

Ramsgate Harbour Inner Basin Dock Gate and Lifting Bridge – Proposed Refurbishment Works

Report to	Councillor Hunter Stummer-Schmertzling - Cabinet Member for Regeneration and Enterprise Services
Report Author	Mike Humber – Head of Maritime and Technical Services
Portfolio Holder	Councillor Hunter Stummer-Schmertzling - Cabinet Member for Regeneration and Enterprise Services
Status	For Information
Classification:	Unrestricted
Key Decision	Yes Budget and Policy Framework
Reasons for Key	Expenditure not in budget and exceeding virement rules
Ward:	Central Harbour Ward

Executive Summary:

The Inner Basin of Ramsgate Harbour accommodates approximately 212 vessels on floating pontoons, this is known as the Inner Marina. The water level in the Inner Basin is retained at high tide by two pieces of mechanical infrastructure this being the flap gate and the mitre gates. These are both located in a formed channel through the cross wall between the Inner and Outer Basins of Ramsgate Harbour which affords vessel access. A third piece of infrastructure, a lifting bridge provides pedestrian/vehicular access across the channel when the gates are closed and can then be raised clear when they are open to allow the passage of tall vessels through the channel.

This system of retaining water in the Inner Basin is unusual as it is not a traditional sea lock and must be operated four times a day, (2 hours before high tide and two hours after high tide) so is therefore in constant use 365 days per year. Whilst this allows for free access in and out of the Inner Basin twice a day, this necessary constant use has started to put pressure on old and obsolete equipment.

Maintaining the integrity of these systems ensures that there is always sufficient water within the Inner Basin where the majority of boats are moored permanently. A failure of any part of the system that resulted in a significant loss of water within the Inner Basin could cause damage to vessels giving rise to third party claims and potential loss of custom and future income.

The flap gate, mitre gates and lift bridge all require urgent refurbishment and improvement. The purpose of this project is to sustain the long term serviceability of both gate systems and the bridge to avoid negative impact on marina customers and loss of associated revenue income.

Recommendation(s):

To allocate £750k from the Capital Receipts Reserve to the 2017/18 Budget Framework and Capital Programme to fund an urgent capital project to refurbish the Inner Basin dock gates and lifting bridge at Ramsgate Harbour.

CORPORATE IMPLICATIONS							
Financial and Value for Money	Funding of £750k has been identified from within the Capital receipts reserve to fund the emergency works. This will enable the existing income streams to be protected and also limit the Council's liability risk to a potential insurance claim from 3 rd parties.						
Legal	The council is under a duty to maintain the harbour and would have some liability to users if it failed to maintain the harbour properly.						
Corporate	<p>The gates and bridge require urgent refurbishment and improvement work to reduce the risk of system failures in the future.</p> <p>A failure of any part of the system that resulted in a significant loss of water within the Inner Basin could cause damage to vessels giving rise to third party claims. Furthermore there would be reputational damage and potential for a loss of significant business as boat owners move to other harbours. Income from the Inner Marina in 2016/17 was £560k.</p> <p>This report proposes capital investment of £750k to refurbish the gates and replace hydraulic and electrical systems. This will reduce operation risk and maximise reliability and performance.</p> <p>There is little scope for a lower cost option as this would not allow all elements of the required works to be undertaken and would not therefore reduce operational risk sufficiently.</p>						
Equalities Act 2010 & Public Sector Equality Duty	<p>The proposal has some limited relevance to the duty in respect of the disability protected characteristic. It is therefore the officer's assessment that the duty is engaged to a limited degree by this proposal. There is a potential negative impact associated with not progressing the project in terms of reduced harbour and marina access if the bridge was taken out of service. The project as proposed presents a moderate benefit associated with the continued serviceability of the bridge and customer/public access in the long term.</p> <p>Should further issues arise as a direct result of this proposal in the future, they will be assessed accordingly.</p> <p>It is therefore proposed to seek Cabinet Member Decision to use the identified funding to undertake these urgent works.</p> <table border="1" data-bbox="432 1603 1402 1977"> <thead> <tr> <th colspan="2">Please indicate which aim is relevant to the report.</th> </tr> </thead> <tbody> <tr> <td>Eliminate unlawful discrimination, harassment, victimisation and other conduct prohibited by the Act,</td> <td rowspan="3">Due to the limited relevance to the PSED it is not possible to further this aim of the duty. However, the proposal is non-discriminatory and does not contravene equality legislation.</td> </tr> <tr> <td>Advance equality of opportunity between people who share a protected characteristic and people who do not share it</td> </tr> <tr> <td>Foster good relations between people who share a protected characteristic and people who do not share it.</td> </tr> </tbody> </table>	Please indicate which aim is relevant to the report.		Eliminate unlawful discrimination, harassment, victimisation and other conduct prohibited by the Act,	Due to the limited relevance to the PSED it is not possible to further this aim of the duty. However, the proposal is non-discriminatory and does not contravene equality legislation.	Advance equality of opportunity between people who share a protected characteristic and people who do not share it	Foster good relations between people who share a protected characteristic and people who do not share it.
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CORPORATE PRIORITIES (tick those relevant)✓	
A clean and welcoming Environment	
Promoting inward investment and job creation	✓
Supporting neighbourhoods	

CORPORATE VALUES (tick those relevant)✓	
Delivering value for money	✓
Supporting the Workforce	
Promoting open communications	

1.0 Introduction and Background

- 1.1 The Royal Harbour at Ramsgate consists of an inner and outer basin which is separated by a stone wall, (the cross wall). The larger Outer Basin is enclosed by the east and west piers and has an open entrance to the sea. The sea water level in the Outer Basin is therefore tidal.
- 1.2 The water level in the Inner Basin is maintained at a minimum depth of approx. 3.8 metres. This is possible because the basin is served by a hydraulically powered flap gate which seals the entrance to the Inner Basin for approximately 8.5 hours of every 12.5 hour tidal cycle. For the remaining 4 hours (over the high tide window) the flap gate is lowered to the sea bed to allow vessels access between the Inner and Outer Basins via a 12 metre wide channel through the cross wall.
- 1.3 The Inner Basin covers an area of 4.6 hectares holding approx. 190 million litres of sea water when the flap gate is closed. The Inner Basin is home to the Inner Marina which currently accommodates approximately 212 vessels berthed on floating pontoons. It is essential that the Inner Basin is 'locked' by raising the flap gate twice per day just after high tide. If this action were not taken the consequences could be severe with extensive damage to customer's vessels.

2.0 The Current Situation

- 2.1 The flap gate was installed at Ramsgate Harbour in 1988 and consists of a large metal plate that lies horizontally on the seabed at high water level. Large hydraulic rams are used to rotate the gate through 90 degrees into a vertical position so that it forms a tight seal against a concrete face at one end of the channel. Once in the vertical position the flap gate retains the water level on Inner Basin side of the gate.
- 2.2 Before the flap gate was installed in 1988 a set of two mitre gates (similar to canal lock gates) were used to seal the channel in the cross wall. The mitre gates date from the 1950's but are still in place and can be used to provide a secondary/reserve method of retaining the water in the Inner Basin.
- 2.3 The channel in the cross wall is bridged by a hydraulic lift-bridge which provides pedestrian and up to 40 tonne vehicular access between the east and west sections of the cross wall. The bridge pivots vertically on the western side and must be raised to allow vessels sufficient clearance to pass between the Inner and Outer Basins when the gates are open.
- 2.4 The flap gate, mitre gates and lift bridge all require urgent refurbishment and improvement work. The purpose of this project is to sustain the long term serviceability of both gate systems and the bridge. A failure of any part of the system that resulted in a significant loss of water within the Inner Basin could cause damage to vessels giving rise to third party claims. This would very likely lead to reputational damage and a loss of significant business as boat owners move to other harbours. Income from the Inner Marina in 2016/17 was £560k.

- 2.5 The proposed works have an estimated value of £750k and will require all three gate structures to be lifted from their working positions onto the quayside to allow refurbishment to take place. The works will also include replacement of hydraulic apparatus and replacement of obsolete analogue electrical control gear with modern digital systems.
- 2.6 There are no realistic options for a lower cost maintenance type project. This is because the hydraulic and electrical systems are nearing the end of their useful life and the gates require removal for refurbishment. If any of these elements are not addressed the level of post works operational risk will not be reduced.

3.0 Options

3.1 Option 1

Progress an urgent capital project (estimated value £750k) to refurbish the gates and bridge including hydraulic and electrical systems to sustain the long term serviceability of both gate systems and the bridge and to support continued revenue income generation by providing a reliable service to marina customers.

3.2 Option 2

Do not invest in a capital project. This would likely result in the leisure marina in the Inner Basin being closed in the future due to increasing operational risk with the associated negative impacts described above. Failure to undertake identified works could also result in the current Insurers rejecting or reducing any public liability and property claims.

Contact Officer:	Mike Humber – Head of Maritime and Technical Services
Reporting to:	Gavin Waite – Director of Operational Services

Annex List

Annex 1	none
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Background Papers

Title	none
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Corporate Consultation

Finance	Nicola Walker - Finance Manager - HRA, Capital & External Funding
Legal	Tim Howes- Director of Corporate Governance