

Report to: Cabinet



Date of Meeting 3 November 2021

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Sidmouth and East Beach BMP: Direction for OBC development and submission

Report summary:

Sidmouth and East Beach BMP has been progressing for the last 6 months whilst officers and a Sub-Group made up of members of the public Advisory Group investigated alternative ideas given the increased funding eligibility. 6 months has now elapsed and although no single complete option has come out of the additional study process, we are left with three directions that the project can move in. They are A) continue with the preferred option, B) switch to the alternative option (developed during the additional study period or C) make no decision at this time (further study/fundraising)

We are asking members to decide on which direction to take the project and recommending option B.

Is the proposed decision in accordance with:

Budget Yes No

Policy Framework Yes No

Recommendation:

That Cabinet recommend the direction that Sidmouth and East Beach BMP should take, with option B being the officer recommendation.

- A) Preferred option
- B) Alternative option (Preferred option but with additional offshore breakwaters on Town Beach)
- C) No decision (further study/fundraising)

Reason for recommendation:

The Sidmouth and East Beach advisory group recommended, at their meeting on the 25 October 2021, that option B is recommended to Cabinet as the direction for the Outline Business Case (OBC) to take, with the inclusion of further check stages by the advisory group, including review of a new draft OBC, and prior to the submission of a planning application, to ensure that project risks are being managed.

EDDC officers believe option B, the alternative option to be the best way forward as it is best on both technical and economic grounds

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Portfolio(s) (check which apply):

- Climate Action and Emergency Response
- Coast, Country and Environment

- Council and Corporate Co-ordination
- Democracy, Transparency and Communications
- Economy and Assets
- Finance
- Strategic Planning
- Sustainable Homes and Communities
- Tourism, Sports, Leisure and Culture

Equalities impact Low Impact

Climate change High Impact

Risk: High Risk; Due to this being a major project for Sidmouth, with homes at risk of both flooding and erosion it is important to make the right decision.

Links to background information [Report to Cabinet 31 March 2021 item 370](#)

Link to [Council Plan](#)

Priorities (check which apply)

- Better homes and communities for all
- A greener East Devon
- A resilient economy

Report in full

1. Background

- 1.1. Sidmouth and East Beach BMP was completed and adopted in 2017 with the outline business case (OBC) phase experiencing a long gestation period, due to lack of funding, then limited support for the basic preferred option. Following a change in government funding policy along with additional benefits being found the funding gap was closed and it was found that the projects funding eligibility had increased.
- 1.2. It was decided by Cabinet on 31 March 2021 given the additional funding eligibility to 'pause' the preferred option OBC for 6 months to investigate any feasible alternative options to the preferred option.
- 1.3. A sub-group was formed and the consultant was appointed to work with the group to develop alternative ideas that would achieve the standard of protection required.
- 1.4. An extensive brief was set, however the main points within it were to reduce the need for a 1m splash wall along the Esplanade, maintain safe swimming, reduce erosion rates at East Beach, and reduce ongoing maintenance costs (recycling/recharge).
- 1.5. Multiple ideas were investigated such as submerged breakwaters, geotubes, multiple 100m plus groynes (to act as a landing pier from town beach), but were dismissed on technical or cost grounds. [A technical note on the study process can be found here](#)
- 1.6. We have relied on previous public consultation responses for guidance on which elements to any proposal are likely to be popular/unpopular.
- 1.7. ***It is worth noting that the OBC process is not a final decision on what will be built. It is business case submission to the Environment Agency so that they can allocate DEFRA funding. The submission needs to be firm enough to show the general design direction, and evidence that it will work. The detailed design stage will follow a successful OBC submission, where exact locations, alignments, positions, finishes, and finished levels/heights of each element will be decided before a planning application. The planning application will ultimately decide on what is built.***

2. Funding and scheme costs

2.1. Current non FDGIA (Flood Defence Grant in Aid) funding pledged

Source	Amount
East Devon District Council	£500,000
Devon County Council	£500,000
Local Levy	£500,000
Cliff Road Residents	£50,000
Lifeboat	£100,000
Sidmouth Town Council	£100,000
EDDC Housing	£50,000
Total non FDGIA funds	£1,800,000

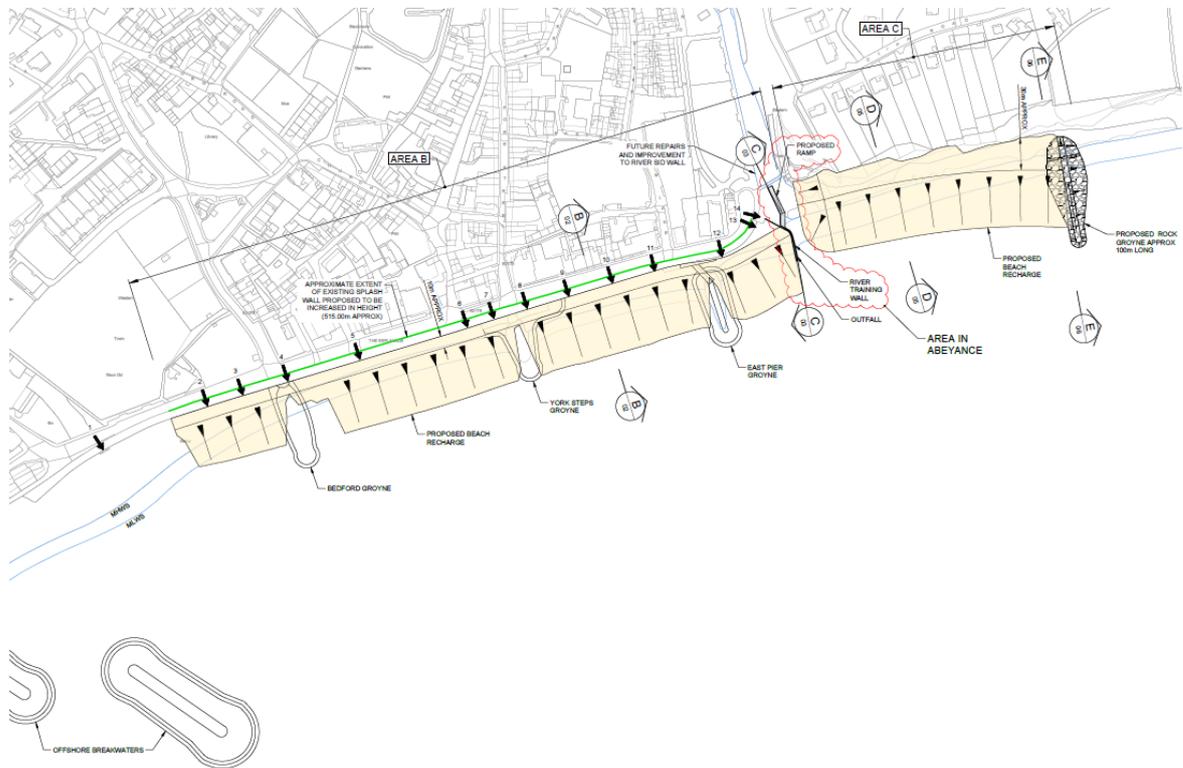
2.2. Total available funding inclusive of above pledges:

Total Funding eligibility excluding using recreational benefits	£12,000,000
Total Funding eligibility including using recreational benefits	£14,700,000

2.2.1. It is worth noting that recreational benefits are increasingly being used to increase funding eligibility, as per the EA guidance, however historically they have not been included. Therefore the £12m is a conservative figure, with up to £14.7m available should the case be robust.

3. **(A) Preferred option**

This is the option from the adopted BMP as outlined in the image below, however the 1m high solid splash wall is now longer part of the option in that form. See 3.1.3



3.1. The Scheme consists of the following elements:

- 3.1.1. Coastal protection Works at Millennium Walk Way
- 3.1.2. Town Beach, Beach recharge to 1990 design scheme levels. (To aid coastal protection to the town)
- 3.1.3. Existing splash wall raising (due to the increased funding eligibility, the wall raising could be delayed until sea level is realised (for example year 30), or could fund smart demountable splash walls built in year 0)
- 3.1.4. Boat users ramp improvement at Port Royal – To allow easier beach maintenance and improved public use.
- 3.1.5. Alter the river training wall to allow more beach material to move between Town Beach and East Beach
- 3.1.6. 120m long groyne at East Beach, to hold a healthy beach at East Beach to reduce the rate of erosion of the cliffs behind.
- 3.1.7. Beach recharge at East Beach to aid with above.
- 3.1.8. Ongoing recycling (moving existing) and recharging (new material) will be carried out as maintenance into the future.

3.2. Preferred Option Development.

- 3.2.1. The preferred option came out of what was affordable at the time of its development, and was put out to public consultation and was found to be less popular than other options, but was the only financial viable solution.
- 3.2.2. When the scheme was better modelled for the OBC, it was found that to provide the level of flood protection required, the splash wall would need to be raised to 1m high along most of the esplanade. This development was unpopular because of the visual impact and the preferred option has struggled for support since.
- 3.2.3. EDDC investigated glass walls, and other demountable walls which were generally more popular, however there is significant opposition against dividing the town from the sea with any structure.
- 3.2.4. The old central government funding mechanism (PF calculator) meant even that scheme was £1.5m short, so the scheme did not progress until the new PF calculator was released in May 2020. This removed the funding gap, and an updated OBC was commissioned to maximise this funding, as well as put in a higher cost allowance for a

splash wall, allowing more freedom at the detailed design stage to choose its appearance, location and potentially delaying its construction into the future.

- 3.2.5. With the OBC nearing completion, a combination of the new PF calculator, as well as including new economics, such as the loss to the economy of severing the coast path, it was found that there was even more eligibility than first realised. This development led to the start of the 'pause' process allowing options previously dismissed due to finance to be investigated again. This has led to the alternative option, see section 4.

3.3. Preferred Option Costs

- 3.3.1. The latest total scheme cost was £10.3m which is comfortably below the maximum funding eligibility.
- 3.3.2. There is potential to move some of the non-FDGIA funding into a separate ring-fenced pot to fund future maintenance.

3.4. Preferred Option Benefits

- 3.4.1. OBC well developed and ready to submit soon.
- 3.4.2. Idea is well modelled and comfortably affordable in the short term.
- 3.4.3. Option can still be developed at detailed design stage, so deferring wall raising to a later year, or further research into acceptable wall type(s).
- 3.4.4. Is the quickest way to deliver a scheme on the ground.

3.5. Preferred Option negatives

- 3.5.1. Not as popular as some other options.
- 3.5.2. Although affordable short term, it relies on ongoing beach recharge and recycling which is a drain to the public purse, and has sustainability concerns. See section 8.
- 3.5.3. Option still is an environmental compromise at East Beach with a manmade structure being introduced to an developed section of coastline (which is designated and part of the Jurassic Coast World Heritage Site).
- 3.5.4. Due to the unpopular opinion of the splash wall, the scheme may struggle to achieve planning permission. Also due to the proximity of historic buildings, the wall's permission may be refused.
- 3.5.5. Both Natural England and the Jurassic Coast Team's acceptance of the compromised solution at East Beach is based on it being the best compromise given the financial envelope. Arguably, carrying on with the preferred option, could free up some funding for another solution at East Beach. However, this would delay the process. We also feel that the 120m long groyne is the best structure that could be built at East Beach (from a coastal processes perspective) to achieve the aims of the project. See section 7

4. (B) Alternative Option

This is the option as outlined in the image below and developed during the 'pause' study phase, however the sizing and number of rock islands may change during the detailed design stage.



4.1. The alternative Scheme consists of the following elements

- 4.1.1. Coastal protection Works at Millennium Walk Way.
- 4.1.2. Town Beach, Beach recharge to 1990 design scheme levels. (To aid coastal protection to the town).
- 4.1.3. Allowance for existing splash wall to be raised no more than 100mm (to 400mm) and to have foundations upgraded to allow for future raising if required.
- 4.1.4. Raising splash wall to 1m high at the Port Royal end, although opportunity for this to be set back and reduced in height.
- 4.1.5. Boat users ramp improvement at Port Royal – To allow easier beach maintenance and improved public use.
- 4.1.6. Alter the river training wall to allow more beach material to move between Town Beach and East Beach.
- 4.1.7. 120m long groyne at East Beach, to hold a healthy beach at East Beach to reduce the rate of erosion of the cliffs behind.
- 4.1.8. Beach recharge at East Beach to aid with above.
- 4.1.9. One or two additional rock islands in front of Town Beach – To dissipated more storm waves, but also build and hold a strong beach in its lee, similar to the existing two islands.
- 4.1.10. Less ongoing recycling (moving existing) and recharging (new material) will be carried out as maintenance into the future due to the additional islands holding the beach in place.

4.2. Alternative option's development.

- 4.2.1. Other non-rock island solutions were discussed and discarded, and more information on these can be found in technical note provided in the appendices.
- 4.2.2. Given the popularity of more rock islands during public consultation of the BMP, this idea was explored further.
- 4.2.3. Initially from first principles, 4 large islands were proposed out at sea which successfully dissipate enough wave energy (not relying on the beach) and do not create unsafe swimming conditions. They however were too expensive and felt due to their size, they would not be visually accepted so were dropped.
- 4.2.4. The consultant then took the islands near shore, closer than the existing islands. They found not all the wave energy was dissipated by the islands, but the big beach these structures would hold would protect the town. These islands were just about affordable within the budget. However, the islands would produce unsafe swimming conditions

- 4.2.5. The consultant then looked at four intermediate islands, including two at East Beach a bit closer to the beach to protect from Easterly events. These were found to be effective with the beach in reducing flood risk to Sidmouth. However, 4 islands across the whole frontage along with the other required items sits outside the projects funding eligibility.
- 4.2.6. The consultant then looked at reverting to the 120m long groyne at East Beach, but keeping one or two islands on Town Beach and found this to be affordable.
- 4.2.7. The initial calculations indicate that the splash wall raising could be delayed or omitted, however as a full model run has not been undertaken.

4.3. Alternative option's cost

- 4.3.1. A two island solution is costed at around £14.7m.
- 4.3.2. A single island solution is costed at around £12.1m.
- 4.3.3. The above two figures are likely to vary in the detailed design stage, as a change in island size (and splash wall size) would affect the construction costing.

4.4. Alternative Options Benefits

- 4.4.1. OBC is adaptable from the preferred option, and aside from some minor changes in policy (and required additional work) it should be quick to produce.
- 4.4.2. Final options can still be developed at detailed design stage, so exact length and height of splash wall raising if required, and number and size of town beach rock islands.
- 4.4.3. Option is just about affordable.
- 4.4.4. Option future proofs Sidmouth against sea level rise, allowing for the splash wall to be raised at a later date should sea level rise be worse than the current guidance allowance.
- 4.4.5. We believe the option will be as popular as the 4 island option publically consulted with at the BMP stage.
- 4.4.6. Due to the reduced splash wall raising works, this option is more likely to be successful in the planning process (compared to the preferred option), as it will have less impact on the adjacent historic buildings, and less impact on residents/visitors views of the sea.
- 4.4.7. This option is different enough from the preferred option to be a general improvement, but not so much of a different option that would force the OBC to be remodelled/rewritten to add further delay to our programme. Any further delay to our programme will likely result in big pressure to apply for separate planning permission at East Beach, which risks are explained in 5.4.
- 4.4.8. Good potential to build and hold additional beach area, similar to the beach behind the existing breakwaters. This would increase amenity space and mostly provide safer swimming conditions.
- 4.4.9. Although the physical impact within the designated site is the same as (A) the preferred option, its other long term impacts are less frequent, as due to the rock island(s) on town beach, less beach material will need to be recycled/recharged meaning fewer heavy plant movements on East Beach, risking damaging the designated site.

4.5. Alternative Option negatives

- 4.5.1. Not been fully consulted on with the public.
- 4.5.2. Adding a further island or two will affect the visual look out from Sidmouth
- 4.5.3. Option still is an environmental compromise at East Beach with a manmade structure being introduced to a developed section of coastline (which is designated and part of the Jurassic Coast World Heritage Site).
- 4.5.4. The existing islands are a health and safety issue with people getting on to them, and occasionally being stuck by the incoming tide. Further islands will add to this risk.

- 4.5.5. The existing islands under certain wind and wave directions can make swimming conditions dangerous with large rip currents forming, dragging swimmers out to sea. Further islands will add to this risk.
- 4.5.6. In principle the Environment Agency (Locally) are supportive of this approach, however the guidance states that you should pursue the cheapest option that delivers the same benefits, so to counter this we need to build a strong case to highlight the risk not getting planning for (A) the preferred option, and the unsustainable beach recharge/recycling of (A) the preferred option.

5. (C) No decision at this time (Further study and/or fundraising)

Six months was an ambitious target to develop a new idea, but given more time and resources, another idea could be developed delaying the scheme further.

5.1. Further study (likely) scheme elements

- 5.1.1. It is envisaged some beach recharge for both town beach and East Beach will be required.
- 5.1.2. It is anticipated that the scheme would look to have a complete off shore solution with an offshore solution at East Beach as well as town beach.
- 5.1.3. It is anticipated the scheme would seek to reduce any wall raising.

5.2. Further study development

- 5.2.1. This is likely to follow on from existing ideas which have been dismissed, looking at them again with alternative technology or materials, or perhaps seeking to find additional funding to make an idea affordable.
- 5.2.2. Through both the public consultation and pause process the most popular design would be a largely off shore solution.
- 5.2.3. We would need to reappoint our consultant on a new commission or tender for a new consultant.

5.3. Further study (likely) scheme cost.

- 5.3.1. Given the drive to deliver something that appeals to as many people as possible, the proposal is likely to be well over the current funding eligibility. Therefore further contributions will likely be required to achieve a more expensive scheme.
- 5.3.2. In the short term we would need to find additional money to fund additional study.

5.4. Separate Planning Permission process and risks.

If the project is delayed further, we will face increased pressure to apply for separate planning permission to install rock revetment at East Beach. The following section outlines this process and the risks the council faces.

5.4.1. Planning applications

There has been two previous applications outlined below. Both were withdrawn. The last application was withdrawn after it was recommended to Development Management Committee for refusal for the reasons outlined in the appendices.

11/0904/FUL | Construction of 240m long rock revetment to provide coastal protection
[11/0904/FUL | Construction of 240m long rock revetment to provide coastal protection | Base Of Cliff To East Of Pennington Point Sidmouth \(eastdevon.gov.uk\)](#)

5.4.2. Previous 'Emergency Works' completed in early 2000s.

It is believed, that following a cliff fall, there was a call to do emergency works in 2003. It is understood that the Environment Agency was approached for funding, however none was granted. It is understood funding was found from an alternate source within central Government.

Approximately 100 tonnes of rock armour was placed at Pennington Point in front of the original timber beach access steps.

It is perceived that the rock armour placement has slowed the rate of erosion locally at Pennington Point, however there is insufficient study to prove or disprove this, although the indication is that the rate has slowed, but it is unclear if this is due to the rock armour, or Pennington Point being better protected from South Westerlies as it retreats behind the lee of the Ham and river training wall. There is also not sufficient study to ascertain if the placing of the rock armour has increased erosion rates on the soft rock eastwards of it. This process is known as terminal erosion.

The rock armour has been placed without planning permission. It is unclear if it was required at the time (either in advance or retrospectively.) The rock armour has now been in place for a sufficient period to now not need planning permission.

5.4.3. Risking activating section 172

This is a procedure by which issues affecting the WHS can be referred to government and UNESCO comes from paragraph 172 of the Operational Guidelines for the Implementation of the World Heritage Convention; "172. The World Heritage Committee invites the States Parties to the Convention to inform the Committee, through the Secretariat, of their intention to undertake or to authorize in an area protected under the Convention major restorations or new constructions which may affect the Outstanding Universal Value of the property. Notice should be given as soon as possible (for instance, before drafting basic documents for specific projects) and before making any decisions that would be difficult to reverse, so that the Committee may assist in seeking appropriate solutions to ensure that the Outstanding Universal Value of the property is fully preserved."

Should we proceed with an intent to install rock revetment, it is likely we will trigger section 172, therefore the planning process will be under scrutiny from both Government and UNESCO before an application is submitted. This will potentially delay any application, or make it not advisable.

5.4.4. Financial cost of the planning application

We have an estimate for a straightforward planning application of £30k including all likely permitting costs. However, should the planning application not be straightforward this cost could increase significantly.

We can afford this budget within the current BMP budget, however it is removing overall funding from the long term project. A separate planning application is essentially abortive money if it is successful or not (in light of the long term scheme) however short term, should it be successful, and it will help slow the rate of erosion.

- 5.4.5. Budget for funding construction of any separate option
Currently there is no budget available to build any significant rock revetment. EDDC will have used up the majority of its funding in developing the BMP and OBC to the current stage. Therefore, money to fund it would either need to be funded by other local contributors, or be at an advance from central government funding. This advance would be at risk to EDDC. Should the BMP's OBC never be approved, this money will not be available.
- 5.4.6. Cost of construction of any separate option
This could be minimal or up to a maximum of £1m given the rock proposed for the current long term solution at East Beach is valued to a similar amount.
The last planning proposal was costed at over £1m in 2011, however this would be more rock than is currently proposed for the long term plan at East Beach, and so it would require any additional rock to be removed from site at further cost. Therefore, it would seem best to cap the amount of rock volume as the same as is proposed for East Beach.
- 5.4.7. Timeline for a separate planning application
Although we have readied a consultant to undertake the work, they will require a sufficient lead in time to put resources to the job. Given this, along with a likely non-straight forward application, we anticipate due to planning work pressures at least 9 months before an application could be determined, so around late July 2022,
Once a funding source for the construction is agreed upon, if the application is successful it would be difficult but possible to procure a contractor ready to start works for autumn 2022, if not spring 2023.
It is also worth noting, that expediting work on any separate option will slow progress on the BMP, as resource will be diverted towards the separate option.
- 5.4.8. Temporary Planning Permission may not be possible:
Although other locations both in and out of East Devon have achieved temporary planning permission, due to the scale proposed, this proposal may not be able to be classed as temporary, even if it has a fixed removal strategy and/or date. The guidance on temporary consents is to test if the application would be acceptable permanently or not. Making the application temporary or permanent would not affect its suitability for approval or not.
- 5.4.9. Major risks to the council with undertaking separate planning permission application
- 5.4.9.1. Current advice from the statutory consultees of the designated area is that a separate rock armour installation would not be acceptable and they would likely recommend refusal at the planning stage.
- 5.4.9.2. We currently enjoy a good working relationship with the statutory consultees. Going against their advice will sour this relationship and could jeopardise the main scheme.
- 5.4.9.3. Should it be decided that the planning proposal is refused, then the installation cannot occur, unless it is appealed. This will cost further funds and time. Note EDDC cannot appeal against its own decision, so the application would need to be from someone else should there be any intention to appeal.
- 5.4.9.4. Should it be decided that the planning proposal is approved, then the statutory consultees could choose to appeal the decision and call it in to the secretary of state. The secretary of state could overrule the planning approval and the installation of rock armour would not be able to occur. Should the secretary of state uphold the decision the statutory bodies could raise this with UNESCO, with the worst case scenario, the whole or part of the Jurassic Coast World Heritage Site losing its status, not too dissimilar to Liverpool losing its status. [Liverpool stripped of Unesco World Heritage status - BBC News](#) Potentially this could be a major blow for the region's economy.

- 5.4.9.5. Risk is also to residents of cliff road is that physical inaction is further reducing the life expectancy of their property. Also long term, physical inaction will leave Sidmouth open to flooding from South East Storms as the natural protection of Pennington point
- 5.4.9.6. There is also reputational risk with both a planning process potentially against statutory consultees, but also through inaction.
- 5.4.9.7. There is a risk of wasting public funds during the planning process should it be prolonged, with (public) officers representing various bodies requiring to work extensively on the application and any future appeals.

5.5. Further study benefits

- 5.5.1. Potential to achieve a scheme which keeps more parties happy.
- 5.5.2. Further time on research may uncover other options not yet discussed.
- 5.5.3. Potential to install near shore wave buoys to improve data collection for future modelling
- 5.5.4. Inaction may result in a large storm event occurring in the meantime leading to flooding within Sidmouth Town. This may change public opinion to be less against the raising of the splash wall.

5.6. Further study negatives

- 5.6.1. If the project is delayed further, we will face increased pressure to apply for separate planning permission to install rock revetment at East Beach.
- 5.6.2. Separate planning application will require resource to push through, which removes resource from delivering the BMP, further delaying it.
- 5.6.3. Unless further funding is found, there may not ultimately be a better option than (A) the preferred option or (B) the alternative option.
- 5.6.4. Project will remain without a direction, and further delay any implementation of a permanent scheme.
- 5.6.5. The funding from DEFRA, via the Environment Agency is part of a 6 year programme budget, which may not be available in the future. See 9.2.

6. Environmental and Designations Consideration

It is important to highlight the environmental sensitivities as they need to be at the forefront of any decision being made for all options.

6.1. Designations and relevant legislation.

East Beach sits within the multiple designations, and remit of bodies overseeing the designation and implementation of regulations. It is worth noting the date of the designations and acts when comparing any potential future works against prior applications or emergency installations.

- 6.1.1. Marine and Coastal Access Act 2009, which created the foundation of the MMO (Marine Management Organisation) on 1st April 2010.
- 6.1.2. Jurassic Coast World Heritage Site (December 2001.) World Heritage Sites are an International Designations [Jurassic Coast World Heritage Site](#)

- 6.1.3. The cliffs make up an area off the Sidmouth to West Bay SAC (Special Area of Conservation) (1st April 2005) SAC's are a European Designation.
<https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=UK0019864&SiteName=&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCArea=>
- 6.1.4. Sidmouth to Beer Coast was designated a SSSI (Site of Special Scientific Interest) on 9th August 1985) SSSI's are a National Designation. [SSSI detail \(naturalengland.org.uk\)](https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=UK0019864&SiteName=&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCArea=)
- 6.1.5. East Cliff sits within the East Devon Area of Outstanding Natural Beauty which was established in 1963.
- 6.1.6. The regulations concerning designated areas were further strengthened as part of the 'Conservation of Habitats and Species Regulations 2017'

6.2. Extent of the Designations.

Due to the rate of erosion, parts of the beach now fall outside the area of designations as shown on the map below, however they remain within the Impact Risk Zone so require statutory consultation. Note that the mapping is indicative and will be updated over time, so part of the cliffs being outside the current area cannot be argued that that the designations do not apply.



6.3. Further environmental and designation information

Further information detailing the importance to each designation and the World Heritage site can be found in here: [Sidmouth Alternative Option Environmental Considerations](#)

7. 120m long groyne at East Beach

The inclusion of rock island(s) at Town beach in (b) the alternative option, will allay many people's fears for a raised splash wall, however the 120m long groyne remains unpopular, but we believe it to be the best solution at East Beach.

- 7.1. The 120m long groyne and associated beach recharge is affordable. It is not as cheap as rock revetment along the base of the cliff, but is cheaper than multiple rock islands.
- 7.2. The 120m long groyne is a compromise solution accepted in principle by Natural England and Jurassic Coast Team. The cheaper rock revetment is not acceptable. Off shore rock islands have not been explored for acceptance, but likely to be more acceptable due to potential less effect on the site.
- 7.3. A 120m long groyne is has the following coastal process benefits over other structures.

- 7.3.1. A 120m long groyne provides an area for beach material to accumulate, so that when needed it can be moved back to town beach.
 - 7.3.2. Rock islands may not keep as much beach material on East Beach, so less to recharge town beach.
 - 7.3.3. If (B) the alternative option is selected, having two new rock islands at Town Beach will reduce the frequency of recycling required, so less excavator and dumper movements on East Beach over the schemes lifetime.
 - 7.3.4. To build a high beach at East Beach, rock islands would be close to the cliffs, and it may lead to strong tombolas being formed, which could create a beach that would look very unnatural.
 - 7.3.5. If the current two proposed rock islands were built on East Beach instead (to keep the financial element viable) we would need to recharge town beach regularly, which will mean excavators and dumpers on East Beach more often.
 - 7.3.6. An East Beach rock island may cause a tombola to build up near the mouth of the Sid, which may lead to it being blocked more often, possibly not breaking through during a flood event.
 - 7.3.7. Breakwaters at East Beach, will build a beach in places, but take it in others. The islands proposed for town beach are spaced with the existing groynes, which will keep the beach in place where no tombola is being formed. If we put rock islands at East Beach, we may need small groynes between them to reduce the rate of erosion away from the tomobolas.
- 7.4. We accept there are still issues with the 120m long groyne that need mitigating. These are, but not limited the visual change in looking east from Sidmouth, and potentially trapping beach walkers on the wrong side during an incoming tide.
 - 7.5. Looking to change the 120m groyne at this stage, will likely push us into a delay and the choice defaults to (C) further study, with all the risk that entails.

8. Ongoing Maintenance costs:

- 8.1. It is important to note that any scheme going forward will have ongoing maintenance costs, and these will need to be largely borne by EDDC, so minimising these as much as possible by a better upfront solution.
- 8.2. There are four major types of maintenance required by all options**
- 8.2.1. Beach recycling. This involves moving via a digger and dumper beach material from a location where there is too much, to a location where it is too low.
 - 8.2.2. Beach recharge. This involves bringing in new beach material from outside the sediment cell of the beach. Depending on quantities, this would either be delivered by road, or by sea.
 - 8.2.3. Flood gate maintenance. As a moving metal element in the marine environment, they require regular maintenance and replacing over the course of the scheme. Clearly the more gates, the more maintenance.
 - 8.2.4. General maintenance. Although both rock armour and any concrete wall structure should last over the 100 year scheme duration, minor repairs will likely be required.
- 8.3. (A) The preferred option has a discounted future maintenance cost of £3.6m over the next 100 years, and is made up of a beach recycle at £30k every 4 years and a beach recharge of £800k every 10 years. It is also made up of flood gate replacement and maintenance.
 - 8.4. (B) the alternative option currently does not have any amended figures of maintenance, but it is felt to be a lot less than (A) the preferred option. This is because any additional island(s) will more than likely hold and maintain a larger beach in their lee, much like the existing two rock islands. Therefore, less beach will be lost to the east (needing to be

recycled back to the west) and less beach material will be lost out the sediment cell requiring recharge.

- 8.5. (C) No decision will just delay the implementation of the project and the maintenance period. Should this end up in a 4 island solution, with two rock islands at East Beach, we believe recharge costs may increase compared to (B) the alternative option, as the rock islands won't provide as good a structure as the 120m long groyne to reduce beach loss out the sediment cell.

9. Further BMP Risks not already identified.

- 9.1. Inaction means further loss of (land) property for cliff road, and reduction in property lifespan.
- 9.2. The project is highlighted in the national top 5 of FDGIA funded projects at risk of major programme and therefore funding slippage. Should the project be delayed further, the funding period will have passed, and unless further funding is announced, the project could risk needing to wait until the next funding programme. This value changes through each six year funding period, and it is not known how much programme funding will be available in the next funding period.
- 9.3. Due to the above, there are already conversations being undertaken to see if it is possible to expedite the construction of the East Beach works, and thus spend the funding, with the Town Beach element of the scheme to follow at a later date. Option 3 will mean that this is not an option and an opportunity missed.

10. Conclusion

Clearly the Sidmouth and East Beach BMP is an important and emotive issue that will affect the future of Sidmouth.

- 10.1. Given the three options on the table, we believe perusing with (B) the alternative option is the best way forward for the following reasons:
- 10.1.1. Removes the need for a complete 1m high splash wall along the esplanade, which would struggle through the planning process, and is unpopular.
- 10.1.2. Reduce ongoing maintenance costs to EDDC, by reducing future recycling and recharge costs of the beach.
- 10.1.3. Does not add any further delay to the project compared to (C) no decision.
- 10.1.4. Potential to expedite works at East Beach to suit Environment Agency spending profile.
- 10.1.5. An environmental compromise at East Beach, which is better than rock revetment to the base of the cliffs, but is still impacting the designated area.
- 10.1.6. Future proofs Sidmouth, by having the primary town defences out at sea, the splash wall can be raised in the future when sea level rise is realised.
- 10.1.7. This option allows enough flexibility at the detailed design stage for further public engagement to look at the size, shape, alignment and finish of all structures.

Financial implications:

The financial information is contained within the report; EDDC budget contribution has been approved at £500k with project costs to date being met from this sum.

Legal implications:

The various options presented are all within the powers of the Council to agree. Specific legal advice on the project and its various aspects will be given as and when required. There are no other legal implications requiring comment.

Appendices:

RECOMMENDATION

REFUSE for the following reasons:

1. The proposed development by reason of its size, appearance and function would devalue the designated environment recognised as a World Heritage Site, through a change to the natural processes that take place and the resulting obscuring of the features through both the physical structure and a build up of additional sediment. The application is therefore contrary to Guidance in PPS1 (Delivering Sustainable Development), PPS 9 (Biological and Geological Conservation), and Circular 07/09 (World Heritage Sites), as well as Policies C09 (Biodiversity and Earth Science Diversity) and C05 (Coastal Preservation Areas) of the Devon Structure Plan.
2. Insufficient information has been submitted to allow the Local Planning Authority as the competent Authority to make an Appropriate Assessment of the impact of the proposed development. As such and in light of a lack of detailed evidence to the contrary it is considered that the proposed development by reason of potential harm through hydrodynamics, sediment transport, rates of erosion and the location for this, previous and current modes of cliff failure, and the impact on the existing rock platform (all in isolation and in combination) have the potential to significantly harm an area of protected environment

designated as a Site of Special Scientific Interest and a candidate Special Area of Conservation. The proposed development is therefore considered to be contrary to guidance contained in PPS 1 (Delivering Sustainable Development), and PPS 9 (Biological and Geological Conservation) and Policies C09 (Biodiversity and Earth Science Diversity), and C010 (Protection of Nature Conservation Sites and Species) of the adopted Devon Structure Plan and Policy EN4 (Nationally Important Sites - Including sites of Special Scientific Interest) of the East Devon Local Plan.

3. The proposed development by reason of the size and appearance of an artificial and alien addition along the base of internationally recognised cliffs and a natural area of East Devon including the adjacent East Devon Area of Outstanding Natural Beauty, harms the natural beauty and intrinsic quality of the environment. The proposed development is considered contrary to guidance contained in PPS 1 (Delivering Sustainable Development), PPS 7 (Sustainable development in Rural Areas) and the draft National Planning Policy Framework, Policies C01 (Landscape Character and Local Distinctiveness), C03 (Areas of Outstanding Natural Beauty) and C05 (Coastal Preservation Areas) of the Devon Structure Plan and Policy EN1 (Development Affecting Areas of Outstanding Natural Beauty) of the adopted East Devon Local Plan.
4. The proposed development by reason of its function contradicts advice set out in the adopted Shoreline Management Plan for the area which recognises an area of Managed Realignment between the Sidmouth (hold the line) approach and the no intervention to the east. By reason of the length and permanency of the structure the aims and objectives of the agreed approach would not be achieved. The proposed development is therefore considered contrary to government advice contained in PPS 25 Supplement (Development and Coastal Change).