15.06
PCO6b01258	2820	22.34	12.69
PCO6b01259	2771	23.22	9.44
PCO6b01260	2718	25.12	9.04
PCO6b01261	2670	25.19	11.4
PCO6b01262	2622	22.44	14.19
PCO6b01263	2574	20.92	18.06
PCO6b01264	2530	25.12	18.63
PCO6b01265	2480	32.64	16.89
PCO6b01266	2430	22.77	17.05
PCO6b01267	2378	19.36	15.97

PCO6b01268	2328	15.45	18.11
PCO6b01269	2275	21.71	19.06
PCO6b01270	2216	12.07	20.26
PCO6b01271	2168	18.09	21.29
PCO6b01272	2118	36.26	23.29
PCO6b01273	2068	33.05	26.34
PCO6b01274	2020	39.62	25.82
PCO6b01275	1972	28.03	22.19
PCO6b01276	1918	23.26	19.4
PCO6b01277	1865	27.24	17.51
PCO6b01278	1816	27.07	18.34
PCO6b01279	1769	36.97	12.13
PCO6b01280	1715	47.97	4.91
PCO6b01281	1664	51.97	10.7
PCO6b01282	1611	58.71	8.64
PCO6b01283	1564	39.92	11.08
PCO6b01284	1510	40.56	10.67
PCO6b01285	1461	43.5	10.61
PCO6b01286	1415	42.5	9.76
PCO6b01287	1364	41.13	9.41
PCO6b01288	1317	37.38	11.44
PCO6b01289	1268	25.94	11.53
PCO6b01290	1215	20.79	11.38
PCO6b01291	1193	19.91	11.36
PCO6b01292	1142	26.53	10.91
PCO6b01293	1096	21.84	10.34
PCO6b01294	1045	20.78	9.09
PCO6b01295	995	23.33	8.37
PCO6b01296	945	21.76	8.56
PCO6b01297	895	21.23	9.05
PCO6b01298	845	49.86	6.82
PCO6b01299	795	25.48	5.29

PCO6b01300	745	20.78	3.55
PCO6b01301	695	22.18	3.56
PCO6b01302	645	24.73	2.95
PCO6b01303	595	25.73	1.66
PCO6b01304	540	22.53	2.08
PCO6b01305	490	26.93	2.53
PCO6b01306	440	22.95	1.7
PCO6b01307	390	22.75	2.64
PCO6b01308	340	23.73	0.9
PCO6b01309	290	23.65	1.53
PCO6b01310	240	23.7	1.86
PCO6b01311	200	22.59	4.1
PCO6b01312	150	35.07	2.97
PCO6b01313	80	37.45	3.84
PCO6b01314	50	35.22	12.05
PCO6b01315	0	10.57	25.25