

## **Appendix 1**

### **Habitats Regulations Assessment**

# Stage 2 Habitats Regulations Assessment



## Environment Agency record of appropriate assessment

This is a record of the appropriate assessment required by Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), undertaken by the Environment Agency in respect of the permission, plan or project detailed below.

Version: **Draft Only [to be updated once detail design complete]**

## Permission, Plan or Project (PPP) Details

Type of PPP:	Plan
Environment Agency reference no:	TBC
National grid reference:	SY129873
Site reference:	Sidmouth, Devon (Figures as set out in the Maps section)

## Description of the Scheme

Sidmouth is a town on the English Channel in Devon, South West England, 14 miles (23 km) southeast of Exeter (**Figure 1**). The frontage of Sidmouth has a long history of construction and maintenance in regard to coastal flooding and erosion risk management schemes. Following the storms of 1989 and 1990, the Sidmouth Town frontage experienced substantial damage to its existing defences and substantial volumes of shingle were lost to the east of Sidmouth. This storm damage triggered the need for upgraded coastal flood and erosion risk management measures. The need for further works was triggered following storms in 1993 and 1994.

The current flood and coastal erosion risk management measures along the Sidmouth Town frontage were constructed over many phases between 1991 and 2000 and comprise seawalls, rock revetments, splash wall, rock groynes, offshore rock breakwaters, a river training wall, coupled with beach recharge and recycling as required. Wave overtopping and the subsequent risk of coastal flooding along the Sidmouth town frontage is generally controlled by the retained beach in front of the seawall and the low splash wall that is situated on the landward side of the promenade. The beach, in conjunction with the buried rock revetment, also helps to protect the seawall from undermining and subsequent potential failure. Over recent years, beach levels have dropped to lower than the design level (which was set as part of the 1990s schemes); and in places the toe of the seawall is now exposed. This results in increased wave reflection on the exposed vertical seawall which exacerbates wave overtopping and increases the risk of subsequent flooding. The wave reflection also exacerbates the reduction in the already low beach levels.

The East Beach frontage consists of Pennington Point cliffs which has a small shingle beach at its base. The cliffs are otherwise undefended. The Pennington Point cliffs are eroding, and thereby retreating. Causes of erosion are associated with weathering and lack of drainage from above the cliffs, along with wave impact on the lower cliff. Beach levels have lowered in recent years causing more exposure of the cliff toe to wave action. The continued erosion of the cliffs is now posing a risk of outflanking of the Sidmouth Town defences; erosion of the cliff is resulting in the gradual increased exposure of the western river wall of the River Sid to coastal sea storm conditions (primarily from easterly / south-easterly directions). It is recognised that East Cliff is also subject

to erosion as a result of other physical processes (e.g. weathering from above due to intense rainfall / insufficient drainage). In addition, as East Cliff continues to erode over the next 100 years, the Alma Bridge will become unsustainable in its current position. The western wall of the River Sid, which currently provides fluvial flood defence, will become increasingly exposed to full coastal conditions. Therefore, there will be an increased likelihood of defence failure and thus occurrence of flood damages over time.

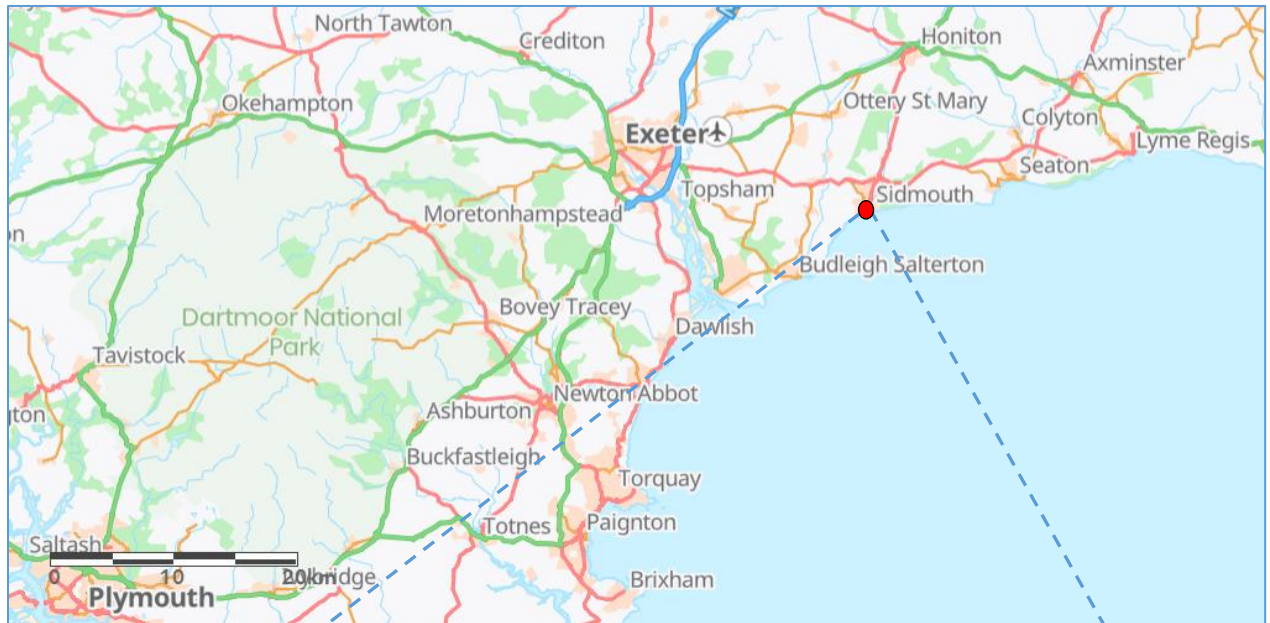


Figure 1 Sidmouth and Frontages

Following the updated Partnership Funding Calculator for Flood and Coastal Risk Management (FCRM) projects by the Environment Agency in 2020, additional Flood Defence Grant in Aid (FDGiA) was released for the approved flood defence scheme as shown in the draft OBC for Sidmouth, which provided the basis for exploring alternative options. Therefore, East Devon District Council (EDDC), in collaboration with an elected Stakeholders Sub-Group, requested Royal HaskoningDHV (RHDHV) to undertake a high-level assessment of additional flood defence options, including but not limited to, options that were previously discounted during the development of the Beach Management Plan (BMP) for the main town (Frontage B) and East Beach (Frontage C) (**Figure 1**). Based on the assessment it has been concluded the preferred way forward for the new Sidmouth Beach Management (SBM) scheme (herein referred to as the “proposed SBM scheme”) comprises a hybrid (mixture) of short-term and longer-term works.

In summary the hybrid solution for the proposed SBM scheme will include (**Figure 2**):

- Beach recharge (with shingle) along the town beach frontage.
- Raised splash wall and flood gates to 1m high at key locations.
- New long groyne and beach nourishment at East Beach.
- New boat ramp.
- Raising existing splash wall by 100mm along the promenade with new foundations enabling raising of the splash wall further when overtopping rates become unacceptable in the mid to long term (to be refined at detailed design stage).
- Construction of one breakwater (rock islands) in front of the Town Beach (dimensions and location to be refined at detailed design stage).



Figure 2 Proposed SBM Scheme

The objectives of the proposed SBM scheme are as follows:

1. Maintain the 1990’s Sidmouth Coastal Defence Standard of Service (Sidmouth Beach);
2. Reduce the rate of beach and cliff erosion to the east of the R Sid (East Beach).
3. Carry out (1) and (2) in an integrated, justifiable and sustainable way.

Further details on the proposed new SBM scheme of 2022 is presented in the Preliminary Environmental Report (PEIR) report.

## Summary of Stage 1 (Likely Significant Effect, LSE) Conclusion

At stage 1 it was not possible to rule out the likelihood of significant effects on European designates sites associated with the proposed SBM scheme (**Figure 3**); those effects requiring appropriate assessment are summarised below in **Table 1**. Full details are available in Appendix E of the original Sidmouth and East Beach BMP (September, 2016).



Figure 2 Environmental designations in the SBM scheme area

Table 1 Potential for LSE

EA habitat/species group	Risk	Potential for LSE alone	Potential for LSE in combination
<b>Sidmouth-to-West-Bay-Special Area of Conservation (UK0019864)</b>			
1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts	Extent and distribution - Direct loss of habitat	Yes	Yes
	Structure and function (including typical species) - Changes in cliff erosion rates	Yes	Yes
	Supporting processes upon which the habitat relies - Changes to coastal processes	Yes	Yes

^ Protected area under the Water Framework Directive

\* Priority natural habitat/priority species

## Conservation Objectives<sup>1</sup>

The appropriate assessment will consider the implications of the proposal in view of the site's conservation objectives. The conservation objectives for the sites requiring appropriate assessment are below:

### Sidmouth-to-West-Bay-Special Area of Conservation (UK0019864)

*With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;*

*Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of qualifying natural habitats*
- *The structure and function (including typical species) of qualifying natural habitats, and*
- *The supporting processes on which qualifying natural habitats rely*

*This document should be read in conjunction with the accompanying Supplementary Advice document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.*

#### **Qualifying Features:**

*H1210. Annual vegetation of drift lines*

*H1230. Vegetated sea cliffs of the Atlantic and Baltic coasts*

*H9180. Tilio-Acerion forests of slopes, screes and ravines; Mixed woodland on base-rich soils associated with rocky slopes\**

#### **\* Priority natural habitats or species**

Some of the natural habitats and species listed in the Habitats Directive and for which SACs have been selected are considered to be particular priorities for conservation at a European scale and are subject to special provisions in the Directive and the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (\*) in Annex I and II of the Directive. The term 'priority' is also used in other contexts, for example with reference to particular habitats or species that are prioritised in UK Biodiversity Action Plans. It is important to note however that these are not necessarily the priority natural habitats or species within the meaning of the Habitats Directive or the Habitats Regulations.

Note: the only qualifying feature potentially impacted is *H1230. Vegetated sea cliffs of the Atlantic and Baltic coasts*.

## Site Condition and Conservation Status of Qualifying Features

Site condition based on the Sidmouth to Beer Coast SSSI - DEVON (EAST DEVON)<sup>2</sup>. 89.56% of the overall site is in favourable condition with both Units 001 and 002 (the areas the works will take place in and effect) being favourable as they have been since at least 2000. The following descriptions of the units were provided on 15/08/2012.

Unit 001: Natural coastal process occurring throughout unit, with very recent landslips at the Sidmouth end.

Unit 002: Vegetated sea cliff with range of vegetation types from early colonisers of bare cliff and flush/seepage, through maritime grassland, scrub to woodland. No anthropogenic influence on relative proportions of these. Buddleia present in several locations, particularly in eastern half

<sup>1</sup> <http://publications.naturalengland.org.uk/publication/5076579893903360>

<sup>2</sup> <https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1002767&SiteName=Sidmouth&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=>

with significant patches present immediately to the east of Weston Mouth. Tamarisk is also found either side of Weston Mouth. On more stable cliffs scrub is extensive and in large blocks. Invertebrate assemblage: Variety of required surface and preferred features found throughout, helped by recent landslips, although technically fails due to the quantities of established scrub and because scrub blocks are large. Vascular plant assemblage: No species from assemblage found in unit. Calcareous grassland only found in very small patches, and most of this was on inaccessible cliffs.

### **Appropriate Assessment: Assessing the Impacts Alone**

Guidance on what constitutes the integrity of a European site has been provided by the European Commission (EC, 2000). In this guidance, integrity is defined as: *“the coherence of the site’s ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or populations of species for which the site has been designated”*.

There are a number of factors that require consideration when determining the potential for an adverse effect on integrity, including the scale of the effect, the longevity of that effect, and the certainty of the impacts on the feature.

The qualifying feature considered is *H1230. Vegetated sea cliffs of the Atlantic and Baltic coasts*. The conservation objectives for this feature are set out in the previous section. The current status of this feature based on Natural England reporting is considered to be favourable.

The construction of the proposed new groyne, modification to the river training wall (RTW) and East Pier Groyne (EPG) is likely to have an effect on the conservation objectives. The works will increase stability of the cliff, change cliff erosion rates and change coastal processes. The placement of the proposed new rock groyne slightly offset from the cliff face itself will ensure no direct loss of any cliff face habitat as a result of the proposed works.

The effects are likely therefore to be limited to the small area of cliff that will be afforded protection by the works (through a reduction in erosion), limiting the spatial extent and magnitude of the change. The design has also considered the need for the continued erosion of the cliff as a feature of the SAC and SSSI designation. It therefore allows for erosion to continue though at a reduced rate protecting the town and properties at the top of the cliff. From the available construction options the option providing sufficient protection to the town and cliff top properties whilst allowing for cliff erosion to continue has been chosen

Modelling undertaken provides a high degree of certainty of the long-term effects of the works and the changes in physical processes that are required for cliff erosion to continue. EDDC have committed to monitoring beach levels at East Beach (which is directly linked to the frequency with which water reaches the base of the cliff and therefore the rate of erosion) and adaptive management will be carried out as appropriate i.e. if the beach level drops significantly below the design level recharge will be undertaken; if the beach level increases significantly above the design level, beach reprofiling will be undertaken to ensure cliff erosion continues.

Considering that the erosion of the vegetated sea cliffs will not be completely stopped, the small scale of the reduced erosion rates and the extent of the feature likely to be effected it is not considered that the works will have a significant adverse effect on the overall integrity and ecological coherence of the site.

### **Appropriate Assessment: Conclusion Alone**

Considering that the erosion of the vegetated sea cliffs will not be completely stopped, the small scale of the reduced erosion rates and the extent of the feature it is not considered that the works will interfere with the site’s ability to sustain the habitat, complex of habitats and/or populations of species for which it has been designated. In conclusion therefore, no significant adverse effect is anticipated on the integrity of the Sidmouth to West Bay SAC.

### **Appropriate Assessment: Assessing the Impacts In Combination**

An in combination assessment was completed as part of the Stage 1 screening of likely significant effect step. It was concluded that there was a potential for in combination effects with other PPP.

#### **Plans or projects to be assessed in combination**

Currently no other PPP are anticipated, although considering the limited information available on concerning this project it is not possible to further assess whether there will be an in-combination effect on the integrity of the site at this time.

#### **Summary of effects identified at Stage 1**

<b>Sidmouth-to-West-Bay-SAC</b>	H1230. Vegetated sea cliffs of the Atlantic and Baltic coasts
<b>Effect of this PPP</b>	Reduced cliff erosion rate.
<b>Effect of other PPP – Port Royal redevelopment</b>	N/A

### **Appropriate Assessment: Conclusion In Combination**

Considering that the erosion of the vegetated sea cliffs will not be completely stopped, the small scale of the reduced erosion rates and the extent of the feature it is not considered that the works will have a significant adverse effect on the integrity of the site alone. The potential for in-combination effects is therefore extremely limited. As very little is currently known about the potential developments (although none is currently antipaoted), it is not possible to further assess the potential for in-combination effects. In light of the absence of adverse effects alone, and the likelihood that that the works for the scheme will provide sufficient coastal protection for the local coastline for the next 100 years, it is not considered likely that the works required to support potential developments will include activities that could further influence cliff erosion rates within the SAC. The potential for in-combination effects is therefore considered to be low however this will be reviewed as necessary following detailed design.

## Stage 2 Habitats Regulations Assessment Conclusion

Qualifying Feature	Predicted Risk	Potential Impact on Conservation Objective	Will scale of impact lead to adverse effect on integrity of the site alone?	Will scale of impact lead to adverse effect on integrity of the site in combination?	Can adverse effects be avoided or mitigated?
<b>Sidmouth-to-West-Bay-SAC</b>					
H1230. Vegetated sea cliffs of the Atlantic and Baltic coasts	Reduction in cliff erosion could result in reduced exposure of new cliff material thereby limiting the moosaic of niche habitats available for colonisation by vegetation.	Potential change to structure and function of habitats.	No. Cliff erosion rates will be reduced not stopped, therefore the mosaic of habitats should continue to be present albeit renewed on a less frequent basis. Considering this and the small area affected by the proposed works it is not considered that there would be an adverse effect on the feature.	No. in combination effects will not change the alone conclusions.	EDDC has committed to monitoring the beach levels at East Beach and employing adaptive management as appropriate. If the beach level increases significantly above the design level (thereby introducing the risk of cliff erosion being ceased altogether) then reprofiling will be carried out to return the beach to the design level. Similarly, if the beach level drops, recharge will take place to retain the necessary standard of protection.

## Stage 2 Habitats Regulations Assessment summary

**Sidmouth-to-West-Bay-SAC**

The plan or project as proposed can be shown to have no adverse effect on the integrity of the site.

### Advice

#### Environment Agency internal advice and consultation

Write here....

*Delete this guidance box.*

*List the functions/teams consulted and brief details of advice received. This is so that NE know that appropriate technical specialists have been involved in the decision-making.*

#### Natural England initial advice

We are in broad agreement with the conclusions of this assessment of likely significant effect. We therefore advise that appropriate assessment will be required but that it will not be possible to undertake such an assessment until the further information is available at the detailed design stage.

At that stage we recommend that the scheme design is informed by this assessment and seeks to minimise the identified likely significant effects on the “vegetated sea cliff” SAC feature in order to avoid an adverse effect on the integrity of the SAC.

Initial advice provided during Stage 1 by Amanda Newsome (28/11/2016)

#### Third party advice

N/A

*Delete this guidance box.*

*Provide details of any consultation with/advice from third parties e.g. you may have sought advice from wildlife trusts, RSPB if a PPP is on or near their land*

### References

Write here....

*Delete this guidance box.*

*Provide references to any reports, studies etc relied upon in the assessment.*

*The [EA Report Template](#) includes guidance on the correct format to use for references.*

## Decision

The Environment Agency is minded to:

*Delete as appropriate*

- Grant/Issue the PPP
- Refuse the PPP
- Consider OPI

<b>Name of Environment Agency officer:</b>	
<b>Job title:</b>	
<b>Date:</b>	

This appropriate assessment has been sent to Natural England for **consultation/as the record of the final appropriate assessment** *(delete as appropriate)*

<b>Date sent to Natural England:</b>	
<b>Date response received from Natural England:</b>	

### Natural England comments:

Natural England advises:

*Delete as appropriate*

- that the operation can go ahead
- against the issuing of the PPP

*Please ensure that Natural England's response is attached to this Formal Notice.*

<b>Name of Natural England officer:</b>	
<b>Job title:</b>	
<b>Date:</b>	

## Final appropriate assessment record

*Permitting/project officer to complete this section following consultation with Natural England.*

This is a record of the appropriate assessment required by Regulation 63 of The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), undertaken by the Environment Agency.

The Stage 1 assessment concluded that the PPP would be likely to have a significant effect on the following site(s):

- Sidmouth-to-West-Bay-SAC

An appropriate assessment has been undertaken of the implications of the proposal in view of the site's conservation objectives.

*Delete as appropriate*

The Environment Agency concluded that the PPP would not have an adverse effect on the integrity of the following site(s), either alone or in combination with other plans and projects:

- Sidmouth-to-West-Bay-SAC

This conclusion is dependent on the following conditions:

- N/A

Natural England was consulted on the appropriate assessment and the Environment Agency's conclusions on [date] and its representations, to which the Environment Agency has had regard, are attached in Annex 1. The conclusions of this appropriate assessment *are/are not (delete as appropriate)* in accordance with the advice and recommendations of Natural England.

The opinion of the public was taken under Regulation 63(4) by way of *public advertisement/further consultation (delete as appropriate)* and the views expressed (attached at Annex 2) have been taken into account.

<b>Name of Environment Agency officer:</b>	
<b>Job title:</b>	
<b>Date:</b>	

## **Appendix 2**

### **Water Framework Directive Compliance Assessment**



## REPORT

# Sidmouth Beach Management Scheme

### Water Framework Directive Compliance Assessment

Client: East Devon District Council

Reference: PB6525

Status: 0.1/S0

Date: 24 August 2022

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Document title: Sidmouth and East Beach Management Plan

Document short title: WFD Compliance Assessment

Reference: PB6525

Status: 0.1/S0

Date: 24 August 2022

Project name: Sidmouth and East Beach Management Plan

Project number: PB6525

Author(s): Christa Page

Drafted by: Christa Page

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Checked by: Peter Brunner

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Date: 24/08/2022 PRB

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Approved by: Peter Brunner

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Date: 24/08/2022 PRB

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Classification

Project related

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## 1 INTRODUCTION

This Water Framework Directive (WFD) Compliance Assessment has been produced to support the OBC for the proposed Sidmouth Beach Management (SBM) scheme.

Sidmouth is a town on the English Channel in Devon, South West England, 14 miles (23 km) southeast of Exeter (**Figure 1.1**). The frontage of Sidmouth has a long history of construction and maintenance in regard to coastal flooding and erosion risk management schemes. Following the storms of 1989 and 1990, the Sidmouth Town frontage experienced substantial damage to its existing defences and substantial volumes of shingle were lost to the east of Sidmouth. This storm damage triggered the need for upgraded coastal flood and erosion risk management measures. The need for further works was triggered following storms in 1993 and 1994.

The current flood and coastal erosion risk management measures along the Sidmouth Town frontage were constructed over many phases between 1991 and 2000 and comprise seawalls, rock revetments, splash wall, rock groynes, offshore rock breakwaters, a river training wall, coupled with beach recharge and recycling as required. Wave overtopping and the subsequent risk of coastal flooding along the Sidmouth town frontage is generally controlled by the retained beach in front of the seawall and the low splash wall that is situated on the landward side of the promenade. The beach, in conjunction with the buried rock revetment, also helps to protect the seawall from undermining and subsequent potential failure. Over recent years, beach levels have dropped to lower than the design level (which was set as part of the 1990s schemes); and in places the toe of the seawall is now exposed. This results in increased wave reflection on the exposed vertical seawall which exacerbates wave overtopping and increases the risk of subsequent flooding. The wave reflection also exacerbates the reduction in the already low beach levels.

The East Beach frontage consists of Pennington Point cliffs which has a small shingle beach at its base. The cliffs are otherwise undefended. The Pennington Point cliffs are eroding, and thereby retreating. Causes of erosion are associated with weathering and lack of drainage from above the cliffs, along with wave impact on the lower cliff. Beach levels have lowered in recent years causing more exposure of the cliff toe to wave action. The continued erosion of the cliffs is now posing a risk of outflanking of the Sidmouth Town defences; erosion of the cliff is resulting in the gradual increased exposure of the western river wall of the River Sid to coastal sea storm conditions (primarily from easterly / south-easterly directions). It is recognised that East Cliff is also subject to erosion as a result of other physical processes (e.g. weathering from above due to intense rainfall / insufficient drainage). In addition, as East Cliff continues to erode over the next 100 years, the Alma Bridge will become unsustainable in its current position. The western wall of the River Sid, which currently provides fluvial flood defence, will become increasingly exposed to full coastal conditions. Therefore, there will be an increased likelihood of defence failure and thus occurrence of flood damages over time.

Following the updated Partnership Funding Calculator for Flood and Coastal Risk Management (FCRM) projects by the Environment Agency in 2020, additional Flood Defence Grant in Aid (FDGiA) was released for the approved flood defence scheme as shown in the draft OBC for Sidmouth, which provided the basis for exploring alternative options. Therefore, East Devon District Council (EDDC), in collaboration with an elected Stakeholders Sub-Group, requested Royal HaskoningDHV (RHDHV) to undertake a high-level assessment of additional flood defence options, including but not limited to, options that were previously discounted during the development of the Beach Management Plan (BMP) for the main town (Frontage B) and East Beach (Frontage C) (**Figure 1.1**). Based on the assessment it has been concluded the preferred way forward for the new Sidmouth Beach Management (SBM) scheme (herein referred to as the “proposed SBM scheme”) comprises a hybrid (mixture) of short-term and longer-term works.

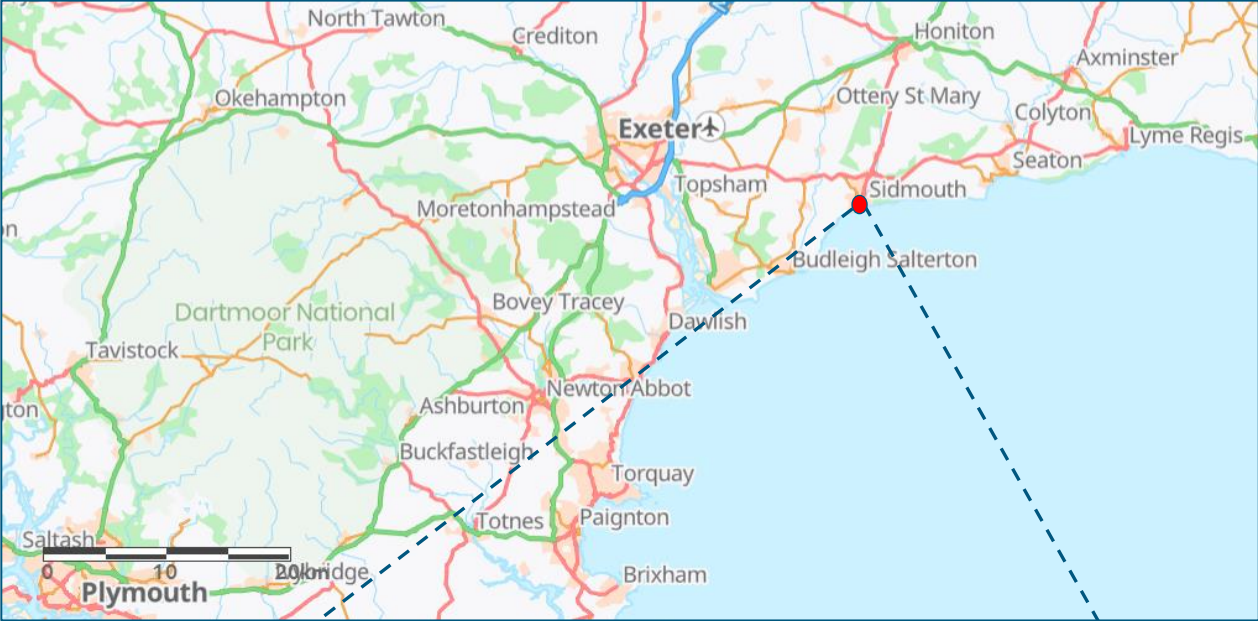


Figure 1.1 Sidmouth and Frontages

In summary the hybrid solution for the proposed SBM scheme will include the following (**Figure 1.2**):

- Beach recharge (with shingle) along the town beach frontage.
- Raised splash wall and flood gates to 1m high at key locations.
- New long groyne and beach nourishment at East Beach.
- New boat ramp.
- Raising existing splash wall by 100mm along the promenade with new foundations enabling raising of the splash wall further when overtopping rates become unacceptable in the mid to long term (to be refined at detailed design stage).
- Construction of one breakwater (rock islands) in front of the Town Beach (dimensions and location to be refined at detailed design stage).



Figure 1.2 Proposed SBM Scheme

The objectives of the proposed SBM scheme are as follows:

1. Maintain the 1990's Sidmouth Coastal Defence Standard of Service (Sidmouth Beach);
2. Reduce the rate of beach and cliff erosion to the east of the R Sid (East Beach).
3. Carry out (1) and (2) in an integrated, justifiable and sustainable way.

Further details on the proposed new SBM scheme of 2022 is presented in **Section 2.2** of this Preliminary Environmental Report (PEIR) report.

## 2 WFD ASSESSMENT

### 2.1 Method of Assessment

An assessment to consider the proposals against the WFD compliance criteria has been undertaken. This has been carried out in line with the Clearing the Waters for All guidance (Environment Agency, 2016) found at <https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters>.

To undertake the assessment, the proposals have been split into the following construction activities:

1. Repacking and repairs of rock revetment at Connaught Gardens
2. Removal and replacement of the Splash Wall along the Esplanade (including River Sid training wall works)
3. New breakwater and long groyne at East Beach
4. Beach recharge at Sidmouth Town and East Beach
5. New access ramp

For the operational phase, the following activities are considered:

6. Presence of shingle berms
7. Presence of new breakwater and rock groyne
8. Presence of new access ramp

Given the limited changes to the current footprint of the works at Connaught Gardens and the Splash Wall, these activities are considered to give rise to the same operational effects as those existing prior to the works being completed. As a result, the operational phase of these two activities is not considered further in this assessment. Additionally, the removal of 10m of the River Sid training wall will restore the area back to a more natural baseline and therefore the operational effect of training wall removal is not considered further in this assessment.

The works extent is shown against the WFD water body outlines in **Figure 2.1**. The relevant WFD water bodies are the Lyme Bay West Coastal water body (GB650806420000) and the Sidmouth and Honiton Mercia Mudstone Groundwater body (GB40802G802800). For the River Sid training wall works the River Sid waterbody (GB108045009160) could be impacted and therefore this water body is also screened in for assessment. The information for these water bodies has been collated from the Environment Agency's Data Catchment Explorer (Environment Agency, 2022) found at <http://environment.data.gov.uk/catchment-planning/> and is presented in **Annex A. Table 2.1** considers the activities against each WFD water body identified to enable the scoping stage to be focussed on only those activities where pathways for impacts on the WFD water body could potentially exist.

Table 2.1 Summary of Activities and Potential Pathways for Effects on WFD Water Bodies Screened in for Consideration

Phase	Number	Activity	Lyme Bay West	River Sid	Sidmouth and Honiton Mercia Mudstone
Construction	1	Repacking and repairs of rock revetment at Connaught Gardens	✓	✗	✗
	2	Removal and replacement of the Splash Wall along the Esplanade (including training wall works)	✓	✓	✓
	3	New breakwater and long groyne at East Beach	✓	✗	✗

Phase	Number	Activity	Lyme Bay West	River Sid	Sidmouth and Honiton Mercia Mudstone
	4	Beach recharge	✓	✓	✗
	5	Access ramp	✓	✗	✓
Operation	6	Presence of recharge material	✓	✗	✗
	7	Presence of new breakwater and long groyne at East Beach	✓	✗	✗
	8	Presence of new access ramp	✓	✗	✗

Figure 2.1 Works Extent Against the WFD Water Bodies



## 2.2 WFD Scoping

The activities have been compared to the scoping criteria as outlined in the Clearing the Waters for All guidance (Environment Agency, 2016) for the marine water body and modified to allow the assessment of the groundwater body against groundwater body compliance criteria and rivers against river waterbody compliance criteria. The output is provided in **Appendix B**. A summary of the output for the marine water body is presented in **Table 2.2**, for the river water body in **Table 2.3** and the groundwater body in **Table 2.4**.

Table 2.2 Summary of Output of Stage 2 for the Marine WFD Water Body

Activity	WFD Compliance parameter					
	Hydromorphology	Biological: Habitats	Biological: Fish	Water Quality	Protected areas	Invasive species
1.Repacking and repairs of rock revetment at Connaught Gardens	No impacts anticipated as within existing footprint	No impacts anticipated as within existing footprint	Works will be undertaken within the dry so no impacts predicted			No – control measures to be put in place
2. Removal and replacement of the Splash Wall along the Esplanade (including training wall works)		No impacts anticipated as within existing footprint				No – control measures to be put in place
3. New breakwater and long groyne at East Beach	See operational effects	No. Temporary disturbance during placement. Permanent habitat loss considered in operational phase	No. Temporary disturbance to sediments during placement but minimal and localised.		No. Temporary disturbance to sediments during placement but minimal and localised. European Designated sites	No – control measures to be put in place

Activity	WFD Compliance parameter					
	Hydromorphology	Biological: Habitats	Biological: Fish	Water Quality	Protected areas	Invasive species
					considered within the HRA (RHDHV, 2019)	
4. Beach recharge at Sidmouth Town and East Beach.	See operational effects					No – control measures to be put in place
5. Construction of new ramp	See operational effects		No, majority of works will occur in the dry therefore there is no risk of impacting on fish		No. No impacts on Protected Areas anticipated. European Designated sites considered within the HRA (RHDHV, 2019)	No – control measures to be put in place
6. Presence of new berms	Yes – there is the potential to alter hydrodynamic parameters	No – no permanent loss of habitat	No change to water quality parameters during the operational phase	No change to water quality parameters during the operational phase.	No potential for impacts on bathing waters during operational phase. European Designated sites	No risks identified during the operational phase

Activity	WFD Compliance parameter					
	Hydromorphology	Biological: Habitats	Biological: Fish	Water Quality	Protected areas	Invasive species
					considered within the HRA (RHDHV, 2019)	
7. Presence new breakwater and long groyne at East Beach	Yes – there is the potential to alter hydrodynamic parameters	No – area of loss is very small and within lower sensitivity habitat ubiquitous within the WFD water body	No change to water quality parameters during the operational phase	No change to water quality parameters during the operational phase	No change to water quality parameters during the operational phase	No risks identified during the operational phase
8. Presence of new ramp	Yes – there is the potential to alter hydrodynamic parameters	No – area of loss is very small and within lower sensitivity habitat ubiquitous within the WFD water body	No change to water quality parameters during the operational phase	No change to water quality parameters during the operational phase	No change to water quality parameters during the operational phase	No risks identified during the operational phase

Table 2.3 Summary of Output of Stage 2 for the River WFD Water Body

Activity	WFD Compliance parameter					Invasive species
	Hydromorphology	Biological: Habitats	Biological: Fish	Water Quality	Protected areas	
2. Removal and replacement of the Splash Wall along the Esplanade (including training wall works)	Removal of 10m of training wall and repairs will not impact on hydromorphological parameters			There may be	There may be	No – control measures to be put in place
4. Beach recharge at Sidmouth Town and East Beach	The recharge will occur outside of the River Sid WFD water body therefore no impacts on hydromorphology are anticipated			There could be a  reduce any additional risks to water quality.	There could be a risk to water quality associated with the release of fines but given the requirements to place sand material, fines will be limited.	No – control measures to be put in place

Table 2.4 Summary of Output of Stage 2 for the Groundwater WFD Waterbody

Activity	WFD Compliance parameter		
	Quantitative status	Chemical Status	Groundwater supporting elements
2. Removal and replacement of splash wall	No risks identified as works do not require deep excavation or piling. CEMP to be implemented to reduce risks to water quality.		
5. New ramp			

To summarise, the following activities have been scoped in to requiring further assessment; listed against the WFD quality elements potentially at risk:

- Presence of new breakwater and long groyne at East Beach during the operational phase – potential impacts on hydromorphological parameters.
- Presence of new shingle recharge berms during the operational phase – potential impacts on hydromorphological parameters.

- Presence of new access ramp during the operational phase – potential impacts on hydromorphological parameters

## **2.3 Further assessment**

All risks identified to the WFD water body were for the Lyme Bay West WFD water body in relation to the potential effects on hydromorphological parameters during the operational phase of the proposed SBM scheme. The potential effects on the scheme are considered in detail in the PEIR. A summary of each parameter is provided below.

### **2.3.1 Sediment transport**

To develop the outline design of the preferred option identified for the proposed SBM scheme, modelling was initially carried out using LITLINE (see the PEIR for further details). This enabled the assessment of different permutations of design for the preferred option and the resulting effects on sediment transport processes. Whilst the proposed SBM scheme is designed to reduce sediment transport processes to allow recharge and subsequent protection of the Sidmouth frontage, it should be noted that the anthropogenic supply of material to the beaches ensures that habitats within and outside of the scheme are not altered by these changes. Instead the sediment supply is introduced and then kept in place by the design of the scheme, specifically the construction of the additional groyne to the east. Given that there is currently no transport of material to the east, the introduction of the new long groyne will not have an effect on current sediment supply.

### **2.3.2 Wave climate**

As part of the design development for the proposed SBM scheme, cross shore beach and wave movement was modelled along the Sidmouth Town frontage and East Beach. The model demonstrated that there will be no effect on the wave climate and that waves will run up the design beach as per the existing situation but less frequently. Tidal currents may vary slightly due to the introduction of the new breakwater and long groyne though this is unlikely to be a noticeable effect given the relatively small structures compared to the area of the WFD water body (and existing breakwater structures already there along the frontage). As a consequence there is no risk of indirect effects on biological quality elements.

## **2.4 Cliff erosion**

The introduction of the scheme will mitigate the erosion mechanisms by reducing (though not completely stopping) waves running up and meeting the cliff. During high water levels and storm conditions the waves will continue to meet the cliff causing erosion though at a reduced rate when compared to the current situation. It can therefore be concluded that along East Beach, the design beach will act in a similar way to the Sidmouth Town frontage, reducing wave energy but not fully preventing waves from reaching the toe of the cliff and causing erosion. The scheme will therefore reduce erosion sufficiently to provide protection to the mouth of the River Sid avoiding flooding of Sidmouth and reducing the rate at which the properties at the top of the cliff will be impacted by erosion whilst maintaining sufficient erosion to ensure the features are protected. There will therefore be no indirect effects on biological quality elements.

## **2.5 Mitigation Measures**

The following mitigation measures will be implemented to reduce the potential for effects on WFD compliance parameters as far as possible:

- Implementation of a Construction Environmental Management Plan (CEMP) to be drafted in consultation with the relevant regulators. This will include all measures to prevent pollution of the surrounding environment associated with construction and will cover water quality, air quality and noise for example.
- Implementation of a waste management plan (to include the requirement that all demolition material to be collected and removed from site). This could be included as a component to the CEMP.
- The commitment to the reinstatement of the site once works have been completed.
- Commitment to use shingle from a reputable source with minimal fines for all beach recharge episodes.

## 2.6 Cumulative Assessment

To undertake the cumulative impact assessment, the potential effects have been considered within scheme and cumulatively with other plans and projects within the WFD water bodies potentially at risk. The output of the assessment is summarised below.

### 2.6.1 Within scheme cumulative impact

It is considered that there are no cumulative risks in relation to water quality as all potential risks associated with accidental spillages and incidents will be managed within a CEMP.

In relation to biological habitats, there are no higher sensitivity habitats close to or within the areas to be impacted. Therefore the only within scheme cumulative risk is in relation to the lower sensitivity habitats – cobbles/gravel and intertidal soft sediment. Whilst there will be a temporary impact associated with the beach recharge, habitat under the berms will not be permanently lost. There will be small areas of loss under the new breakwater, long groyne and user access ramp. However these are very small in comparison to the area of this habitat present within the WFD water body and would not trigger any of the scoping questions in relation to area. As a result, no deterioration in the biological quality element is anticipated.

### 2.6.2 Between scheme cumulative impact

There are currently no other plans and/or projects that could potentially give rise to cumulative effects within the WFD water bodies identified in this assessment.

## 2.7 Overall Findings

The WFD compliance assessment has considered each stage of the required process. Stage 1 identified eight activities to be considered (five during the construction phase and three during the operational phase) that required consideration and three WFD water bodies as follows:

- Lyme Bay West Coastal water body (GB650806420000)
- Sidmouth and Honiton Mercia Mudstone Groundwater body (GB40802G802800).
- River Sid waterbody (GB650806420000)

Stage 2 (scoping) identified that there was a potential risk to hydromorphological parameters for the presence of the new breakwater, long rock groyne, new ramp and berms created by the shingle recharge however further assessment concluded that significant permanent impacts would not occur. The scheme has committed to the mitigation measures as outlined in **Section 2.5** and will lead to the removal of 10m of the River Sid training wall returning the sea/river bed back to its natural state. No risk of cumulative impacts was identified. As a result the scheme is considered to be compliant with the requirements of the WFD.

### 3 REFERENCES

Environment Agency, 2016. Clearing the Waters For All. Found at <https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters>. Accessed 07/09/18

Royal HaskoningDHV, 2019. Preliminary Environmental Information Report, HRA Appendix 2



## Appendix A

### WFD Water Body Information

## Appendix A WFD Water body information

Table A1 Coastal WFD water body information

Water Body	Description or notes
WFD water body name	Lyme Bay West
Water body ID	GB650806420000
River basin district name	South West
Water body type	Coastal
Water body total area (km <sup>2</sup> )	136.805
Overall water body status (2016)	Moderate
Ecological status	Moderate
Chemical status	Fail
Target water body status and deadline	Good by 2027
Hydromorphology status of water body	Supports Good
Heavily modified water body and for what use	No
Higher sensitivity habitats present	Chalk reef (1208.54ha), Maerl (421.63ha), Subtidal kelp beds (327.62ha), Subtidal seagrass (683.12ha)
Lower sensitivity habitats present	
Phytoplankton status	Good
History of harmful algae	No
WFD protected areas within 2km	Lyme Bay And Torbay SAC

Table A2 River WFD water body

Water Body	Description or notes
WFD water body name	River Sid
Water body ID	GB108045009160
River basin district name	South West
Water body type	River
Water body length (km)	15.897
Overall water body status (2016)	Moderate

Water Body	Description or notes
Ecological status	Moderate
Chemical status	Fail
Target water body status and deadline	Good 2027
Hydromorphology status of water body	Supports Good
Heavily modified water body and for what use	No
Reason why not good status	Moderate due to Macrophytes and Phytobenthos Combined
WFD protected areas within 2km	None

Table A3 Groundwater WFD waterbody

Water Body	Description or notes
WFD water body name	Sidmouth and Honiton – Mercia Mudstone
Water body ID	GB40802G802800
River basin district name	South West
Water body type (groundwater, estuarine or coastal)	Groundwater
Water body total area (km <sup>2</sup> )	113.247
Overall water body status (2016)	Good
Quantitative status	Good
Chemical status	Good
Target water body status and deadline	Good
WFD protected areas within the WFD water body	Nitrates Directive (17,18) and Drinking Water Protected Area (Sidmouth-Honiton, Mercia Mudstone)



## Appendix B

### Scoping Tables

## Completed scoping tables for activity 1: Repacking and repairs of rock revetment at Connaught Gardens

The following tables summarise the information relevant to the consideration of the requirements of the Water Framework Directive (tables taken from Clearing the Waters for All; Environment Agency, 2016). *Note that although the answer to the question is sometimes yes, the evidence provided in the notes column allows the issue to be scoped out.*

Table B1 Summary of activity under consideration

Your activity	Description, notes or more information
Applicant name	East Devon District Council
Name of activity	Repacking and repairs of rock revetment at Connaught Gardens.
Brief description of activity	
Location of activity	Connaught Gardens
Footprint of activity	Within existing footprint of current structure
Timings of activity	1 week
Extent of activity (for example size, scale frequency, expected volumes of output or discharge)	As above
Use or release of chemicals (state which ones)	None – use of concrete as outlined above

Table B2 Scoping questions and output of assessment for the coastal water body

Consider if the footprint of your activity;	Scoped in (yes/no) Construction	Risk Issue
<b>Hydromorphology</b>		
Could impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status	No	Water body is not at high status
Could significantly impact the hydromorphology of any water body	No	Works would not significantly increase current structure already present. No changes to hydromorphology anticipated.
Is in a water body that is heavily modified for the same use as your activity	No	No, water body is not heavily modified
<b>Biology</b>		
Is 0.5km <sup>2</sup> or larger	No	Within footprint of existing structure. Consultation with the DEFRA MAGIC mapping system does not identify any higher sensitivity habitats within 500m.
Is 1% or more of the water body's area	No	
Is within 500m of any higher sensitivity habitat	No	
Is 1% or more of any lower sensitivity habitat	No	
<b>Biology (fish)</b>		
Is in an estuary and could affect fish in the estuary, outside the estuary but could delay or prevent fish entering it or could affect fish migrating through the estuary	No	Works to be undertaken in the dry – no risk to fish
Could impact on normal fish behaviour like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow)	No	Works to be undertaken in the dry – no risk to fish
Could cause entrainment or impingement of fish	No	N/A

Consider if the footprint of your activity;	Scoped in (yes/no) Construction	Risk Issue
<b>Water Quality</b>		
Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)	No	All works to be undertaken in the dry. CEMP to be implemented to reduce any risks to water quality associated with accidental spills and leaks during works.
Is in a water body with a phytoplankton status of moderate, poor or bad	No	Status is good
Is in a water body with a history of harmful algae	No	No history of harmful algae
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: The chemicals are on the Environmental Quality Standards Directive (EQSD) list	No	No release of chemicals
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: It disturbs sediment with contaminants above Cefas Action Level 1	No	Minimal disturbance of sediment and works to be undertaken in the dry.
<b>Protected Areas</b>		
Within 2km of any WFD protected area	No	Whilst the works are within 2km of protected areas: Bathing Waters and European Designated sites, the works are minimal and will not impact on water quality (see above). The consideration of European Designated Sites is assessed in the Habitats Regulations Assessment (HRA) (RHDHV, 2019).
<b>Invasive species</b>		
Introduce or spread INNS	No	The activities have the potential to release invasive species if the materials and equipment used in the process have not been properly cleaned after use at a previous location that may have had invasive species present. Good practice measures will be employed to ensure all equipment is cleaned and checked before use.

## Completed scoping tables for activity 2: Removal and replacement of the Splash Wall along the Esplanade (including training wall works)

The following tables summarise the information relevant to the consideration of the requirements of the Water Framework Directive (tables taken from Clearing the Waters for All; Environment Agency, 2016 and modified to assess the potential effects on the groundwater and river water body). *Note that although the answer to the question is yes in some instances, the evidence provided in the notes column allows the issue to be scoped out.*

Table B3 Summary of activity under consideration

Your activity	Description, notes or more information
Applicant name	East Devon District Council
Name of activity	Removal and replacement of the Splash Wall along the Esplanade
Brief description of activity	
Location of activity	Esplanade
Footprint of activity	Within existing footprint of current structures
Timings of activity	32 weeks
Extent of activity (for example size, scale frequency, expected volumes of output or discharge)	As above
Use or release of chemicals (state which ones)	None

Table B4 Scoping questions and output of assessment for coastal water body

Consider if the footprint of your activity;	Scoped in (yes/no)	Risk Issue
<b>Hydromorphology</b>		
Could impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status	No	Water body is not at high status
Could significantly impact the hydromorphology of any water body	No	Works would not significantly increase current structure already present. No changes to hydromorphology anticipated.
Is in a water body that is heavily modified for the same use as your activity	No	No, water body is not heavily modified.
<b>Biology</b>		
Is 0.5km <sup>2</sup> or larger	No	
Is 1% or more of the water body's area	No	
Is within 500m of any higher sensitivity habitat	No	
Is 1% or more of any lower sensitivity habitat	No	
<b>Biology (fish)</b>		
	No	
Could cause entrainment or impingement of fish	No	No risk of entrainment or impingement

Consider if the footprint of your activity;	Scoped in (yes/no)	Risk Issue
<b>Water Quality</b>		
Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)	No	CEMP to be implemented to reduce any risks to water quality associated with accidental spills and leaks during works. There may also be a temporary change in suspended solids concentrations during demolition but this will be localised to the demolition and short term in nature.
Is in a water body with a history of harmful algae	No	No history of harmful algae
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: The chemicals are on the Environmental Quality Standards Directive (EQSD) list	No	No release of chemicals
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: It disturbs sediment with contaminants above Cefas Action Level 1	No	Minimal disturbance of sediment and works to be undertaken in the dry.
<b>Protected Areas</b>		
Within 2km of any WFD protected area	No	Whilst the works are within 2km of protected areas: Bathing Waters and European Designated sites, the works are minimal and will not impact significantly on water quality with a CEMP in place. The consideration of European Designated Sites is assessed in the Habitats Regulations Assessment (HRA) (RHDHV, 2019).
<b>Invasive species</b>		
Introduce or spread INNS	No	The activities have the potential to release invasive species if the materials and equipment used in the process have not been properly cleaned after use at a previous location that may have had invasive species present. Good practice measures will be employed to ensure all equipment is cleaned and checked before use.

Table B5 Scoping questions and output of assessment for river water body

Consider if your activity could:	Scoped in (yes/no) Construction	Construction comments	Scoped in (yes/no) for Operation	Operation comments
<b>Biology</b>				
Aquatic flora - Could the activity change the hydromorphology and/or physico-chemistry of the water body, or lead to the direct loss or modification of habitats for aquatic plants?	No	Similar footprint to that existing therefore no change to these parameters.	N/A	N/A
Benthic invertebrates - Could the activity change the hydromorphology and/or physico-chemistry of the water body, or lead to the direct loss or modification of habitats for aquatic invertebrates?				
Fish - Could the activity change the hydromorphology and/or physico-chemistry of the water body, or lead to the direct loss or modification of shelter, feeding and spawning habitats for fish?				
<b>Hydromorphology</b>				
Hydrological regime - Could the activity change the volume, energy or distribution of flows in the water body?	No	Similar footprint to that existing therefore no change to these parameters.	N/A	N/A
Morphological conditions - Could the activity change the width, depth, bank conditions, bed substrates and structure of the riparian zone?				
River continuity - Could the activity create a permanent barrier to the downstream movement of water and/or sediment, or the upstream movement of fish?				
<b>Physico-chemistry</b>				
Could the activity change the temperature, pH, oxygenation, salinity or nutrient concentrations in the water body?	No	Temporary impacts could occur due to disturbance of river bed during placement of	N/A	N/A

Project related

Consider if your activity could:	Scoped in (yes/no) Construction	Construction comments	Scoped in (yes/no) for Operation	Operation comments
Specific pollutants - Could the activity release dangerous chemicals into the water body?		encasements but this would be temporary and short term.		
<b>Protected Areas</b>				
Is the activity within 2km of a protected area?	No	N/A	No	N/A

## Completed scoping tables for activity 3 and 7: New breakwater and long groyne at East Beach

The following tables summarise the information relevant to the consideration of the requirements of the Water Framework Directive (tables taken from Clearing the Waters for All; Environment Agency, 2016). *Note that although the answer to the question is yes in some instances, the evidence provided in the notes column allows the issue to be scoped out.*

Table B5 Summary of activity under consideration

Your activity	Description, notes or more information
Applicant name	East Devon District Council
Name of activity	New rock groyne at East Beach
Brief description of activity	
Location of activity	Sidmouth Town and East Beach
Footprint of activity	2128m <sup>2</sup> or 0.002km <sup>2</sup> (Groyne) 2500m <sup>2</sup> or 0.0025km <sup>2</sup> (Breakwater)
Timings of activity	>18 weeks
Extent of activity (for example size, scale frequency, expected volumes of output or discharge)	As above
Use or release of chemicals (state which ones)	None

Table B6 Scoping questions and output of assessment for the coastal water body

Consider if the footprint of your activity;	Scoped in (yes/no) Construction	Construction notes	Scoped in (yes/no) operation	Operation notes
<b>Hydromorphology</b>				
Could impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status	No	Water body is not at high status	No	Water body is not at high status
Could significantly impact the hydromorphology of any water body	No	Considered in operational phase	Yes	There is the potential for the presence of the new structures to impact on hydromorphological parameters.
Is in a water body that is heavily modified for the same use as your activity	No	No, water body is not heavily modified	No	No, water body is not heavily modified
<b>Biology</b>				
Is 0.5km <sup>2</sup> or larger	No	No, the area of the rock groyne is 0.002km <sup>2</sup> and breakwater is 0.0025km <sup>2</sup> .	No	No, the area of the rock groyne and breakwater is 0.0045km <sup>2</sup> .
Is 1% or more of the water body's area	No	The area of the rock groyne is 0.0015%.	No	The area of the rock groyne is 0.0015%
Is within 500m of any higher sensitivity habitat	No	Consultation with the DEFRA MAGIC mapping system does not identify any higher sensitivity habitats within 500m.	No	Consultation with the DEFRA MAGIC mapping system does not identify any higher sensitivity habitats within 500m.
Is 1% or more of any lower sensitivity habitat	No	The area to be lost under the structures is very small and of ubiquitous lower sensitivity habitat within the WFD water body.	No	The area to be lost under the structures is very small and of ubiquitous lower sensitivity habitat within the WFD water body.

Project related

Consider if the footprint of your activity;	Scoped in (yes/no) Construction	Construction notes	Scoped in (yes/no) operation	Operation notes
<b>Biology (fish)</b>				
Is in an estuary and could affect fish in the estuary, outside the estuary but could delay or prevent fish entering it or could affect fish migrating through the estuary	No	The works are not within an estuary or near to an estuary. There may be temporary increases in suspended sediment during excavation and rock placement which could impact on fish moving along the coastline however this is anticipated to be localised to the placement and will disperse following cessation of works. CEMP to be implemented to reduce any risks to water quality associated with accidental spills and leaks during works.	No	No impacts on fish during operational phase
Could cause entrainment or impingement of fish	No	No the activity will not lead to entrainment or impingement.	No	No impacts on fish during operational phase
<b>Water Quality</b>				
Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)	No	There may be temporary increases in suspended sediment during excavation and rock placement however this is anticipated to be localised to the placement and will disperse following cessation of works. CEMP to be implemented to reduce any risks to water quality associated with accidental spills and leaks during works.	No	No impacts on water quality during operational phase.

Project related

Consider if the footprint of your activity;	Scoped in (yes/no) Construction	Construction notes	Scoped in (yes/no) operation	Operation notes
Is in a water body with a phytoplankton status of moderate, poor or bad	No	Status is good	No	Status is good
Is in a water body with a history of harmful algae	No	No history of harmful algae	No	No history of harmful algae
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: The chemicals are on the Environmental Quality Standards Directive (EQSD) list	No	No release of chemicals	No	No release of chemicals
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: It disturbs sediment with contaminants above Cefas Action Level 1	No	Minimal disturbance of sediment anticipated which would be temporary.	No	No risks to sediment disturbance during operational phase.
<b>Protected Areas</b>				
Within 2km of any WFD protected area	No	Whilst the works are within 2km of protected areas: Bathing Waters and European Designated sites, the works are minimal and will not impact on water quality (see above). The consideration of European Designated Sites is assessed in the Habitats Regulations Assessment (HRA) (RHDHV, 2019).	No	Whilst the works are within 2km of protected areas: Bathing Waters and European Designated sites, the presence of the new rock groyne will not impact on water quality (see above). The consideration of European Designated Sites is assessed in the Habitats Regulations Assessment (HRA) (RHDHV, 2019).
<b>Invasive species</b>				
Introduce or spread INNS	No	The activities have the potential to release invasive species if the materials and equipment used in the	No	No risk to INNS

Project related



Consider if the footprint of your activity;	Scoped in (yes/no) Construction	Construction notes	Scoped in (yes/no) operation	Operation notes
		process have not been properly cleaned after use at a previous location that may have had invasive species present. Good practice measures will be employed to ensure all equipment is cleaned and checked before use.		

## Completed scoping tables for activity 4 and 6: Beach recharge at Sidmouth Town and East Beach

The following tables summarise the information relevant to the consideration of the requirements of the Water Framework Directive (tables taken from Clearing the Waters for All; Environment Agency, 2016 and modified to assess the potential effects on the river water body). *Note that although the answer to the question is yes in some instances, the evidence provided in the notes column allows the issue to be scoped out.*

Table B7 Summary of activity under consideration

Your activity	Description, notes or more information
Applicant name	East Devon District Council
Name of activity	Beach recharge at Sidmouth Town and at East Beach
Brief description of activity	
Location of activity	Sidmouth Town and East Beach
Footprint of activity	East Beach 14,100m <sup>2</sup> and Sidmouth Town 22,350m <sup>2</sup> Total area approximately 37,000m <sup>2</sup> or 0.037km <sup>2</sup>
Timings of activity	Total for 2 areas - 14 weeks
Extent of activity (for example size, scale frequency, expected volumes of output or discharge)	As above
Use or release of chemicals (state which ones)	None

Table B8 Scoping questions and output of assessment for coastal water body

Consider if the footprint of your activity;	Scoped in (yes/no) Construction	Construction comments	Scoped in (yes/no) for Operation	Operation comments
<b>Hydromorphology</b>				
Could impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status	No	Water body is not at high status	No	Water body is not at high status
Could significantly impact the hydromorphology of any water body	No	Considered in operational phase	Yes	The presence of the change in beach profile could impact on hydromorphological parameters.
Is in a water body that is heavily modified for the same use as your activity	No	No, water body is not heavily modified	No	No, water body is not heavily modified
<b>Biology</b>				
Is 0.5km <sup>2</sup> or larger	No	No, the area is 0.055km <sup>2</sup> (total area multiplied by 1.5 as per Environment Agency guidance for dredge/disposal type operations as a precautionary measure to anticipate wider effects).	No	No, the total area is 0.037km <sup>2</sup>
Is within 500m of any higher sensitivity habitat	No	Consultation with the DEFRA MAGIC mapping system does not identify any higher sensitivity habitats within 500m.	No	Consultation with the DEFRA MAGIC mapping system does not identify any higher sensitivity habitats within 500m.
1% or more of any lower sensitivity habitat	No		No	

Project related

Consider if the footprint of your activity;	Scoped in (yes/no) Construction	Construction comments	Scoped in (yes/no) for Operation	Operation comments
<b>Biology (fish)</b>				
	No	The activity is not within or near to an estuary. There may be temporary increases in suspended sediment during placement which could impact on fish around the coastline however the material will be shingle with minimal fines. As a result, significant sediment plumes are not anticipated.	No	No impact on water quality during operational phase.
	No		No	No impact on water quality during operational phase.
Could cause entrainment or impingement of fish	No	No	No	No
<b>Water Quality</b>				
Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)	No	The material to be used will be shingle with minimal fines. As a result, significant sediment plumes are not anticipated. CEMP to be implemented to reduce any risks to water quality associated with accidental spills and leaks during works.	No	No impact on water quality during operational phase
Is in a water body with a history of harmful algae	No	No history of harmful algae	No	No history of harmful algae

Project related

Consider if the footprint of your activity;	Scoped in (yes/no) Construction	Construction comments	Scoped in (yes/no) for Operation	Operation comments
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: The chemicals are on the Environmental Quality Standards Directive (EQSD) list	No	The material to be used will be shingle with minimal fines from a reputable source. Contamination of the recharge material is therefore not anticipated.	No	No release of chemicals during operational phase
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: It disturbs sediment with contaminants above Cefas Action Level 1	No	No sediments to be disturbed	No	No sediments to be disturbed
<b>Protected Areas</b>				
Within 2km of any WFD protected area	No	Whilst the works are within 2km of protected areas: Bathing Waters and European Designated sites, the works are minimal and will not impact on water quality (see above). The consideration of European Designated Sites is assessed in the Habitats Regulations Assessment (HRA) (RHDHV, 2019).	No	Whilst the works are within 2km of protected areas: Bathing Waters and European Designated sites, the works are minimal and will not impact on water quality (see above). The consideration of European Designated Sites is assessed in the Habitats Regulations Assessment (HRA) (RHDHV, 2019).
<b>Invasive species</b>				
Introduce or spread INNS	No	The activities have the potential to release invasive species if the materials and equipment used in the process have not been properly cleaned after use at a previous location that may have had invasive species present. Good practice measures will be employed to ensure all equipment is cleaned and checked before use.	No	No risk to invasive species

Table B9 Scoping questions and output of assessment for river water body

Consider if your activity could:	Scoped in (yes/no) Construction	Construction comments	Scoped in (yes/no) for Operation	Operation comments
<b>Biology</b>				
Aquatic flora - Could the activity change the hydromorphology and/or physico-chemistry of the water body, or lead to the direct loss or modification of habitats for aquatic plants?	No	Beach recharge will not occur within the WFD water body. Additionally, the material to be placed will be shingle and therefore will contain minimal fines. As a result, significant impacts on water quality and eventual settlement are not anticipated.	No	Presence of berms are not expected to impact on water quality. There may be the requirement for recharge during the operational period but this will be relatively limited compared to the construction period and therefore the risks will be the same or less.
Benthic invertebrates - Could the activity change the hydromorphology and/or physico-chemistry of the water body, or lead to the direct loss or modification of habitats for aquatic invertebrates?				
Fish - Could the activity change the hydromorphology and/or physico-chemistry of the water body, or lead to the direct loss or modification of shelter, feeding and spawning habitats for fish?				
<b>Hydromorphology</b>				
Hydrological regime - Could the activity change the volume, energy or distribution of flows in the water body?	No	Recharge will not occur within the River Sid. Sediment resuspension and settlement considered to be low risk due to nature of material to be placed on the beach therefore no impacts on River Sid anticipated.	No	Presence of berms are not expected to impact on water quality. There may be the requirement for recharge during the operational period but this will be relatively limited compared to the construction period and therefore the risks will be the same or less.
Morphological conditions - Could the activity change the width, depth, bank conditions, bed substrates and structure of the riparian zone?				

Project related



Consider if your activity could:	Scoped in (yes/no) Construction	Construction comments	Scoped in (yes/no) for Operation	Operation comments
River continuity - Could the activity create a permanent barrier to the downstream movement of water and/or sediment, or the upstream movement of fish?				
<b>Physico-chemistry</b>				
Could the activity change the temperature, pH, oxygenation, salinity or nutrient concentrations in the water body?	No	Material to be placed will not give rise to changes to water quality parameters.	No	Presence of berms are not expected to impact on water quality. There may be the requirement for recharge during the operational period but this will be relatively limited compared to the construction period and therefore the risks will be the same or less.
Specific pollutants - Could the activity release dangerous chemicals into the water body?				
<b>Protected Areas</b>				
Is the activity within 2km of a protected area?	No	-	No	-

## Completed scoping tables for activity 5 and 8: Access Ramp

The following tables summarise the information relevant to the consideration of the requirements of the Water Framework Directive (tables taken from Clearing the Waters for All; Environment Agency, 2016). *Note that although the answer to the question is yes in some instances, the evidence provided in the notes column allows the issue to be scoped out.*

*Table B12 Summary of activity under consideration*

Your activity	Description, notes or more information
Applicant name	East Devon District Council
Name of activity	Access ramp
Brief description of activity	
Location of activity	Western Side of the River Sid Training Arm
Footprint of activity	The total area of the ramp would be 240m <sup>2</sup> .
Timings of activity	14 weeks
Extent of activity (for example size, scale frequency, expected volumes of output or discharge)	As above
Use or release of chemicals (state which ones)	None

Table B13 Scoping questions and output of assessment for the coastal water body

Consider if the footprint of your activity;	Scoped in (yes/no)	Construction comment	Scoped in (yes/no)	Operation comment
<b>Hydromorphology</b>				
Could impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status	No	Water body is not at high status	No	Water body is not at high status
Could significantly impact the hydromorphology of any water body	See operational effects	See operational effects	Yes	There is the potential to impact on hydromorphological parameters
Is in a water body that is heavily modified for the same use as your activity	No	No, water body is not heavily modified	No	No, water body is not heavily modified
<b>Biology</b>				
0.5km <sup>2</sup> or larger	No	Consultation with the DEFRA MAGIC	No	Consultation with the DEFRA MAGIC
1% or more of the water body's area				
Within 500m of any higher sensitivity habitat				
1% or more of any lower sensitivity habitat				
<b>Biology (fish)</b>				
Is in an estuary and could affect fish in the estuary, outside the estuary but could delay or prevent fish entering it or could affect fish migrating through the estuary	No		No	
like movement, migration or spawning (for example creating a physical barrier,				

Consider if the footprint of your activity;	Scoped in (yes/no)	Construction comment	Scoped in (yes/no)	Operation comment
noise, chemical change or a change in depth or flow)				
Could cause entrainment or impingement of fish	No	No risk of entrainment/impingement	No	No risk of entrainment/impingement
<b>Water Quality</b>				
Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)	No	CEMP to be implemented to reduce any risks to water quality associated with accidental spills and leaks during works.	No	No risks identified during operation
Is in a water body with a history of harmful algae	No	No history of harmful algae	No	No risks identified during operation
If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: The chemicals are on the Environmental Quality Standards Directive (EQSD) list	No	No release of chemicals	No	No risks identified during operation
<b>Protected Areas</b>				
Within 2km of any WFD protected area	No	Whilst the works are within 2km of protected areas: Bathing Waters and European Designated sites, the works are minimal and will not impact on water quality (see above). The consideration of European Designated Sites is assessed in the Habitats Regulations Assessment (HRA) (RHDHV, 2019).	No	No risks identified during operation

Project related



Consider if the footprint of your activity;	Scoped in (yes/no)	Construction comment	Scoped in (yes/no)	Operation comment
<b>Invasive species</b>				
Introduce or spread INNS	No	The activities have the potential to release invasive species if the materials and equipment used in the process have not been properly cleaned after use at a previous location that may have had invasive species present. Good practice measures will be employed to ensure all equipment is cleaned and checked before use.	No	No risks identified during operation

## Completed scoping tables for consideration of the potential SBM scheme on groundwater bodies (activities 2 and 5)

The following tables summarise the information relevant to the consideration of the requirements of the Water Framework Directive (tables taken from Clearing the Waters for All; Environment Agency, 2016 and modified to assess the potential effects on the groundwater body).

Table B14 Consideration of relevant scheme activities against groundwater compliance parameters

Consider if your activity could potential impact on	Scoped in (yes/no) Construction Phase	Comment construction phase	Scoped in(yes/no) Operational Phase	Operational comment
<b>Quantitative Status</b>				
Quantitative Dependent Surface Water Body Status	No	Works do not require deep excavation or piling. Therefore risks to the groundwater have not been identified.	No	No impacts anticipated during the operational phase.
Quantitative Groundwater dependent terrestrial ecosystem (GWDTE) test				
Quantitative Saline Intrusion				
Quantitative Water Balance				
<b>Chemical Status</b>				
Chemical Dependent Surface Water Body Status	No	Works do not require deep excavation or piling. Therefore risks to the groundwater have not been identified.	No	No impacts anticipated during the operational phase.
Chemical Drinking Water Protected Area				
Chemical GWDTEs test				
Chemical Saline Intrusion				
General Chemical Test				
<b>Groundwater Supporting elements</b>				
Prevent and Limit Objective	No	Works do not require deep excavation or piling. Therefore risks to the groundwater have not been identified.	No	No impacts anticipated during the operational phase.
Trend Assessment				

## **Appendix 3**

### **Stakeholder Engagement Plan**

## REPORT

# Sidmouth Beach Management Scheme: Outline Business Case

### Stakeholder Engagement Plan

Client: East Devon District Council

Reference: PC1679-RHD-ZZ-XX-RP-EN-0004

Status: P01/S3

Date: 29 March 2022



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Document title: Sidmouth Beach Management Scheme:  
Outline Business Case  
Document short title: Sidmouth Beach Management Scheme OBC SEP  
Reference: PC1679-RHD-RP-ZZ-XX-EN-0004  
Status: P01/S3  
Date: 29 March 2022  
Project name: Sidmouth OBC  
Project number: PC1679  
Author(s): Dr Peter Brunner

Drafted by: Dr Peter Brunner

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Checked by: Lucia Stothert

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Date: 28/03/2022

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Approved by: Lucia Stothert

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Date: 29/03/2022

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Classification

Project related

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## Appendices

*Appendix I – Issues Log*

*Appendix II – Communications Log*

## 1 Introduction

The Sidmouth frontage has a long history of the construction and maintenance of coastal flooding and erosion risk management schemes. Following sea storms of 1989 and 1990 the Sidmouth Town frontage experienced substantial damage to existing defences and substantial volumes of shingle were lost to the east of Sidmouth. This storm damage triggered the need for upgraded coastal flood and erosion risk management measures. The need for further works was triggered following storms in 1993 and 1994.

The current flood and coastal erosion risk management measures along the Sidmouth Town frontage were constructed over many phases between 1991 and 2000 and comprise seawalls, rock revetments, splash wall, rock groynes, offshore rock breakwaters, a river training wall / arm coupled with beach recharge and recycling as required. Wave overtopping and the subsequent risk of coastal flooding along the Sidmouth town frontage is generally controlled by the retained beach in front of the seawall and the low splash wall that is situated on the landward side of the promenade. The beach, in conjunction with the buried rock revetment, also helps to protect the seawall from undermining and subsequent potential failure. Over recent years, beach levels have dropped to lower than the design level (which was set as part of the 1990s schemes); and in places the toe of the seawall is now exposed. This results in increased wave reflection on the exposed vertical seawall which exacerbates wave overtopping and increases the risk of subsequent flooding. The wave reflection also exacerbates the reduction in the already low beach levels.

The East Beach frontage consists of Pennington Point cliffs which has a small shingle beach at its base. The cliffs are otherwise undefended. The Pennington Point cliffs are eroding, and thereby retreating. Causes of erosion are associated with weathering and lack of drainage from above the cliffs, along with wave impact on the lower cliff. Beach levels have lowered in recent years causing more exposure of the cliff toe to wave action. The continued erosion of the cliffs is now posing a risk of outflanking of the Sidmouth Town defences; erosion of the cliff is resulting in the gradual increased exposure of the western river wall of the River Sid to coastal sea storm conditions (primarily from easterly / south-easterly directions). It is recognised that East Cliff is also subject to erosion as a result of other physical processes (e.g. weathering from above due to intense rainfall / insufficient drainage).

In addition, as East Cliff continues to erode over the next 100 years, the Alma Bridge will become unsustainable in its current position. The western wall of the River Sid, which currently provides fluvial flood defence, will become increasingly exposed to full coastal conditions. Therefore, there will be an increased likelihood of defence failure and thus occurrence of flood damages over time.

Therefore, **East Devon District Council (EDDC) are to progress the design and construction of a coastal erosion and flood mitigation scheme along the coastline at Sidmouth, herein referred to, as the Sidmouth Beach Management Scheme (SBMS)**. The preferred option for the SBMS currently comprises a mixture of short-term and longer-term works and includes the following:

- Beach recharge (with shingle) along the town beach frontage.
- Raised splash wall and flood gates to 1m high at key locations.
- New long groyne and beach nourishment at East Beach.
- New boat ramp.
- Raising existing splash wall by 100mm along the promenade with new foundations enabling raising of the splash wall further when overtopping rates become unacceptable in the mid to long term (to be refined at detailed design stage).
- Construction of one breakwater (rock islands) in front of the Town beach (dimensions and location to be refined at detailed design stage).

Figure 1.1 Proposed Sidmouth Beach Management Scheme

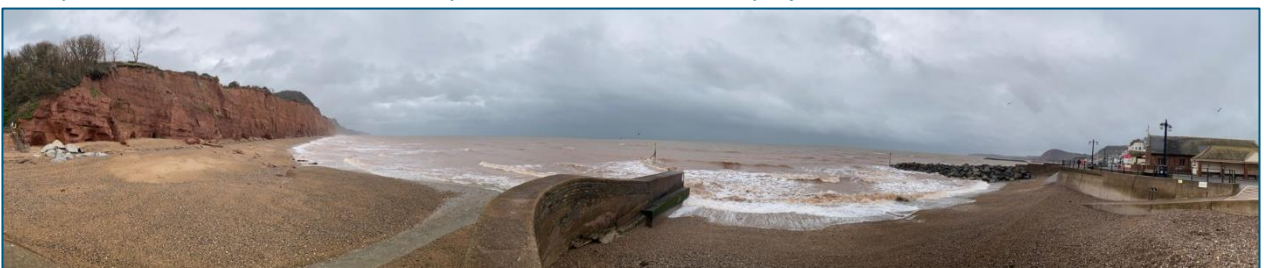


To further provide supporting evidence for the implementation of the preferred option for the SBMS, **EDDC are preparing an Outline Business Case (OBC) following the updated Partnership Funding Calculator for Flood and Coastal Erosion Risk Management (FCERM) projects by the Environment Agency in 2020**. As such, this Stakeholder Engagement Plan (SEP) sets out the arrangements for ensuring robust stakeholder input to the development of the OBC as well as providing a platform for the formal consultation process as required under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (herein referred to as 'the EIA Regulations').

The SEP aims to:

- Clarify the roles and responsibilities of the project team for specific aspects of internal and external communication (using a single named contact as far as possible).
- Set key objectives for stakeholder engagement in relation to the OBC process.
- Establish a list of relevant stakeholders and group them according to interest, influence and expertise in relation to the SBMS.
- Identify engagement strategies for the different stakeholder groups to promote effective engagement.
- Provide a framework for collaborative stakeholder engagement with East Devon District Council (EDDC) to ensure consistency for existing stakeholders and other interested parties.

**It should be noted:** This SEP will be a live document that is updated as the project develops and stakeholder engagement evolves. Input from stakeholders and responses from consultation will feed into the ongoing design process linked to the preferred option to ensure that stakeholder views are fully incorporated and a clear feedback loop is demonstrated for the project.



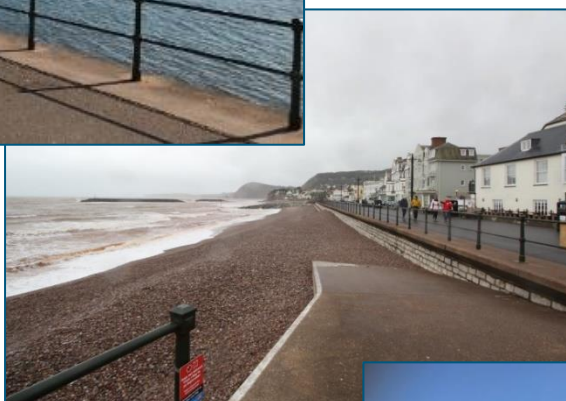
## 2 Project Team Roles and Responsibilities

The EDDC team is led by **Tom Buxton-Smith** (Engineering Projects Manager). EDDC has commissioned Royal HaskoningDHV to produce the OBC and supporting evidence for the implementation of the preferred option of the SBMS. The Royal HaskoningDHV team is led by **Lucia Stothert** (Project Manager) and **Tom Green** (Assistant Project Manager).

Primary communication between the two Project Teams (EDDC and Royal HaskoningDHV) will be led by Tom Buxton-Smith and Lucia Stothert. Stakeholder engagement will be led by Lucia Stothert and Peter Brunner at Royal HaskoningDHV in collaboration with Tom Buxton-Smith (EDDC).

Direct stakeholder engagement will be primarily delivered through correspondence via emails; meetings (via Teams or Face-Face) with the Sidmouth Beach Management Steering Group (SG); and the statutory advisors (further detail is provided in **Section 5**).

Royal HaskoningDHV will maintain an '**Issues Log**' which will capture points raised through stakeholder engagement and document any follow up actions taken. This can include direct changes to the development of the OBC, further communication actions and other specific activities which may be developed on a reactive basis. The Issues Log will form part of the overall SEP and will be continually updated throughout the course of the OBC (see **Appendix I**).



### 3 Context

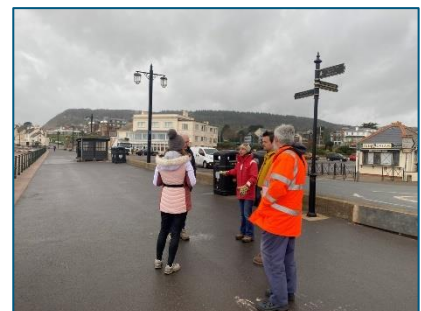
#### 3.1 Progress to date

As stated in **Section 1**, work on a coastal erosion and flood mitigation scheme along the coastline at Sidmouth has been ongoing for a number of years, including the development of the Sidmouth Beach Management Plan (SBMP); and EDDC have maintained strong stakeholder engagement throughout. As well as regular meetings with the SG there have been public consultation events and exhibitions, the feedback from which has been incorporated into developing the SBMP and preferred option for the SBMS (see **Figure 1**).

The stakeholder engagement carried out to date has raised a number of key issues which provide an important context for communication planning going forward for the development of the OBC for the preferred option. These are:

- **Timescales** – stakeholders, particularly affected residents, have strong concerns about the implications for delay and there is a perception that progress is unnecessarily slow.
- **Economics** – stakeholders appear to appreciate the relative costs associated with the different options, although the complexities around partnership funding and the Flood Defence Grant in Aid (FDGiA) process are potentially not fully understood.
- **Visual impacts and effects on the visitor economy** – Sidmouth is a coastal destination and the beach is a core asset; any potential impacts on this feature is of concern to local business operators and residents alike.
- **Politics** – as a Local Authority led process, the development of a SBMS is influenced by the political landscape which is subject to change and a number of external factors.
- **Environment** – limited appreciation amongst local people, and politicians of the constraints of working within the various environmental designations on East Beach

In order to ensure all issues raised through the stakeholder engagement process are fully documented, an Issues Log will be maintained (see **Appendix I**). Not only will this provide an audit trail of concerns raised throughout the development of the OBC, but it will also provide a point of reference for updating the SEP and a record of how stakeholder input has been used to inform the ongoing design process.



## 4 Engagement Objectives

The OBC is the next step in realising the funding opportunities to assist in delivery of the preferred option of the SBMS. The objectives in engaging stakeholders in this process can therefore be defined as follows:

- **To seek stakeholder input on the preferred option (see Figure 1).** Stakeholder engagement at this stage is sought to refine the preferred option rather than alter or expand it and this represents an important shift from the appraisal of the options.
- **To help stakeholders understand that the preferred option is the most technically and environmentally sustainable option.** Support exists in some stakeholder groups for the construction of additional offshore breakwater or demountable flood defences and these options continue to be explored.
- **To help stakeholders understand the OBC process and how this fits within the broader process necessary to draw down funding.** An ongoing concern raised by public stakeholders in particular is the apparent slow progress; helping them to understand the formal process EDDC is required to follow will help manage expectations.
- **To help stakeholders understand the need for local funding in order to deliver the scheme.** Government funding alone may not be sufficient to fund construction of the preferred option, which may need to be made clear to all stakeholders.
- **To help stakeholders understand the environmental constraints on the SBMS and how this has influenced the preferred option.** The Sidmouth and East Beach frontage is highly designated for environmental reasons and it is important that stakeholders understand the need to balance this protection with the need to manage flood and coastal erosion risk for residents.
- **To encourage stakeholder ownership of the SBMS and the option being taken forward.** The construction phase of any scheme will be disruptive to the local community (albeit temporarily); and buy-in from those affected on a daily basis, will foster positive relationships going forward.
- **To maintain the lines of communication already established and to continue to engage the stakeholders on a regular basis such that they feel informed and part of the process.** EDDC have strong indirect engagement platforms which are understood by the stakeholder community; and it will be imperative to continue to use these in the interests of consistency.
- **To ensure EDDC receives robust input from statutory and non-statutory consultees to inform the legal and consenting obligations that must be discharged in order to progress the preferred option of the SBMS.** Consultation forms an integral part of the required consenting processes both terrestrial and marine; ongoing engagement with the stakeholder community will ensure all concerns are addressed in a timely manner thereby avoiding unnecessary delay.
- **To establish strong feedback loops enabling EDDC to incorporate suggestions and recommendations from the stakeholder community; and robustly demonstrate how the design process has been influenced by local engagement.**

As with every aspect of this SEP, the above objectives should be viewed as a 'live list' and subject to ongoing review. Engagement activities should achieve some or all of these objectives and provide a framework for the delivery of direct events such as meetings and indirect events such as public exhibitions.

## 5 Stakeholder Mapping and Engagement

### 5.1 Stakeholder Mapping

**Table 5.1** lists the stakeholders that were identified following discussion between EDDC and Royal HaskoningDHV. It is recommended that this list is continually reviewed, particularly in light of comments received from key stakeholder groups such as the SG.

Table 5.1 Consultee List

Stakeholder Name	Type/Influence	Group
<b>Statutory Consultees/ Primary Advisors</b> (as relevant for the terrestrial planning and marine licensing processes, including EIA)		
EDDC Planning Team*	Statutory/Direct	Group 1
Marine Management Organisation (MMO)*	Statutory/Direct	Group 1
Natural England (NE)*	Statutory/Direct	Group 1
Environment Agency (EA)*	Statutory/Direct	Group 1
English Heritage (EH)*	Statutory/Direct	Group 1
Cefas	Non-statutory/Direct	Group 1
Relevant Local Authorities (i.e. Devon County Council, Sidmouth Town Council)*	Statutory/Direct	Group 1
East Devon Area of Outstanding Natural Beauty (AONB)*	Non-statutory/ Direct	Group 1
EDDC Landscape Architect	Statutory/Direct	Group 1
EDDC Heritage/Conservation Officer	Statutory/Direct	Group 1
EDDC Public Rights of Way Officer	Statutory/Direct	Group 1
Jurassic Coast Team (World Heritage Site)*	Non-statutory/Direct	Group 1
Devon Wildlife Trust (DWT)	NGO/Direct	Group 1
West Country Rivers Trust	NGO/Direct	Group 1
<b>Landowners (not already included)</b>		
National Trust*	Private/Direct	Group 1
South West Water*	Private/Direct	Group 1
Private Landowners (mostly represented on the Steering Group, see below)	Private/Direct	Group 1

\* Also members of the Steering (Advisory) Group

<b>Steering (Advisory) Group</b> (not already included)		
Cliff Road Action Group	Public/Direct	Group 2
Sidmouth Chamber of Commerce	Public/Direct	Group 2
Vision Group for Sidmouth	Public/Direct	Group 2
Sid Vale Association	Public/Direct	Group 2
The Esplanade Hotel**	Public/Direct	Group 2
Wyndham Court Hotel**	Public/Direct	Group 2
The Royal York and Faulkner Hotel**	Public/Direct	Group 2
Sidmouth Hotels**	Public/Direct	Group 2
Salt Rock Restaurant**	Public/Direct	Group 2
Beach House**	Public/Direct	Group 2
Mocha on the Beach Restaurant**	Public/Direct	Group 2
Hotel Elizabeth**	Public/Direct	Group 2
The Kingswood Hotel**	Public/Direct	Group 2
The Pea Green Boat Restaurant**	Public/Direct	Group 2
The Marine Restaurant**	Public/Direct	Group 2
Hotel Riviera**	Public/Direct	Group 2
Bedford Hotel**	Public/Direct	Group 2
Sidmouth Sailing Club and Sea Anglers	Public/Direct	Group 2
Sidmouth Lifeboat (An Independent Charity)	Public/Direct	Group 2
Local Fishermen	Public/Direct	Group 2
<b>Other specific interested parties</b>		
East Devon Alliance (EDA)	Public/Indirect	Group 3
The Royal Society for the Protection of Birds (RSPB)	Private/ Indirect	Group 3
Devon & Severn Inshore Fisheries and Conservation Authority (IFCA)	Public/Indirect	Group 3
<b>Other Site Users</b>		
Local Sidmouth community (residents)	Public/ Direct	Group 4
Wider public community (visitors)	Public/ Indirect	Group 4

\*\* Collectively all grouped and represented by one to two individuals who represent the hotel and restaurants of the frontage

Other Water and Beach Users	Public/Indirect	Group 4
<b>Other</b>		
Local MPs	Private/Indirect	Group 4

## 5.2 Engagement Approaches

The four groups identified through the stakeholder mapping exercise will be targeted in slightly different ways in recognition of their level of influence and interest with the main differences being related to:

- The means of communication with each stakeholder;
- The frequency, nature and duration of communication;
- The supporting media; and
- The relevant feedback mechanism.

Regardless of the approach used, the information being shared will aim to be meaningful and accessible. Coastal management is a complex process with highly technical design processes and assessment methods. The use of plain English, non-technical language and succinct delivery is essential.

### 5.2.1 Group 1 – Statutory Consultees and Primary Advisors

The terrestrial planning and marine licensing processes require engagement with a number of key consultees as laid down in statute. The consenting authorities also seek advice from a number of non-statutory bodies in relation to specific applications with particular influence or interest in certain subject areas. For example, the MMO will regularly consult with Cefas on marine ecology aspects and associated licence applications. For projects that require EIA (which will most likely be required for the SBMS), the consultation obligations are described in the relevant Regulations and the statutory advisors have a key role in steering the scope of the investigations carried out to inform the EIA process.

Although most of the organisations identified in Group 1 are members of the SG, it will be necessary at times to engage with them on project specific technical matters relevant for EIA. It is suggested that this engagement takes place without the SG for the preparation of the EIA; **and is primarily achieved only through correspondence via emails; and meetings via teleconferences (or face-face)**, as diaries allow. Ongoing consultation with the statutory and non-statutory bodies that have influence over the consenting process will be maintained as the OBC and EIA develops for the SBMS.

### 5.2.2 Group 2 – SBMS Steering Group

This SBMS SG is an active and knowledgeable group who have been involved throughout the development of the SBMS and represent key stakeholders including local residents and user groups. EDDC organises regular meetings of this group and these will be used to provide detailed updates on progress and to respond to any specific queries and issues that may arise. In order to ensure that the meetings are as productive as possible non-technical briefings will be provided in advance to allow SG members time to formulate questions/discussion points and enable effective engagement. SG members should be made aware that should they wish to raise questions/issues at any time during the OBC process (not only in the meetings) this avenue of communication is open to them. This will be important to facilitate a continuous dialogue and promote ownership.

It is anticipated that SG meetings held during the new 2022 OBC phase will cover the following key topics:

- **Background to the SBMS, next steps and tasks covered under the RHDHV contract;**
- **Review of the options discussed to date for the SBMS;**
- **Presentation of the preferred option for the SBMS;**
- **Discussion on risks associated with preferred option for the SBMS;**
- **Input on the refinement process in preparation of the OBC.**

### 5.2.3 Group 3 – Other Interested Parties

Decision making around flood risk and coastal management has the potential to impact on a wide range of stakeholders and in Sidmouth there are other parties with specific interest in being engaged in the development of the SBMS. Whilst these groups may not have formal membership of the SBMS SG they may attend meetings and have views to contribute that may be of value to the OBC process. As part of the local community it is important that they continue to feel engaged and have some level of ownership over the scheme.

For those present at the SG meetings there will be opportunity for direct engagement and the opportunity to raise questions between such events will be facilitated. **Outside of these meetings this group will be engaged primarily through indirect means using a range of traditional and online media including the EDDC website, Facebook, Twitter, e-newsletter, local press and resident’s magazine.** The Communications Team at EDDC has developed a strong Communications Plan for informing the public on matters pertaining to the SBMS and any activities related to the OBC phase would be aligned with this ensuring a collaborative approach and consistency for stakeholders. In accordance with Council policy, EDDC invites members of the public to submit queries/comments through their website on any aspect of the Council’s work and this maintains a route for dialogue in relation to the SBMS between targeted communication events.

### 5.2.4 Group 4 – Wider Public Community

As a key coastal destination, the economy of Sidmouth is strongly supported by tourism and the seafront is a fundamental element of the visitor attraction. Decisions that have the potential to affect the future visitor experience could therefore be of interest to a much wider stakeholder community. Statistics indicate that Sidmouth attracts both relatively local (i.e. within Devon) as well as more distant visitors and it would be beneficial to provide opportunities for these stakeholders to engage should they so wish.

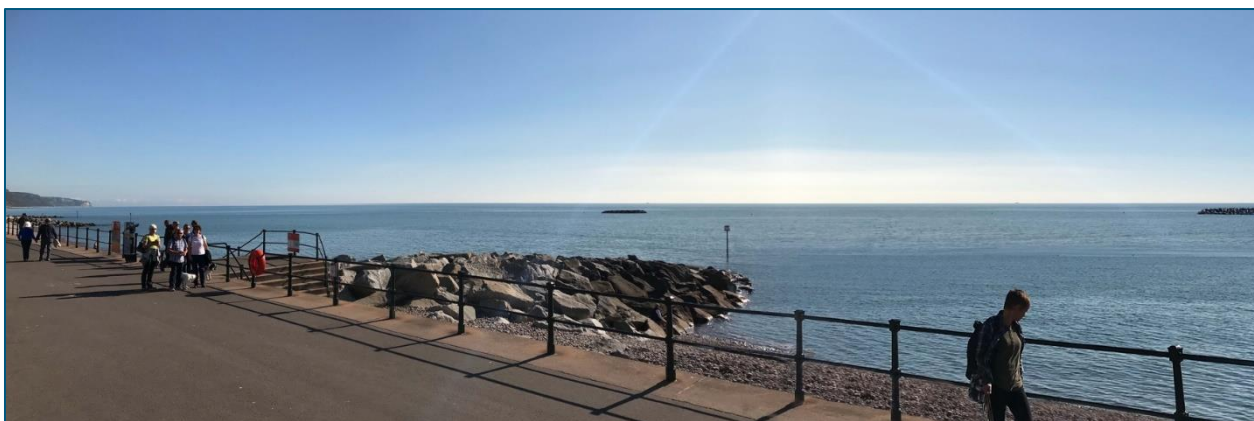
This group will have **access to many of the indirect communications identified for Group 3, particularly online and social media.** Promulgating information through a range of media will ensure that even more distant stakeholders have opportunity to remain informed and provide input as the OBC develops. The ‘Frequently Asked Questions’ section of the EDDC website will provide an invaluable reference point for those stakeholders not involved in direct engagement and this will continue to be updated as the technical work progresses. In accordance with Council policy, EDDC invites members of the public to submit queries/comments through their website on any aspect of the Council’s work and this maintains a route for dialogue in relation to the SBMS between targeted communication events.

### 5.2.5 Public Exhibitions

Public exhibitions are incredibly useful in informing the entire stakeholder community and they offer an opportunity for members of all stakeholder groups to engage directly with the technical team working to develop the OBC. They offer a visual and often immersive opportunity to engage and are of particular importance for promoting local ownership and addressing misconceptions. As well as prime opportunities to capture views on the preferred option for the SBMS, the public exhibitions offer an invaluable forum to seek feedback on the effectiveness of stakeholder engagement. **There is potential for a public exhibition to present options considered for the SBMS and the final preferred option to be taken through to the OBC and Final Business Case (FBC), although the implementation and timings of public exhibitions are to be confirmed with EDDC.**

### 5.2.6 Stakeholder Engagement To Date

**Appendix II** provides a stakeholder engagement ‘**Communication Log**’ undertaken on the SBMS (after 2017) for the preparation of the 2022 OBC; and takes into consideration the above stakeholder mapping exercise and engagement approach.



## 6 Summary and Review

This SEP sets out the proposed approach to stakeholder engagement in relation to the SBMS OBC process. Building on the historical context, the objectives of this SEP are designed to promote positive engagement and promote ownership of the SBMS preferred option among the local residents and wider stakeholder community of Sidmouth and East Beach.

This will be a live document that is updated as the OBC develops and stakeholder engagement evolves. To ensure the SEP stays relevant and responsive it will continuously be reviewed to ensure:

- Consistency of communication and message this will make sure that stakeholders understand the methods, timings and channels for engagement thereby mitigating misunderstandings and promoting ownership.
- Genuine responses to feedback Lines of communication and avenues for dialogue will stay open throughout the option refinement process to ensure that stakeholders can contribute and receive responses in a meaningful way and see how their input has been used.

The Issues Log and Communications Log (**Appendix I** and **Appendix II**) will be maintained and these will inform any updates to the SEP. It will also provide an audit trail to evidence how stakeholder contributions have ultimately been taken forward.

## Appendix 1: Issues (Risk) Log

Issue Number	Issue Title	Issue/Question	Source	Response(s)	Actions Taken	Latest Update	Status
<b>2017 SBMS</b>							
1	Delays	Why hasn't construction started yet?	East Cliff Residents Association	In order to draw down Government funding to deliver the scheme identified in the BMP, EDDC must follow the formal process administered by the EA. This requires a number of technical stages to justify the economic and environmental sustainability of the proposed scheme. These studies can be time consuming, however, it is important that we understand the potential impacts of any proposed scheme so that any negative impact on the environment can be avoided.	Promulgate plain English description of the FCRMGiA process.	April 2017	Closed
2	Costs	Option 4b (as to remove the rock groynes on the shore and create four new offshore 'reefs'), is preferred by locals; why isn't this being taken forward?	Local MP	<p>Funding for beach management projects from Government comes through what is known as FCRMGiA via a process administered by the EA. The amount of FCRMGiA a project is eligible for is linked to the predicted damages from flooding and coastal erosion, as well as the number of residential properties benefitting from a reduction in risk.</p> <p>Where the amount of FCRMGiA for an eligible project is less than the total cost of a scheme, the shortfall has to be made up through partnership contributions. Typically, partnership contributions are sought from beneficiaries of a project such as infrastructure owners (utility companies, highways authorities etc), local communities, businesses and developers. This is referred to as partnership funding.</p> <p>Option 4b is approximately three times more expensive than Option 1 (existing defences essentially maintained with another one or two groynes built on east beach), and it is unlikely that the partnership funding required to deliver this option will be available.</p>	Ongoing review of Option 4b with particular focus on costs and feasibility	June 2017	Closed
<b>Post 2017 SBMS Sidmouth Beach Management Scheme – 2022 OBC</b>							
3	New OBC 2022	<p>Risk Workshop: Environment</p> <ol style="list-style-type: none"> <li>Overall approval of the SBMS by Natural England, EA and MMO.</li> <li>EDDC and/or MMO delay in determination of EIA screening letter for the sign off for the SBMS.</li> <li>Design freeze not achieved.</li> <li>Further environmental surveys required for the EIA beyond what is anticipated.</li> <li>River Sid – Migratory fish impacts.</li> <li>River Sid – Water quality impacts.</li> <li>Mitigation of SSSI/SAC cliff habitats.</li> <li>Public and heritage value perception of the Sidmouth frontage.</li> </ol>	Steering (Advisory) Group	Detailed within the Risk Workshop Matrix – PC1679 - Small Project Risk Analysis Tool	Ongoing; and to be addressed in the updated Preliminary Environmental Information Report (PIER) for the OBC.	16/2/2022	Open

## Appendix 2: Communications Log

Date	Stakeholder Group	Nature of Communication	Outcomes/Actions
<i>2017 SBMS</i>			
3/8/2017	1	Meeting to discuss scope of EIA; covered key issues and expectations including requirements and availability of baseline data.	Memo completed and 'signed off' by attendees to confirm scope of EIA. To be used as a basis for discussion with the MMO about the MLA
18/8/2017	1,2,3,4	Press release introducing RHDHV, providing date of forthcoming SG meeting and confirming key facts about the BMP.	
13/9/2017	2	Steering Group meeting to introduce RHDHV, explain role in the project and present timescales.	Various (see minutes from meeting); next meeting Jan 2018
21/9/2017	1,2,3,4	Press release following up Steering Group meeting to inform wider public of the discussions and key actions/outcomes from the meeting and planned next steps.	
<b>Post 2017 SBMS Sidmouth Beach Management Scheme – 2022 OBC</b>			
17/12/2019	1,2	Steering (Advisory) Group – General Council Meeting	
19/12/2019	1,2	Steering (Advisory) Group – General discussions on panel installations for the SBMS.	
26/2/2020	2	Steering (Advisory) Group – Discussions on existing SBMS – Coastal modelling and way forward towards the preferred option for the SBMS. Key Steering Group member was Tony Birch (EDDC).	
6/10/2020	2	Steering (Advisory) Group – General Meeting	
3/7/2021	2	Steering (Advisory) Group – General Meeting	
15/7/2021	2	Steering (Advisory) Group – General Meeting	
30/7/2021	2	Steering (Advisory) Group – General Meeting	

2/9/2021	<b>Sub-Consultants Meeting</b>	Sub-Consultants Meeting	
28/9/2021	<b>1,2</b>	Steering (Advisory) Group – Natural England and Jurassic Coast Team	
21/11/2021	<b>Project Team Meeting</b>	Project Team Meeting regarding the Landscape and Visual Impact Assessment (LVIA) for the SBMS.	
1/2/2022	<b>1,2</b>	Steering (Advisory) Group – Sidmouth New OBC - Risk Workshop	
Ongoing	<b>1,2</b>	Natural England: Awareness of scheme - no objection in principle already in place.	

## **Appendix 4**

### **Engineering Reports**

## Note / Memo

**HaskoningDHV UK Ltd.**  
**Water & Maritime**

To: Tom Buxton-Smith  
 From: Guillermo Ingelmo de Tomas  
 Date: 25 July 2022  
 Copy: Lucia Stothert  
 Our reference: PC1679-RHD-ZZ-XX-NT-Z-0006  
 Classification: Project related  
 Checked by: Lucia Stothert; Tom Green

**Subject: Sidmouth Breakwater - Optimisation Potential**

# 1 Introduction

## 1.1 Background

Following a risk workshop held in January 2022 and revised construction costs for the preparation of the Outline Business Case for Sidmouth coastal defence scheme, concerns have been raised related to the level of available Grant in Aid funding and thus the economic feasibility of the project.

To assess whether project savings could be obtained by reducing the overall standard of protection (SoP), RHDHV has been asked to revisit the design of the main elements of the scheme, namely the offshore breakwater at Frontage 4 and the splash wall behind the promenade, from 1 in 200 years return period SoP to 1 in 75 and 1 in 100 years for the present day and 50 years horizon. No changes to the quantities of beach nourishment (and associated East Beach groyne) were included in the assessment, as these would require detailed modelling to fully appreciate their impact on flooding and erosion rates.



Figure 1—1: Frontage Locations

## 2 Offshore breakwater analysis

### 2.1 Cross Section

The breakwater design used for the cost estimates comprises a simple rock type structure with no core and all rock armour. The structure has a slope of 1:3 on the seaside and 1:2.5 on the leeside and the armour size is 6-10t. The crest level fixed at +3.75mOD.

The breakwaters is located at ~70m in front of the beach at Frontage 4. This may need to be revised at detailed design stage.

A sketch of the structure's cross section can be seen in Figure 2—1.

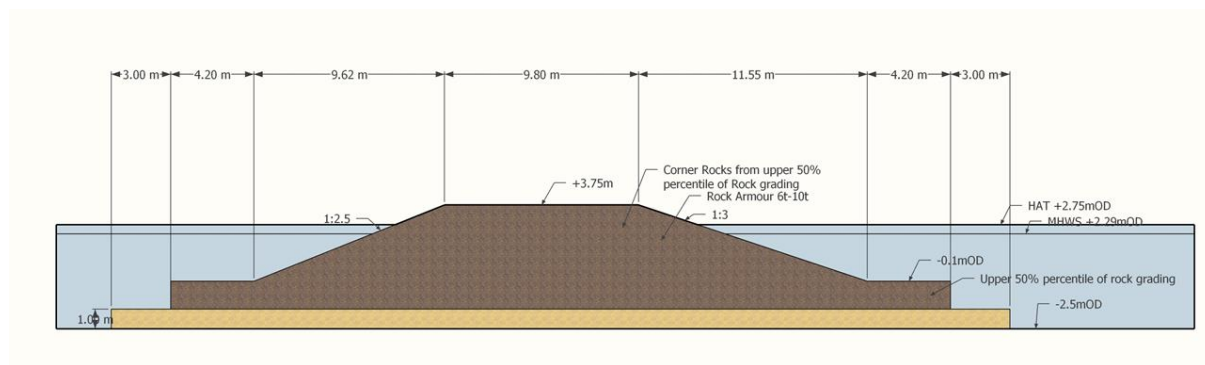


Figure 2—1: Sketch of preferred breakwater structure

### 2.2 Original Design Conditions

RHDHV has reviewed the design conditions used for the previous design. The original design used the 1 in 200 year event, with a theoretical offshore wave height of 4.44m. However, due to the location of the breakwater relatively close onshore (~5.1m water depth), waves are likely to be depth-limited and thus a lower incident wave height should be used in the assessment. The maximum wave height for a given depth of water is determined using the widely accepted rule of thumb:

Maximum wave height =  $0.78\sim 0.80 \times$  water depth; where

water depth = 5.1m (bathymetry -2.5mOD and design water level +2.6m)

In the location of the breakwater, a maximum wave height of ~4m would develop which was used in the assessment.

## 3 Potential for Optimisation

RHDHV has analysed the potential for decreasing the dimensions of the breakwater by reducing the design standards from 1 in 200 years to 1 in 75 or 1 in 100 years. Also, a shorter duration of benefit was considered from 100 years to 50 years.

As explained above, given its location, a smaller breakwater which does not compromise the required SoP would only be possible if the design wave height is below 4.0m, i.e. below the depth-limited wave height.

Table 3—1 shows the theoretical offshore wave heights at the breakwater location for Frontage 4 for both the 50 years (2067) and the 100 years (2117) epochs. It is immediately apparent that all wave heights are ~4m or greater and thus the revised breakwater would need to have the same dimensions as per the original design. Offshore wave heights greater than 4m would not develop at the breakwater location but be capped at ~4m.

Table 3—1: Wave Heights at Frontage 4 for different design standards

Time Epoch	Return Period (Years)	Wave Height Value (m)
Present Day	75	3.98
	100	4.02
	200	4.06
2067	75	4.53
	100	4.55
	200	4.57
2117	75	4.67
	100	4.70
	200	4.71

## 4 Splash Wall

At this stage of the project, a high-level assessment has been undertaken for the splash wall optimisation, assuming a maximum reduction in wall height of ~200mm during a 1 in 75 year return period present day event. Given the fact that the wall foundation are likely to remain the same to allow for potential future raising, it is unlikely that cost savings would be greater than around £10,000. Moreover, given the model uncertainties related to the height of the wall, it is considered more prudent to keep the original cost estimates.

## 5 Conclusion

RHDHV has concluded that at this stage of the project, without further costly and time consuming detailed analysis and modelling, there is no opportunity to optimise costs by reducing the SoP of the scheme to 1 in 100 years or 1 in 75 years return periods events. This is due to the fact that the incoming waves for the above storm events at the toe of the structure are greater than 4m, i.e. greater than the maximum allowed depth-limited wave height which can be experienced at the chosen location. Therefore, given that the same incoming wave height would be used, the breakwater would need to maintain the same dimensions.

Similar observations as for the breakwater can be drawn for the raised wall at the back of the promenade. Further detailed modelling would confirm exact dimensions of the wall. However, this analysis is not considered appropriate for the stage of the project.

However, potential optimisation in the design could be obtained at a later stage of the project, following further detailed modelling and / or if new information that allows for a change on the design wave heights becomes available.

Having determined that no savings can be made in the construction costs by reducing the SoP nor the duration of benefits, there is no need to reassess the cost / benefit analysis, as this would only result in smaller benefits being realised thus decreasing the cost / benefit ratio and available funding.

It is our recommendation that the current construction costs are used for calculating the maximum Grant in Aid funding available the scheme with further refinement at detailed design stage.

## **Appendix 5**

### **Archaeology and Cultural Heritage Plates**

## Appendix 5 - Heritage Assessment Plates

Plate 5A-1: View from within Conservation Area towards the seafront





Plate 5A-2: View looking north along Glen Road towards the Royal Glen Hotel



Plate 5A-3: Church of St Giles with St Nicholas



*Plate 5A-4: View towards the World Heritage Site from High Peak Camp encompassing the Esplanade and existing seadefences*



*Plate 5A-5: Views from Connaught Gardens*



*Plate 5A-6: View from Connaught Gardens viewing platform*



Plate 5A-7: View of Bedford Hotel from the junction of Station Road with the Esplanade looking east



Plate 5A-8: Views east, south and west from the Bedford Hotel



Plate 5A-9: View of Beach House (centre) and the Mocha Café (left)



Plate 5A-10: Views east, south and west from Beach House



Plate 5A-11: View of Clifton Cottage



Plate 5A-12: Views from Road outside Clifton Cottage



Plate 5A-13: Gateway to Belmont Hotel



Plate 5A-14: Views east, south and west from the Belmont Hotel gateway

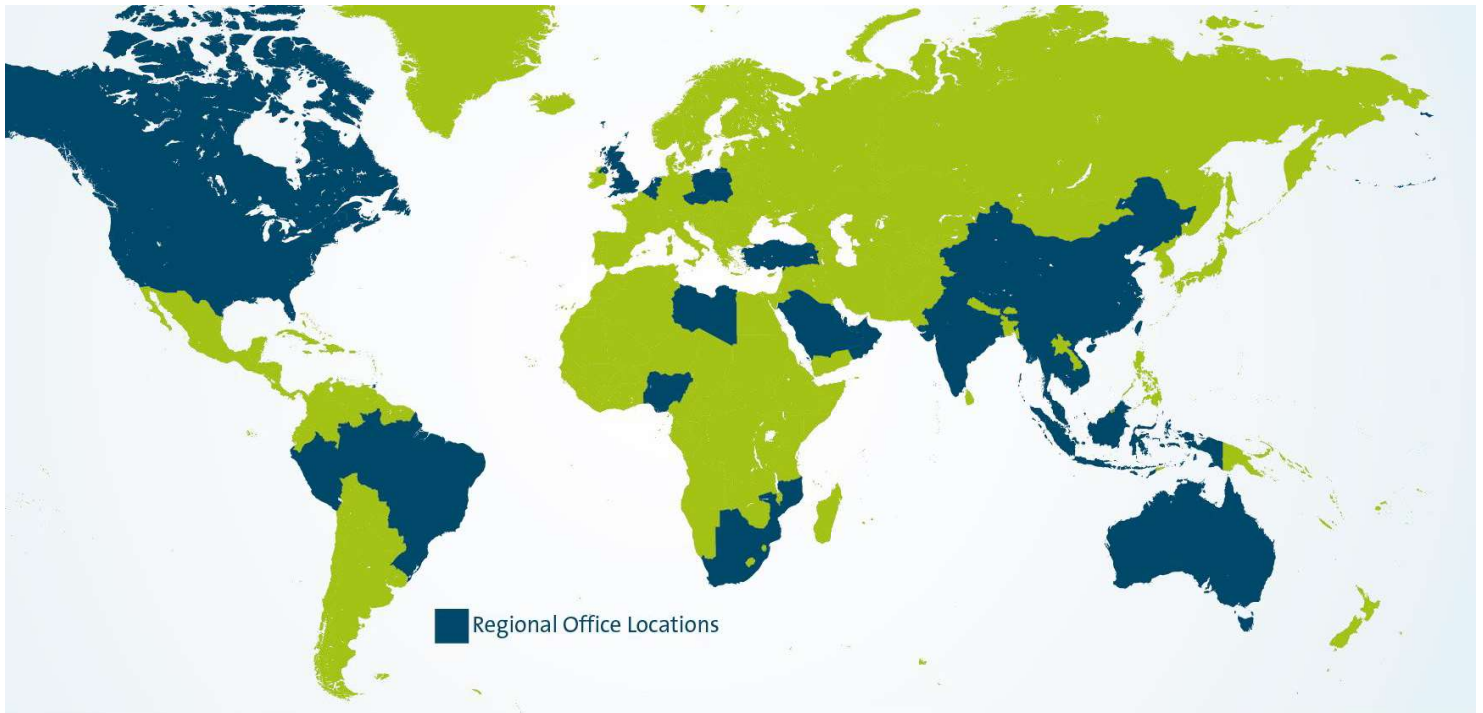


Plate 5A-15: York Terrace



Plate 5A-16: Views east, south and west from the eastern end of the Esplanade (Sidmouth Lifeboat/York Terrace)





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