

Report to: Cabinet



Date of Meeting 29th November 2023

Document classification: Part A Public Document

Exemption applied: None

Review date for release N/A

Exmouth Sea Wall Emergency Repairs Budget

Report summary:

Report to outline emergency repairs to Exmouth Seawall, highlight ongoing risks and seek authority for the council to spend up to £1.1m to carry out an emergency repair which could also act as the permanent solution

Is the proposed decision in accordance with:

Budget Yes No

Policy Framework Yes No

Recommendation:

1. That cabinet approves the carrying out of emergency (and potentially permanent) repairs to Exmouth seafront and grants delegated authority to the Director of Housing Health and Environment in respect of the project, in consultation with the Director of Finance and the Director of Governance and Licensing.
2. That cabinet recommends to council that the sum of up to £1.1m is allocated to the project to carry out emergency works to Exmouth Seafront; such works may also act as the permanent solution. It is noted that external contributions may be received which may reduce the spend.
3. Given the emergency nature of the works, Cabinet notes the exemption to contract standing orders in respect of the consultancy spend for the sum of £60,000 has been approved by S151 Officer and Monitoring Officer as provided for in the Constitution.
4. Cabinet approves the exemption to contract standing orders in the sum of £1.1m in respect of the awarding of the contract in respect of the construction works for repairs to the sea wall

Reason for recommendation:

Given the location of the failed and failing wall, it is not an option to do nothing and allow the sea to erode the seafront further. Therefore, the most cost effective option (option C) has been selected to proceed as it will restore the sea defence and reduce impact on public and businesses and allow options going forward for aesthetic improvements if required by planning conditions.

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Portfolio(s) (check which apply):

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

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

Equalities impact Medium Impact

Damaged wall is currently impeding a section of the long flat Exmouth seawall walk. Repairing the wall will restore this important link.

Climate change High Impact

Risk: High Risk; Works are required likely due to climate change.

Links to background information [Exemption to contract standing orders – Consultant](#)

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. In late August, EDDC engineers were made aware of cracks in the seawall in front of the Sideshore development, and appointed Moffatt and Nichol to gain all the required permissions to carry out trial holes and carry out investigations.
- 1.2. However, a storm over the weekend of 28th/29th October significantly dropped beach levels and caused the wall to crack and slump, putting the wall at serious risk of collapse.
- 1.3. Emergency works were completed in the following days to shore up the wall through the next storm, with the wall surviving. Due to limited time, the works consisted of concrete blocks placed at the base of the wall, and lots of sand being placed on the wall. This kept the wall intact.
- 1.4. Following the storm, a large void opened out in the old lifeboat slipway and required fixing to enable access to the beach.
- 1.5. Further blocks and sand are being placed prior to the next set of high tides, and this activity may need to be repeated throughout the winter.



Image 1.5. Wall damage and temporary repairs.

2. Wall history

- 2.1. We believe the wall is around 100 years old and built by the Clinton Devon Estate. We believe it originally consisted with only a vertical wall, and following periodic beach lowering, the sloped lower revetment was added. (This has not been verified and carrying out further research)
- 2.2. This section of the wall has no foundations below the sloped revetment. Other sections do have foundations.
- 2.3. EDDC has had to underpin other sections of Exmouth Seawall in the past following beach drop.
- 2.4. The wall has failed due to being undermined by beach lowering, with waves washing out sand from under the structure. This in turn has caused the structure to crack, allowing more water in and out the structure, washing out the sandy backfill from behind, causing voiding and further cracking.
- 2.5. A further storm may remove the stone, leaving the sandy backfill exposed to the waves, causing swift erosion behind, and eventually leading to all the seawall unzipping and land behind lost to the sea.
- 2.6. It is worth noting that at the time of design and construction of the Sideshore development, the sand on the beach was over 2 metres higher, giving plenty of cover to the base of the wall. It is likely any surveyor at the time would have determined that the seawall was in good condition and had sufficient protection from the sea, due to the healthy beach.
- 2.7. It is also worth noting, that this work is required even if the Sideshore development was not built. Any hole in a seawall will need to be repaired, otherwise it will cause the rest of the wall to unzip, and lead to loss of land/flooding behind.

3. Proposals

- 3.1. We have looked at all viable options, and selected option C, which is a new sheet pile wall in line with the current vertical wall.

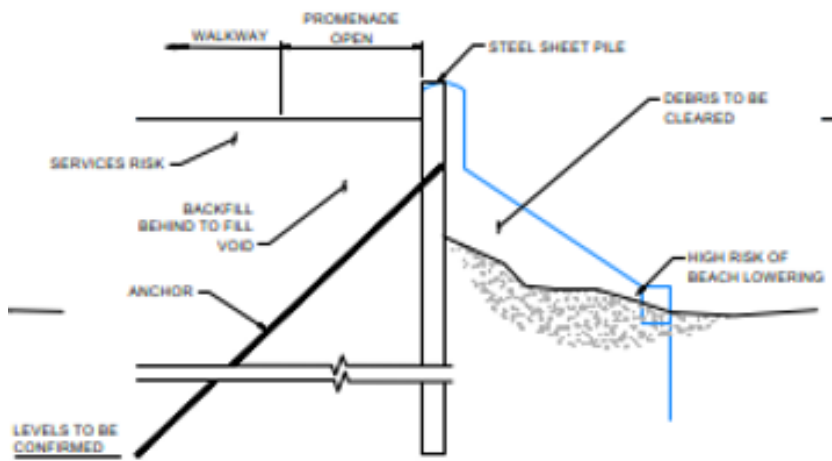


Image 3.1.1. Section of proposed Option C.

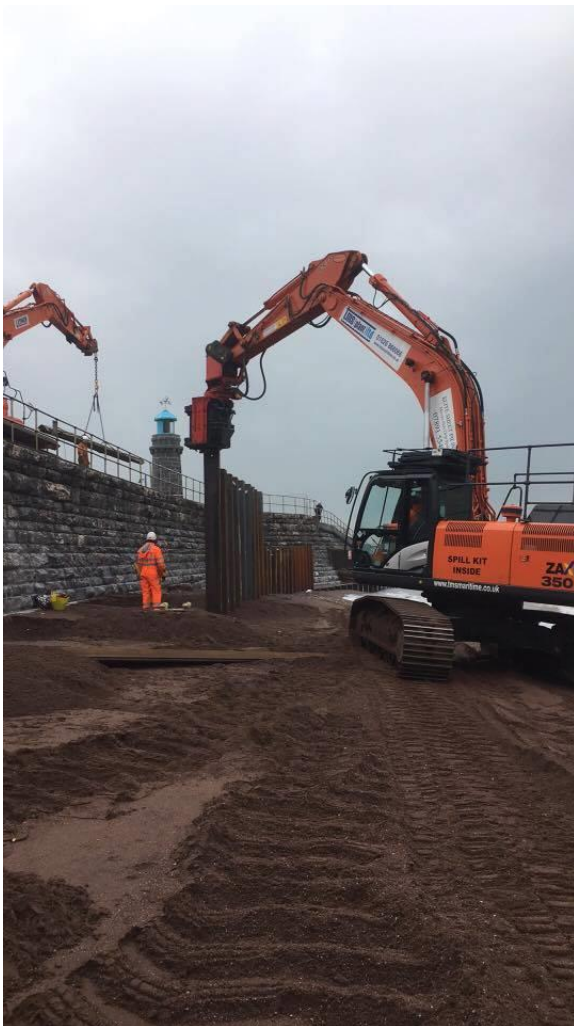


Image 3.1.2. Sheet piles being installed at Teignmouth (Photo TMS)

- 3.2. Option C involves working from land, installing a new sheet pile wall in line of the current masonry wall.
 - 3.2.1. This would become the new line of sea defence, with the remaining revetment on the seaward side of the pile needing to be removed (and possibly replaced for an aesthetic function) or where not damaged, repaired for an aesthetic function.
 - 3.2.2. Works would be done from the land, removing risk of intertidal working and winter storms.
 - 3.2.3. Works would be quicker than other options.

- 3.2.4. Works would restore the full width of the cycleway/walkway sooner than other options.
- 3.2.5. Works could involve an increase in amenity and habitat space on the beach, as the sloped revetment would be removed.
- 3.2.6. Gaining habitat space now, could offset future habitat loss caused by future sea defence works.
- 3.2.7. Works outside the existing footprint are unlikely to be accepted as the permanent solution, due to loss of habitat and amenity space, unless compensatory space can be found.

3.3. Options that have been dismissed

- 3.3.1. Regular Beach Recharge – dismissed due to ongoing costs and no certainty of defence holding.
- 3.3.2. Rock Armour – dismissed due to high cost, and loss of amenity beach space.
- 3.3.3. Sheet piling of toe, to build off replacement revetment at a later date – dismissed due to £1m cost over option C (Plus revetment rebuild cost) and impact on beach space summer 2024 before revetment can be rebuilt.

4. Extents.

- 4.1. Currently only 90m of the 255m section of wall has failed, and is not easily salvageable, requiring either a rebuild or extensive further works in the short term.



Image 4.1. Map of extents of the work.

- 4.2. Although 90m of wall requires work now, the remaining 165m wall is of the same construction and at risk of failure similar to the one experienced. Although offering a short-term saving, work to the 165m wall could be put on hold until it is undermined or damaged, however would be more expensive to carry out these repairs at a later date, and could mean less of the existing wall could be salvaged.
- 4.3. Costs on both the full and partial extent are in section 5.
- 4.4. Works to the remaining 165m of wall would include working around the 3 concessions located here. The preferred option gives a good opportunity for the

sheet pile construction to be easily extended around the building footprint, better protecting all three concessions. Any contributions to this additional protection would need to be agreed with the tenants.

5. Costs.

5.1. Costs to date are expected to be £60k, but likely to increase with more poor weather predicted.

5.2. The cost of the sheet pile wall is estimated as follows.

	90m of wall repair	Full (255m) wall repair
Contractors estimate	£398k	£898k
Additional 20% optimism bias allowance	£80k	£180k
Duration of works	5 weeks	8.5 weeks
Total 2023/24 costs	£478k	£1078k
Future sum for revetment (or cladding) if required 2024/25 costs	£0-£1198k	£0 -£2040k

6. External contributions

6.1. Our consultants have run some high-level calculations and believe there could be a maximum eligibility for external funding from the Environment Agency of sub £400k, however this could reduce by £150k due to complications around new development. It is worth noting this contribution is not guaranteed. This contribution figure is lower than other EDDC projects, due to lack of residential property behind the wall at risk of flooding/erosion.



Image 6.1. Erosion map if seawall left to fail.

6.2. In carrying out the full option c works, concessions will benefit from increased storm defence, so it would not be unreasonable to ask for these concessions to contribute. However, this contribution would likely be small in the balance of the large scheme.

7. Procurement.

- 7.1. Under emergency rationale, Moffatt and Nichols (Design Consultant) have been appointed to develop the permanent design as soon as possible. This is due to their familiarity of the site prior to the damage, and involvement to date. Standing Orders Exemption will be applied for their work.
- 7.2. To date, all construction work has been done by Kier and their subcontractor through the Environment Agency' Collaborative Delivery Framework (CDF) which EDDC is signed up to, therefore this work does not require a standing order exemption.
- 7.3. Given the emergency works are required soon we do not have time to run a normal tender process, so we are looking at an exemption to standing orders to direct award the work to TMS who have been involved since the beginning of the emergency. We are also looking if it is feasible to enter a Local Government framework that TMS is on, and appointing them under that framework to comply with standing orders and EU procurement, however due to the requirement to be on site soon. This may not be possible.
- 7.4. Cabinet is asked to approve an exemption to contract standing orders in the sum of £1.1m in respect of the contract to Teignmouth Maritime Services (TMS) to enable the emergency works to proceed given the urgent nature of the works required.
- 7.5. Cabinet is asked to note the exemption to contract standing orders in respect for the consultancy spend of £60,000 which has been approved by S151 Officer and Monitoring Officer.

8. Ongoing Risk

- 8.1. The main risk is that the wall falls completely before we start with the end solution. This will increase temporary costs, put people and infrastructure at risk and likely mean more cost for the long-term solution.
- 8.2. The current proposal will mean that for at least the 90m (and possibly full 255m depending on condition) the sloped revetment will be removed, leaving a vertical steel sheet piled wall, either indefinitely or until Autumn 2024 at the earliest (once summer season is over) A vertical steel face, is a change from the current masonry sloped revetment, and the required planning application, may require us to rebuild the revetment for aesthetics, or clad the vertical sheet piles, perhaps with recycling the current revetment stone, or another material such as timber. This would add additional cost to the project in 2024 or beyond.
- 8.3. Works are unlikely to start until January 2024 (unless Christmas break working is pursued) so there will likely further costs of temporary repairs, and disruption to the public and businesses until the works start.

9. Impact of construction

- 9.1. Marine construction requires large equipment and materials, which require a lot of space.
- 9.2. It is anticipated that the whole of the EDDC car park opposite Sideshore will be required as a site compound for the duration of the works (8.5weeks)
- 9.3. A further area will be needed to store sheet piles. The green adjacent to the car park has been suggested, or the Queens Drive Space open area has been suggested if businesses not open.
- 9.4. The frontage cycle/footway will need to be closed for the duration of the works with pedestrians and cyclists needing to use the road and adjacent pavement.

- 9.5. The green triangle adjacent to Sideshore and space seaward of the building will need to be taken up for construction workspace.
 - 9.6. There will be minimal beach works, so low impact on the beach and its use.
10. Future post emergency works
- 10.1. Due to the weather, and further delays likely for additional design, it will not be possible to restore the look of the previous wall (sloped stone revetment and vertical masonry wall) until the summer at the earliest. But likely September to avoid the tourist season.
 - 10.2. Unless the sheet piled look is deemed acceptable long term, there is likely to be a requirement or desire to make the wall more attractive, either restoring it to its previous look, or an alternative design, but more attractive. This will require a further sum of money to be agreed to fund these works.
 - 10.3. Works to make the wall more attractive will not class as emergency works and therefore will require all sufficient permits, assents, notices and permissions in place before proceeding. Works would also be tendered in line with contract standing orders.
 - 10.4. It is worth noting that the stone sloped revetment is only present for half of the 255m wall requiring work, with the western half actually being a rough concrete finish.
 - 10.5. Prior the emergency works, we will photograph and survey the 255m of wall to record what it looks like.
11. Timetable
- 11.1. Works likely to begin early January 2024 (unless Christmas working agreed) pending contractor availability. Potentially works could start mid-December if required.
 - 11.2. Works to take 8.5 weeks, so should be complete early March 2024 with public areas returned to public full public use soon after.
 - 11.3. If required, and affordable, future cladding/revetment works to start in September 2024 to miss summer season.

Financial implications:

This is a significant unexpected capital cost at £1.1m with likely grant funding to support costs of between £150k to £400k and possibly further small contributions. This cost, if approved, will be added to the Council's capital programme and to remain in Medium Term Financial Plan projection of the implication of borrowing on the General Fund then this will restrict schemes that can be approved through the annual capital bidding process unless borrowing cost assumptions are increased making the balancing of the 2024/25 and future year budget harder.

Legal implications:

There is no direct comment to be made in relation to this report, any issues will need to be considered as they arise and as the project progresses