Consultation on the River Medina crossing (floating bridge) strategy

July 2025

Isle of Wight Council

Contents

Introduction

The Isle of Wight Council is consulting on options to continue to provide a link between the towns of East Cowes and Cowes via the River Medina. The current crossing option is the Floating Bridge 6 (FB6) which has been in operation since 2017.

The following summary document sets out the background context and the process that has been followed, together with the long and short list of options and accompanying explanations. It also provides information about how you can find out more, ask questions and share your views as part of this process. Your feedback will help inform the report to the Isle of Wight Council's economy, regeneration, transport and infrastructure committee when it makes its decision on 16 October 2025.

You can also read a more detailed options assessment report here[1]

Floating Bridge 6

1 www.iow.gov.uk/documentlibrary/download/medina-crossing-strategy-consultation-document

What are we aiming to achieve?

Our key objectives are listed below:

- **Connectivity –** Maintain direct pedestrian and vehicular access between the two town centres of East Cowes and Cowes, and cross-river access upstream for commercial and private vessels to ensure the area's long-term vitality and competitiveness in a global tourism market.
- **Reliability –** Efficient operational reliability.
- **Cost effectiveness –** Provide a cost-effective solution with a reduction in current operational costs.
- **Congestion –** Minimise congestion on the local road network, particularly where this negatively impacts the economic potential of town centres and major routes to Newport.
- **Affordability –** Ensure affordable fares for all users.
- **Support development –** Support future growth and demand for housing and businesses according to the Council's Island Plan.
- **Sustainability –** Enhance environmental sustainability, through shortening vehicle journeys, providing a pedestrian crossing, operational energy requirements and carbon emissions.

About the floating bridge

History

A floating bridge crossing has been in operation between the towns of Cowes and East Cowes since 1859 and is one of the few remaining that has not been replaced by a physical bridge. Prior to its ownership by the local authority, the service was run by The Floating Bridge Company and The Steam Packet Company (which now trades as Red Funnel). You can find more historical links to the floating bridge crossing from our dedicated website[2].

Floating Bridge 1

How it works

The bridge is operated by a chain system that 'pulls' the vessel from one side of the river to the other. The current vessel (Floating Bridge 6 – FB6) was introduced in May 2017 replacing the previous ferry (Floating Bridge 5 – FB5) after nearly 40 years of use.

The current vessel is larger and heavier than its predecessor and can accommodate more cars (20 compared to 15 for FB5 when first in service, which dropped to 12 by 2016 owing to increased vehicle size) and between 120 to 400 foot passengers depending on the vehicle load.

2 www.iow.gov.uk/transport-and-parking/transport/cowes-floating-bridge/history-of-the-chain-ferry

Operational challenges

While the new floating bridge offered greater capacity, when initially brought into service it faced mechanical and electrical issues affecting its reliability. Since then, the Isle of Wight Council and operational team have made several modifications to the vessel:

- Replacing the entire hydraulic system, removing and redesigning the prows.
- Installing an advanced oil filtration system and regular testing, maintenance and oil sampling.
- Replacing all 24 guidewheels with durable steel units.
- Reconfiguring the entire IT system.

Thanks to these modifications FB6 is now much more reliable than the early version introduced in 2017. As a result:

- Vehicle and foot passenger numbers are now at their highest levels since before the COVID-19 pandemic.
- Fewer crossings are being lost due to technical issues.
- Revenue has steadily increased year on year since 2020.

Floating bridge statistics, January to June 2025

	January	February	March	April	May	June
Number of foot passengers	18,459	19,090	25,290	29,654	36,899	36,279
Number of vehicles	12,349	14,313	12,189	17,308	24,858	27,746
Hours scheduled	596.5	540	422.5	540	598.5	581.5
Hours operated	502	540	442.5	540	598.5	581.5
Percentage of hours operated	84.2%	100%	100%	100%	100%	100%
Number of days operating a full service	24	28	23	28	31	30
Hours of planned maintenance	0	0	192	48	0	0

However, there are outstanding operational issues which remain unresolved:

1. **Tidal clearance for other vessels**
   Cowes Harbour Commission (CHC) has a legal responsibility to maintain an 'open port' and to ensure safety of navigation. This means ensuring that nothing obstructs or interferes with the public's right to navigate the river or the ability for vessels to pass up and down it to load and unload passengers and vessels. In this case the chains of the floating bridge present a potential risk to navigation and could compromise the harbour's 'open' status. To address this, CHC requires that the chains provide at least the same clearance as the shallowest part of the river in that area. This clearance is defined as tide height plus 1.5 metres.

During strong ebb tides (when the tide is going out), the force of the water can push the floating bridge off its ideal path. This increases tension in the chains, causing them to rise higher in the water. Hydrographic surveys have confirmed that during these times, the chains do not meet the required minimum clearance.

To solve this issue, a 'push boat' is used during these tides which helps keep the floating bridge on course. This helps to reduce tension in the chains, so they stay deeper in the water, meeting the required clearance. However, this comes at an increased cost to the service of around £90,000 per year.

2. **Local operational constraints**
   Over time, new regulations and other external factors have impacted how the floating bridge operates.

   - **River traffic** – although the floating bridge generally has right of way provided to it, it sometimes needs to give way to other vessels (arranged by request) and this can cause delays to the floating bridge if it is waiting for the area to be clear. The floating bridge can also be requested to delay its departure for busy events to let river traffic through in groups (e.g. the power boat race, or round the Island race).
   - **10-second warning beacon** as stipulated by CHC general directions in 2013. The prow of the vessel is raised but it is not moving while the 10-second delay is enforced. This gives river traffic time to stop safely so the floating bridge can cross without any obstacles.
   - **Boarding and disembarking speeds** – 7mph.
   - **Braking system** – there is an eight-second delay before the prow is lowered to protect the hydraulic system and enable the drive wheel to slow down before the brake is engaged, reducing friction and heat.
   - **Driver and foot passenger awareness** – the human element; delays due to stalling, joining the wrong lane, not paying attention, stopping on the slipway.
   - **Driver and foot passenger segregated loading**, brought in following Maritime and Coastguard Agency (MCA) instructions in 2015 for safety reasons, this slows down boarding and unloading.

   These mean that each crossing can now take around 5½ minutes longer than it did 12 years ago.

   These issues would have affected Floating Bridge 5 had it continued to be used. Importantly these operational constraints will also continue to affect any replacement chain ferry and therefore need to be considered as part of this process.

3. **Operational costs**
   During the 2024 to 2025 period the total direct costs (excluding indirect central support costs) to run the ferry operations for 19 hours per day and 364 days per year were £1,694,000 of which £418,000 was related to maintenance. The estimated annual income figure is currently £793,000. This means that the overall costs for operation and maintenance are currently being subsidised by the council by around £900,000.

   As a part of this project, an assessment is being carried out to determine what steps can be taken to reduce the overall operational costs and increase revenue streams. This will be undertaken at the next stage of the process.

What are we doing?

In March 2024, our cabinet agreed to replace the current floating bridge and commission a new River Medina crossing strategy. They also agreed to build on all the work and research done in recent years to ensure the project is comprehensive and can progress quickly and efficiently.

Before commissioning a replacement crossing, we must ensure:

- the process follows HM Treasury guidance and procurement rules;
- the best value option is chosen;
- a strong, up-to-date business case is in place – especially if additional funds may need to be sought now or in the future.

This means all viable options for a new crossing need to be carefully assessed against a range of key criteria: strategic, economic, financial, commercial and managerial criteria.

Floating Bridge 5

What options were considered?

The Isle of Wight Council has been working with specialist marine, legal and financial experts to help us carry out this process.

In line with the Department for Transport's transport analysis guidance (TAG), a wide range of potential options were considered and assessed as part of the initial long list.

An initial sift of the long list was then undertaken to identify any solutions which could be quickly discarded from the process on the grounds of affordability, recognising the limited funding available for the scheme and the unlikely prospect of significant funding from central government. This removed an option for a fixed road bridge (estimated to cost between £50m and £100m) or a tunnel (estimated to cost in excess of £100m).

Each remaining option was then assessed against the key criteria using a Department for Transport decision making support tool and against the base case (or the 'do minimum' option). The 'do minimum' would involve continuing the use of FB6 with a level of maintenance such that current service levels and operational performance are broadly maintained (including the continued use of the push boat to help guide the vessel).

You can read the full assessment of each option within the options assessment report (OAR) which can be found here[3].

3 www.iow.gov.uk/documentlibrary/download/medina-crossing-strategy-consultation-document

What was the assessment outcome?

Following the options assessment, adding flush thrusters to the existing vessel (option 2) is the highest scoring. This is followed by the replacement of the floating bridge with a new vessel (option 1).

The next best performing options are:
- additional control chains (option 3a);
- tidal flow reduction (option 4).

Option 1: Replacement of the floating bridge

Replacement of the current floating bridge (FB6) with a new vessel (FB7). The new vessel would require modification to the existing design to ensure that the design challenges are met. This would likely include adding additional thrusters and changes to the vessel profile to reduce drag forces. The harbour infrastructure would also need to be modified, e.g. redesigned slipways.

Assessment	Shortlisting
✓ High confidence option would address existing challenges including chain clearance issue. This assumes modification in design, e.g. additional thrusters and changes to vessel profile to reduce drag forces.	✓ Single option
✓ Affordable cost (£5m to £10m)	
✓ Shorter implementation timescales (two to five years)	
✓ Minimal disruption to floating bridge operation and no land take required	

Option 2, 3a and 4: Phased package option

Option 2 – Adding flush thrusters to the existing vessel (FB6)

Option 3a – Adding additional control chains or more mechanical process

Option 4 – Tidal flow reduction

Assessment	Shortlisting
✓ Affordable cost (£1m to £5m).	✓ Phased package option
✓ Shorter implementation timescales (one to two years)	
✓ High confidence combination of additional control chains, tidal flow reduction, and flush thrusters would be effective at resolving chain clearance issue.	
✓ Minimal disruption to floating bridge operation and no land take required.	

Additional control chains and tidal flow reduction may not be sufficiently effective on their own to fully address the chain clearance issue. However, each would be cheaper than adding flush thrusters (option 2) to the new vessel.

In the interest of securing best value for money for taxpayers, it is therefore recommended that options 2, 3a and 4 are combined into a phased package option – **modify the existing vessel and the operational environment**. This would involve either a combination of the individual options or one of the options on its own. The precise composition and phasing order of this option would be determined through further analysis to determine effectiveness and potentially real-world testing. It is possible a logical phasing could involve, for example, trialling the additional chains initially (the cheapest option). Should these prove not to be fully effective in addressing the chain clearance issue, hydrodynamic modelling could then be carried out to establish whether tidal flow reduction would adequately reduce the flow without unacceptable adverse effects. Should the combination of additional chains and tidal flow reduction still not be sufficient, flush thrusters could be added to the vessel. However, any course of recommended action would be based on further analysis and therefore may differ from the indicative example set out above.

The other options 3b, 5a, 5b, 6c, 6d and 7 are not considered viable solutions for the reasons set out in the table below and on page 12.

Number	Option	Assessment	Shortlisting
3b	Installation of lead-in piles or dolphins – to help maintain the vessel in position as it moves and docks.	✗ Vessel deflection unlikely to be resolved through installation of lead-in piles therefore would not be sufficient to fully address the chain clearance issue.	✗ Not shortlisted
		✗ Presents navigational challenges for other vessels in the river.	
5a	Replacement of FB6 with a non-guided vehicle ferry (i.e. operating without chains)	✗ Unaffordable cost (£10m to £20m).	✗ Not shortlisted
		✗ Longer implementation timescales (five to 10 years).	
		✗ May have many of the same issues as the existing ferry.	

Number	Option	Assessment	Shortlisting
5b	Replacement of FB6 with a pedestrian and cycle only ferry (no vehicle provision)	✕ Reduced connectivity between Cowes and East Cowes. ✕ Additional highway congestion through Cowes and Newport. ✕ Legal consideration of reasonableness of ceasing vehicle crossing.	✕ Not shortlisted
6c	Swinging floating bridge (a bridge that floats on pontoons and swings open on a pivot point at 90 degrees to allow boats to pass).	✕ Unaffordable cost (over £20m). ✕ Longer implementation timescales (more than 10 years). ✕ Statutory instrument would be required to authorise the interference with the public right of navigation. ✕ Land take and compulsory purchase may be required. ✕ May create additional local congestion.	✕ Not shortlisted
6d	Transporter bridge (a type of suspension bridge that carries pedestrians and vehicles on a platform or gondola, suspended by cables from a trolley track, across the river without obstructing shipping traffic).	✕ Unaffordable cost (over £20m). ✕ Longer implementation timescales (more than 10 years). ✕ Statutory instrument would be required to authorise the interference with the public right of navigation. ✕ Land take and compulsory purchase may be required. ✕ May create additional local congestion.	✕ Not shortlisted
7	No crossing.	✕ Total loss of connectivity between Cowes and East Cowes. ✕ Limit local economic growth and future development. ✕ Additional highway congestion through Cowes and Newport. ✕ Legal consideration of reasonableness of removing crossing provision.	✕ Not shortlisted

Note: If in the future a pedestrian water taxi is introduced to operate over the crossing it may be possible to explore options for a vehicle only crossing. This would not need to revisit this detailed process but could be considered as and when it became available.

What options form the recommended shortlist?

Following the assessment process, the three recommended shortlisted options are therefore:

- **New vessel option** – Replacement existing floating bridge with a new floating bridge (FB7).
- **Modify existing vessel or the operational environment option** – through a phased approach involving additional control chains, tidal flow reduction, or adding flush thrusters to the existing vessel.
- **Do minimum option** – Maintain and operate the existing floating bridge with the continued use of the push boat.

It is important to stress that while this represents the overall shortlist of viable options **no decision has been made**. This remains subject to consultation and further financial modelling and assessment, all of which will form the basis of a report to the Isle of Wight Council's economy, regeneration, transport and infrastructure committee in October 2025 for a decision.

Floating Bridge 2

What happens now and how can I get involved?

We are keen to seek the views of residents, businesses and visitors, on the shortlist identified and we have launched a consultation to enable us to carry this out. This will take place between the 14 July and 22 August.

As part of the consultation, we will be holding a series of drop-in events:

- 22 July, 3 to 7pm, East Cowes Town Hall, East Cowes.
- 23 July, 3 to 7pm, Northwood House, Cowes.
- 31 July, 3 to 7pm, Riverside Centre, Newport
- 7 August, 12 to 1.30pm, Online meeting (MS Teams)[4]
- 12 August, 6 to 7.30pm, Online meeting (MS Teams)[4]

Each of these events will be attended by council officers involved in this process, along with the specialist advisors appointed to help with this work.

This will provide you with an opportunity to look at the information and to ask any questions you might have. You do not have to make an appointment for the drop in events, simply turn up at any point during the advertised times and we will be delighted to talk to you and listen to your feedback.

We have created a short survey to help you to share your views with us. The survey can be accessed online here[5]. Or by scanning the QR code with your smartphone camera.

Alternatively, you can request a paper copy by contacting us at procurement@iow.gov.uk Large print versions are also available on request. Please mark your email '**floating bridge consultation**' so we can direct your email to the right person.

The deadline for completed surveys is midnight on the 22 August 2025.

4 If you wish to attend one of the online meetings, please visit www.iow.gov.uk/floatingbridgeconsultation for information about how to join the meeting. A presentation will be giving at the start of the meeting, followed by a question and answer session with those on the call.

5 forms.office.com/e/Aixv0eF6aL

What will happen to this information?

Your views are extremely important to us. The information you share with us will be used to help inform a report that will be taken to the Isle of Wight Council's economy, regeneration, transport and infrastructure committee for their decision in October 2025.

Following their decision, further detailed work will then need to take place so that the council can make any purchasing or funding arrangements related to their decision.

We will continue to keep you informed of any decisions as they are made.

Floating Bridge 6 with push boat

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If you have difficulty understanding this document, please contact us on 01983 821000 and we will do our best to help you

Isle of Wight Council