
COASTAL RISK MANAGEMENT PROGRAMME

Reason for the Report

1. A report titled 'Coastal Risk Management Programme' is due to be received by Cabinet at its meeting on the 15 March 2018. The reasons for taking the report to Cabinet are described as:
 - To provide a briefing to cabinet on the current state of Cardiff's coastal defences and the Welsh Government Coastal Risk Management Programme;
 - To seek Cabinet approval for the commitment to procure the detailed design and construction of the coastal defences valued at £11 million.

2. A copy of the draft Cabinet report titled 'Coastal Risk Management Programme' is attached to this report as **Appendix 1**. The document describes the proposal and provides:
 - Relevant background information;
 - A short summary on the Welsh Government's Coastal Risk Management Programme;
 - An explanation of Cardiff Council's Outline Business Case;
 - The implications & issues relating to the relevant options associated with the proposal;
 - A short summary of the consultation undertaken at this stage of proceedings;
 - Financial implications;
 - Legal implications;
 - Report recommendations and the reasons for making the recommendations.

3. Members are advised to read **Appendix 1** of the report and consider each of the areas bullet pointed against paragraph 2 (above).
4. A short summary of some of the key points from **Appendix 1** has been provided for Members below:
 - The Mott MacDonald, Rover Way Foreshore Coastal Defence Assessment that was undertaken in 2009 concluded that the ad hoc defences in position along Rover Way were in a very poor condition and under established guidelines would not have a residual life beyond the short to medium term.
 - A report undertaken by Atkins, *Cardiff Council Coastal Erosion Risk Assessment, 2013*, identified that the coastal erosion rates at Rover Way are comparable to the highest coastal erosion rates in Europe.
 - Welsh Government Coastal Risk Management Programme (CRMP) made a commitment by making £150 million available for borrowing to assist local authorities to meet financial pressures – the fund can provide up to a 75% contribution to support coastal flood risk management projects.
 - Cardiff Council was successful in obtaining 100% funding from Welsh Government for the development of an Outline Business Case.
 - The Outline Business Case presents the business case and implementation plan for Cardiff Coastal Defences between Rover Way in the west and Lamby way in the east. The project aims to improve the existing coastal and fluvial defences to provide improved protection to people and property from coastal erosion and flood risk, and prevent the erosion of two decommissioned landfill sites - The Frag Tip and Lamby Way Tip.
 - **Diagram 1** (on the next page) provides details of predicted flood extents for a 0.5% AEP event in 2017, 2037, 2067 and 2117. **Diagram 2** (also on the next page) provides a shortlist of options for each section in the study area.

Diagram 1 - Predicted flood extents for a 0.5% AEP event in 2017, 2037, 2067 and 2117

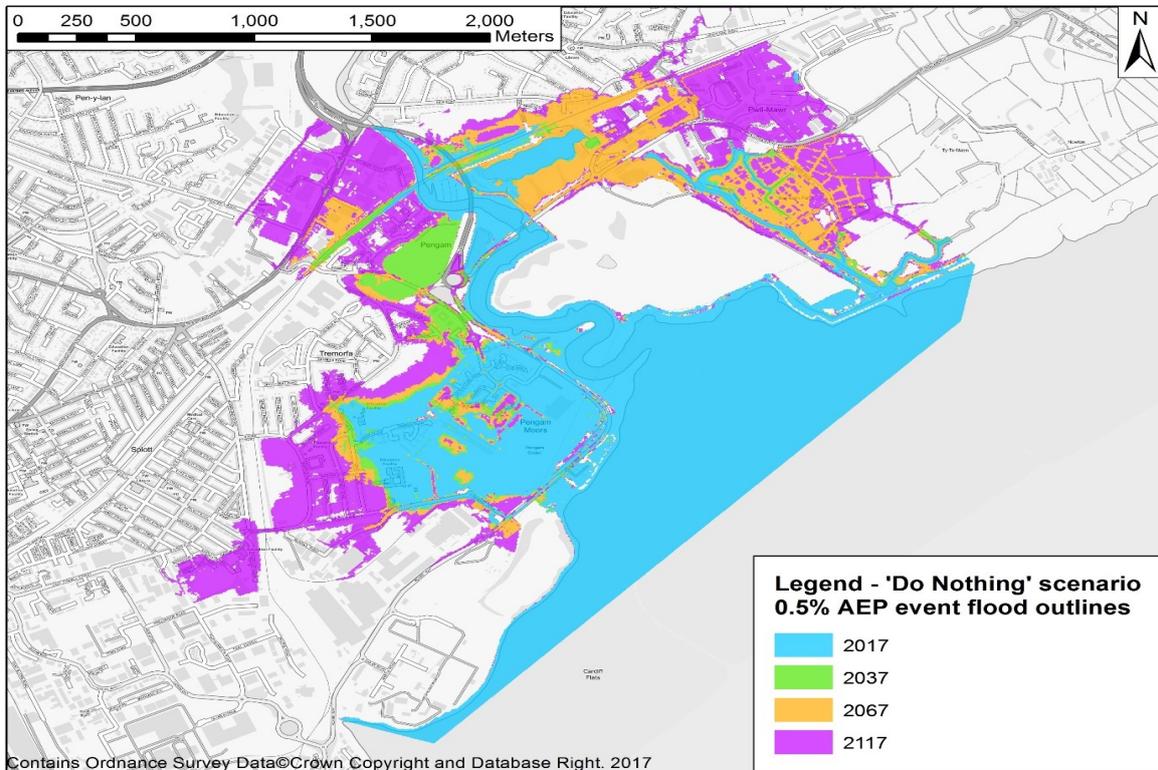
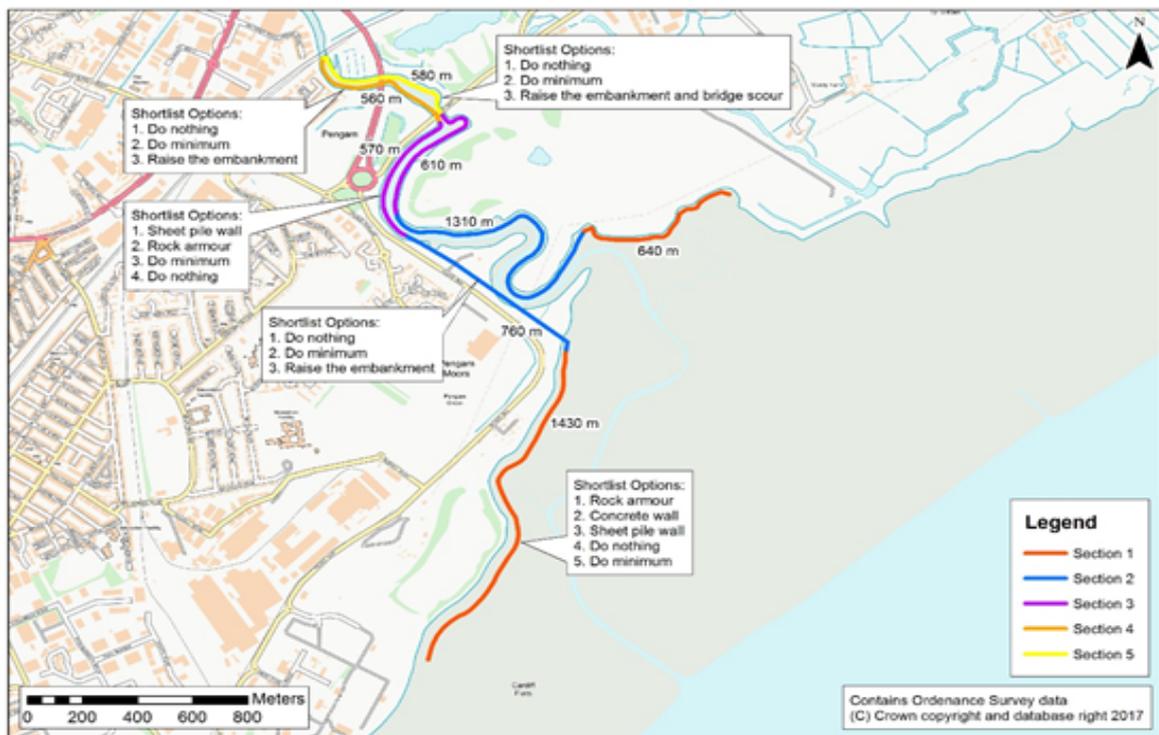


Diagram 2 - A shortlist of options for each section in the study area



- If nothing is done it is estimated that the area to the west of the River Rhymney will continue to erode, with approximately 30m of retreat predicted by 2036, 50m by 2067 and 170m by 2117, based on predicted erosion rates and taking into account predicted sea level rise.
- Under this Do Nothing Scenario 249 residential properties and 3 non-residential properties are currently at risk of flooding under a 0.5% AEP event, increasing to 1212 residential and 209 non-residential properties by 2117 with sea level rise.
- The coastal frontage of Lamby Way tip, to the immediate east of the River Rhymney, is predicted to continue to erode. This will lead to erosion of the Lamby Way tip and release of contaminated tip material into the Severn Estuary within 20 years which would be likely to have significant environmental impacts on this designated estuary.

5. The key project objectives are described in **Table 1 of Appendix 1** as:

- Reduce and manage coastal flood risk to people and assets within part of south east Cardiff for the next 100 years, taking into account predicted future climate change.
- Manage erosion along the coast to reduce the risk of failing coastal flood defences and the release of contaminated landfill material into the Severn Estuary from Lamby Way Tip and the Rover Way Frag Tip, in the immediate future and over the next 100 years.
- To achieve wider benefits alongside coastal erosion and flood risk management, aligned with WG's 7 Wellbeing Goals and with WG and CCC's vision for development and economic growth of the area.
- Implement a coastal flood and erosion risk management option which is affordable over the next 100 years.
- Protect existing features of nature conservation value and seek opportunities to improve biodiversity through the enhancements of existing habitats.
- Produce technically feasible and buildable engineering options.

6. The project includes eight potential shortlist options for the coastal flood defenses in this area; these are set out in **Table 2 of Appendix 1**. Based on the assessments undertaken the overall preferred option is Option 6: Improve 4:
 - Section 1: Rock revetment along the coast to manage erosion and wave overtopping.
 - Section 3: Sheet piling along Lamby Way Roundabout.
 - Section 2, 4 and 5: Maintain earth embankments elsewhere and raise low points in earth embankments where required to reduce flood risk.
 - Rock scour protection added to Lamby Way Bridge.
7. Welsh Government have grant funded the development of an outline business case as indicated in this report. This has indicated indicative costs for design (£1 million) and construction (£10 million) totalling approximately £11 million (inclusive of VAT). The Coastal Risk Management Programme assumes that the WG would support 75% of design and construction costs (£8.25 million) whilst the Council will have to find the balance of 25% of the estimated cost (£2.75 million).
8. The recommendations made in the draft Cabinet report are:
 - To procure the detailed design and construction of the coastal defences valued at £11 million. The funding is to be provided on a apportionment of 75% funded by Welsh Government and 25% by Cardiff Council;
 - To commit to the 25% funding required to deliver the coastal defences in line with the Welsh Government Coastal Risk Management Programme;
 - That a reassessment of the scheme is undertaken following the completion of the detailed design to confirm financial implications of construction and viability.
9. The reason for the recommendations made in **Appendix 1** is to commit to the funding and deliver the coastal defence scheme.

Way Forward

10. The Cabinet Member for Clean Streets, Recycling & Environment and officers from the City Operations Directorate have been invited to provide a briefing on the item and answer any questions that Members may have.

Legal Implications

11. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any legal implications arising from those recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Scrutiny Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances.

Financial Implications

12. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any financial implications arising from those recommendations.

RECOMMENDATION

The Committee is recommended to:

- i. Note the contents of the report and pass on to the Cabinet any comments, observations or recommendations that they might have.

DAVINA FIORE
Director of Governance & Legal Services
5 MARCH 2018