

Report to: Cabinet



Date of Meeting 31 March 2021

Document classification: Part A Public Document

Exemption applied: None

Review date for release N/A

Sidmouth and East Beach BMP – Option to pause the revised preferred (Working Draft) option Outline Business Case (OBC) and reconsider alternative options.

Report summary:

Following further funding eligibility for the Sidmouth and East Beach BMP, there is a decision to be made on whether to continue with the preferred (working draft) option and submitting the OBC to the Environment Agency soon to enable the project to start construction within 2 years, or to pause the project and revisit previous options in the BMP dismissed on unaffordability grounds when first proposed. Section 1-6 outlines the background, changes and arguments for and against the various options.

Should a pause be chosen, the report in section 7-11 details how a temporary solution of rock armour placed at the base of East Beach cliffs could be investigated and implemented.

Financial risks for both are detailed in section 12.

Is the proposed decision in accordance with:

Budget Yes No

Policy Framework Yes No

Recommendation:

That Cabinet;

1. consider and resolve to either:
 - Continue with the Preferred (Working Draft) option (S1) meaning construction should start within two years (Option A), or
 - Pause the project for 6 Months to look at viability of other previously dismissed options, given they may now be affordable (Option B).
2. Cabinet approve the investigation of temporary planning permission and installation of rock armour at East Beach if Option B is chosen.

Cabinet recommend to Council;

3. that the EDDC budget contribution be raised from £375k to £500k (£125k increase) to match the figure discussed throughout the BMP process (as outlined in section 11.10).
4. the approval of a further £125k 'forward loan' budget should it be required (see section 11.11).

Reason for recommendation:

The Advisory Group were polled on the following:

1. Pause the project to explore other options, which will include investigating and delivering as appropriate temporary protection for East Beach should the delay in delivering protection at East Beach pass the current 2 year time scale envisaged.
2. Continue with Option A, the revised preferred option proposal

The poll outcome was as follows

1. 12 votes for investigating alternative options due to greater affordability.
2. 3 Votes for continuing with option A.

Abstain 1 Vote

Officer: Tom Buxton-Smith tbuxton-smith@eastdevon.gov.uk 01395 571630

Portfolio(s) (check which apply):

- Climate Action and Emergencies
- Coast, Country and Environment
- Council and Corporate Co-ordination
- Culture, Tourism, Leisure and Sport
- Democracy and Transparency
- Economy and Assets
- Finance
- Strategic Planning
- Sustainable Homes and Communities

Equalities impact Low Impact

Climate change High Impact

Risk: High Risk; There is both political and financial risk to EDDC on either continuing or pausing the project.

Links to background information

- [Link to Sidmouth & East Beach BMP Options appraisal report](#)
- [Sidmouth Pennington Point Short Term Works report](#) (Note: Report is dated 07/07/20 and reflects the situation at that time. Potential dates and scope of work not updated)

Link to [Council Plan](#):

Priorities (check which apply)

- Outstanding Place and Environment
- Outstanding Homes and Communities
- Outstanding Economic Growth, Productivity, and Prosperity
- Outstanding Council and Council Services

Report in full

1. Background

- 1.1. Sidmouth and East Beach BMP (Beach Management Plan) was adopted in 2017, following many years of work focussing on the concerns of erosion to East Beach and the threat to residential property from erosion, but also increased storm flood risk to Sidmouth Town by being more exposed to the East. The scope was further widened to include storm flood protection to Sidmouth town from the Esplanade.
- 1.2. The original BMP document was produced by Halcrow, and outlined 4 technically viable options which were consulted both with the then Steering Group (now Advisory Group) and general public, through public consultations. Although option S4 <https://eastdevon.gov.uk/media/2000429/appendix-g-short-list-options-illustrations.pdf> was generally the most popular, Option S1 was chosen due to the then financial constraints on the project. This option was financially, technically and environmentally considered the best way forward to meet the aims of the project and protect Sidmouth from future coastal flooding and reduce the rate of erosion.
- 1.3. The BMP was agreed, and then development of Option S1 into an Outline Business Case (An OBC is a business case needed for submission to the Environment Agency for approval of a scheme and Government funding) to create a Beach Management Scheme (BMS) was taken forward and awarded to Royal HaskoningDHV. Their contracted scope was to work on the S1 Option (only)
- 1.4. On doing further detailed modelling, it was discovered that option S1 alone would not protect Sidmouth enough from coastal flooding, and therefore there would not be sufficient funding eligibility.
- 1.5. A raised splash wall was added to the option S1 design, however this has proved to be unpopular with certain groups and individuals. The previous preferred (working draft) option outline design can be found here: [Draft Outline Design Drawings \(not for planning or construction\) - East Devon](#)
- 1.6. More attractive splash wall designs have been explored in response to the objections around raising the splash defence, including a fully glass option, rising defences etc.
- 1.7. Following feedback on these improved splash defence options, we were planning to submit an adaptive splash wall as part of the OBC submission. The adaptive wall could be raised when required for a storm, then lowered when the risk subsides.
- 1.8. It is worth noting that the OBC submission and approval does not commit us to construct the project as per the OBC submission. It is purely to assign funding to the project. The Scheme will pass through a detailed design stage and further public consultation. Ultimately it is the planning process that will decide what is acceptable to be built.
- 1.9. The revised preferred option, (or Working Draft Option) consists of the following elements:
 - 1.9.1. Total construction £6.485m
 - 1.9.1.1. Work at Jacobs ladder £100k
 - 1.9.1.2. Splash wall plus gates (stone clad and adaptive top up) £2.475m
 - 1.9.1.3. Town and East Beach Recharge £2.635m
 - 1.9.1.4. Supergroyne £1.004m

1.9.1.5. River training wall/ramp £270k

1.9.2. Project Appraisal Costs £221k

1.9.3. Design, consultation and Planning Costs £1.553m

1.9.4. Risk Contingency £2.141m

1.9.5. Total Project cost £10.4m

- 1.10. The preferred option from the BMP is a good scheme, and has had considerable effort put into it, so it should not be dismissed. It has been modelled to work, reducing erosion rates and flood risk to East Beach and Sidmouth respectively to help meet the [project aims](#)
- 1.11. As the BMP should reduce both erosion and coastal flood risk it is eligible to central government funding administered by the Environment Agency (FDGIA).
- 1.12. FDGIA (Flood Defence Grant in Aid) eligibility is determined by a Partnership Funding calculator (PF Calculator) which aims to assign funding eligibility equally across the whole country whilst targeting 'headline' homes protected, rather than commercial properties protected.
- 1.13. As of January 2020, the original £8.7m scheme had a project shortfall of £1.5m, despite local pledges of funding totalling £1.8m

2. Change in Economics

- 2.1. In April 2020, the new revised 2020 PF calculator was released. The new calculator allows more funding eligibility than the previous version. It has a general uplift in eligibility, but also features a new funding mechanism that takes much more account of the 'people' benefits of any proposal.
- 2.2. In May 2020, this new calculator was run, and the then funding gap of £1.5m of the £8.7m scheme cost was completely closed (using the old economics data).
- 2.3. Prior to the calculator's release we had already started trying to reduce the funding gap by claiming further benefits not already taken into account in the initial assessment. This included: inclusion of basement damages, economic losses for the New Alma bridge being lost due to erosion, and economic losses relating to cars such as lost car park income and damaged cars
- 2.4. As required by the EA, we started updating the OBC using the new PF Calculator, but also included further benefits. We also included a higher construction costs for an attractive, raised splash wall.
- 2.5. In February 2021, the revised economics came back from the consultants and a combination of a better understanding of the new calculator and the further benefits identified indicated a significant increase in funding eligibility. Inclusive of local contributions the total project eligibility/cost rose from £8.7m to an approximate £12m. As the project was £1.5m short on the original scheme, this is a total increase of up to £4.8m in funding eligibility.
- 2.6. A significant amount of the project cost is required for consultant/design fees and a healthy risk budget, however with the increased project cost funding eligibility, the

construction costs could increase to allow delivery of a better project, so long as it still protects the same number of properties to the same standard of protection.

3. Change in situation

- 3.1. The design and choice of Option S1, known as the preferred option (or Working Draft) has largely been driven by the ultimate financial limit at the time of development.
- 3.2. Despite multiple requests via the then steering group, we have not investigated alternative options to S1, as the end solution was unaffordable. Therefore it was not considered to be a good use of public money to investigate something which could never be afforded.
- 3.3. However, different end options may now be affordable, which may be of greater benefit to Sidmouth and there is an opportunity for earlier proposed options to be reconsidered. They may also be of greater benefit to EDDC, as potentially more sustainable options could be investigated, reducing ongoing maintenance costs and carbon emissions.

4. Option A Preferred (working draft) option (S1), arguments for and against

- 4.1. Arguments **for** proceeding with this option:
 - 4.1.1. Its easily affordable
 - 4.1.2. Technically viable
 - 4.1.3. Construction could begin within two years.
 - 4.1.4. Further detailed design stage to work out details such as exact splash wall heights, lengths, and appearance can still be done, including options which may include a rising barrier, glass barrier, flip up flood bench or other alternatives that lessen the impact of a permanently raised splash defence.
 - 4.1.5. Additional funding eligibility can enable other non FDGIA funds to be moved into a maintenance pot (up to £1.5m) to reassure the public that future maintenance of the beach already has funds set aside.
 - 4.1.6. Non FDGIA contributions have been pledged for the preferred (working draft) option. Potentially if contributors are not getting what they want out of a desired scheme they may retract their pledge, removing money from the project.
 - 4.1.7. The general scheme works on the principle of keeping beach material within the sediment cell. The predominant wind and wave direction at Sidmouth is South Westerly, with beach material generally moving in the same direction through longshore drift. The supergroyne aims to reduce the amount of beach material leaving the system, some sort of structure to do this may be required in any option.
- 4.2. Arguments **against** proceeding with this option
 - 4.2.1. This option requires ongoing investment to maintain beach design levels, requiring periodic beach recycling and recharge. This locks EDDC into future spending, as well as further carbon emissions associated with plant operation and new material being brought in.
 - 4.2.2. The supergroyne structure, although likely to be accepted by the statutory consultees, will change the view eastwards from Sidmouth, and of the World Heritage Coast. Although public access on East Beach is restricted, a supergroyne may cause beach safety issues with members of the public stuck on the wrong side.

- 4.2.3. The splash wall raising is controversial and any changes to the esplanade itself will likely be resisted through the planning process.
- 4.2.4. As the scheme relies on initial, and ongoing beach recharge, it is a risk that a single storm after the beach recharge could remove a significant amount of beach, and it may not come back in time for the next storm event (or be able to be mechanically brought back).

5. Option B Pausing the project and progress on the working draft option to re-visit and review alternative beach management scheme options, arguments for and against.

5.1. Arguments **for** stopping and pausing the project:

- 5.1.1. Gives an opportunity to technically investigate options dismissed previously when they were ultimately unaffordable.
- 5.1.2. The previously considered options can be viewed under background links – Options Appraisal report.
- 5.1.3. May result in a more sustainable option for Sidmouth with less ongoing maintenance costs to EDDC.
- 5.1.4. May result in a better visual solution for East Beach and the World Heritage Coast.
- 5.1.5. Opportunity for the Advisory Group members to be involved in the scoping and modelling stage, to ensure group unity and openness. This will help build bridges, as EDDC have been previously accused of closed door processes, which this seeks to avoid.
- 5.1.6. Potential to look at a temporary solution to erosion at East Beach.
- 5.1.7. Potentially a better option in terms of coastal processes for the World Heritage Site, and may remove the supergroyne from impacting the visual characteristics of a (small) part of the cliffs in a UNESCO site.

5.2. Arguments **against** stopping and pausing:

- 5.2.1. Stopping to look at other options will cause the project a minimum 6 month delay
- 5.2.2. Should after the 6 months, another option be technically feasible and fully fundable and chosen to proceed, it will likely be another 4 years before construction can begin (a 2 year delay on the current anticipated construction start time 2022/23).
- 5.2.3. Although no formal scope has been developed, we are anticipating the additional modelling work to cost around £50k. This will come from EDDC's existing £375k contribution to the scheme, which will ultimately come out of the whole project's budget.
- 5.2.4. If a new option is chosen, unless a temporary solution can be found, Pennington Point and East Beach will be subject to another 4 years of erosion, leading to further garden loss, and opening up of the River Sid to coastal storms.
- 5.2.5. Less in depth public consultation, and regulatory consultation has been done with other options, so we don't yet know how publically acceptable they would be.
- 5.2.6. Other options may prove to still be unaffordable, or not as effective as the preferred (working draft) option.
- 5.2.7. The increased funding eligibly must only be spent on an improved coastal defence scheme, and cannot be used for regeneration or non-flood risk infrastructure such as a jetty.

6. Background behind the option to investigate temporary works at Pennington Point and East Beach

- 6.1. Should Cabinet agree to pause the project, this will set up a minimum delay of 6 months, with any new options selected over the working draft leading to 4 years before construction could begin (2 year delay). Clearly this is not acceptable for residents of Cliff Road, who are deeply concerned about their garden loss due to erosion, and further encroachment towards their property. There is also concern about the mouth of the Sid further widening, allowing storms to hit the river wall.
- 6.2. There have been calls for emergency works, and/or long term rock armour to be placed at the base of East Beach cliffs.
- 6.3. The works do not qualify for Emergency funding as no property or infrastructure is at immediate risk.
- 6.4. Permanent rock armour at the base of the cliffs is unacceptable within the heavily designated site. The area is a World Heritage Site, Special Area of Conservation, and a Site of Special Scientific Interest. It is unlikely a permanent structure would gain planning permission. Through the EA's assurance process, it is likely the project will fail to proceed on environmental grounds, therefore there won't be any FDGIA funding for a permanent rock armour solution.
- 6.5. Previously as funding was so tight, any form of temporary rock armour was dismissed on cost grounds, as the permanent BMP option was only about 2 years away from being constructed.
- 6.6. A temporary rock armour solution would involve placing rock armour in front of the cliffs. Once the BMP enters construction, these rocks will be recycled into the new structure to protect East Beach.
- 6.7. There have been three attempts at human intervention to reduce erosion at Pennington Point:
 - 6.7.1. 2003 – Rock was installed at Pennington point
 - 6.7.2. 2003 – Application for rock armour – Withdrawn
 - 6.7.3. 2011- Application for 240m of rock revetment – Withdrawn
- 6.8. A draft document 'Sidmouth Pennington Point Short Term Rock Armour improvements' was produced on 07/07/2020, in response to the call to double the size of the existing rock armour at Pennington point. It has been included within the appendices as it outlines the risks and costs further, however it only proposed 100 tonnes of rock to be placed, which is significantly less than amount required for a temporary solution.
- 6.9. The [webpage link](#) from our scheme FAQs shows why a permanent rock revetment is felt not to be possible, but why a temporary revetment might be possible. It includes a link to a position statement that compares the temporary rock revetment at Branscombe.

7. Change in situation

- 7.1. We understand that a temporary option may be possible within such a heavily designated site for the following reasons:
 - 7.1.1. The work is not permanent and won't leave a permanent mark on the designated site
 - 7.1.2. There is precedent for similar interventions with temporary planning permission around the Devon Coast, as well as within East Devon.
 - 7.1.3. The approach is in keeping with the latest 'adaptive pathways' strategy from the Environment Agency.

- 7.1.4. Relies on having a set exit strategy. This being the implementation of the BMP, so the rock will be moved off the cliffs into a new structure for the permanent solution. Also a fixed time permission should the BMP face further delays.
- 7.2. Early consultation with the statutory bodies who oversee the designated sites indicated that they would not accept a temporary solution if the end solution (preferred option) was delivered within 2 years, however a further 2 year delay may mean the temporary solution is acceptable pending further consultation.
- 7.3. Should the option to pause the project be taken, we would tender a contract to be ready to proceed, should Cabinet decide to go with a new option following the six month pause. This would run in parallel with the new options development. Pending planning, and further funding approval, potentially a temporary solution could be implemented on East Beach in early 2022.

8. Proposal

- 8.1. Place rock armour for up to 240m east from the River Sid.
- 8.2. The planning and consultation will cost £27k approximately.
- 8.3. The construction works will cost around £250k. A lot of this cost will transfer to the BMP's end solution, and so is not abortive cost or money lost from the final option.



9. Arguments for investigating temporary rock revetment

- 9.1. It is assumed that all of the rock armour placed in front of the cliffs can be reused within the permanent structure delivered by the BMP, so aside from additional handling costs, the cost of the rock will be absorbed by the completed BMP.
- 9.2. In the short term, it will slow down erosion rates, meaning the cliff edge will be kept away from residents' houses for longer.

- 9.3. In the short term, it will slow down erosion rates, so that the mouth of the River Sid remains better protected from South Easterly storms, meaning a reduction in flood risk to Sidmouth Town.
- 9.4. Removes pressure to deliver the BMP quickly, which will allow time to further assess other options and allow further post pandemic public consultation.

10. Arguments **against** investigating temporary rock revetment

- 10.1. We anticipate the required consultancy work to get the proposal through planning will cost in the region of £27k. This is currently unfunded, so further funding from EDDC would be required. This will come out of the EDDC contribution towards the main scheme, and reduces the overall project budget, meaning future requests to Cabinet for more EDDC budget may be required ahead of getting any FDGIA money.
- 10.2. Much of the work required for the temporary planning will not be able to be reused for the planning for the BMP's construction.
- 10.3. It is possible that temporary planning permission will not be granted.
- 10.4. The rock armour will be unsightly, and will be the first thing residents/visitors see of the World Heritage site when looking east from the Esplanade.
- 10.5. The World Heritage Coast in this area is untouched by human intervention directly, and placing rock armour in front of the cliffs could be argued to be desecrating a pristine site with many important designations (all be it temporarily).
- 10.6. We risk damaging our working relationship with the statutory consultees, and the World Heritage Coast for the future BMP project.
- 10.7. Would likely lead to increased erosion immediately east of the end of the rock armour (terminal erosion), as any structure can.
- 10.8. We would need permission of the landowners on which the rock sits. This is thought to be EDDC, National Trust, Crown, and potentially some of the adjacent residential properties.
- 10.9. The construction works will exceed the (total) £375k contribution to the BMP by EDDC. Therefore further funds would need to be found (see 11.11).

11. Financial Risks

- 11.1. Currently the BMP project has an assigned budget from EDDC of £375k.
- 11.2. Total spend to date on the whole BMP project is £264k, therefore there is £111k left within the EDDC BMP budget.
- 11.3. Option A (Proceed with revised 'preferred' working draft option) will require a further spend of £15k to finish the revised OBC and submit, to unlock further funding (FDGIA).
- 11.4. Option B (Pause and investigate) will require a further spend of £50k to £70k to look at the viable options. Should one of these options be chosen to proceed with, it will cost up to an additional £50k to update the OBC.
- 11.5. Design and Planning permission for a temporary option will cost approximately £30k.
- 11.6. Construction cost of temporary rock armour is anticipated to be in the region of £250k, however much of this cost will be absorbed by the future project, as the rock will be recycled.
- 11.7. Although the current options available, of Option A or B and/or design/planning permission for temporary rock armour are affordable within budget, completing a new OBC for Option B (if taken forward) and any construction works for a temporary rock armour solution would be unaffordable until FDGIA funding is released or EDDC assign further budget to the project to 'loan forward' the money (see 11.11).
- 11.8. Generally FDGIA funding is unlocked when the OBC is approved. Other contributors may be uneasy on contributing without the OBC signed off.

- 11.9. Therefore further EDDC funding may be required to implement the temporary solution prior to an OBC sign off.
- 11.10. It had been widely assumed that the total BMP budget (or contribution from EDDC) was £500k. The £500k contribution figure has been matched by two other local funding sources. We understand the £500k figure was an expectation, but has not yet been committed by EDDC. As per recommendation 3, we recommend that the EDDC Budget, (or project contribution) is raised by an additional £125k to bring the total committed budget from £375k to £500k. This recommendation stands for which ever option is chosen (To continue with A or B) The £500k value would then match the figure that EDDC has publically pledged as its BMP contribution.
- 11.11. Should the project budget be increased as per 11.10, and should Option B, be chosen, and temporary rock armour be approved, there is unlikely to be sufficient budget to build a temporary rock armour solution. We envisage a sensible rock armour option to cost approximately £250k, of which we would only have £125k funded (once the total EDDC contribution is increased to £500k). Therefore EDDC would need to find an additional £125k. It is envisaged that this could be loaned forward from the main BMP scheme. (EDDC fund the additional £125k up front and have it 'refunded' once the BMP is approved.) This is because the rock could then be reused on the BMP. There is a financial risk that the BMP is not approved. There is also potential that other partners could put some of their BMP contribution toward the temporary solution, however no partners have yet been approached and it can't be counted on, due to each partners requirements on how they spend their own money.

12. Recommendation:

- 12.1. During the meeting of the Advisory Group on 25th February 2021, the Group were polled on the following:
- 12.1.1. Pause the project to explore other options, which will include investigating and delivering as appropriate temporary protection for East Beach should the pause delay delivering protection at East Beach past the current 2 year time scale envisaged. This, Option B, received 12 votes.
 - 12.1.2. Continue with Option A, the revised preferred option proposal. This option received 3 votes.
 - 12.1.3. 1 member abstained.
- 12.2. Officers are asking Cabinet to consider the steer given by the advisory group to make a decision whether to proceed with the preferred 'working draft' (Option A) or pause the project and look at viability of other options (Option B).
- 12.3. Cabinet should be fully aware that Option A results in no delay, and construction could begin within 2 years. Option B) will cause a 6 month delay, and should a new option be chosen, a further 2 year delay, meaning construction could begin within 4 years.
- 12.4. Although temporary planning permission is possible, it is by no means certain, and although a rock revetment will slow erosion down in the short term, it's not the most efficient use of money.
- 12.5. Cabinet should be aware that although pausing the project at this stage won't cost EDDC additional money beyond its committed budget, should a new option be chosen, and temporary planning permission be granted, there will not be enough funds to complete the new OBC and construct the temporary works without additional budget being found.
-

Financial implications:

Financial implications are detailed within the report with recommendation for an increase to budget funded by the council with any revenue budget implication needing to be factored into the budget. As detailed within the financial risks the forward funding of the additional £125k has particular financial risk if the BMP is not approved, should it be required.

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.