

HAYLING ISLAND BEACH MANAGEMENT PLAN

Planning Statement

Working together - protecting our coastline

Revision 1.0
March 2017

Havant
BOROUGH COUNCIL



**EASTERN
SOLENT | COASTAL
PARTNERSHIP**

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1.0 INTRODUCTION AND BACKGROUND

The Eastoke Peninsula, located on the south-east corner of Hayling Island, Havant is a low-lying densely populated area at risk of flooding. To manage this risk, a capital recharge was undertaken in 1985 bringing in approximately 500,000m³ of material to build the beach up to provide a 1 in 200 year standard of protection (SoP). The coastal processes mean that longshore transport takes material away from the Eastoke Beach in both directions. Therefore, Havant Borough Council (HBC) has implemented a Beach Management Plan (BMP) to retain the material. Without this, the beach at Eastoke would draw down leading to regular serious flooding at Eastoke and the loss of properties.

1.1 Vision and Objectives

The scheme is being proposed to improve the coastal flood and erosion protection along the Eastoke frontage to reduce the risk of tidal flooding and overtopping to over 1500 homes, 170 commercial properties and important infrastructure for the next 5 years.

1.2 The Eastern Solent Coastal Partnership

The Eastern Solent Coastal Partnership [ESCP] was formed in 2012 to provide a comprehensive coastal management service on behalf of the four partner authorities: Portsmouth City Council, Havant Borough Council, Fareham Borough Council and Gosport Borough Council.

The ESCP is a team of specialist coastal officers and engineers that manages coastal erosion and flood risk management across the partner authorities' coastline, a total of 162km. All members of the ESCP team are employed directly by the partner authorities.

1.3 Application

This Planning Statement has been prepared in support of Planning and Marine Licence Applications for the implementation of the South Hayling Island Beach Management Plan (2017-2022). A location plan for the site is shown in **Figure 1.1**. Planning Permission is already in place for beach recycling works but there are three significant updates for this application; the timespan of permission, the extent of its boundaries, and the sources of shingle for recycling and recharge. Although the BMP funding period is for the next 5 years only, the permissions being sought are for as far into the future as possible, however there are a large number of safeguards in place to protect the environment into the future. This will allow the continuation of beach management without having to reapply for the same licences and consents, making large savings to the project. The ESCP are also looking to extend the permission to include the whole of the southern frontage, from the Ferry Boat Inn to the Hayling Island Sailing Club (see **Figure 1.2**), allowing analysis of the whole sediment cell to be undertaken. This allows for greater flexibility in how Beach Management Activities are run, unlocking additional sources of material.

Beach management allows the recycling of beach material from areas of natural accretion to areas of natural erosion (Eastoke) to build up the beach to give a 1 in 200 year Standard of Protection (SoP). Although the area for protection is only along Eastoke, the area covered under the Planning Application is much wider to allow for several sources of sediment to be

used for recycling. Shingle beaches act as an effective defence against flooding and overtopping as they are able to dissipate wave energy so well.

Havant Borough Council (HBC) and the ESCP have been carrying out Beach Management Activities (BMA) since the original replenishment scheme in 1985 with material extracted from areas where it naturally builds up and taken to the Eastoke Managed frontage, where it naturally depletes (**Figure 1.1**).

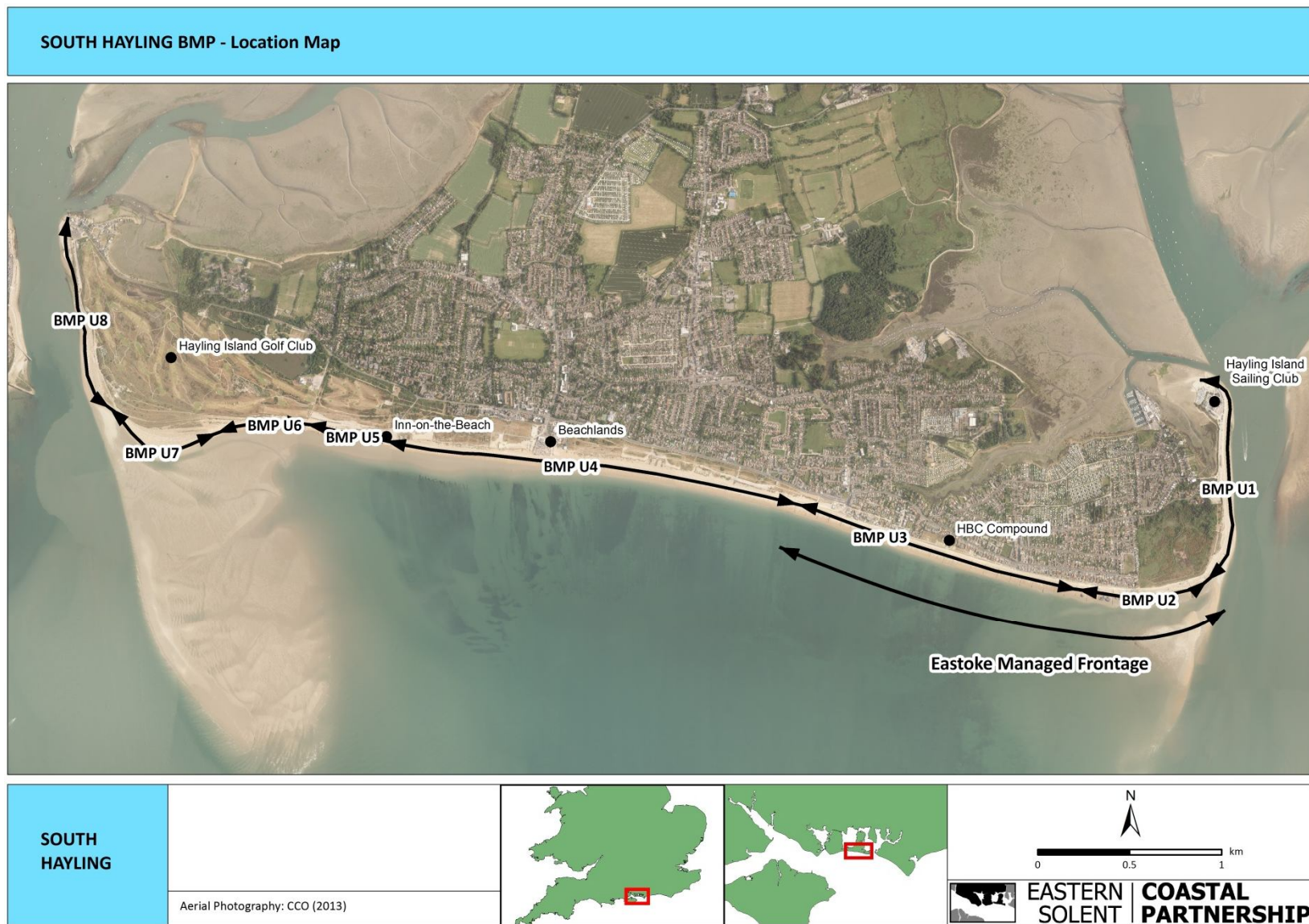


Figure 1.1 A location map of the South Hayling BMP, including the Management Units derived for the next 5 years.

Location Map and Beach Management Plan Units

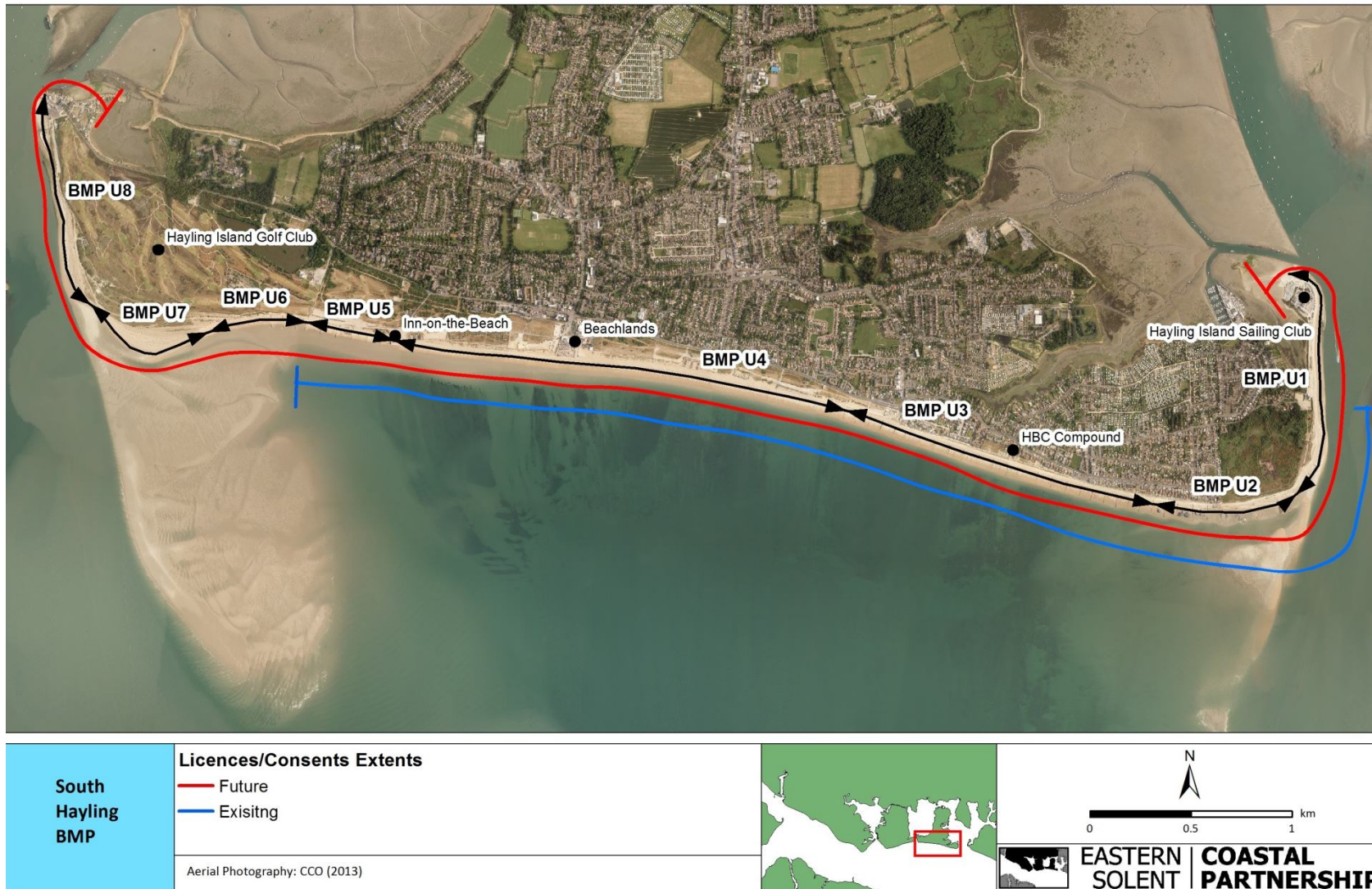


Figure 1.2 The extents of the existing Planning Permission and Marine Licence and the extent of the consents being sought with this application.

1.4 Site location and context

The South Hayling Island Beach Management Plan (2017-2022) covers a stretch of coastline approximately 8.4km long; the Eastoke Managed frontage is 2.2km in length and is included in this area. The Beach Management Plan stretches from the Hayling Island Sailing Club (HISC) on Black Point Spit in the east to the Ferry Boat Inn in the Langstone Harbour entrance in the west (see **Figure 1.1**).

There are 1555 residential properties and 170 commercial properties at risk from a 1 in 200 year flood event over the next 5 years from tidal flooding along the southern frontage at Eastoke. **Figure 1.3** shows the area at risk from a 1 in 200 year flood event and erosion risk over the next 20 years under a no defence scenario.

Hayling Island is located on the south coast of England, fronting The Solent. Waves refract around the Isle of Wight meaning that Hayling is often subject to greater wave attack than other areas in the Solent, posing a greater risk from overtopping. The Eastoke Peninsula is a densely populated area of extremely low-lying land with a history of serious flood events, particularly from the effects of wave overtopping. The implementation of Beach Management Activities (BMA) has effectively helped to reduce the flood risk to this area.

1.4.1 South Hayling Frontage

The South Hayling Frontage is bounded by The Solent and the Langstone and Chichester Harbour entrances. It is an area of dynamic coastline with relatively fast current speeds in the harbour entrances and significant wave attack on the southern frontage.

The harbours are subject to several environmental designations, which can be seen in **Figure 1.4** to **Figure 1.6**:

- Chichester and Langstone SPA and Ramsar
- Solent Maritime SAC
- Chichester Harbour, Langstone Harbour and Sinah Common SSSI
- Other local designations (SINC and LNR)

Should the Solent and Dorset pSPA be realised, the entire area of interest would also be designated under this.

Due to the significant environmental importance of this area, this Planning / Marine Licence application is supported by an Environmental Statement, Habitat Regulations Assessment and Water Framework Directive Assessment.

1.4.2 Eastoke Managed Frontage

The Eastoke Managed frontage is a 2.2 km stretch of the South Hayling frontage. **Figure 1.1** shows the location of the site in local and regional context.

There is pedestrian access along the promenade behind the beach which is suitable for all users. The beach and promenade are heavily used as recreational areas and parts of the frontage are designated as Bathing Waters.

1.4.3 Eastoke Point Scheme

The Eastoke Point Scheme was completed towards the end of 2013. The rock revetment and rock groynes in combination with the replenished fronting beach, stabilise a dynamic area with high flood risk. The Eastoke Point scheme will be monitored as part of the BMP as to whether it is necessary to place material in the groyne bays.

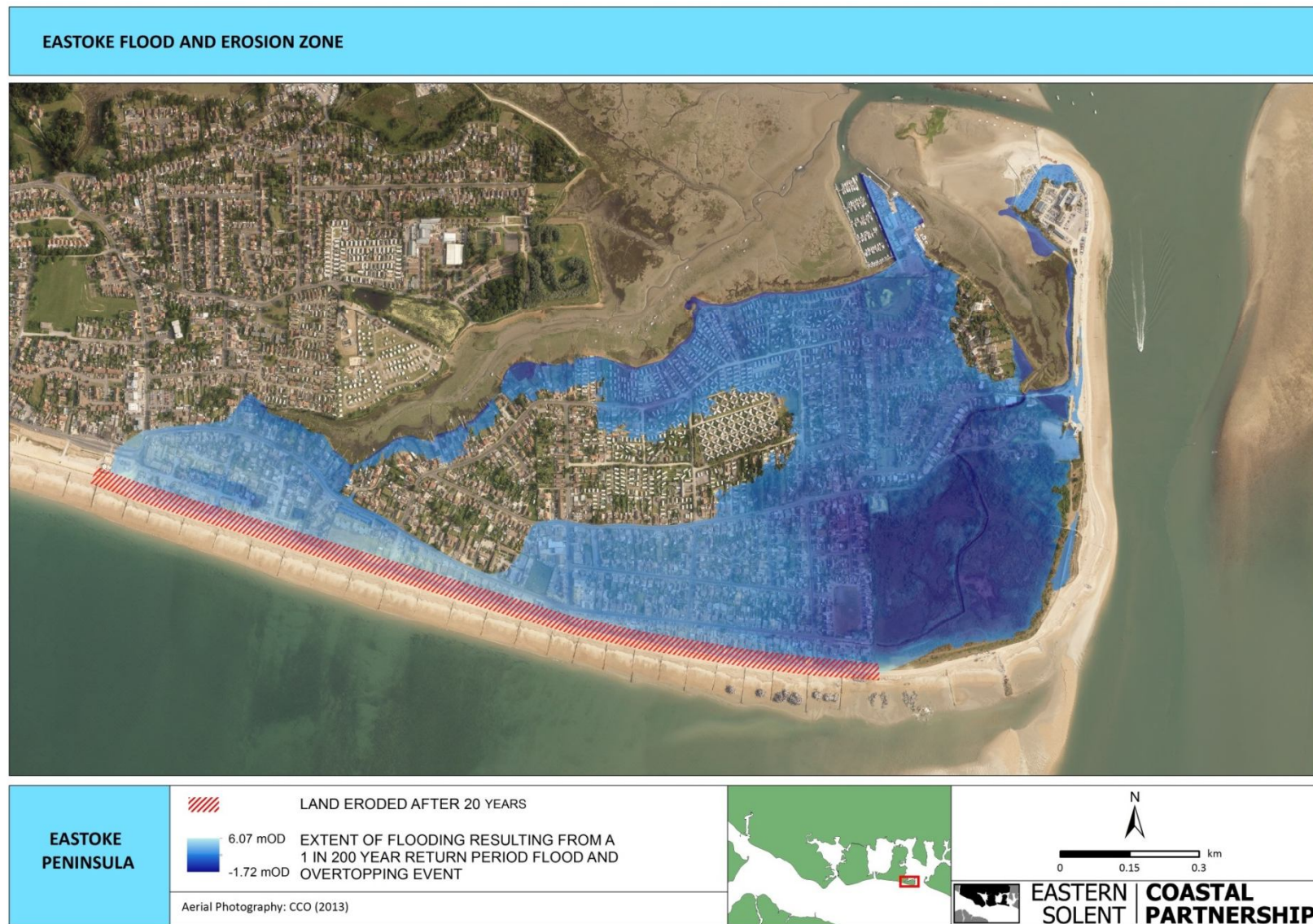


Figure 1.3 The flood extent from a 1 in 200 year event and the 20 year erosion zone under a 'Do Nothing' scenario.

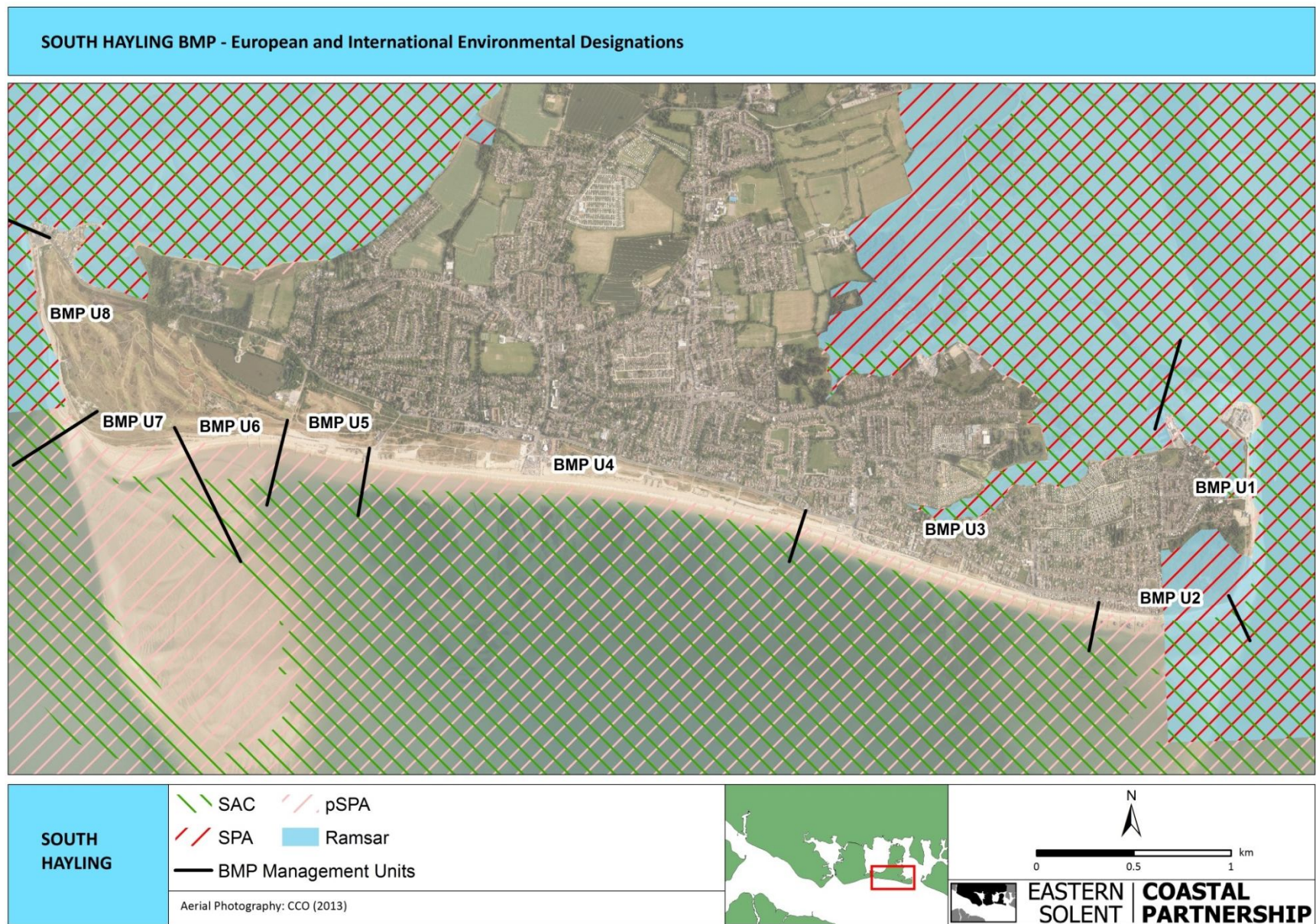


Figure 1.4 European and International Designations within and close to the BMP area.

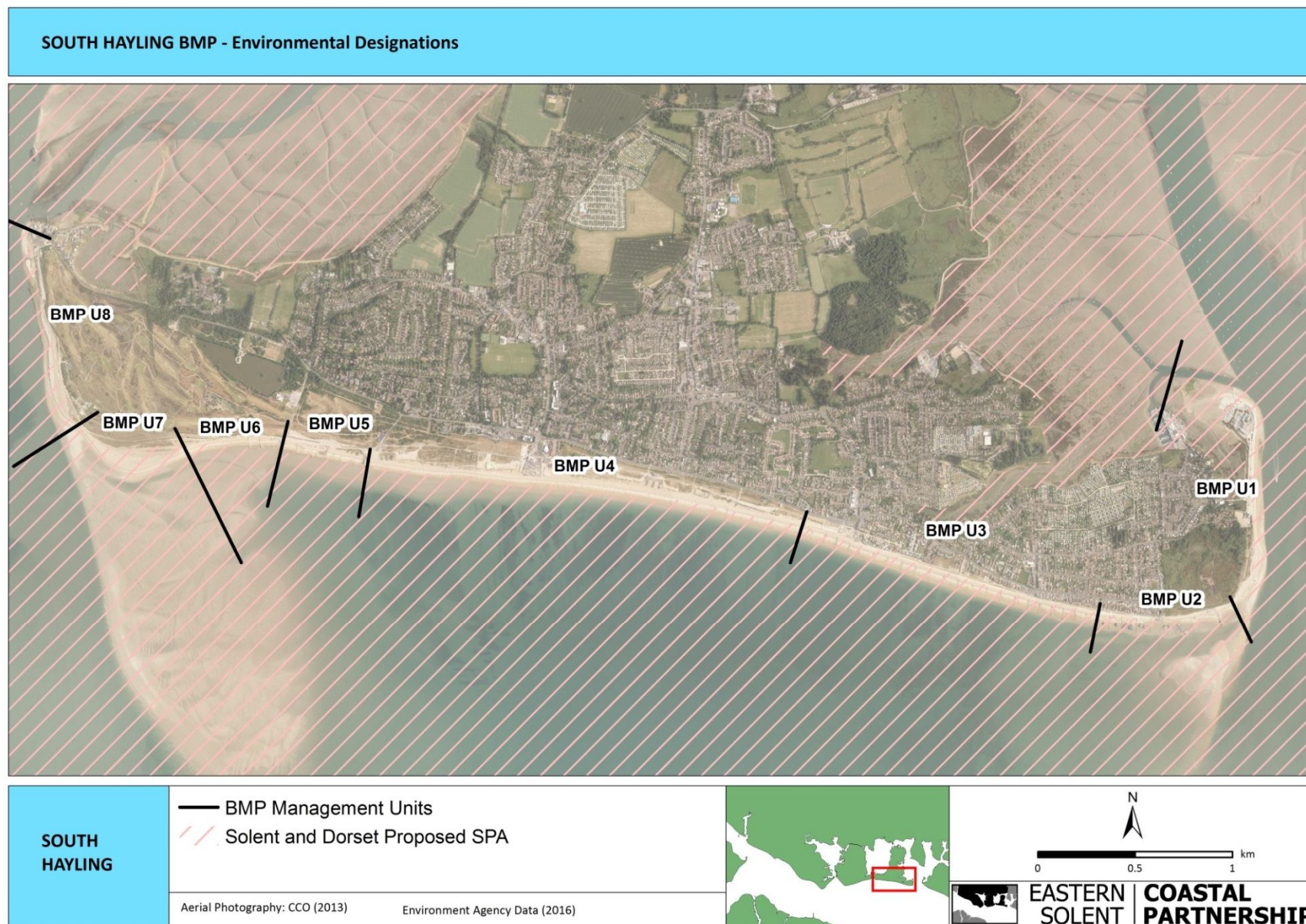


Figure 1.5 Proposed environmental designations within and close to the BMP area.

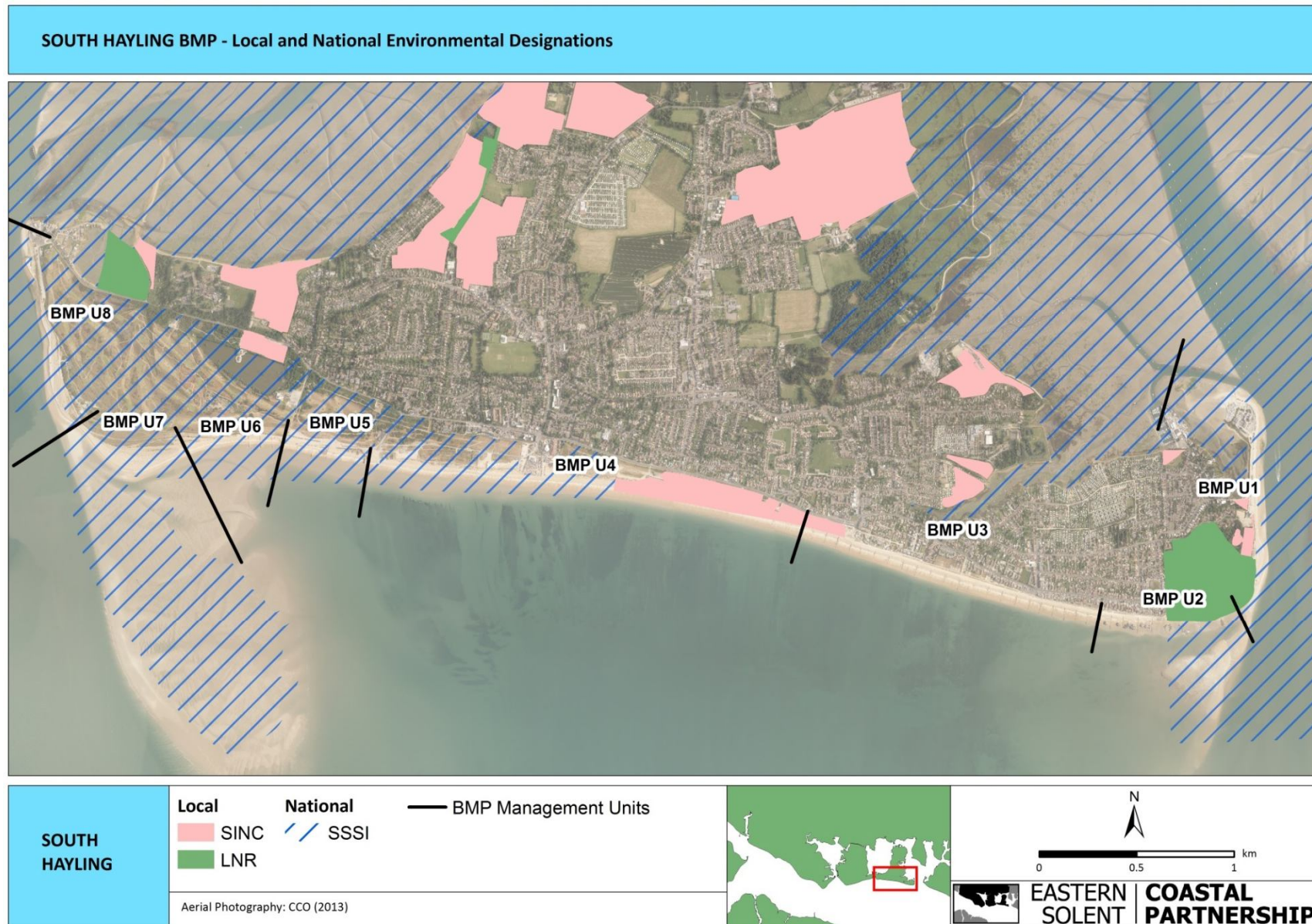


Figure 1.6 Local and national environmental designations within and close to the BMP area.

1.5 Background to proposals

1.5.1 Strategic approach

The Eastoke Sectoral Strategy, adopted in 2006 recommended a 'Hold the Line' policy to a 1 in 200 year standard of protection (SoP) through beach management for the Eastoke frontage.

The Shoreline Management Plan [SMP] was approved by the Environment Agency [EA] in 2010 and identified a 'Hold the Line' policy for the whole of the Hayling southern frontage through maintenance and improvements to the existing defence structures and additional integrated beach management activities.

The Eastoke Peninsula is low-lying and particularly susceptible to flooding. This can be seen from **Figure 1.3** which shows the flood risk from a 1 in 200 year event.

1.5.2 Description of site and proposal

The site comprises of the beach areas along the southern frontage above mean low water springs (MLWS). This includes the HBC compound along Southwood Road (Plot 74) and the area behind Inn-on-the-Beach which may need to be used as part of the haul route and a secondary compound.

Material has previously and will continue to be recycled from The Ness, the Coastguard Revetment, Open Beach and West Beach. Extraction also takes place from the Chichester Harbour Approach Channel. This application requests that an additional potential source of shingle at Gunner Point can be used (with landowner consent), to recycle additional material back to the Eastoke Managed Frontage. These areas are illustrated in **Figure 1.7**.

In addition, localised movement of shingle along the Langstone Harbour entrance channel is proposed, to prevent localised erosion issues. Also, a small volume of sand recycling around Hayling Island Sailing Club is proposed (upon the sailing club's funding and instruction) to enable continued use of their pontoon. These activities are discussed in detail in **Section 4 'proposed scheme'** of the Environmental Statement.

As an amenity and tourist beach, it will not get closed off during operations. Instead, banksmen are employed for safety and information is displayed, highlighting the works and what to be aware of. Where possible, works are undertaken outside of school holidays / main tourist season. This has worked successfully in the past and will continue in this updated proposal.

Langstone and Chichester Harbours support migratory and potentially over wintering bird species and therefore there are certain restrictions on working in certain areas during the winter. These are detailed in the conclusions of the Environmental Statement / Habitat Regulations Assessment. Other mitigation measures will protect nesting birds in particular nesting Ringed Plover. Protection is also given to vegetated shingle communities and annual vegetation of drift lines which are a priority habitats.

BEACH MANAGEMENT ACTIVITY EXTRACTION AND DEPOSITION SITES

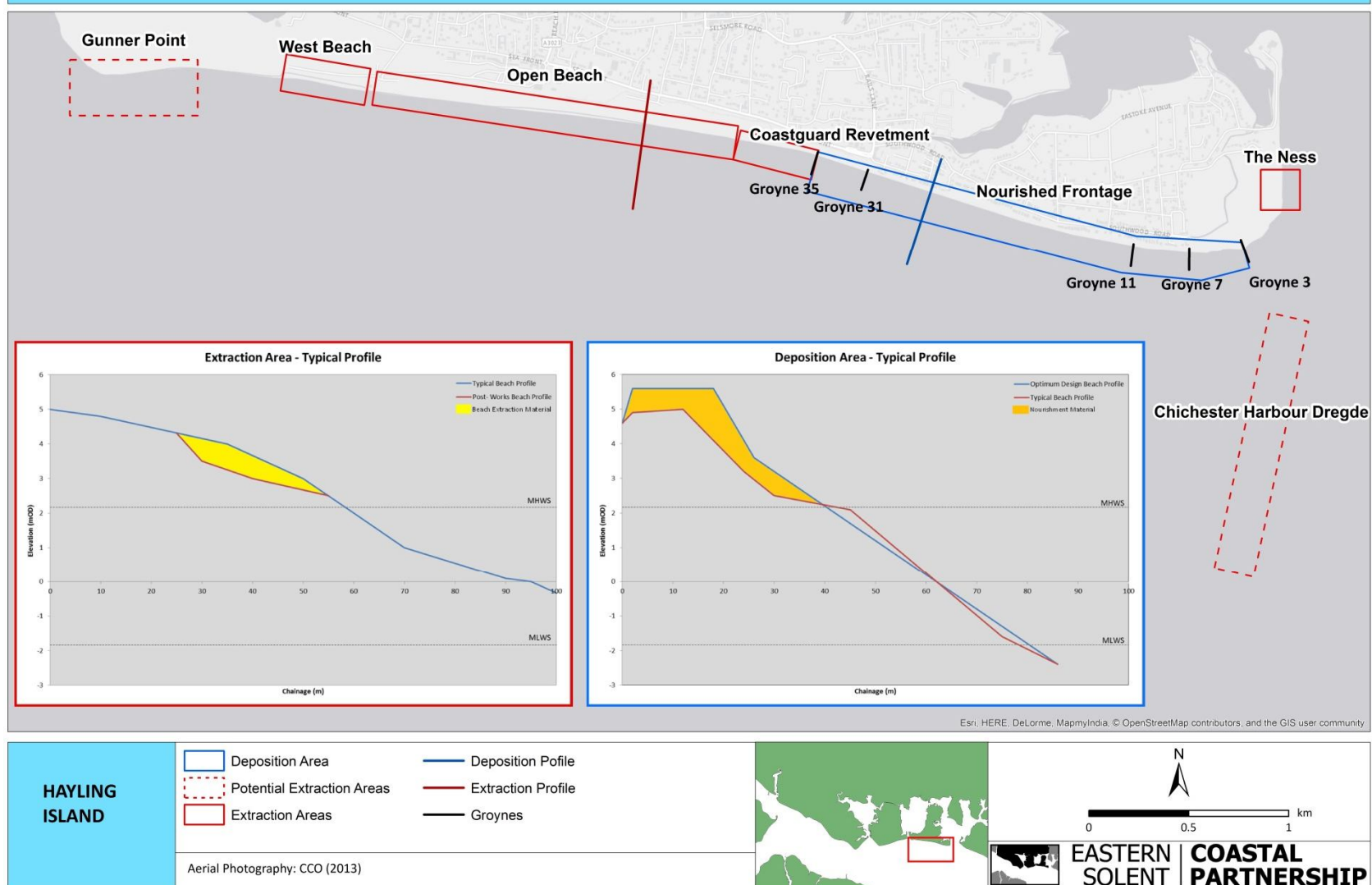


Figure 1.7 The areas for extraction and deposition proposed for the 2017-22 BMP.

1.6 The problem

As identified in the Strategy and SMP, the beach at Eastoke should be maintained at design profile, or the risk of flooding becomes very significant. If works were to cease, the beach would draw down, the now buried seawall would become exposed and consequently fail, leading to widespread flooding.

There are also timber groynes along the Eastoke Managed Frontage, as well as the rock revetment and groynes which are maintained by HBC.

Photo 1.1 shows the beach when there has been drawn down during a significant swell event. As can be seen, this causes the flood protection to decrease. During some storms, the beach can cut back and “cliff”, which also poses a safety concern (**Photo 1.2**). **Photo 1.3** shows the rock revetment that was completed as part of the Eastoke Point scheme. This will offer a 1 in 200 year (0.5% AEP) standard of protection for the next 100 years.



Photo 1.1 Hayling beach during a significant swell period in December 2016



Photo 1.2 Hayling beach cliffing after a storm



Photo 1.3 The completed rock revetment at the Eastoke Point Scheme

1.7 Scheme objectives

1.7.1 Aims

The BMP aims to reduce the flood risk to people and property on the Eastoke Peninsula by maintaining the beach at a design profile, providing a 1 in 200 year SoP. The key technical objectives of the scheme are as follows:

- Reduce the risk of coastal flooding to 1,555 households from wave overtopping.
- Provide a defence against a 1 in 200 year storm event
- Provide a scheme which is adaptable to sea level rise and climate change
- Work with natural coastal processes to maintain movement of material along the frontage.

The key environmental objectives of the scheme are as follows:

- Avoid damage to human health in the form of danger to life during flooding and adverse impact following flooding
- Where appropriate enhance the human environment (Human Health, Population and continued Flood and Coastal Erosion Risk Management)
- Maintain the amenity value of the beach over the whole frontage for both the local population and the holidaymakers who visit the area
- Protect and where possible enhance biodiversity (Flora and Fauna), water quality, existing infrastructure (Material Assets), cultural heritage features (Cultural Heritage) and landscape character / visual amenity (Landscape)
- Minimise disturbance to the community and natural environment through construction activities.

1.8 Planning context

1.8.1 Previous Beach Management Plans

Beach Management has been carried out in the Eastoke Frontage since the original replenishment scheme in 1985. A sample of the BMPs and works carried out are listed below. Several of these have recommended various studies that have been carried out over the years to continue to improve the understanding of the coastal processes and implemented management methods on the beach.

- Beach Management Plan (1992-1996)
- Beach Management Strategy Plan for the southern frontage of the Eastoke Peninsula, 1999
- Beach Nourishment 2006 Project Appraisal Report
- Beach Recycling 2008-2012
- Eastoke Point Coastal Defence Study 2009
- South Hayling Island Beach Management Plan (2012-2017)
- Eastoke Point Coastal Defence Scheme (2013)

The current Planning Permission (expiring September 2019) covers the frontage from the Golf Club in the west to the Lifeboat Station in the east. The new proposal covers the length of coastline from the Ferry Boat Inn in the west to the Hayling Island Sailing Club (Black Point Spit) in the east. This allows for greater flexibility in how Beach Management Activities are run and unlocks additional sources of material. It also allows analysis of the whole sediment cell ensuring problems do not occur elsewhere.

Recycling operations will typically be carried out in March and September due to environmental restrictions and as far as possible, to avoid the school holidays. Further information on the mitigation measures can be found in the Environmental Statement, which supports this planning application.

1.8.2 Length of Consents and Permissions

This BMP is securing funding for the next 5 years (2017-22) only, but the timespan of the licences and consents being sought is much longer.

This Planning Statement supports the applications for a Planning Permission and Marine License for the longest period of time possible (50+ years). It is hoped that licenses and consents covering all work can be approved, thereby providing efficiencies. If there are any minor changes in the future, minor variations to our approvals may be requested. Integral to the new approach of this Planning and Marine Licence application is the Monitoring and Management Plan (as setout in the BMP Technical Report – Appendix A of the Environmental Statement). This should be conditioned as part of the approval process, and will be reviewed on a five yearly basis by the statutory consultees. The Monitoring and Management Plan can then be adapted to reflect changes on the ground and make the document an adaptive tool to enable the Coastal managers to provide protection to the residents and community of Eastoke whilst protecting the environment in this dynamic environment.

2 THE EXISTING SITE

2.1 Landscape character

See Environmental Impact Assessment for detail.

Beach Management Activities are ongoing activities, so many of the potential impacts have been assessed in the past. However for completeness, all impacts are considered within the EIA. Both the landscape and seascape will not change as a result of the ongoing works. There are temporary impacts during the works which are also considered within the Environmental Statement / Habitat Regulations Assessment.

The study area lies within the South Coast Plain & Hampshire Lowlands National Character Area (NCA) and is comprised entirely of the generally open and often featureless landscape of the coastal plain.

A Landscape and Seascape Character Assessment (HBTLSCA) was completed in February 2007, providing an integrated assessment of the rural and urban landscape and seascape. It explored the historical and contemporary events and influences that have shaped the Borough's development and will shape its future, bringing together the different urban, rural and marine environments. The HBTLSCA forms one of the background documents to the Local Plan. This split Havant and Hayling Island into several Landscape Character Areas (LCA) these are detailed within the EIA. But the seven LCA that are included within the area of interest are;

- Lowland Coastal Settlement
- Lowland Open Coastal Plain
- Lowland Coastal Settlement and Minor Inlets
- Harbour Mouth and Open Coast
- Open Coast
- Enclosed Lower Harbour Plan
- Harbour Basin

2.2 Current land uses

The main land uses within and adjacent to the site area are:

- Recreation – beach, swimming, water sports, golf, sailing, promenade
- Residential – Eastoke
- Commercial – Inn-on-the-Beach, Ferry Boat Inn etc.

2.2.1 Residential properties

The frontage behind the beach is lined by the promenade or the road, so the actual site area does not enclose any residential properties. The main compound at Plot 74 is in between two residential properties. The properties off Southwood Road that face onto the beach will be affected by the works, but these are also among the properties that have the most to gain. The access routes to deliver plant and material to site will be via Sea Front and Southwood Road, so some residents will experience a minor increase in traffic as these deliveries are made.

2.2.2 Open amenity space

The South Hayling frontage is dominated by the Open Beach and public open space. The promenade that runs behind the beach is popular with cyclists, joggers and dog walkers. Views of The Solent are available from the length of the beach, but there are areas of the prom along Eastoke from which the sea cannot be seen. It is proposed that the beach crest be kept at 5.6mAOD. The Open Beach is designated as a Bathing Water Site under the Water Framework Directive. Approximately half way along the frontage is the Funland Amusement Park. The beach in front of this is privately owned. No part of the beach is closed off when works are carried out, but several warning signs are placed over the length of the beach and at entrances onto the beach. Works are always planned to be carried out outside of the school holidays.

At the western end of the frontage is the Golf Club and at the eastern-most end, the Sailing Club, both private recreational facilities. The Golf Club owns the beach at Gunner Point, one of the new proposed extraction sites.

2.2.3 Road and rail infrastructure and Pedestrian access

Havant train station is the closest railway link, at 9km from the Eastoke frontage as the crow flies. Several bus routes serve the island and Eastoke and there is just one road link onto the island; the A3023 Langstone Road bridge.

The pedestrian access to the frontage is currently very good. There is a promenade that runs along the back of the beach along Eastoke and the road/pavement line the beach open area along much of the rest of the frontage. These serve for both pedestrians and cyclists. Several access points are situated along the Eastoke frontage, between the residential buildings.

2.2.4 Commercial properties

There are a number of commercial properties along the South Hayling frontage, most of which serve the beach visitors and tourism industry. There are several cafes, pubs and restaurants, as well as the Funland Amusement Park. However, the predominant land uses are recreational public open space (the beach) and residential housing.

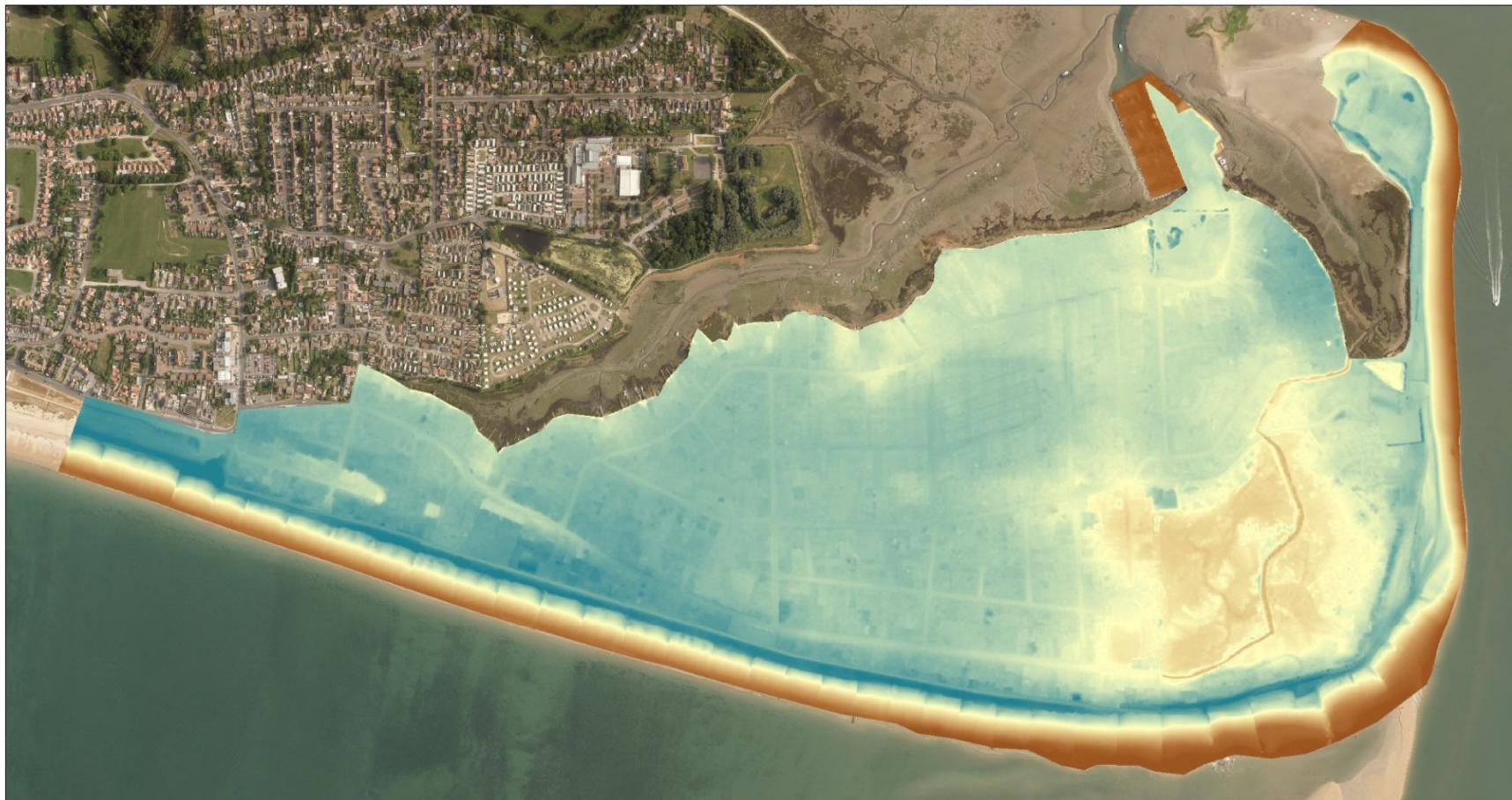
2.2.5 Structure heights

The beach will be kept at the design profile with a 5.6mAOD high and 18m wide crest. This will provide a 1 in 200 year standard of protection (SoP). The design profile for the beach at Eastoke Point where the rock revetment is situated varies, but it is not anticipated that material will need to be put here over the next 5 year period, as long as the feed is kept by placing material east of the drift divide along Eastoke Beach. The rock alone will provide the flood and erosion protection needed at this point for the next 5 years. However the proposal is looking further into the future and therefore it is likely that additional material will be needed in the future. This will however be informed by through the extensive monitoring programme.

2.3 Topography

Much of Hayling is low-lying and the Eastoke Peninsula is particularly vulnerable to flooding. The area is at risk from both flooding (tidal but mostly overtopping) and erosion. **Figure 2.1** shows the land elevation using LiDAR from 2015 (Environment Agency). The low-lying nature of the Eastoke Peninsula is very apparent. The basin in the peninsula promotes propagation and pooling of water towards the eastern side of the peninsula, resulting in significant issues in the event of a breach or heavy overtopping.

TOPOGRAPHY AT EASTOKE

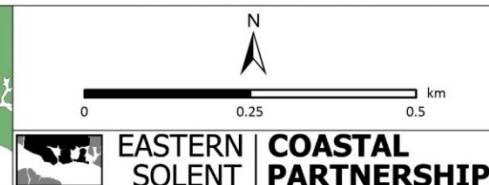


South
Hayling
BMP

Elevation (mOD)

High : 6.29
Low : -1.925

Aerial Photography: CCO (2013)



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Figure 2.1 The topography of the Eastoke Peninsula, show using LiDAR data from 2015 (Environment Agency).

2.4 Local networks

Access to Southwood Road and the HBC compound will be via A3023/Havant Road and the Seafront. Under the current conditions, site working hours are from 7am – 7pm and hours for the delivery of plant and shingle. However the Havant Borough Council are requesting that these conditions be reconsidered for the following reasons

Summary

Proposed Requested conditions amended from previous conditions

- 1) General Construction works including working on the beach and delivery of aggregates to site)
 - 06.00 – 22.00 hrs Monday to Friday and not at weekend or recognised public holidays.

Exceptions

- Condition 1 is applicable except when Emergency works are required, which need to take place as and when necessary, however conditions 3-6 below will still need to be adhered to.
 - Rainbowing works and extraction at the Ness are tidally dependant and therefore will need to take place when the tide allows anytime over the 24hr period. As they are tidally dependant when the tide changes the works will also have to stop so the duration of these works is limited in any tidal cycle. These works are also dependant on proposed conditions 3 – 6 being adhered to.
- 2) Delivery of construction plant to site, will not be restricted as it is only a maximum of 7 (3 of which are abnormal loads) vehicles to deliver the plant (total 28 additional vehicles movement per operation). If vehicles arrived on site (Eastoke Carpark) they would only be unloaded within the General Construction working hours specified in Condition 1 above (06.00hrs - 22.00hrs), to restrict disturbance to residents. By allowing the vehicles to be delivered over a longer period of time, this aims to prevent congestion on the A3023/Havant Road

The following restrictions should be viewed with **Figure 2.2**.

- 3) There will be no works in certain areas between March and August to protect vegetated shingle communities and annul vegetation of drift line and nesting birds (Gunner Point and Langstone Harbour entrance BMP Units 6, 7 and 8).
- 4) In other areas there will be no working 1.5hrs before and 1 hour after high tide during the over winter bird period (October to March inclusive). These include Gunner Point, Langstone Harbour Entrance and Chichester Harbour Entrance (BMP Units 1, 2, 6, 7 and 8).
- 5) There will be an annual vegetated shingle survey in July /August which will feed into the Monitoring and Mitigation report, and will inform where the haul route can go in the following year to protect in particular the seed bank in the shingle.

- 6) In other areas (Units 1 to 5) there will be an Ecological walkover immediately prior to works in nesting season (March to August inclusive). Provide exclusion area if nesting birds discovered (minimum of 5 metre buffer distance). Additional surveys will be carried out if required to ensure that birds have not nested in the meantime.

Rational as to the request to change conditions

We are requesting the amendments to conditions to allow the works to generally take place within the time scale of two to four weeks in March and / or September. This will minimise disruption to the local community and the environment. However works may take place outside this time in an emergency, but will still have to adhere to conditions 3-6.

In an emergency situation; if a storm has reduced the beach levels and the community of Eastoke is then put under immediate flood risk, the ESCP would carry out the emergency works. These would be in line with the pre-agreed restrictions so that the works can take place without delay and therefore without putting life or properties at additional risk. This exception would prevent undue stress on both the Local Planning Department or the Statutory consultees to agree emergency works at very short notice or having to agree to works that have already taken place without adequately assessing their impact.

As discussed, previously the works have been time limited to either a period of 5 or 10 years, the reason being *'to enable the Local Planning Authority to re-assess the impact of the proposal.'* We are now requesting that the time limiting of the permission be removed for the following reasons:

- Havant Borough Council/ ESCP have been undertaking beach recycling measures in this location in one form or other since 1993 which is approximately thirty years. In that time there has been extensive monitoring, which has provided the coastal managers and engineers at the ESCP the certainty as to what will happen and what the parameters that need to be adhered to, to ensure that the beach is maintained to provide protection to 1555 residential properties and 170 commercial properties at risk from a 1 in 200 year flood event, into the future.
- If the time limiting is removed it will also help by providing efficiencies, the ESCP have to apply for funding every five years to the Environment Agency and all savings have to be considered.
- There are also a number of safe guards in place to ensure that if any currently unforeseen issues were to arise in future, we could adapt our working practises to these. The promoted Monitoring and Mitigation Plan, which will be reviewed every five years, and the Construction and Environmental Management Plan which will be reviewed before each operation, ensuring the works remain sound.
- The Monitoring and Mitigation Plan can be changed to reflect changes on the ground and make the document an adaptive tool to enable the coastal

managers to provide protection to the residents and community of Eastoke whilst protecting the environment in this dynamic environment.

Previous timing restrictions have added to the impact of the works rather than helping to reduce impacts so the ESCP is requesting amendments to working hours. The promoted new restrictions were conditioned on the delivered FCERM works at Eastoke, so we consider that there is a precedent set in this location to change the restrictions on working hours.

The newly proposed hours for construction works would help spread out the deliveries to the site. On a usual campaign, if shingle is imported via road, 4- 6 trucks would operate on a round trip from Kendall's Wharf (sumplifier at North Portsea Island), which takes approximately 1 hour. This equates to approximately 8-12 extra vehicle movements on and off the Island an hour. It is not considered that this results in a significant traffic issue that could affect the existing network. The promoted, extended working hours would reduce impacts, as it would spread deliveries over a longer time scale, which should help reduce either the frequency or number of days of each campaign.

It should be noted that all of the works are only for a relatively short period of time in any one year; between 2 and 4 weeks usually in March and/or September, so the impacts are short term. There are significant benefits to the 1555 properties and 170 business in Eastoke that are protected by the scheme. The community is used to the works taking place on the beach and over at least the last 10 years there have not been any complaints received and recorded by Havant Borough Council. The proposed working hours have been requested to allow the coastal managers and engineers greater flexibility to be able to carry out the works to keep the community safe and work with the environment constraints developed with Natural England to protect the environment.

We also have a large number of restrictions placed on the works from other interested parties. Generally the works will be undertaken when the tourist traffic is light (as we plan the works to avoid the main summer tourist season, unless there is an emergency).

Route to and from the site would remain the same

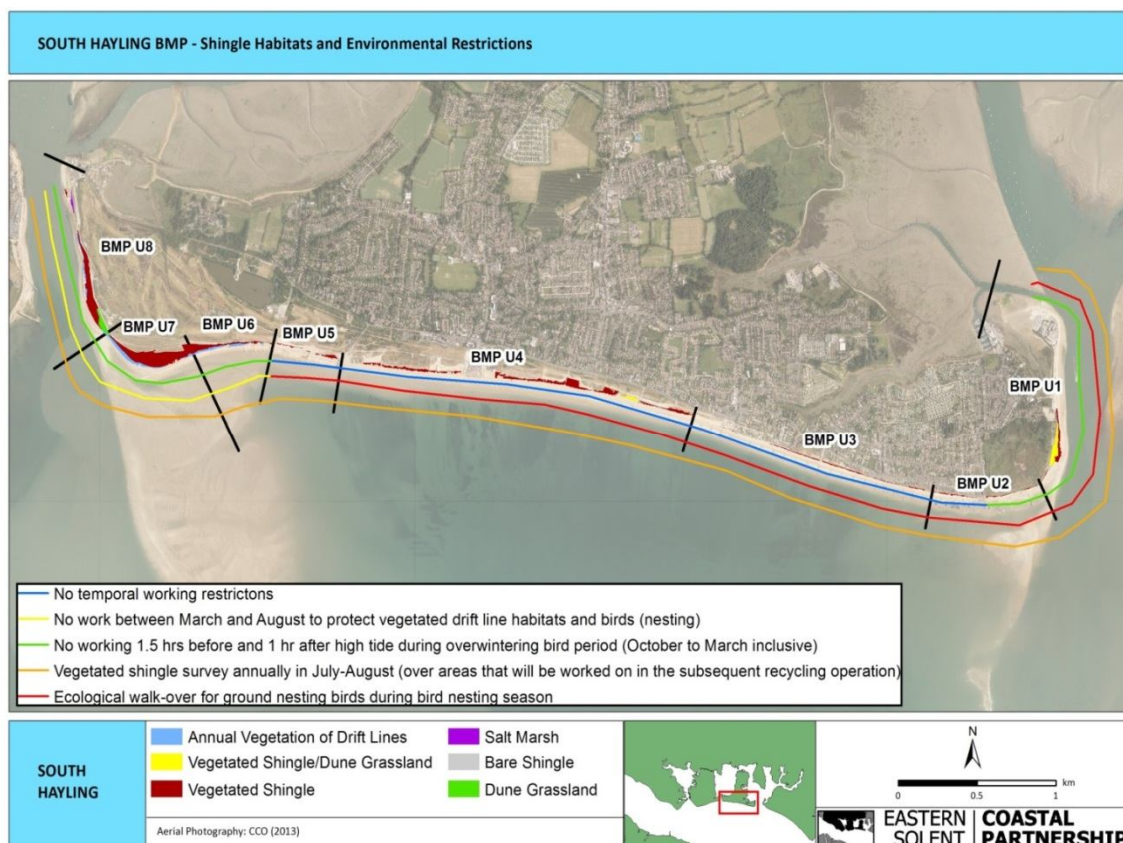
Haulage Route - This will apply to the entire beach area.

The haulage route will broadly remain the same as historically used, but increased in length as shown in **Figure 4.2**. The exact location of the haul route will dependant on the pre works surveys to ensure that both the Vegetated Shingle, Annual Vegetation of Drift Line habitats and ground nesting birds are protected. This will ensure that the works can continue into the future whilst protecting the sensitive habitats.

Within the Tender Brief and contract for the work, there must be an emphasis on the measures that will need to be undertaken to safeguard protected species. Emphasis must be given to the consequences of damaging protected species under the Wildlife and Countryside Act.

The Mitigation Plan included in the conclusions of the Environmental Statement, has been developed in consultation with Natural England and safe guards sensitive habitats and species into the future (see table below which should be read in conjunction with map).

Figure 2.2 Environmental restrictions



Any impacts will be mitigated for, and it is believed that these will not be significant. Haul roads to move shingle will be along the beach keeping above mean high water (MHW), and behind West Beach and Inn-on-the-Beach where access along the beach is more limited. Access routes and haul roads are described in the Environmental Statement.

3 SCHEME DEVELOPMENT

3.1 Approach and Design Evolution

Beach management has been ongoing on the South Hayling coast since the original Replenishment Scheme in 1985. Supported by the strategic background, beach management was chosen again as a continuation of current works to reduce the flood risk to the low-lying properties on the Eastoke Peninsula.

Economics for the project were assessed for a 1 in 75 year SoP, a 1 in 100 SoP and a 1 in 200 SoP with the preferred option being to protect to a 1 in 200 year SoP. Sensitivity testing was also carried out on the dimensions of the design profile (see **Section 3.2.4 of the BMP Technical Report**) to ensure that it still protected the frontage to the 1 in 200 standard. The design profile was not changed and will be kept the same for the next 5 year BMP period unless further modelling suggests otherwise.

3.2 Scheme layout and appearance

The preferred option for the South Hayling frontage is to maintain the beach profile to design standard, protecting Eastoke Peninsula from flooding due to a 1 in 200 year SoP. The whole Eastoke Managed frontage is split down into three sections, each with a slightly different design profile. These are summarised in **Table 3.1**, **Figure 3.1** and **Figure 3.2** show the design profiles and **Figure 3.3** shows where these are located.

Table 3.1 The dimensions of the different design profiles at each section of beach

Section	Groyne No.'s	Crest height	Crest width	Front slope
Eastoke Point Scheme	3 – 11	4.6m (rock has 5.6m crest)	N/A	1:12
Eastoke Beach	11 – 31	5.6m	18m	1:4, then 1:10
Eastoke Corner	31 – 35	5.6m	10m	1:4, then 1:10

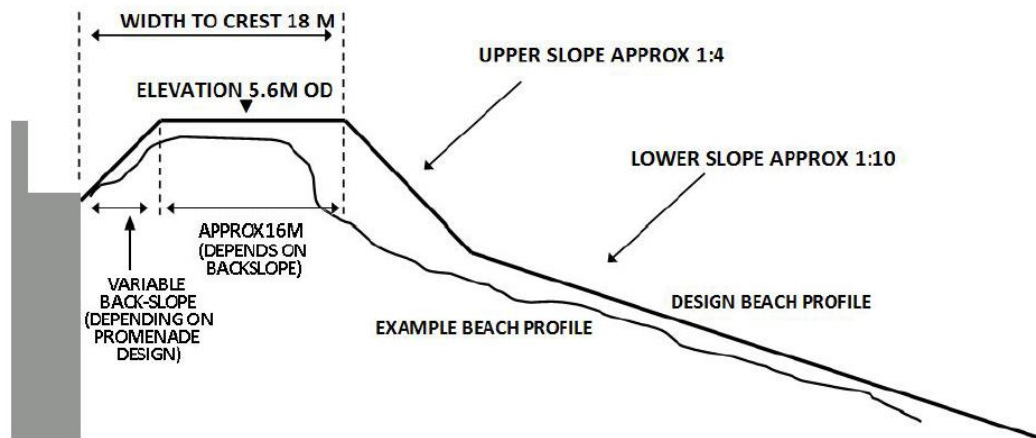


Figure 3.1 The design profile along the Eastoke Beach section

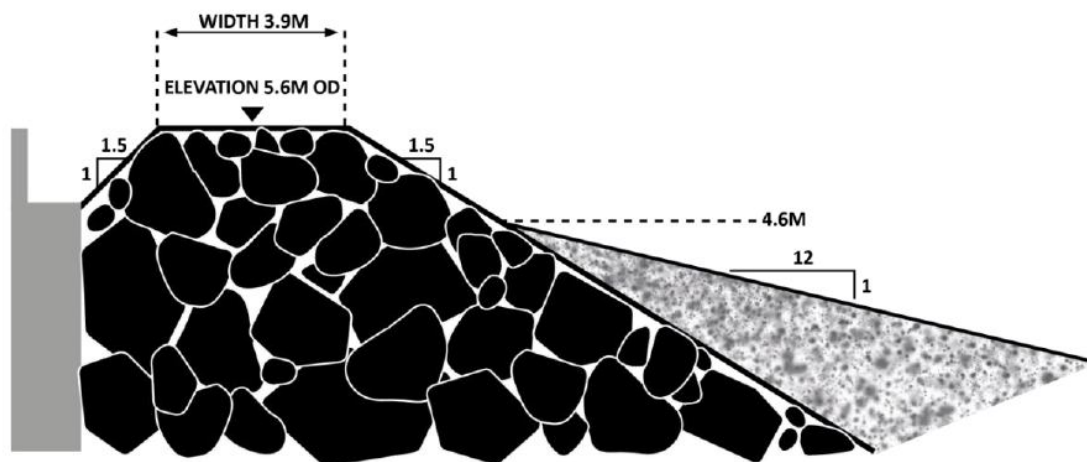


Figure 3.2 The design profile along the Eastoke Point Scheme section

SOUTH HAYLING BMP - Managed Frontage Location Map

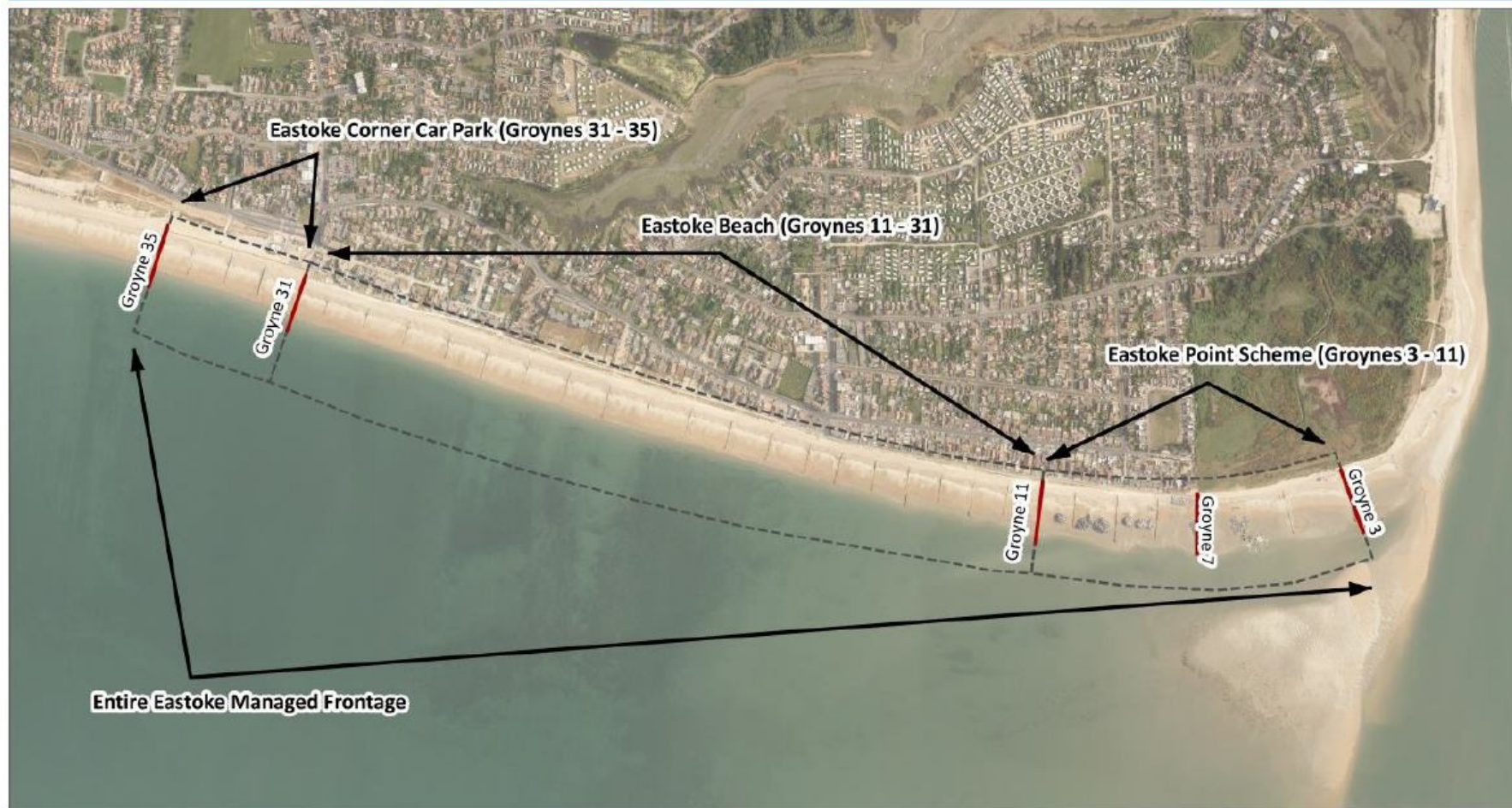


Figure 3.3 The divisions of the beach, based on, the design profiles

Photo 3.1 shows the beach shortly after a recycling campaign when it is well nourished and at design profile. The coarser the beach, the better defence it provides against storm attack. Still, there are some natural areas of sand lower down on the foreshore.



Photo 3.1 The beach at Eastoke on completion of a recycling campaign.

3.3 Use

The beach will be maintained to reduce the risk of flooding for the community and properties (residential, commercial and recreational) immediately behind the beach on the Eastoke Peninsula. The beach and promenade also offer significant recreational and amenity benefits. It is used by walkers, dog walkers, runners, cyclists and for various water sports. There are several access points between the beach and Southwood Road between the residential properties, none of which will be modified during the works however there will be warnings at each of these when works are ongoing.

3.4 Access

This scheme and the proposed works are about maintenance, rather than capital construction. Therefore, access points to the beach and along the beach will not be

modified. At present the promenade is suitable for all pedestrians and non-motorised traffic and this will not change.

The site is an outdoor, semi natural environment and as such, access is not always possible for all users. It is accepted that due to the nature of the beach and its location, there are limitations on how accessible it can be although every effort has been made to ensure the main path is accessible by all visitors.

4 IMPLEMENTATION

4.1 Phasing

The works are planned to be carried in campaigns each year usually in March and or September. This will continue into the future however where the shingle is sourced from in any one year will change and adapt to the environmental conditions. This will involve moving shingle from areas of natural accretion to the Eastoke Beach, an area of natural erosion (see **Figure 4.1**).

Campaigns are planned for March and/or September, as these times have the least environmental constraints (see **Figure 2.2**) and disruption to beach users. An exact plan of work will be finalised on an annual basis as it will depend on the condition of the Eastoke frontage and the accretion of the extraction sites in any given year. This will advise a Construction and Environmental Management Plan for each phase of works.

If emergency works need to take place, the conditions and timings of works may be different, but there will be safeguards in place to protect both people and the environment, as set out in **Section 2.4**.

4.2 Enabling works and Site Set-up

Beach recycling will typically be carried out using a tracked bulldozer and a hydraulic excavator, with dump trucks to transport material along the frontage. These must be delivered to site and any haul routes used to access the compound and areas of the beach should be in place before recycling works begin. Compounds must be properly set up before works are carried out.

4.2.1 Compounds

For the works, the ESCP are able to utilise the HBC compound at Plot 74, Southwood Road. This has an area to store plant, direct access onto the beach and welfare units. During campaigns in which material is being recycled from Gunner Point, a secondary compound will be set up in the West Beach car park. This will have enough room for approximately two trucks and an excavator as well as a welfare unit. When imported material is brought in by road, it is stockpiled in the Eastoke Corner car park and then distributed from there. The location of the compounds and stockpiling area can be seen in **Figure 4.2**.

4.2.2 Haul Routes

Prior to moving shingle, haul roads must be set up to provide a suitable route for the plant to track on. Haul routes will be demarcated using cones along the length of the beach, to allow for both truck drivers and members of the public to identify routes. These must all be above Mean High Water (MHW) and avoid any vegetated shingle or nesting birds. Haul roads that are marked on **Figure 4.2** are only indicative and will depend on what's on the ground and the conditions prior to the campaign. These will be marked out in cones on the beach.

Access to the Gunner Point compound and round the back of the Inn on the Beach requires the removal of timber parking bollards. This is also necessary at Eastoke Corner car park to move the stockpiled shingle onto the beach.

4.2.3 Sources of Material

To give the Beach Management Plan as much flexibility and availability of material as possible, several extraction sites are included. These can be seen in **Figure 1.7** and are summarised below.

a) The Ness, Coastguard Revetment, Open Beach and West Beach

These are all land based recycling areas and due to the ease and cost, they are generally the preferred sources for beach management. The ESCP undertakes surveys prior to each campaign to identify how much material has accreted and can therefore be used.

b) Gunner Point

Situated at the western end of the South Hayling frontage, this area has been accreting over the past century. With the introduction of beach replenishment, it has grown rapidly and now presents a good source of coarse material. The land is privately owned and an agreement in principle has been made between the landowner and HBC to recycle an agreed quantity of material back to Eastoke. Permission from the landowner will be sought prior to any recycling campaign.

c) Chichester Harbour Approach Channel

The approach channel will fill-in over time and the Chichester Harbour Conservancy has a duty to keep the navigational hazard clear. This presents the opportunity for the beneficial use of dredged material from within the same sediment cell.

d) Licenced offshore sites

This gives a guaranteed source of material but is more expensive than the recycling options.

e) Import by road

This is generally a very expensive option and is only used to top-up the beach crest after an operation. The material is graded and imports will contain 20-63mm sized material.

SOUTH HAYLING BMP - Change in Beach Elevation with issue areas highlighted

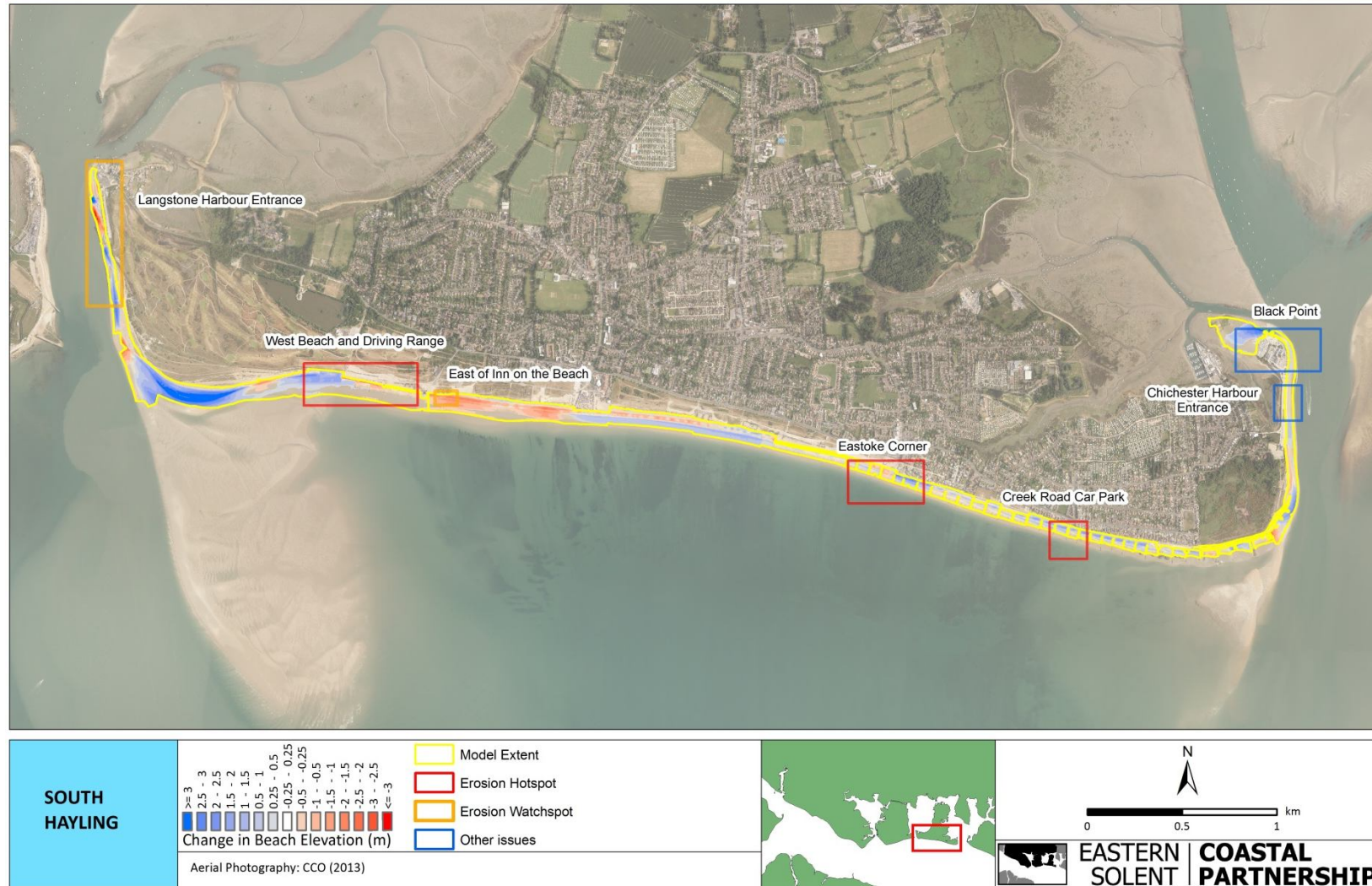


Figure 4.1 Changes in beach elevation between 2003 and 2016 with erosion hotspots and watchspots highlighted

Site Areas, Compounds and Haul Routes



Figure 4.2 Site areas for the BMP works, including compounds and haul routes

4.3 Site access routes

There is a set route that must be used by deliveries of plant and material to the site. This is illustrated in **Figure 4.3**. From the A27, it follows the A3023 down to the seafront. From here, the Gunner Point compound and Eastoke Corner car park can be accessed. Plant can then access the HBC compound via the beach and road vehicles can use Southwood Road.

Post completion and where applicable, the compounds and haul routes will be remediated and restored to at least their pre-works condition. No footpaths or areas of the beach will be closed for recycling campaigns. Sections of the promenade will need to be shut off for safety during the pump-ashore following a dredge. However, this will only be for a maximum of two hours at a time. The access points between Southwood Road and the promenade will provide an alternative route.

4.3.1 Working Times

Normal working hours for the works are anticipated to be Monday to Friday from 06:00 to 22.00, which is longer than in previous applications however the majority of the works is setback from residential properties. Works will take place for a period of 2 – 4 weeks up to twice a year. Except in emergency situations, when the works will impact the residents who have the greatest risk of flooding.

Both the Rainbowing activity and the extraction of Shingle at the Ness are tidally restricted so have to take place at the appropriate state of tide. Working times are set out in detail in **Section 2.4**.

4.3.2 Public Rights of Way and footpaths

There are no Public Rights of Way (PRoW) that will need to be closed for any part of the works. Where there are access points to the beach, signs will be displayed to give warning and information about the works.

South Hayling BMP - ACCESS ROUTES AND HAUL ROADS

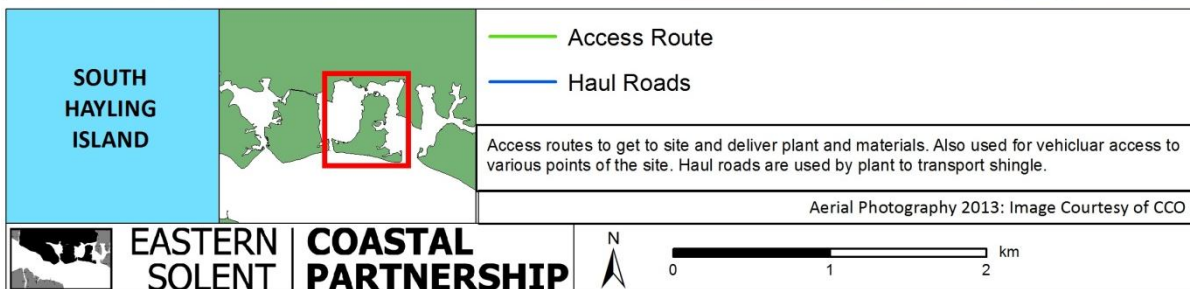


Figure 4.3 Access routes for the delivery of plant and materials and haul roads for the movement of shingle around the site.

4.4 Archaeology & heritage, and UXO

See Environmental Statement (Section 13) for full assessment of potential Impacts and proposed mitigation.

There are no known archaeological or historic features of interest in the BMP area itself, apart from the Old Lifeboat House and other listed buildings / scheduled ancient monuments landward of the open beach (see **Figure 4.4**). There is the potential for archaeological finds within the beach, however any value of these is considered negligible, as set out in Chapter 13 of the Environmental Statement. There is a low risk of uncovering UXO on the beach, particularly when using dredged material. To mitigate for both of these, Watching Briefs will be in place and all persons working on the project will be made aware of these issues and the procedures to follow should either be discovered.

SOUTH HAYLING BMP - Historic Environment Features adjacent to the BMP Frontage



Figure 4.4 Historic interest features around South Hayling

5 FLOOD RISK STATEMENT

The Beach Recycling operation constitutes as development under the Town and Country Planning Act 1990, and therefore requires planning permission from the Local Planning Authority to carry out the works. The planning permission being sought is for the periodic recycling of material from the wider South Hayling frontage back to Eastoke. As part of the planning application process, it is stated in section 13 of the Application for Planning Permission form that a Flood Risk Assessment is to be submitted along with the application if the site is located in an area at risk to flooding. As these coastal defence maintenance works are being implemented to reduce flooding to the area of Eastoke, a Flood Risk Assessment is not applicable to this application, and a Flood Risk Statement has been produced instead, included within the Planning Statement. This has been agreed with the Havant Borough Council Planning Department and the Environment Agency.

5.1 South Hayling Island Flood Risk Assessment Statement

The primary objective of the Beach Management Plan is to reduce the flood and erosion risk to the Eastoke Peninsula. The scheme will benefit the low-lying land behind the beach at Eastoke.

The site of the proposed engineering work is shown to be within Flood Zone 3 of the Environment Agency's Flood Zone Maps. Following campaigns, the beach will be regularly monitored to ensure defence condition is assessed and the design profile is up to standard.

Over the next 5 years, the South Hayling BMP will provide a 1 in 200 year standard of flood protection to the following assets:

- 1,555 residential properties,
- 170 commercial properties,
- vital infrastructure including the road link onto the peninsula
- conservation areas

Figure 1.3 shows the area at risk from a 1 in 200 year flood event and erosion risk over the next 20 years under a no defences scenario. The preferred solution has been selected through the development of the Eastoke Sectoral Strategy and various studies undertaken to assess the feasibility and develop the design profile. This Beach Management Plan is a continuation of works that has been on-going in various forms since the initial beach recharge in 1985. The information has been updated and reviewed at several stages to ensure the latest information for water levels and waves has been used in developing the design profile and the beach management plan.

5.1.1 National Planning Policy Framework (NPPF)

Paragraph 93 of the NPPF identifies that planning plays an important role in 'providing resilience to the impacts of climate change, and supporting the delivery of...associated infrastructure.' The South Hayling Island BMP is in line with this, promoting flood protection

and the studies that will be carried out over the next 5 years as part of the project will look into a sustainable solution for the future management of this stretch of coastline.

5.1.2 The Havant Borough Core Strategy

This coastal defence infrastructure project shows compliance with the adopted Havant Borough Council Core Strategy (2011) and its vision.

The vision for Havant Borough to be achieved by 2026 is for “a cleaner, safer and more prosperous place. It will be a place where people of all ages and circumstances will want to live, visit or work. It will be a sought after location, well known as the home of windsurfing and for its superb Solent coastline. It will be widely recognised for its sustainable, innovative and high quality design developments and the stewardship of its natural and built environment.”

Policy CS15 (Flood and Coastal Erosion Risk) states that “managing the risks of flooding and adapting to the likely impacts of climate change is therefore a priority”. The South Hayling Island Beach Management Plan is in line with the Havant Strategy, protecting the properties and businesses at risk on the Eastoke Peninsula.

5.2 Licences, Consents and Permissions

In addition to seeking planning consent for the scheme a variety of other licences, consents and permission will be secured where the work is undertaken on the coast and adjacent to sites of nature conservation importance. These include:

- Marine Licence from the Marine Management Organisation
- Chichester Harbour Conservancy Works Licence
- Hampshire County Council Works Licence
- Permission to extract from Gunner Point by the Hayling Golf Club
- Natural England support
- Landowner permissions

Although the coastal defence improvements will reduce the risk of flooding to people and property within the area benefitting from the defences, residual risks will still exist after the scheme is implemented. These residual flood risks exist from the risk of defence failure or breaching in the instance of an extreme storm surge. It is therefore important that a sequential, risk-based approach to the location of development continues to be applied, to avoid flood risk to people and property and manage any residual risk.

The scheme does not propose any excavation work, only the building of the beach at Eastoke and therefore there will be no increase to the flood risk to the immediate area during construction works. Because of this, no extra flood risk mitigation measures need to be put in place for the duration of works. Areas of shingle extraction will never be depleted so low that the areas behind these come under an unacceptable flood risk.

The Environmental Statement (ES) has built on the Environmental Scoping Report and provides a full Environmental Impact Assessment (EIA) for the project. Within the ES, the potential for environmental effects and impacts were assessed. The EIA anticipates no potential impacts greater than minor adverse with regards to the flood and coastal defence

and coastal processes. All other potential impacts identified in the EIA are expected to be able to be mitigated through appropriate working methods and measures and will be agreed through a Construction and Environmental Management Plan prior to works commencing.

5.3 Conclusions

- This infrastructure project shows compliance with the National Planning Policy Framework and the Policy PCS15 of the Havant Borough Core Strategy;
- The project team are aware of additional Marine Licences and Consents and other permissions that need to be in place before development commences and are progressing applications to these. As these expire over the lifetime of the project, they will be renewed to allow proper continuation of works.
- The scheme is required to implement the strategic policy accepted under the adopted Shoreline Management Plan and Eastoke Sectoral Strategy
- During the lifetime of the scheme, the beach will protect the Eastoke Peninsula from flooding to a 1 in 200 year event. It will not have a detrimental impact on flooding from other sources including surface water, sewer and groundwater sources.

6 References

- North Solent Shoreline Management Plan, New Forest DC (2010)
- Hayling Island : Eastoke Sectoral Strategy Study; Joint report to Havant Borough Council and Environment Agency, W.S. Atkins Ltd (2006)
- Havant Borough Townscape, Landscape and Seascape Assessment, 2006/07
- Havant Borough Council Local Plan (Core Strategy), 2011