

FAREHAM

BOROUGH COUNCIL

Report to the Executive for Decision 05 June 2017

Portfolio:	Planning & Development
Subject:	Portchester to Paulsgrove (P2P) Coastal Flood & Erosion Risk Management Scheme
Report of:	Director of Planning & Regulation
Strategy/Policy:	Portchester Castle to Emsworth Coastal Flood and Erosion Risk Management Strategy
Corporate Objective:	Protect and enhance the environment, Safe and Healthy place to live and work, leisure opportunities for health and fun.

Purpose:

To provide an overview of the outline design of the Portchester to Paulsgrove Coastal Flood and Erosion Risk Management (CFERM) Scheme.

To provide financial information on the existing Professionals Services Contract to deliver the outline design for information.

To seek Executive support for the next steps in progressing the scheme, applying for Grant in Aid funding and if successful undertaking the detailed design and construction.

Executive summary:

The Portchester to Paulsgrove CFERM scheme is located on the north shoreline of Portsmouth Harbour, stretching for 1.7km from Portchester Sailing Club in the West, to Port Solent in the East.

A number of the defences along the frontage are in poor condition or do not provide the required standard of protection.

There are 361 residential and 108 commercial properties at risk from a 1: 200 year present day tidal flooding event, rising to 662 residential and 141 commercial properties at risk by 2115.

Through previously securing local levy and Flood and Coastal Risk Management (FCRM) Grant in Aid funding towards the development of the scheme, an optional appraisal and outline design has been undertaken for the proposed scheme, and the proposals are presented in this report.

An affordable 'managed adaptive approach' to scheme delivery has been identified as the preferred option which meets with the Environment Agency funding rules. This approach means that the project would be delivered in a phased manner as and when defences fall below the required standard.

The North Solent Shoreline Management Plan, which was adopted by Fareham Borough Council in 2010, set out a policy of Hold The Line for this length of coastline.

The overall project is supported by the Portchester Castle to Emsworth coastal flood and erosion risk management strategy ("the PEM Strategy"), which was adopted by Fareham Borough Council in 2011 and approved by the Environment Agency in 2013.

After approval of the PEM Strategy, a partnership contribution to the scheme from the Trafalgar Wharf developers was tabled. It was proposed that through planning conditions Quadrant Estates could facilitate delivery of the scheme recommended by the Strategy and to a higher 1:200 year standard of protection.

Proposed scheme - The following works would be undertaken (subject to funding):

- Southampton Road - Land raising only
- Southern Water Pumping Station - New Revetment structure
- Castle Shore Park - New Sloping revetment
- Recreation Ground - Raised Capping Beam only
- Portchester Sailing Club - New vertical sheet piled wall with concrete capping beam and setback wall to tie into high ground

Beyond the 15 year scheme it will be necessary to undertake the further phases of works to maintain reduced flood risk to the area as defences along other stretches of the frontage reach the end of their serviceable design life.

The progression of the scheme is dependant on securing the funding for the scheme from both developer contribution and FCRM Grant in Aid.

The Outline Business Case will be submitted to the Environment Agency for review in July 2017. Subject to funding, construction work is proposed to begin in 2019.

Recommendation:

That the Executive:

- (a) supports the recommended affordable scheme, and the phased approach to delivery;
- (b) supports the application to the Environment Agency by Fareham Borough Council, in accordance with the Land Drainage Act, for approval of the preferred scheme options in order to secure the required Flood & Coastal Risk Management (FCRM) Grant in Aid (GiA) to undertake detailed design and construction;

- (c) confirms that Fareham Borough Council is presently unable to make a financial contribution to this scheme, and officers should confirm this in the funding business case;
- (d) instructs officers to continue to investigate future contributions as the project moves forward;
- (e) recommends that Fareham Borough Council acts as the lead Local Authority under the Land Drainage Act 1991 to undertake the detailed design and construction (subject to securing both Grant in Aid funding and developer contribution); and
- (f) notes the additional work to be carried out through the existing Professional Services Contract, to complete the outline design and business case submission, financed by FCRM Grant in Aid.

Reason:

A number of the defences along the frontage are in poor condition or do not provide the required standard of protection;

There are 361 residential and 108 commercial properties at risk from a 1: 200 year present day tidal flooding event, rising to 662 residential and 141 commercial properties at risk by 2115.

Cost of proposals:

The development of the scheme is dependant on:

- Securing FCRM Grant in Aid from the Environment Agency
- Securing the developer contribution from the development of the Trafalgar Wharf site.

As such the scheme will be fully funded by FCRM Grant in Aid and contributions.

The total estimated cost of the design and construction of the proposed scheme for which funding is sought is £8.48 million (including contingency). This is made up of:

- The proposed FCRM Grant in Aid sought ~ £5.4 million;
- The proposed developer contribution towards the scheme defences ~ £3.075 million.

An inter-related £2.3 million scheme is proposed through the construction of the defences on the Trafalgar Wharf site by the developer.

Appendices: None.

Reference papers: North Solent SMP: Minutes of Executive meeting 08/11/2010
PEM Strategy: Minutes of Executive Meeting 07/11/2011

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BOROUGH COUNCIL

Executive Briefing Paper

Date:	05 June 2017
Subject:	Portchester to Paulsgrove (P2P) Coastal Flood & Erosion Risk Management Scheme
Briefing by:	Director of Planning and Regulation
Portfolio:	Planning & Development

INTRODUCTION

1. The proposed Portchester to Paulsgrove CFERM scheme is located on the north shoreline of Portsmouth Harbour. The scheme frontage stretches for 1.7km from Portchester Sailing Club in the West to Port Solent in the East. The scheme lies within both Fareham Borough and Portsmouth City Council boundaries. The Trafalgar Wharf development site lies in the middle of the proposed scheme frontage.

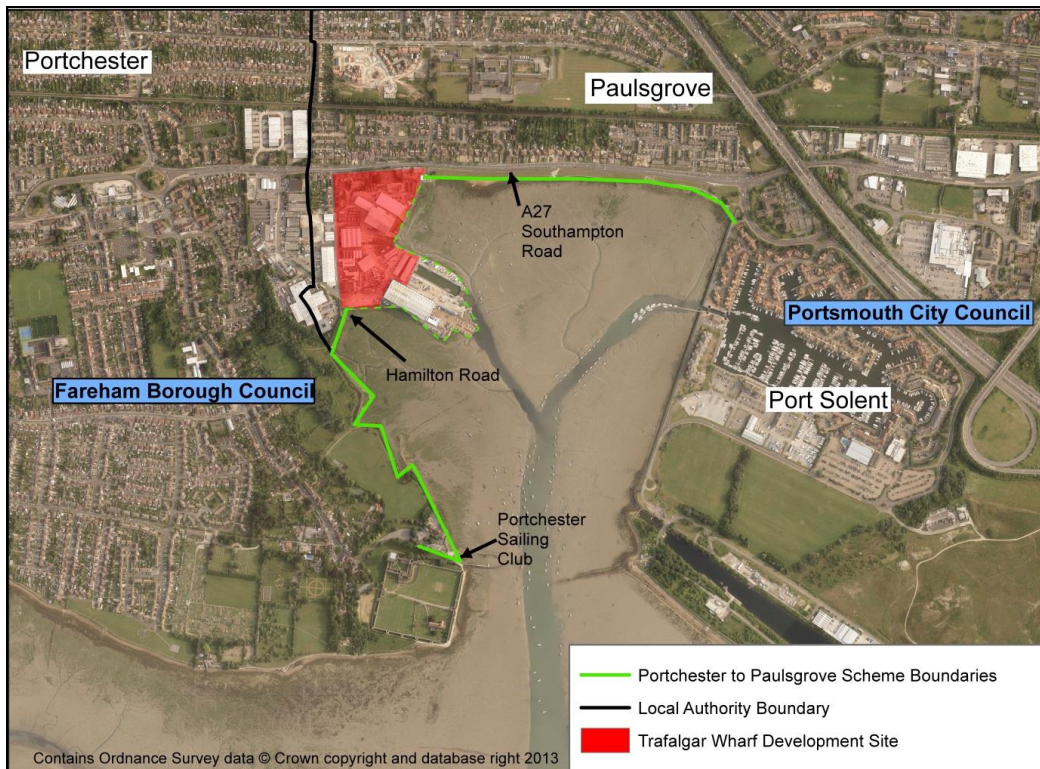


Figure 1: Scheme Location

2. The Risk Management Authorities of Fareham Borough Council and Portsmouth City Council have been working together to undertake the option appraisal and outline design stage of this scheme. In accordance with the Land Drainage Act 1991, both Fareham and Portsmouth City Council are considering the proposed scheme for this frontage and approvals are being sought to support application to the Environment Agency for funding (PCC Cabinet 15th June 2017).
3. Flood mapping of the scheme area shows that 361 residential properties and 108 commercial properties as well as Portchester Sailing Club, Castle Primary School, Trafalgar Wharf development area, recreation areas and the A27 (Southampton Road) are at risk of flooding from a 1: 200 year tidal flood event at present. The risk of flooding is predicted to rise over time, with 662 residential properties and 141 commercial properties being at risk by 2115.
4. A number of the defences along the scheme frontage are in poor condition or do not provide the required standard of protection.
5. The North Solent Shoreline Management Plan, which was adopted by Fareham Borough Council in 2010, set out a policy of Hold The Line for this length of coastline.
6. The overall project is supported by the Portchester Castle to Emsworth coastal flood and erosion risk management strategy (“the PEM Strategy”), which was adopted by Fareham Borough Council in 2011 and approved by the Environment Agency in 2013.
7. After approval of the PEM Strategy, a partnership contribution to the scheme from the Trafalgar Wharf developers was tabled. It was proposed that through planning conditions Quadrant Estates could facilitate delivery of the scheme recommended by the Strategy and to a higher 1:200 year standard of protection.

FUNDING

8. At present, the following funding commitments have been made towards this scheme:
 - An initial £60k of Environment Agency local levy funding was provided in 2014 to undertake advance studies to support a scheme.
 - £470k of Environment Agency FCRM Grant in Aid was secured in 2015 to undertake the outline design stage of the project (current phase);
 - Funds are allocated nationally based on Partnership Funding which requires Risk Management Authorities to seek contribution from all interested parties. The project team have explored all possible contributions to the scheme from various interested parties, but the only significant contribution at this time is the proposed developer contribution from Quadrant Estates.
 - A potential contribution from the developer Quadrant Estates of the scheme (effectively £3.075M towards offsite defences), together with funding of £2.3M towards inter-related on-site defences (works in kind by the developer). This has been drawn up into a draft cost contribution legal agreement between Portsmouth City Council, Fareham Borough Council and Quadrant Estates.

- A draft allocation of DEFRA / Environment Agency Grant-in-Aid towards the scheme to be confirmed subject to the scheme achieving a partnership funding score of over 100% and Environment Agency assurance. The 100% threshold is only just being met (~£300k over) to secure Grant in Aid, with the developer contribution, to enable the scheme to proceed.
- Further contributions would strengthen the affordability case for the project. Officers have reviewed whether a contribution could be made by Fareham Borough Council and/or Portsmouth City Council, but significant funds have not been identified at this time.

FUNDING RISKS

9. The developer will only sign the cost contribution legal agreement and subsequently release the contribution a) subject to Environment Agency Funding and b) subject to certainty that PCC resolve that the current phased approach to the scheme delivery is sufficient to discharge the planning conditions in place for the Trafalgar Wharf development site. The condition requires the scheme defences to be in place to a 1 in 200 year Standard of Protection, protecting the residential development for the lifetime of its occupation.
10. Without the developer contribution the scheme will not meet the current Environment Agency partnership funding criteria to receive FCRM Grant in Aid.

THE PROPOSED SCHEME

11. By building upon and using information from the Portchester Castle to Emsworth Coastal Strategy (PEMS), adopted in 2011, the ESCP are working as an integrated team with the professional consultant CH2M Hill to undertake an option appraisal and outline design of a preferred FCERM scheme option for the Portchester to Paulsgrove frontage.
12. FBC commissioned consultants CH2M Hill to undertake the option appraisal and outline design of the P2P scheme in August 2015. A Professional Services Contract (PSC) was let and the original contract value was £80,482. As the project has evolved additional work, or Compensation Events (CE's), have been undertaken where work was required further to the original scope, causing the overall contract value to increase to an estimated £115,748. The work has been fully funded by FCRM Grant in Aid.
13. Through detailed studies and stakeholder engagement, a wide range of options have been developed and appraised to develop a short list of options. The short list of options has been used to engage with interested parties and the public to identify the preferred option. The preferred option is being developed into an Outline Design.
14. An affordable **managed adaptive approach** to scheme delivery has been identified as the preferred option which meets with the Environment Agency funding rules. This approach means that the project would be delivered in a phased manner as and when defences fall below the required standard.
15. The **full precautionary approach** has also been considered, an approach which would see the present day delivery of all of the defences required to protect the site for the next 100 years; however this approach is not affordable and does not achieve a partnership funding score of over 100%.

16. The project team, supported by the project board, have identified working with Environment Agency colleagues that an affordable business case can be prepared for a 15 year scheme with a 1:200 year standard of protection.
17. Proposed scheme - The following works would be undertaken (subject to funding):
- 5b: (Southampton Road) Land raising only (1 in 200yr Standard of Protection (SOP) for 15 years);
 - 5a: (Southern Water Pumping Station) New Revetment structure (1 in 200 year SOP for life of structure);
 - 3c: (Castle Shore Park) New Sloping revetment (1 in 200 year SOP for life of structure);
 - 3b: (Recreation Ground) Raised Capping Beam only (1 in 200 year SOP for 30 years);
 - 3a: (Sailing Club) New vertical sheet piled wall with concrete capping beam and setback wall to tie into high ground (1 in 200 year SOP for life of structure) (flood gates may form part of this option – to be determined at detailed design).

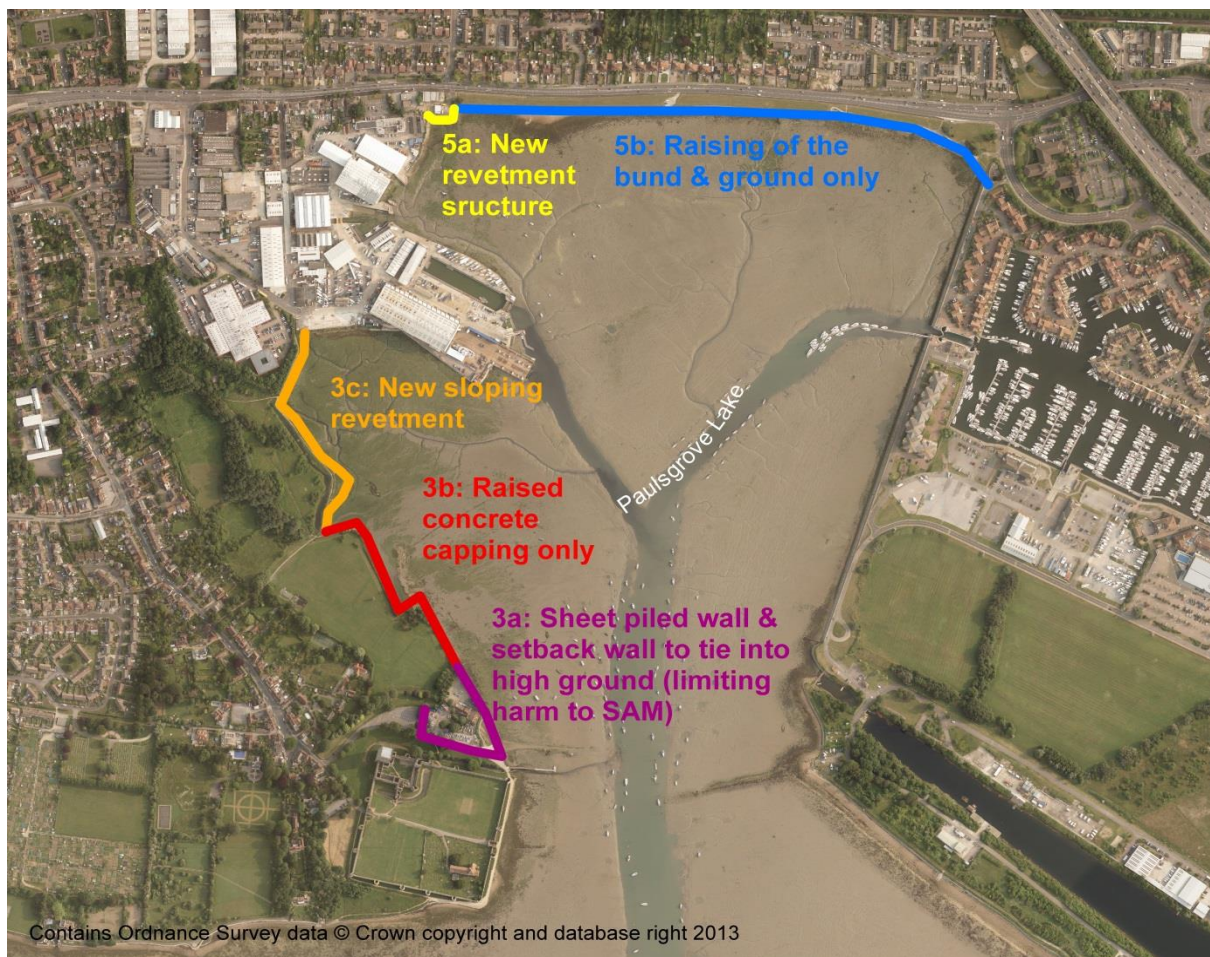


Figure 2: Works required for 15 year scheme (*SAM – Scheduled Ancient Monument)

18. Beyond the 15 year scheme it will be necessary to undertake the following works to maintain reduced flood risk to the area as defences along other stretches of the frontage reach the end of their serviceable design life:

- A capital replacement of the wall along Southampton Road (5b) ~15years;
- A capital replacement of the sheet pile wall in front of the Recreation Ground (3b) ~30 year;
- Sensitivities indicate that it may also be cost effective to return to frontages 3c and 5a and raise defences through small upstand walls in ~year 50 – this will be considered further in the development of the business case.

19. The whole life present value benefits of delivering this scheme will be £86.6 million.
20. It would be necessary to reapply for the funding at the point at which these capital works are required. There are no guarantees that funding will be available.
21. However, the proposed scheme and the future capital works over the 100 years demonstrate a healthy benefit/ cost ratio of 9.6.
22. With such a strong economic case the advice from the Environment Agency, as detailed in their correspondence dated 30/03/2017, is as follows:

'In terms of the further capital works that will be required beyond 15 years, together we will need to make a further application for FCERM GiA funding. Given that these works sit outside of the current 6 year programme which ends in 2020/21, it is not possible to approve funds for these future works at this time. However, the Strategy and high benefit/cost ratio for the 100 year solution gives us confidence that in the future we would continue to support the need for improved flood defences and we expect it to be a location that continues to attract funding.'

23. Portchester Castle lies outside of the proposed scheme. Future flood and erosion risk needs to be considered by the landowner of the site. English Heritage currently have guardianship of the Castle and as such are reviewing the options for flood and erosion risk for the site based on information from this study.
24. The development of the scheme is dependant on:
 - Securing FCRM Grant in Aid from the Environment Agency
 - Securing the developer contribution from the development of the Trafalgar Wharf site.

As such the scheme will be fully funded by Grant in Aid and contributions.

25. The total cash cost of the design and construction of the proposed scheme for which funding is sought is ~ £8.48 million. This is made up of:
 - The proposed developer contribution towards the scheme defences ~ £3.075 million;
 - The proposed FCRM Grant in Aid sought ~ £5.4 million.

An inter-related £2.3 million scheme is proposed through the construction of the defences on the Trafalgar Wharf site by the developer.

26. The programme for Fareham Borough Council approvals and delivery of the scheme (subject to funding) is as follows:
 - Outline Business case submission to the Environment Agency (July 2017);
 - FBC Executive approval for supplier appointment (Dec 2017);

- Detailed Design, licensing and consents (End 2017 – End 2018);
- FBC Executive approval – final design ahead of construction (Jan 2019);
- Construction Year 1 (April 2019 – Oct 2019);
- Construction Year 2 (April 2020 – Oct 2020).

Enquiries:

For further information on this report please contact the Head of Eastern Solent Coastal Partnership, Lyall Cairns (02392 446453).