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Review of Tamar Crossings

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Introduction

Local Partnerships is a joint venture between the Local Government Association, HM Treasury and the Welsh Government. Our principal responsibility is to deliver expert support to the public sector and over recent years we have been asked to undertake an increasing amount of work looking at the performance of commercial entities that operate at arms-length to their local authority parents.

Last summer, we were approached by officers of Cornwall Council (CC) and Plymouth City Council (PCC) to have a discussion about a piece of consultancy work.

The work essentially involved a review of Tamar Crossings (TC), which is the undertaking that executes the operational responsibilities of the Tamar Bridge and Torpoint Ferry Joint Committee (TBTFJC)¹. The aim of the review is to provide assurance over the current operations and advice around the entity's future activities and how those are delivered.

The scope of work was multi-faceted and complex and a series of conversations and meetings ensued to explore how we could potentially assist.

The scope reflected a recognition that there were a number of strategic issues which members of the TBTFJC wanted investigating.

Firstly, there was a desire to end the need for repeated, periodic reversion to Government for toll increase approval. This aligned with devolution ambitions for greater local control over matters affecting residents, businesses and their local economies. However, members also wanted to ensure that TC remained financially sustainable over the long-term.

Secondly, and linked to the above, the A38, which runs either side of the Tamar Bridge, is a part of the country's strategic and major road network (and therefore managed and maintained by National Highways) but the bridge crossing itself is not a part of either which represents an inconsistency from a funding, management and liability perspective.

Thirdly, TC is not a body corporate and therefore is unable to enter into contracts which presents restrictions in terms of finance, procurement and employment. This raised the question as to whether the current Joint Committee approach was the most appropriate for the challenges ahead.

Having understood the context and the objectives that members were seeking to satisfy through the work, it was clear that they were keen to explore whether there were more suitable and viable alternatives to address the strategic issues set out above. It was our opinion that the best way to structure the review was to align it with the process recommended by HM Treasury's Green Book for appraising and presenting proposals for change. This has the benefit of using tools and methodologies that are recognised by Government departments as producing credible conclusions. The drawback is that the approach and analysis is technical and not necessarily easily digestible.

Hence, this report is structured into two parts. The first part, Part A, is referred to as the General Report and summarises the work undertaken, conclusions drawn and recommendations arising from the technical work set out in Part B. Part B is structured as a business case document in accordance with HM Treasury's Green Book. It features five, inter-related sections, which in summary;

- sets out the reasons for change, the changes being considered and the outcomes being sought (the 'Strategic Case')
- appraises the likely economic impact on the public of different delivery options and governance models (the 'Economic Case')
- assesses the feasibility of pursuing different delivery options and governance models (the 'Commercial Case')

¹ Where the report focusses specifically on a point that relates directly to the Joint Committee, it refers to TC as TBTFJC but in all other instances TC is used as the reference for both TC as the operational undertaking and TBTFJC as the governing body.

- reviews the current financial projections and compares those to projections for alternative scenarios based on different tolling and capital programme assumptions (the 'Financial Case')
- assesses the capacity and capability of TC to deliver the changes proposed and the likely risks that will need managing. (the 'Management Case')

Part A – General report

1.1 About Tamar Crossings

TC is the undertaking that executes the operational responsibilities of the TBTFJC with regard to the Tamar Bridge and Torpoint Ferries. The Tamar Bridge is a suspension bridge linking the A38 trunk road across the River Tamar between Plymouth on the east bank and Saltash on the west bank. The Torpoint Ferry provides transport across the river between Torpoint in Cornwall and Plymouth.

Both the bridge and the ferries are run as a self-funding joint undertaking by the TBTFJC on behalf of the constituent authorities, CC and PCC.

The only significant source of revenue is from the tolls charged for using the crossings. There are different charges dependent upon vehicle class and the characteristics of those vehicles², but the different charges for most classes are mirrored at the two crossings.

1.2 Purpose of the review

The day to day running costs and ongoing programme of repairs, maintenance and improvement of both the ferries and the bridge have to be met from the toll income. As a consequence of this, the level and type of tolling is a prominent and on-going concern, as are questions around business planning, budgeting, financing and overall ownership of, what are, critical components of the region's transport infrastructure.

The desire to: i) consider the efficiency and effectiveness of the current operating model for TC³; ii) find an alternative approach to effecting toll increases; and iii) secure the long term financial future of the crossings; are the key drivers for change and the focus of this work.

1.3 Scope of our work

As described in the 'Introduction' section, we have adopted a process recognised by Government as best practice for appraising the need and proposals for change.

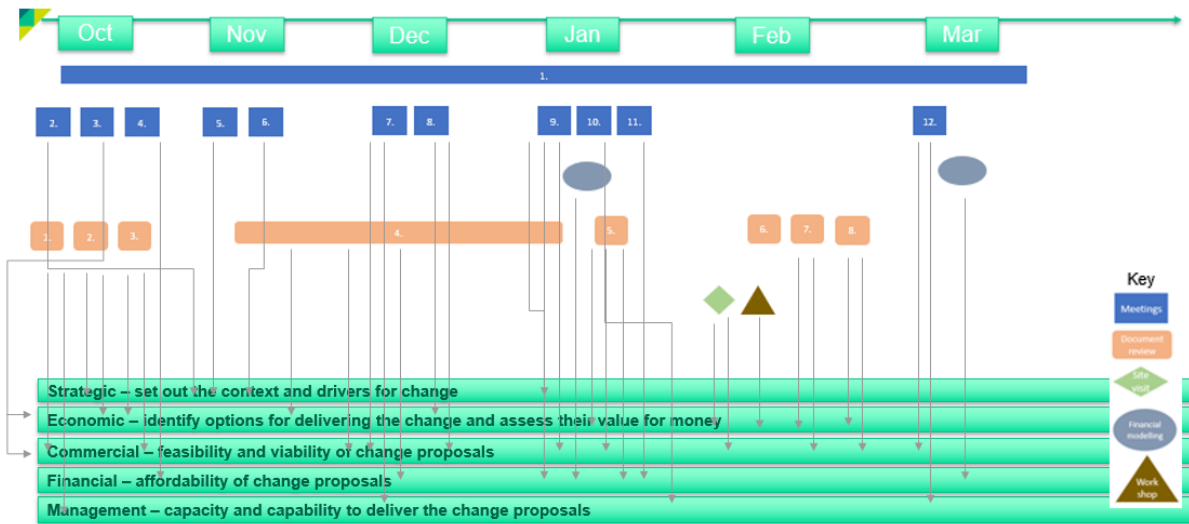
Our work has relied upon a variety of information sources, expertise and stakeholder input and, as part of this, considered the operating models of other relevant crossings in the UK such as;

- The Humber Bridge;
- Clifton Suspension Bridge;
- Mersey Crossings (tunnels, ferries and bridge);
- Sandbanks Ferry;
- Cowes Chain ferry.

An overview of our work and the list of documents reviewed and people we have spoken to are described in the diagram below.

² The ferry charges motorcycles 50p (£1 with a trailer) and cannot take three-axle vehicles for which the bridge charges between £10.40 and £14.30

³ Where the report focusses specifically on a point that relates directly to the Joint Committee, it refers to TC as TBTFJC but in all other instances TC is used as a reference for both TC as the operational undertaking and TBTFJC as the governing body.



Meetings	
No.	Reference
1.	Fortnightly call with project steering group (David List, Andrew Vallance, Adrian Trim)
2.	Portfolio leads from both PCC and CC
3.	Governance session for JC members
4.	Finance support team from CC
5.	JC joint chair and portfolio lead – PCC
6.	JC joint chair and portfolio lead – CC
7.	JC meeting
8.	PCC Public Transport Officer
9.	TC Engineering Manager
10.	JC joint chairs and portfolio leads – PCC and CC
11.	Finance support team from CC
12.	CC and PCC SROs

Document review	
No.	Reference
1.	Peer Challenge Report 2019
2.	Inspector's Report 2019
3.	Tamar Bridge Acts 1957, 1979, 1998
4.	Various policy, strategic and operational documents relating to other crossings
5.	TC traffic and passenger data
6.	River Tamar Crossings Study 2013 – pba
7.	Site development feasibility study 2013 – Arup
8.	Market appraisal of sites 2022 – Vickery Holman

1.4 Observations

Our analysis has been built upon a process that has considered whether and how the drivers for change, noted in Section 1.2 above, warrant a change in: a) the scope of what TC does; b) the infrastructure it relies upon; c) the model used to govern the delivery of its services and the timescales and finances for any changes considered preferable.



1.4.1 What TC currently provides

TBTFJC is a product of the Tamar Bridge Act 1957⁴ and is the entity which delivers CC's and PCC's responsibility for the operation and upkeep of the Tamar Bridge and the Torpoint ferries. The TBA vests the Tamar Bridge and the Torpoint Ferries in CC and PCC and through TC they discharge their responsibilities for the operation and upkeep of the bridge and ferry crossings. The bridge spans a total of 563m and was constructed in 1961. It underwent major improvements across the turn of the century so as to accommodate HGVs up to EU limits in the long term.

The three chain ferries carry both foot passengers and vehicles across the river, connecting both sides of the A374. At peak times three ferries are in operation, providing a service every 10 minutes dropping to a two ferry service every 15 minutes during off-peak periods and one ferry service every 30 minutes at night. The ferry operates 24 hours a day and is the principal route taken by emergency vehicles travelling to and from Plymouth to the Rame Peninsula.

Day-to day-operations and management of both the bridge and ferry crossings are undertaken by a dedicated organisation of approximately 110 staff under the direction and management of a general manager. The organisation includes operational, technical, and commercial staff supplemented by contract labour as and when required. The group are located at their offices at Pemros Rd and Torpoint and are funded through revenue generated by both the bridge and ferry tolls.

I Options for changing what TC provides

We reviewed this current scope of operation to assess whether this remained appropriate and was likely to remain appropriate into the future. The possible alternative options we assessed were:

- Continue to operate the bridge but cease the chain-ferry service
- Continue to operate both the bridge and chain ferries but also take responsibility for other ferry services on the river
- As well as taking responsibility for other ferry services, also be responsible for developing and delivering other forms of public transport services on and across the river

We also considered whether changes could be justified to service capacity and frequency. Clearly, the bridge is fixed albeit that it will ultimately need replacing and it is worth highlighting that the prevailing funding model does not account for this⁵ i.e. funds are not being accumulated in a sinking fund to provide for its replacement. The chain-ferries have c. 30 year life and are expected to need replacing again sometime in 2030s having been brought into service to replace the previous chain-ferries in the mid-2000s.

We therefore looked at the following theoretical possibilities for the capacity and frequency of ferry services;

- Reduce the service frequency of the various ferry crossings.
- Increase the service frequency across the various ferry crossings
- Increase the service frequency and capacity of the various ferry crossings and additional public transport crossings

II Summary of our option analysis

In terms of what TC does, it is self-evident that ceasing the chain-ferry service is not a realistic option. The wider costs would far outweigh the financial savings resulting in a significant impact on emergency service response times, loss of skilled jobs and an increase in journey times and the consequential effect on air pollution and carbon emissions. There could be a longer-term case for widening the scope of the

⁴ The Tamar Bridge Act (TBA) was amended in 1979 to update for local government re-organisation amongst other matters and then again in 1998 to facilitate the land acquisition and works required to widen the bridge. In referencing the TBA, the report is referring to all relevant provisions within all of the Acts.

⁵ The bridge was built with an estimated lifespan of 120 years.

responsibilities held by TC, if this can be shown to help deliver on the net zero agenda and the potential operational synergies and efficiencies can be proven. The concept of wider responsibilities beyond the bridge and existing ferries is currently difficult to visualise but, in the longer term, the way people move around and their mode of transport will be subject to change. Giving TC responsibility for developing and delivering other forms of public transport services on and across the river could be part of a cohesive transport strategy for the Tamar and involve, over time, reviewing the mode of journeys undertaken on foot, cycles and vehicles across it. The mechanisms by which TC could take on wider responsibilities are considered within the Commercial Case section of the Part B report but, suffice to say, they would be difficult to achieve without changes to the TBA.

As regards the capacity and frequency of ferry services, there is no evidence that we have seen to suggest that expanding the extent and type of vessels and services is worthwhile in the short term. TC commissioned a report ten years ago from Peter Brett Associates that looked at: the operation and utilisation of existing facilities; their ability to cope with forecast increases in demand; opportunities to increase capacity at these facilities or through new infrastructure in the wider Plymouth sub-region; and projects to manage demand. In our opinion, its conclusions remain valid i.e. that there is insufficient unmet demand to justify investment in new passenger ferries serving new routes.

The possibility of amending the frequency of the chain-ferry crossings was investigated, from a financial perspective, at the request of the TBTFJC in 2020 and this highlighted the limited savings relative to the wider public cost of a reduced service. There is no scope to increase the capacity of the chain-ferry service without commissioning additional vessels and significant changes to the supporting infrastructure. There is scope to increase the frequency of services but only during non-peak periods which, by definition, feature lower levels of demand.

1.4.2 TC delivery model

TC is a special operational undertaking formed between PCC and CC that was set up to operate and upkeep both the Tamar Bridge and Torpoint Ferry. This collaboration between the two councils was driven by the TBA 1957 to facilitate the construction of the bridge and manage the principal crossings across the River Tamar which are the responsibility of the two councils.

This oversight and strategic management of both the ferry and bridge operations and maintenance is undertaken by the TBTFJC. This is comprised of five councillors from each of PCC and CC supported by relevant officers. The committee is joint chaired by members from both councils. The committee meets quarterly and is administered by CC. Strategic transport policy links between the crossings and the local highways networks are maintained by both Transport portfolio holders being members of the committee.

A key factor constraining the ability of the TBTFJC to efficiently oversee the strategic direction of the crossings is its unincorporated status. With no legal personality beyond those organisations represented on it, the committee cannot enter into binding legal contracts, employ staff or borrow money.

I Options for changing the TC delivery model

We have assessed the available alternative options taking into account the nature, fitness for purpose and suitability for the future of the current governance model bearing in mind the potential changes to the scope and scale of what TC may do in the future per Section 1.4.1. above.

The options that have been considered are:

- With the potential growth and diversity in public transport on the river, move to a more commercially orientated model facilitated by the separation of the bridge and ferry operations with the latter placed into an incorporated body, jointly owned by CC and PCC
- Instead of a jointly owned incorporated body running public transport services on the river, expand the ownership to involve private sector input to help drive growth in usage and non-toll revenue streams
- Keep the bridge and ferry operations together by placing both into a single incorporated body jointly owned by the two authorities with the aim of streamlining the governance and addressing the issues presented by the current lack of legal identity for TC

II Summary of our options analysis

Approximately four years ago, a ‘peer challenge review’ of TC was undertaken by a small team of experienced elected Member and officer peers from other parts of the country. As part of the review, the existing governance arrangements were considered, and a number of observations and recommendations made as a result in its report⁶. These essentially fell into two categories, the first advocating that TC, as the operational undertaking, and the TBTFJC play a more influential role in the economic development of Cornwall and Plymouth owing to the strategic significance and revenue raising potential of the infrastructure it is responsible for and, secondly, ensuring that members of the TBTFJC fully understood their role and what they should be seeking to do. In response to this, TC has reviewed its terms of reference with the support of constituent council officers, We are of the view that those observations and recommendations remain valid.

The governance model for TC has been under review in response to the long-standing concerns, again reflected in the peer review report, that “having to take and promote parallel reports to each Authority which creates a duplication of effort and risk. In addition, the different time periods for decisions in Cornwall and in Plymouth can be a hindrance to operational efficiency and agile decision-making”.

However, achieving any structural changes to the governance model would require an amendment to relevant provisions in the TBA and we recognise that the TBTFJC is conversant with the difficulties that involves⁷. An incorporated structure, in the form of a company, would also be less tax efficient than the current model. This could conceivably be dealt with by replacing the existing TBA with an entirely new Act that features the establishment of a bespoke statutory body to replace TBTFJC. This would give the governance model its own legal personality and overcome the tax issues. A good example of such a body is the Humber Bridge Board which was created as a statutory body by the Humber Bridge Act (1959) and means that it can contract and employ people and also enjoy the same tax exemptions as the local authorities that are members of its Board.

It is our view that the TBTFJC model remains, in principle, fit for purpose for the current scope of responsibilities. We agree with the view of CC Legal Services given in the workshop we attended in October 2022 that there are alternative ways in which the existing governance arrangements of the Joint Undertaking could be improved without going as far as seeking an amendment to the legislation. This would be by retaining the TBTFJC but having in place appropriate delegations between the Authorities for such things as decision-making and contracting.

The aforementioned peer review report also highlighted that although the ferry and bridge are part of a single organisation, the culture and practice made it feel like two distinct operations to staff, particularly those on the ferry side of the organisation. If, in the longer term, a case emerges that supports the ferry operation being placed into a company as part of delivering expanded responsibilities, it could, at face value, be seen to reinforce that impression. However, it could also be seen as a positive intervention that responds to the different commercial realities facing the bridge and ferries. The case would involve addressing concerns around identity, leadership, resourcing and status, as part of delivering growth and diversity in public transport on the river.

1.4.3 How TC is funded

The operation of the Tamar crossings has been based on the principle of ‘user pays’ since it opened in 1961 with tolls in place for both the bridge and the ferry services.

The bridge toll is payable one way in the direction from Saltash to Plymouth where a series of different tolls are charged dependent on each vehicle classification. These range from ‘free’ for pedestrians, bicycles and motorcycles, £2.60 for cars up to £14.30 for the largest class of vehicles possessing 4 plus axles. Vehicle classifications are determined electronically at the barrier and checked manually by toll staff. Automatic Number Plate Recognition is currently in place but is used only for violation control and transaction validation. TC does not have direct access to DVLA data to check these classifications and has to do so on an ad hoc batch basis.

⁶ Peer Challenge Tamar Bridge and Torpoint Ferry Joint Committee 4-6 December 2018

⁷ A change to the Tamar Bridge Act 1957 (as amended) would only be possible under a Private Bill. The Private Bill route involves a number of timetabled steps for which there is only one annual opportunity to commence, by the bill being presented in Parliament in November, and its progress through the required stages in each House can be significantly delayed by Parliamentary business or individual Member opposition.

The same toll charges, as the bridge, are in place on the ferry from Torpoint to Plymouth and collected manually by staff onboard the vessels. The only exception to this is that the ferry charges 50p for motorbikes .

The issue of whether there should be parity between the toll charges for both the bridge and ferries has been the subject of long-standing debate by TBTFJC members with no overwhelming consensus on the matter. A concern among members is that moving to a differentiated arrangement which more accurately reflects the cost base of each crossing would disadvantage residents of the Rame Peninsula disproportionately. However, this current position may prove to be unsustainable to retain into the future.

In order to amend the toll charges, TC must apply to the Secretary of State for Transport under the provisions of the Transport Charges &c. (Miscellaneous Provisions) Act 1954 (the 1954 Act) under powers derived from the TBAs. Under the 1954 Act, operators are required to make an application, in the form of a business case, to increase tolls to the Secretary of State, who, if satisfied, makes an Order revising the charge as he sees fit. The procedure contains a 42-day period that involves extensive general public, user and stakeholder consultation process during which, following advertisements placed in the local press, objections can be made to the proposed revisions. In the event that an objection, received during that period, is not withdrawn, a local public inquiry must be held which is led by an Inspector appointed by the Department for Transport (DfT). The whole process is time consuming with the business case involving commissioning various pieces of external specialist advice in relation to, as examples, future maintenance obligations and traffic volumes and usually followed by the aforementioned local public inquiry.

This process as well as the reputation management that needs to accompany it means it is an exercise that is pursued as infrequently as possible. However, an unexpected change in certain factors can significantly impact the projected financial position of TC and require toll levels to increase.

The two main factors are:

- The projections for crossing numbers on both the ferries and the bridge and their impact on overall income
- The economic outlook and its effect on inflation and the cost of borrowing

The impact of the pandemic on traffic volumes with the post-pandemic position normalising at a lower level than was experienced prior to the pandemic and the effect of the rise in inflation and interest rates, initiated by the outbreak of war in Ukraine, has meant that TC is having to re-visit toll levels more frequently than has been the historic norm.

In addition to this, the revenue that TC raises through tolls needs to not only cover the operating costs of the ferries and bridge but also the significant capital maintenance and lifecycle replacement programmes that are attached to each. The cash to pay for that capital expenditure comes from loans and the loan repayment and interest is reflected as an annual cost, typically over a 25-year period. Therefore, the profile and scale of the capital programme and the impact this will have on finance charges is also an important factor in the toll calculation.

Finally, the level of cash reserve that is considered prudent for TC to maintain for contingency purposes as well as the length of time over which the toll rise should prove sufficient are both judgements that also feed into the calculation.

I Options for changing how TC is funded

As well as the different assumptions that can be adopted for the aforementioned factors and which, in turn, drive a different toll requirement, there are variables around the tolling principles which also impact the toll level. The same toll is levied for both a ferry or bridge crossing but this principle could be changed such that the ferry toll becomes higher to reduce the net deficit cost of its operation⁸. The ferry operation currently costs over c.£5m more to run than it generates in income and this gap has to be compensated for by toll income from the bridge. In effect, the bridge subsidises the ferry and the extent of this subsidy going forward could, theoretically, be anywhere between zero i.e. the ferry toll is set at a level that is

⁸ It is important to note, however, that if a differential tolling policy is adopted then the impact must be assessed on a consolidated basis with overall toll income generated by the bridge and ferries being the key metric given that TC is a single entity.

judged as self-sustaining to the other end of the spectrum where the level of the bridge toll enables the ferry toll to be zero.

There are currently conversations ongoing with DfT officials about how the toll levels can be linked to an indexation mechanism such that they increase on an annual basis in line with inflation without the need for a new Toll Order. The preference is to find an existing piece of legislation that can be amended through a Public General Bill that enables this to occur with the current focus being the 1954 Act.

The alternative would require a change to the TBA in so far as it applies to TC, which would only be possible under a Private Bill and the challenges with this have been noted in the previous section regarding the Delivery Model and set out in footnote 7.

As well as the pursuit of an indexation mechanism, the concept of a debt write-off has been investigated as part of this report work.

TC is projected to have, as at 31 March 2024, £47m of debt outstanding with c. £42m attributable to the financing of capital works on the bridge and c. £5m to capital spent on the ferries. This money has been borrowed by CC and, therefore, any write-off would need to be facilitated by a payment from Government to CC to enable the equivalent value of debt to be re-paid. A request to Government for a such a sum would need to be supported by a business case that demonstrated how such a payment would deliver a return in excess of the value for money threshold i.e. a return of at least 2:1. This is likely to require a package of projects and initiatives to be developed that can be funded from the headroom created by the debt write-off. Section 1.4.1 above mooted the potential merit of projects that could contribute to a public transport strategy for the Tamar which could include investment proposals for decarbonising the existing vessels and evolving the fleet that operates on the river to cater for more foot passenger traffic across and along the river.

II Summary of our option analysis

A key financial objective for TC is to secure a mechanism that allows the organisation to plan and budget with the certainty of having its revenue base linked to inflation. A pre-requisite is that the starting point provides sufficient revenue to fund the operation and the existing BAU approach of securing a new Toll Order is rightly the immediate focus.

Over the longer-term, pursuing an element of debt write-off from Government could be feasible if it is clear how the financial headroom will be utilised. A business case will need to demonstrate how a sufficient level of economic return will be generated by such action. For example, the headroom could be used to finance the capital requirements of a Tamar transport strategy. The headroom would not only need to provide for the finance charges on the new debt but also any growth in operating cost that implementing the strategy may generate.

Hence, the longer term funding options are difficult to assess with a significant dependency being to what extent the scope of what TC currently undertakes may change in the longer term per Sections 1.4.1 and 1.4.2 above.

1.5 Conclusions

Having looked at the services that TC provides and the model for delivering those services against other options, it is our view that the current position remains fit for purpose. Over the longer term, the position becomes more uncertain because there are clearly environmental, economic and technological factors impacting on the business of TC that bring into question whether the existing scope and form of delivery will remain suitable.

A situation could emerge to warrant the reconfiguration of what is provided on the river to facilitate more carbon friendly journeys and investment in new types of vessels and infrastructure. If this did occur, the proposition would require a detailed business case exercise to be undertaken, underpinned by professional transport modelling. As a precursor to any such work, greater consideration would need to be given to the regional and local strategic context to ensure that the crossings support the broader range of sustainable transport objectives both councils are looking to achieve. The place that the bridge and ferries have in developing a solution to meeting the climate challenge needs particular thought and attention.

At the moment, the bridge is absent as a topic of discussion at regional level and this should be regarded as a missed opportunity and remedied quickly. Any doubts regarding the future sustainability of the bridge

should be seen as a long term network resilience issue and therefore a suitable subject for discussion by Peninsula Transport. This will offer greater weight to any case for change in the longer term.

Once the strategic context for TC is resolved, the answer to whether changes will be required to the delivery model for TC will emerge. The existing Joint Committee approach has executed the fixed scope of what TC is required to do, per the TBA, over the last 60 years but if a case for widening its scope develops, then a more commercial model may be required, whether that be to oversee new service provision and revenue growth or simply more streamlined administration. This is likely to be difficult to effect through the current TBA so legislative change is likely to be required and this may vary in significance from amendments to the existing Act to pursuing the adoption of TC as a statutory body with its own legal personality via a new Act.

The only change for which there is a value for money case at the moment is the move to an indexation mechanism for tolling. However, given that this is also reliant upon legislative change, the likelihood that it can be delivered within a short-term horizon is questionable. A more immediate issue is presented by the need to raise tolls to counter the impact of inflation and reduced traffic levels. This is a well-practised procedure for TC and very much business as usual albeit such a statement, given the need for both a toll rise and also indexation, belies the difficult political choices that the toll scenarios present.

If, in the longer term, a case for widening the responsibilities of TC emerges, this could align well with the pursuit of a debt write-off by Government. As such, a write-off would represent a cost to the public purse, and is not something that could be sanctioned by Government without a clear business case demonstrating how and where the necessary levels of return are achieved. It would need to unlock investment that could be shown to be capable of delivering a return on cost of at least 2:1. This investment could involve TC delivering projects that put the river at the heart of a sustainable transport strategy for Plymouth and surrounding area but, clearly, there is work required to define both the supporting vision for this as well as the projects before the financing and delivery implications can be assessed to any significant degree.

1.6 Recommendations

In light of the above, supported by the detailed analysis in the Part B Technical report we have arrived at a number of recommendations, some of which concern the immediate circumstances, some of which focus on a shorter term outlook and some of which are geared towards the longer term.

1.6.1 Immediate

TC is currently operating at a deficit and reserves will extinguish by 2024/25 without a new Toll Order so although we recognise that this is under discussion by TBTFJC, our recommendation is included with respect to reaffirming the importance of politically agreeing the level of increase to be sought and securing this as soon as possible.

A more volatile economic environment as well as potential changes in both the tolling strategy and the scope of the organisation will place more dependency upon financial planning, budgeting and reporting. The current tool relied upon to run scenarios and projections is being enhanced and we would recommend this is kept under review with the potential for further investment in the build of a new financial model being considered in order to meet requirements going forward.

It would be worthwhile reviewing the induction programme for new appointees to the TBTFJC to ensure they have a strong understanding and appreciation of the role, responsibilities and powers of the TBTFJC and also widen the awareness of TBTFJC and TC amongst those who represent the constituent councils as officers and members.

1.6.2 Short term

The constituent councils along with TC and TBTFJC should continue to work on establishing, with DfT, the legal route for securing a toll indexation mechanism. As part of this, it should be mindful of potential changes in the scope and governance of TC that may be sought in the future, subject to supportive business cases. It should ensure that in seeking the legislative changes deemed necessary for toll indexation that sufficient latitude for other future changes are incorporated at that same time.

The constituent councils should work on defining a vision for future public transport on and across the river. As part of this, they should ensure that the future of TC is a fundamental part of the regional

transport strategy developed by Peninsula Transport. This will enable a subsequent strategy for the crossings to be developed which will influence the future operating parameters and objectives of TC.

Technology will be at the heart of targeted policy implementation, for example, with respect to tolling charges and will increasingly under-pin the operations of the organisation and offer opportunities for greater efficiency and effectiveness. TC should therefore develop a technology strategy to set out how it will embrace technology to continue to meet its corporate objectives.

1.6.3 Longer term

Following on from agreeing the vision for future public transport on and across the river, this should lead to a strategy for a Tamar public transport system being developed. This will facilitate subsequent discussions and decisions around cross-subsidy levels and the future scope, governance and funding of TC.

We believe it would be worthwhile considering establishing a memorandum of understanding type agreement with other route operators on the river to explore the potential benefits and synergies of closer working and to help inform the development of the aforementioned vision and strategy for a Tamar public transport system.

The political, financial and strategic challenges posed by the bridge toll are likely to continue to increase, creating the opportunity to re-test the justification and appetite for equal tolls for a bridge crossing and a ferry crossing. This opportunity should be taken in due course with a full impact assessment undertaken. It should also take account of the fact that no provision is being made for the costs of a replacement bridge within the current cost base covered by the current toll regime. In advance of such an exercise being taken, it will be important to ensure that the data held by TC with respect to service users, their location, journey patterns etc is as comprehensive as possible.

Part B – Technical report

2 Strategic Case

2.1 Purpose

The purpose of the strategic case is to set out the context for the changes to TC being explored by this review. The desire to: i) consider the efficiency and effectiveness of the current operating model for TC; ii) find an alternative approach to effecting toll increases; and iii) secure the long term financial future of the crossings; are the key drivers for change.

2.2 Strategic context

2.2.1 Organisational overview

TC is responsible for the operation and upkeep of two main assets that provide critical transport links between Devon and Cornwall across the River Tamar. The suspension bridge carries the A38 across the River Tamar between Plymouth, in Devon, and Saltash, in Cornwall, while the three chain ferries link Torpoint and the Rame peninsula in Cornwall with Plymouth.

I Tamar Crossings

TC is a special coalition formed between Plymouth City Council (PCC) and Cornwall Council (CC) set up to manage and maintain both the Tamar Bridge and Torpoint Ferry. This collaboration was driven by the Tamar Bridge Act (TBA) in 1957 to facilitate the construction of the bridge and manage the principal crossings across the River Tamar which are the responsibility of the two councils.

Day-to day operations and management of both the bridge and ferry crossings are undertaken by a dedicated organisation of approximately 110 staff, deemed to be employed jointly by CC and PCC, under the direction and management of a general manager. TC includes both operational, technical, and commercial staff supplemented by contract labour as and when required. The group are located at their offices at Pemros Rd and Torpoint and are funded through revenue generated by both the bridge and ferry tolls.

II The assets

Tamar Bridge: The Tamar Bridge connects Plymouth via the A38 on the eastern bank of the River Tamar with the A38 at Saltash on the Cornwall side⁹. It spans a total of 563m and is located slightly to the north of the Royal Albert Rail Bridge. The bridge was opened to traffic in 1961 and underwent major improvements across the turn of this century so as to accommodate HGVs up to EU limits in the long term. The Tamar Bridge crossing connects the A38 trunk road which is part of the national strategic route network.

Torpoint Ferry: A ferry service between Devonport in Plymouth and Torpoint in Cornwall has been in place since at least 1791. The modern chain ferry carries both foot passengers and vehicles across the river and connects both sides of the A374. At peak times three ferries are in operation, providing a service every 10 minutes dropping to a two ferry service every 15 minutes during off-peak periods and one ferry service every 30 minutes at night. The ferry operates 24 hours a day and is the principal route taken by emergency vehicles travelling to and from Plymouth to the Rame Peninsula.

III Governance and Oversight

Governance and oversight of the bridge and ferry assets are set out under the provisions of the TBA. These local powers were granted for the original construction of the bridge and then used to

⁹ The status of the road across the bridge is uncertain in terms of whether it is a continuation of the A38 which is a trunk road and therefore part of the national strategic route network or whether it is a major road linking the A38 together.

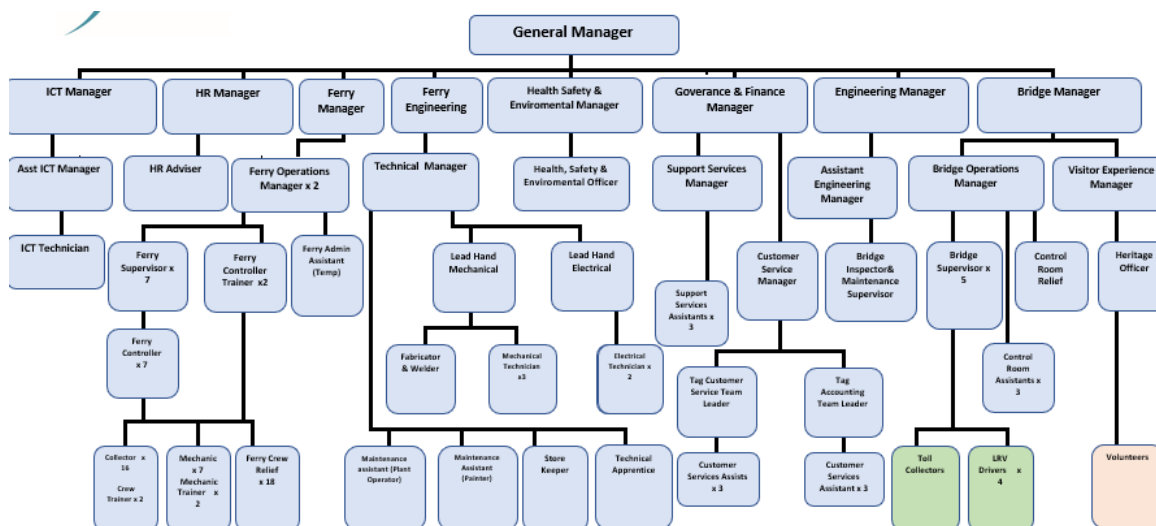
set out the arrangements for the ongoing operation, maintenance and improvement of both the Bridge and the Ferry. This oversight and strategic management of both the ferry and bridge operations and maintenance is undertaken by the TBTFJC. This is comprised of five councillors from each of both PCC and CC supported by relevant officers. The committee is joint chaired by members from both councils. The committee meets quarterly and is administered by CC. Strategic transport policy links between the crossings and the local highways networks are maintained through both Transport portfolio holders being members of the committee.

A key factor constraining the ability of the TBTFJC to efficiently oversee the strategic direction of the crossings is its unincorporated status. With no legal personality except for the organisations represented on it, the committee therefore cannot enter into binding legal contracts, employ staff or borrow money. The nature, fitness for purpose and suitability for the future of this governance model will be explored further within this business case.

IV Management responsibilities

Although they are subject to the same governance arrangements the manner in which the bridge and ferry services are both managed are slightly different. The diagram below is an organogram for TC showing the structure and lines of management across the organisation.

Diagram 2.1: Organisation structure



V Toll arrangements

PCC and CCC have chosen to use tolling, as is their right under the TBA, to fund the operation of the bridge and the ferries rather than their own resources. A bridge toll is payable one way in the direction from Saltash to Plymouth. The payment is collected from a series of ‘manned’ booths located at the east end of the bridge and can be made through a cash payment, electronic card or use of a prepaid ‘Tamar TAG’ arrangement. Approximately 59% of bridge tolls and 60% of ferry tolls are collected via the TAG and this provides holders with a 50% discount on the headline toll level.

On the bridge, a series of different tolls are charged dependent on each vehicle classification. These range from ‘free’ for pedestrians, bicycles and motorcycles, £2.60 for cars up to £14.30 for the largest class of vehicles possessing 4 plus axles. Vehicle classifications are determined electronically at the barrier and checked manually by toll staff. Automatic Number Plate Recognition is currently in place but is used only for violation control and transaction validation. TC does not have direct access to DVLA data to check these classifications and has to do so on an ad-hoc batch basis.

Similar toll arrangements are in place on the ferry from Torpoint to Plymouth and collected manually by staff onboard the vessels. The only exception to this is that the ferry however charges 50p for motorbikes (unlike the bridge).

The issue of whether there should be parity between the toll charges (at £2.60 for cars) for both the bridge and ferries has been the subject of long-standing debate by TBTFJC members with no overwhelming consensus on the matter. A concern among members is that moving to a differentiated arrangement which more accurately reflects the cost base of each crossing would disadvantage residents of the Rame Peninsula disproportionately. However, this may prove to be unsustainable to retain into the future.

VI Toll changes

In order to amend the toll charges, TC must apply to the Secretary of State for Transport under the provisions of the Transport Charges &c. (Miscellaneous Provisions) Act 1954 (the 1954 Act) under powers derived from the TBA. Under the 1954 Act, operators are required to make an application to increase tolls to the Secretary of State who, if satisfied, makes an Order revising the charge as he sees fit. The procedure contains a 42-day period during which, following advertisements placed in the local press, objections can be made to the proposed revisions. In the event that an objection received during that period is not withdrawn, a local public inquiry must be held which is led by an Inspector appointed by the Department for Transport (DfT).

VII Planned Maintenance

Planned maintenance for both the bridge and ferries is commissioned¹⁰ and managed by TBTFJC and led by a small team dedicated to each asset type. The bridge has no large, directly employed maintenance team but operates on the basis of a rolling portfolio of outsourced contracts placed directly with subcontractors. The inspection regime which generates this portfolio is owned and managed by a small team within TC and complies with national standards for roads and bridges amended slightly to suit the specific characteristics of the bridge. Ongoing routine inspections are undertaken and include a principal bridge inspection every 6 years which is achieved by a tailored rolling programme of inspections. Engineering design and assessment on the bridge is outsourced via an ongoing technical services contract which operates on a four-year procurement cycle. AECOM is the current provider and retain an experienced team of technical staff, some of whom have over 25 years' experience of working on the Tamar Bridge.

The ferries operate on a slightly different basis with a small technical team employed to cover both mechanical and electrical engineering disciplines.

The maintenance and inspection regime is defined in a bespoke planned maintenance system and in compliance with statutory requirements for chain ferries. The undertaking chooses to maintain the vessels 'in class' in accordance with Lloyds Register Classification Society rules. As part of the maintenance programme, the vessels are subjected to a five-yearly dry dock inspection and refit as required by the Maritime and Coastguard Agency and Lloyds Register. Over seventy percent of the maintenance work undertaken on the ferries is done by its own staff. The remaining thirty percent is undertaken by specialist providers. The price dynamics of which change with age as parts become obsolete and more difficult to obtain. Although the theoretical lifetime of the vessel may be dependent on the condition of the hulls' structural steel, it may in fact be the price of maintenance, sustainability of systems or environmental considerations, or a combination of these which drives the real replacement decision. This is currently forecasting a replacement ferry to be required in 2035 which means the preparatory work in terms of planning and design needs to start in just over five years' time.

VIII Capital investment

Anticipated expenditure on both the bridge and ferry is set out within a rolling 25-year capital programme, as shown in the table below.

Table 2.1: Capital programme

Items	Estimate (£m)	Start year	End year
Bridge access improvements – phase 4	0.5	2021/22	2023/24

¹⁰ Contracts are procured by the parent authorities as TBTFJC does not have a legal identity

Ferry gantry replacement	0.9	2021/22	2024/25
Bridge main cable remediation	2.0	2022/23	2023/24
Bridge supplementary cable works	2.0	2022/23	2023/24
Bridge rocker/pendle remedial works	10.0	2022/23	2024/25
Ferry refits	5.1	2023/24	2025/26
Ferry refits	6.0	2028/29	2030/31
Free flow tolling ¹¹	3.5	2029/30	2029/30
Bridge recoating	25.0	2030/31	2032/33
New ferries	45.0	2033/34	2035/26
Bridge re-surfacing	7.0	2040/41	2040/41
Total	107.0		

The cash to finance the capital works is drawn down as debt from CC who, in turn, factor the needs of TC into their wider capital finance requirement. An annual revenue provision is made in the accounts of TC for debt they have drawn down which ensures sufficient cash is retained for actual principal repayments and interest is charged by CC on its borrowings.

2.2.2 Alignment to existing policies and strategies

As infrastructure assets of national significance, the Tamar Bridge and Torpoint Ferry sit at the nexus of multiple strategies at both regional and local level and covering numerous strategic transport objectives including housing growth, air quality and carbon reduction. These include both highway authorities in Plymouth and Cornwall as well as the overall regional transport strategy co-ordinated by Peninsula Transport.

I A part of a regional transport strategy

As the regional transport authority for the Southwest of England, 'Peninsula Transport' is responsible for articulating the voice of the region to government on all strategic transport matters. Representing Cornwall, Devon, Plymouth, Somerset and Torbay the group is an unincorporated 'shadow body' at present facilitated by Devon County Council.

Peninsula Transport have already published their 'vision' for transport in the region and are looking to develop that document into a coherent strategy for investment for the future. It is the expectation of central government that once this regional transport strategy is in place it will form the basis for any argument for investment into the medium to long term.

The aim of the strategy, and set out in the vision, is for transport to provide the key to unlocking the economic potential of the region, generating jobs, stimulating growth and levelling up household incomes. Building over 200,000 new affordable homes remains a key ambition as does the region's commitment to carbon reduction given the member authorities' unanimous declaration of a climate emergency.

As a piece of infrastructure underpinning the route through South Devon and into Cornwall, the significance of the A38 is difficult to overstate. The Tamar Bridge provides both a single point of failure on the route and a pinch point in any attempts to increase capacity. However, this significance does not yet seem to be reflected in its relatively low profile amongst the region's priorities. Developing a sustainable financial future for the bridge and ferry would seem to be a cause the regional transport authority should be championing, given the crossings role as an enabler for the future prosperity of the region. Therefore, how the constituent authorities, either via links between TBTFJC and Peninsula Transport or via their membership of Peninsula Transport itself, ensure that clear line of sight exists at this strategic level should be re-assessed.

¹¹ Excludes the costs of civil engineering works that will be required to re-model the highway.

II Carbon reduction

Both PCC and CC have formally recognised a climate emergency and put carbon reduction at the centre of their strategic priorities. CC has a Climate Change Plan in place and has committed to make their transport infrastructure ‘increasingly more sustainable’. This is a key priority for the plan as transport comprises 23% of all carbon emissions in the county.

PCC, similarly, put their Climate Emergency Action Plan into place in 2022. The plan has a specific section on mobility and recognises that 30% of all carbon generated in the city is from transport. The action plan comprises of a range of mechanisms by which carbon can be reduced including encouraging a transition to electric vehicles and modal shift from car use to more sustainable forms of getting around such as walking and cycling.

The role of the crossings within this broader carbon reduction context is however very limited. The emissions from the ferry diesel generators are the main source of CO₂. The feasibility of decarbonisation of the existing fleet has been the subject of a recently completed study and TBTFJC support will be sought shortly for progressing this further. However, the role that bridge operations could play in this challenge is not as clear. The current business plan for this year makes minimal reference to reducing carbon - ‘consider ways in which the crossings might assist the Parent Authorities in addressing the Climate Emergency’. The crossings support the use of public transport through bus priority schemes and toll free crossings but discussions with stakeholders have revealed that other initiatives that could be viewed positively from a carbon reduction perspective, such as increasing the numbers using the rail link crossing the Tamar, are actually viewed in a negative manner from a bridge operations perspective.

III Levelling-Up

UK Government and CC remain in a process of agreeing a devolution deal¹² which will provide the area with new powers and funding to increase opportunities and living standards through inclusive growth and productivity improvements.

The previous draft devolution deal specifically recognised the criticality of the A38 to the region and came with a government commitment to consider proposals to enhance the road network in Cornwall as part of the UK Roads Investment Strategy, taking account of its economic benefits balanced against wider factors. It is hoped a re-negotiated deal retains these features and commitments.

IV Lack of strategic alignment

TBTFJC’s current strategy for crossings is not sustainable into the long term. Greater consideration needs to be given to the broader regional and local context to ensure that the crossings support a broader range of objectives both councils are looking to achieve. The place that the bridge and ferries occupy in developing a solution to meeting the climate challenge needs particular thought and attention.

In addition, the current absence of the bridge as a topic of discussion at regional level should be regarded as a missed opportunity and remedied quickly. Any doubts regarding the future sustainability of the bridge should be seen as a long term network resilience issue and therefore a suitable subject for discussion by Peninsula Transport. This will offer greater weight to any case for change in the short to medium term and a potential argument for the development of any improved river crossing in the long term.

2.2.3 Drivers for change

Firstly, there is a desire to end the need for repeated, periodic reversion to Government for toll increase approval. This aligns with devolution ambitions in Cornwall and Plymouth for greater

¹² On 5 April 2023 CC Cabinet decided not to accept the proposed Level 3 Devolution Deal. Currently CC is in negotiations with Government in relation to an alternative Devolution Deal that does not require it to change from a Leader and Cabinet Executive Governance Model to a Mayor and Cabinet Executive Governance Model.

local control over matters affecting residents, businesses and their local economies. However, TBTFJC members also want to ensure that TC remains financially sustainable over the long term.

Secondly, and linked to the above, the sections of the A38 either side of the Tamar Bridge are part of the country's Strategic Road Network (and therefore managed and maintained by National Highways) but the bridge crossing itself is not, which represents an inconsistency from a funding, management and liability perspective. The A38 east of the Bridge is also part of the Trans-European Road Network.

Thirdly, TC is not a body corporate and therefore is unable to enter into contracts which presents restrictions in terms of finance, procurement and employment. This poses the question as to whether the current Joint Committee approach remains the most appropriate for the challenges ahead.

2.2.4 Spending objectives

The views of the council members from PCC and CC who are part of the TBTFJC as to the priorities and aspirations for TC have been consolidated into a set of strategic objectives for the purposes of this review and are set out below:

- Financially viable over the long term and financially independent of its constituent authorities
- Recognised and funded as a provider of regionally important infrastructure
- Delivering value for money
- Embracing and investing in technology that improves safety, effectiveness and efficiency
- Supporting local, regional and national policies with respect to growth, climate and devolution

2.2.5 Rationale for public sector support

The operation of the Tamar crossings has been based on the principle of 'user pays' since it opened in 1961. This principle forms the basis of the arrangements under consideration in this report and its suitability into the long term in particular. Should this not be a viable proposition alternative arrangements will need looking at including the use of either national or local taxpayer funding. The rationale for the use of taxpayer funding would include;

- Enabling the Local Economy: Over 16 million vehicles¹³ cross the Tamar Bridge every year. Many of these are short journeys either connecting residents with their workplace or local businesses to each other. The crossings form a vital link from Plymouth to Cornwall and are a critical enabler to the functioning of the local economy as well as that of the broader region.
- Network Resilience: The Tamar Bridge is a piece of critical infrastructure that supports part of England's Strategic Route Network i.e., the A38. It presents a single point of network failure which if unavailable would be likely to disrupt traffic flows as far away as the M5 and well into Cornwall. The bridge therefore needs to be kept open, in a good state of repair with provision for significant replacement expenditure.
- Supporting Emergency Services: The bridge and ferries offer vital routes across the river for emergency vehicles. Services rely on the crossings to connect communities with service hubs either side of the river which need to be accessed quickly. Should either of

¹³ <https://www.tamarcrossings.org.uk/about-us/our-history/>

the crossings be unavailable alternative routes are required involving significantly longer journey times.

2.3 Options

As identified in Section 2.2.3 above, there are three principal drivers behind this review with a need to identify and assess options for addressing the issues identified.

Firstly, there is a desire to find a new way of increasing tolls given the impact of inflation on the costs faced by the crossings. This has brought renewed focus to securing changes to the Acts that dictate the mechanism, recognising what has been achieved elsewhere. For example, ten years ago, the four local authorities¹⁴ responsible for the Humber Bridge managed, with the support of local MPs, to arrive at a position that enables them to uplift tolls annually by RPI without the need to revert to Government for approval.

Secondly, there is the question of how a long term sustainable and equitable position for the finances of the crossings is arrived at that ensures that the infrastructure is preserved for future generations of residents of Cornwall and Plymouth to use. Under the same agreement referenced above with respect to the Humber Bridge, a level of debt was written off by Government. This was part of a proposition to further economic development prospects in the area. It was agreed in exchange for the local councils' underwriting the bridge's debt and running costs and making certain revisions to the governance arrangements for the bridge and represents an example of an option for assessment within this review. The level of tolling and the possibility of differentiating the toll paid by bridge users and ferry users is also something to consider within the question of fairness in terms of how future funding responsibilities are met, particularly for replacement works and maintenance.

Thirdly, the consideration of the tolling mechanism and funding model gives rise to an opportunity to look at potential changes to the governance structure of the crossings. Section 2.2.3 highlighted how, in not being a body corporate, TC is unable to enter into contracts which presents restrictions in terms of finance, procurement and employment. However, changes to the governance structure can only be achieved through changes to the TBA which is a complex process. Therefore, if changes are ultimately pursued to address tolling and funding issues then any desired changes to the governance model should also be undertaken at the same time where practicable.

In order to provide specific definition to the options for change such that their overall value for money can be assessed, we will use the Options Framework Filter, set out in HM Treasury guidance. The methodology underpinning this is explained in the Economic Case but, effectively, it will help in identifying and filtering specific proposals for changing the future scope, capacity and availability of provision; the delivery model and funding mechanism for TC.

2.4 Benefits, risks, constraints and dependencies

2.4.1 Key benefits

In undertaking this review, this business case is looking to deliver the following benefits to both the TBTFJC, elected council members, officers and residents of both Plymouth and Cornwall:

- Long term financial sustainability - provide a recommendation that provides financial stability into the short, medium and long term. Issues regarding financing, capital finance and required increases in revenue have often been dealt with on an immediate basis only without a long term solution being developed. This has meant that toll levels have been a frequent source of officer and political distraction with the need for an uplift regularly reoccurring.
- Certainty around toll levels - it has not been possible in the past to engage in dialogue with the public regarding toll charges beyond just a few years. The development of an

¹⁴ Hull City Council, East Riding of Yorkshire Council, North Lincolnshire Council, Lincolnshire County Council

alternative, transparent method of setting toll charges which the public can easily understand, and support will aid the work of the TBTFJC.

- Governance model that is fit for purpose - structured such that the crossings can be effectively operated and managed and available for future generations to use. Flexible enough to accommodate change in the long term and structured such that they can take advantage of opportunities in the future.
- Sense of equity - that crossing users understand the basis of the toll charge and how it may change over time. That residents in particular feel they have been treated equitably regardless of which part of the region they live and that officers of TC feel they have a robust and achievable financial framework within which to work in.

2.4.2 Main risks

In undertaking change there are a number of high-level risks that require careful management. An initial assessment of these risks is as follows;

- Short term political challenges particularly in an election year may prevent longer term positive change being adopted.
- Lack of central government support for change, in particular an unwillingness within DfT to engage with the constituent councils in a positive fashion.
- Resistance from business and residents to proposed changes, particularly coalescing around organised opposition groups.
- Potential changes in political leadership creates a difference in approach between the two councils on the TBTFJC.

2.4.3 Constraints

TC can only operate in accordance with the powers that TBTFJC has been granted by the TBA. Hence, any changes to the scope of its operation or how it is governed require a change to the Act. It is also reliant upon the Secretary of State for Transport whenever it needs to increase toll levels. As a Joint Committee of PCC and CC, it is subject to the same legal framework as local authorities which is particularly relevant for how it procures, contracts and finances itself. These matters are all assessed in detail within the Commercial Case section of this report.

2.5 Conclusion

There are a number of drivers for change affecting the scope and scale of what TC undertakes, as well as the way it is governed and funded. Therefore, there is a strong likelihood that credible options for change can be identified and tested through a business case process.

The next section involves working up and appraising those options with the aim of identifying a preferred way forward (PWF). It should be noted, however, that delivering any form of change appears challenging given the legally defined parameters that TC operates within. Such matters will be factored into the option appraisal and, as applicable, considered in more detail within the Commercial Case.

3 Economic Case

3.1 Purpose

The purpose of the Economic Case is to identify a range of options for tackling the issues identified in the Strategic Case and to consider which one is most likely to deliver the best value for the public relative to the existing position.

3.2 Assessment approach

The assessment approach is based on that set out in HM Treasury's Green Book guidance¹⁵ which, in effect, is the manual that public bodies are expected to adhere to when producing business cases.

3.2.1 Stage 1 – defining the assessment criteria

The first stage in the process is to set out the criteria that options will be assessed against. These criteria are a combination of the spending objectives of the organisation and the factors that will be critical to how well each option can be implemented.

I Spending objectives

The primary aim of TC is to meet the need for safe, reliable and cost-effective crossings of the River Tamar between Plymouth and Cornwall. The individual objectives that any changes must seek to achieve are as per Section 2.2.4 i.e.

- Financially viable over the long term and financially independent of its constituent authorities
- Recognised and funded as a provider of regionally important infrastructure
- Delivering value for money
- Embracing and investing in technology that improves safety, effectiveness and efficiency
- Supporting local, regional and national policies with respect to growth, climate and devolution

II Critical Success Factors for the long term viability of TC

The critical success factors (CSFs) for delivering any changes recommended by this work are summarised in Table 3.1 below.

Table 3.1: CSFs for the long term viability of TC

CSFs	
Strategic fit and business needs	will meet service requirements and business needs
Value for money	will optimise value in terms of risk adjusted costs and benefits
Partner side capacity and capability	can be enabled and facilitated by the two councils and the DfT
Achievability	can be delivered given capacity, capability, legislation and timescales
Affordability	can be funded by available resources

¹⁵ <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

3.2.2 Stage 2 – defining the option choices for change

It is important that in attempting to identify the best way to address the changes required, the range of possibilities are not inadvertently limited or constrained, and that the viewpoints of as many different stakeholder representatives are captured as possible.

The HM Treasury's Green Book advocates a process to help with this which starts by identifying a long-list of potential options and then subjecting those options to assessment by stakeholders, preferably in a workshop environment, using the criteria from Section 3.2.1.

A key tool for identifying the long-list is the Options Framework Filter, this helps to generate option choices built around five categories as follows:

Table 3.2: Options Framework Filter categories

Categories	Description
Scope of the service delivered	This considers what is currently provided as business as usual (BAU), what this could be pared back to while still delivering the basic service requirements (Do-Minimum), what it could theoretically be expanded to (Do-Maximum) and whether there are any intermediate options between the two.
Service solution	This concerns how the scope above is delivered, so, in effect, the type of infrastructure deployed and its availability to users. Again, the possibilities should range between a Do-Minimum, BAU, and a Do-Maximum alongside any intermediate options.
Service delivery	In this category, the focus is on the form of service delivery, having considered function in the preceding categories. The possibilities for change range between making no changes i.e. persisting with BAU or making changes to the extent of Do-Maximum where a completely new form of delivery is designed and implemented.
Service funding	This category considers the financial implications of the potential changes to the function and form of the service and identifies potential funding responses to those ranging between BAU and what is felt to be a Do-Maximum.
Implementation	The final category knits the aforementioned change options together and defines possibilities around implementation timescales, based upon factors such as levels of optimism and delivery resources.

The following range of option choices for each category were identified and agreed with the group of officers¹⁶ overseeing this assignment.

Table 3.3: Options Framework Filter options

Scope	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
The points of crossing the River Tamar between Cornwall and Plymouth and vice versa	1.0 Maintain the bridge crossing between Plymouth and Saltash and the chain ferry crossing between Plymouth and Torpoint.	1.1 Maintain the bridge crossing between Plymouth and Saltash and cease the chain ferry crossing between Plymouth and Torpoint.	1.2 Maintain the bridge crossing between Plymouth and Saltash and the chain ferry crossing between Plymouth and Torpoint as well as other existing river crossings between Plymouth and Cornwall,	1.3 Maintain the bridge crossing between Plymouth and Saltash as well as other existing river crossings and be responsible for the development of additional public transport crossings of the Tamar.

¹⁶ This piece of work has been developed with input from officers from TC and both constituent councils.

Solution	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
The type and availability of infrastructure used to cross the River Tamar between Plymouth and Cornwall	2.0 Utilise and maintain existing bridge and ferry infrastructure across the various crossings.	2.1 Utilise and maintain existing bridge and ferry infrastructure but reduce the service frequency of the various ferry crossings.	2.2 Utilise and maintain existing bridge and ferry infrastructure but increase the service frequency across the various ferry crossings.	2.3 Utilise and maintain existing bridge and ferry infrastructure and increase the service frequency and capacity of additional public transport crossings .

Delivery	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
The structures relied upon to govern the operation of the crossings	3.0 An unincorporated body, jointly owned by the two authorities and governed by a Joint Committee.	3.1 Separate the bridge and ferry operations by placing the latter into an incorporated body jointly owned by the two authorities.	3.2 Separate the bridge and ferry operations by placing the latter into an incorporated body involving a private partner.	3.3 Keep the bridge and ferry operations together by placing both into a single incorporated body jointly owned by the two authorities.

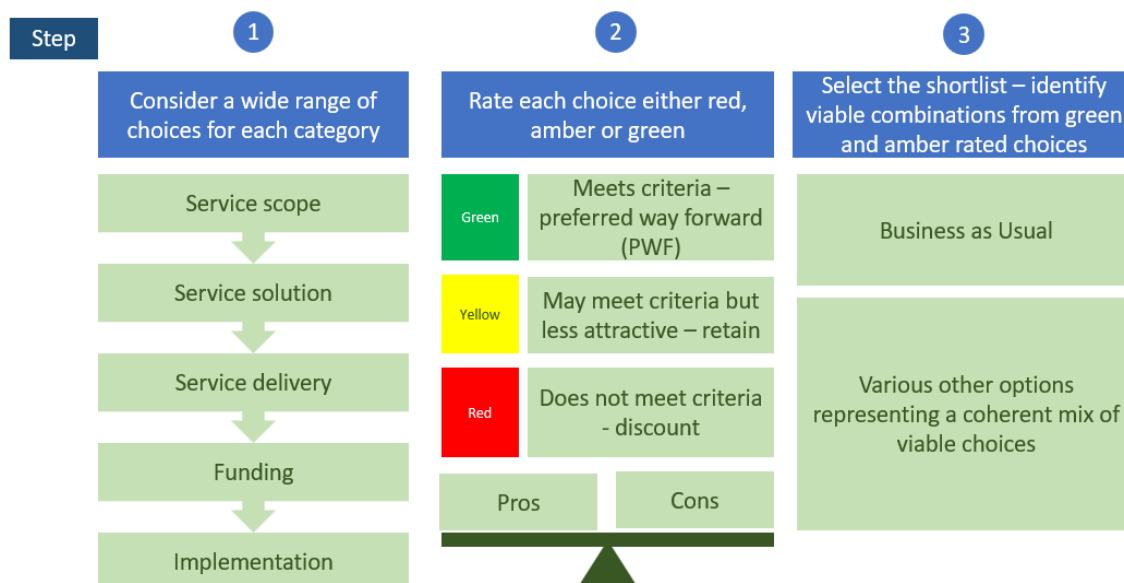
Funding	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
Source of funding and financing TC within an affordable envelope	4.0 Revenue raised through existing tolling mechanism with approvals required from the DfT for periodic increases. Seek support with capital from available grant funding competitions.	4.1 Revenue raised via tolls with local ability to raise annually in line with RPI. Seek support with capital from available grant funding competitions.	4.2 Revenue raised via tolls with local ability to raise annually in line with RPI and a level of debt write off by UK Government to achieve a sustainable business plan over the long term.	4.3 Revenue raised via tolls with local ability to raise annually in line with RPI and an annual revenue grant from UK Government to contribute towards the maintenance obligations of the bridge.

Implementation	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
Timescales for implementing the proposed changes	Not applicable as, by definition, it is what currently exists.	5.1 Deliver within the next five to ten years.	5.2 Deliver within the next five years.	5.3 Deliver within the remaining term of the current UK government.

3.2.3 Assessing the long-list of options

The process for assessing the long-list of options from the choices set out in Table 3.3 is illustrated in the diagram below.

Diagram 3.1: Long-listing assessment process



The pros and cons assessment is contained in Appendix 2 and is a product of our own analysis, research and opinion combined with the views of senior officers from the constituent councils, TC and members of the TBTFJC. The ability of each option choice to impact on the assessment criteria was assessed from a short term (deliver over the next three to five years) and longer term (deliver beyond the next five years) perspective.

A summary of the result of the assessment contained in Appendix 2 is shown in Table 3.4 below.

Table 3.4: Summary assessment of potential changes to be implemented in the short and longer term

Scope	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
The points of crossing the River Tamar between Cornwall and Plymouth and vice versa	1.0 Maintain the bridge crossing between Plymouth and Saltash and the chain ferry crossing between Plymouth and Torpoint.	1.1 Maintain the bridge crossing between Plymouth and Saltash and cease the chain ferry crossing between Plymouth and Torpoint.	1.2 Maintain the bridge crossing between Plymouth and Saltash and the chain ferry crossing between Plymouth and Torpoint as well as other existing river crossings between Plymouth and Cornwall,.	1.3 Maintain the bridge crossing between Plymouth and Saltash as well as other existing river crossings and be responsible for the development of additional public transport crossings of the Tamar .
Short term	Preferred	Discounted	Discounted	Discounted
Longer term	Carried Forward	Discounted	Preferred	Carried Forward

Solution	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
The type and availability of infrastructure used to cross the River Tamar between Plymouth and Cornwall	2.0 Utilise and maintain existing bridge and ferry infrastructure across the various crossings.	2.1 Utilise and maintain existing bridge and ferry infrastructure but reduce the service frequency of the various ferry crossings.	2.2 Utilise and maintain existing bridge and ferry infrastructure but increase the service frequency across the various ferry crossings.	2.3 Utilise and maintain existing bridge and ferry infrastructure and increase the service frequency and capacity of additional public transport crossings .
Short term	Preferred	Discounted	Discounted	Discounted
Longer term	Carried forward	Discounted	Discounted	Carried forward

Delivery	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
The structures relied upon to govern the operation of the crossings	3.0 An unincorporated body, jointly owned by the two authorities and governed by a Joint Committee.	3.1 Separate the bridge and ferry operations by placing the latter into an incorporated body jointly owned by the two authorities.	3.2 Separate the bridge and ferry operations by placing the latter into an incorporated body involving a private partner.	3.3 Keep the bridge and ferry operations together by placing both into a single incorporated body jointly owned by the two authorities.
Short term	Preferred	Discounted	Carried forward	Discounted
Longer term	Carried forward	Discounted	Carried forward	Carried forward

Funding	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
Source of funding and financing TC within an affordable envelope	4.0 Revenue raised through existing tolling mechanism with approvals required from the DfT for periodic increases. Seek support with capital from available grant funding competitions.	4.1 Revenue raised via tolls with local ability to raise annually in line with RPI. Seek support with capital from available grant funding competitions.	4.2 Revenue raised via tolls with local ability to raise annually in line with RPI and a level of debt write off by UK Government to achieve a sustainable business plan over the long term.	4.3 Revenue raised via tolls with local ability to raise annually in line with RPI and an annual revenue grant from UK Government to contribute towards the maintenance obligations of the bridge.
Short term	Preferred	Carried Forward	Carried Forward	Discounted
Longer term	Carried Forward	Carried Forward	Preferred	Discounted

Implementation	Business as Usual (Do Nothing)	Do Minimum	Intermediate	Do Maximum
Timescales for implementing the proposed changes	Not applicable as, by definition, it is what currently exists.	5.1 Deliver within the next five to ten years.	5.2 Deliver within the next five years.	5.3 Deliver within the remaining term of the current UK government.
Short term	n/a	Discounted	Preferred	Discounted
Longer term	n/a	Carried forward	Discounted	Discounted

As illustrated in Diagram 3.1 above, the long-listing approach enables a set of options to be constructed based on the permutation of choices which are either favoured as either to be preferred or worthy of being carried forward for further consideration. This produces a short-list of options which are subject to more in-depth appraisal, particularly in respect of the monetary costs and benefits that they will generate.

3.2.4 Defining the short-list of options

There is a strong element of discretion at this stage as to the permutation of choices that are used to construct the short-listed options. Ideally, the options that are pieced together should vary in terms of ambition by assembling viable choices from the range offered in each change category. However, this is only possible if the choice has been rated either amber or green and is therefore available to be taken forward. For example, it is evident from the results in Table 3.4 that there are no option choices around service scope and solution in the short term other than sustaining business as usual so those are fixed across the short term option configurations. We have also placed a limit on the number of short-listed options for assessment to three as we believe this is sufficient to enable a reasonably diverse mix of viable options to be illustrated and tested within the budget constraints of the assignment.

By taking this approach, we have produced the option configurations shown in Table 3.5a and b below.

Tables 3.5a and b below show the options for the short term and longer term that are being taken forward for further assessment.

Table 3.5a: Option configurations for further assessment – short term

		Options			
		BAU	1	2	3
		ST	ST	ST	ST
Scope					
1.0	Maintain the bridge crossing between Plymouth and Saltash and chain ferry crossing between Plymouth and Torpoint	Green	Green	Green	Green
Solution					
2.0	Utilise and maintain existing bridge and ferry infrastructure across the various crossings	Green	Green	Green	Green
Delivery					
3.0	Operate through an unincorporated body governed by a Joint Committee	Green			
3.2	Separate the bridge and ferry operations by placing the latter into an incorporated body involving a private partner		Yellow	Yellow	Yellow
Funding					
4.0	Raise revenue through existing tolling mechanism with approvals required from the Department for Transport for periodic increases	Green	Green		
4.1	Raise revenue via tolls with local ability to raise annually in line with RPI. Seek support with capital from available grant funding competitions			Yellow	
4.2	Revenue raised via tolls with local ability to raise annually in line with RPI and receive a level of debt write off by UK Government to achieve a sustainable business plan over 40 years				Yellow
Implementation					
5.2	Deliver within the next five years	Green	Green	Green	Green

Table 3.5b: Option configurations for further assessment – longer term

		Options			
		BAU	1	2	3
		LT	LT	LT	LT
Scope					
1.0	Maintain the bridge crossing between Plymouth and Saltash and chain ferry crossing between Plymouth and Torpoint	Yellow			
1.2	Maintain the bridge crossing between Plymouth and Saltash and chain ferry crossing between Plymouth and Torpoint as well as other existing river based crossings		Green	Green	
1.3	Maintain the bridge crossing between Plymouth and Saltash as well as other existing river crossings and be responsible for alternative public transport crossings of the Tamar				Yellow
Solution					
2.0	Utilise and maintain existing bridge and ferry infrastructure across the various crossings	Yellow	Yellow	Yellow	
2.3	Utilise and maintain existing bridge and ferry infrastructure and increase the service frequency and capacity of various other alternative public transport crossings				Yellow
Delivery					
3.0	Operate through an unincorporated body governed by a Joint Committee	Yellow			
3.2	Separate the bridge and ferry operations by placing the latter into an incorporated body involving a private partner		Yellow		
3.3	Keep the bridge and ferry operations together by placing both into a jointly owned, single incorporated body			Yellow	Yellow
Funding					
4.0	Raise revenue through existing tolling mechanism with approvals required from the Department for Transport for periodic increases	Yellow			
4.1	Raise revenue via tolls with local ability to raise annually in line with RPI. Seek support with capital from available grant funding competitions.		Yellow		
4.2	Revenue raised via tolls with local ability to raise annually in line with RPI and receive a level of debt write off by UK Government to achieve a sustainable business plan over 40 years			Green	Green
Implementation					
5.1	Deliver within the next five to ten years		Green	Green	Green
5.2	Deliver within the next five years	Yellow			

3.2.5 Assessing the short-list of options

The assessment of the short-list of options focusses on the monetary costs and benefits that each is likely to generate with the PWF being the one likely to generate the highest net benefit and therefore representing the best value for money. The tables below provide a summary of the three short-listed options, in addition to BAU, that are considered potentially viable to implement within the next 3-5 years i.e. the short term and the three short-listed options, alongside BAU, that are considered potentially viable to implement in the longer term i.e. beyond the next five years.

I Short term options

The only difference across the short term options being tested is with respect to funding. All three assume a split of the ferry and bridge operations, with the ferry operations being placed into a company structure involving a private sector partner. The funding variable across the options is with respect to securing an indexation mechanism per Option 2 and, in addition, under Option 3, a level of debt write-off.

Option	Description
1	Continue to maintain the existing bridge and ferry crossings with the same level of availability but place the ferry operation into a company structure involving a private sector partner. Revert to Government for a new Toll Order to enable tolls to be increased as and when required.
2	As for Option 1 but also secure an indexation mechanism for the tolls.
3	As for Option 2 but as well as securing an indexation mechanism, also secure a level of debt write-off by Government that is sufficient to produce a sustainable business plan for the long term i.e. eliminates the foreseeable need to return to Government for a new Toll Order over the next 40 years.

II Longer term options

The longer term options being tested involve increasing the scope of what TC looks after to include all other ferry crossings on the river and then potentially other modes of public transport across the river too. The impact of increasing the capacity and frequency of river crossings is assessed as well as the benefit of creating a new corporate entity for the whole of TC operations. In terms of funding, the options range from securing an indexation mechanism per Option 1 to additionally, under Option 2 and 3, a level of debt write-off.

Option	Description
1	Acquire responsibility for all ferry crossings on the river and place the expanded ferry operations into a company involving a private partner. Secure an indexation mechanism for the tolls and seek support with capital from available grant funding competitions.
2	As for Option 1 but keep the bridge and ferry operations together within a jointly owned, single incorporated body and seek a level of debt write off by UK Government to achieve a sustainable business plan over the long term i.e. eliminates the foreseeable need to return to Government for a new Toll Order over the next 40 years.
3	As for Option 2 but expand the scope of responsibility to include other public transport crossings on the river and increase the service frequency and capacity of public transport crossings. These would be delivered via a jointly owned, single incorporated body with the same financial proposals as Option 1 and 2.

These now need to be subjected to an analysis of their value for money relative to BAU i.e. an assessment of the additional net benefit compared to BAU that each option could generate.

3.3 Value for money analysis

In order to calculate the additional net benefit potentially offered by each option, the anticipated costs and benefits (exclusive of inflation) generated by each are profiled out over an assessment period, in this case, 20 years. The present values of those cost and benefits are then calculated to assess what their aggregated value in today’s terms is worth, given the time value of money i.e. the future values are discounted to account for the fact that the same amount of money is more valuable to have now than in the future.

It is important to note that the analysis, in this work, relies upon ‘rough order of magnitude’ rather than referenceable estimates. The progression from what appears to be a PWF for both the short term and longer term, as per this analysis, to confirmed preferred options for both periods would require more specific and detailed business case exercises to be undertaken, under-pinned by professional transport modelling.

3.3.1 Short term

The additional monetary costs and benefits of the three short term options being tested as an alternative to doing nothing i.e. continue with BAU, have been profiled out and are summarised below. The assumptions behind the figures used in this analysis are provided in Appendix 3.

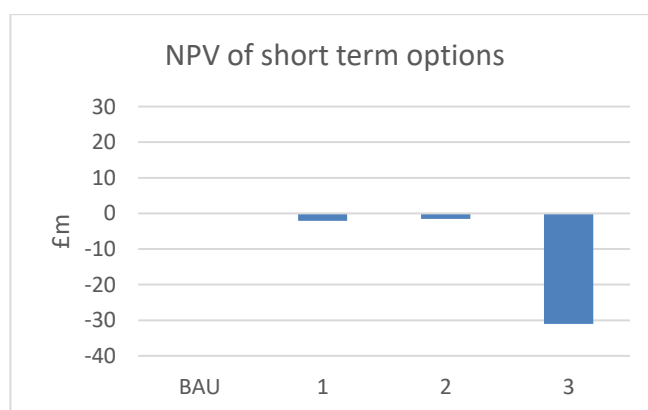
Under Option 1, any additional income that could be generated by benefitting from the wider commercial expertise and incentives that a company structure could facilitate, are unlikely to offset the additional costs of establishing and maintaining that company structure. Therefore, this option is likely to be more expensive than doing nothing and continuing with BAU.

Under Option 2, although the pursuit of an indexation mechanism for the tolls makes operational and financial sense, its wider value for the public is neutral beyond the avoided Toll Order costs, which will save TC money. Indexation in line with inflation would make travel costs more predictable, and, for the organisation, would make financial planning more responsive and efficient.

Finally, under Option 3, the debt write-off reflects a cost to the public purse. This cost would need to trigger activity that leads to a projected economic benefit of at least twice the present value of the debt written off¹⁷. For example, using the headroom to reduce tolls would not be an acceptable proposal unless a convincing business case could be put to Government that demonstrated how this would unlock sufficient additional economic growth.

The graph below illustrates the additionality, in terms of present values, that each of the three options described deliver relative to the BAU option. All three return a negative present value position when compared to the BAU option.

Graph 3.1: NPV of short term options



¹⁷ The capital investment that a write-off of debt would support would need to generate quantifiable benefits with a present value of at least double to be considered ‘High’ value for money by the DfT

However, that does not mean that such options or certain features of those options should not be pursued if, over the longer term, they can be shown to be capable of delivering additionality over doing nothing under BAU.

Hence, this moves the analysis into the appraisal of the longer term options, all of which contain the aspects assessed under this short term time frame.

3.3.2 Longer term

As with the short term options, the monetary costs and benefits of the three longer term options have been profiled out and are summarised below. The assumptions behind the figures used in this analysis are provided in Appendix 3.

Under Option 1, the motive for expanding the river based crossings and placing those operations into a commercially orientated company with a private sector partner would be to grow the revenue streams of TC. An expanded ferry operation would inevitably increase overall operating costs too while the upfront costs of establishing or acquiring the additional routes and establishing the company would need detailed investigation. There would also, under this option, be the benefit of not having to face the costs of frequent Toll Orders under the assumption that an indexation mechanism is secured.

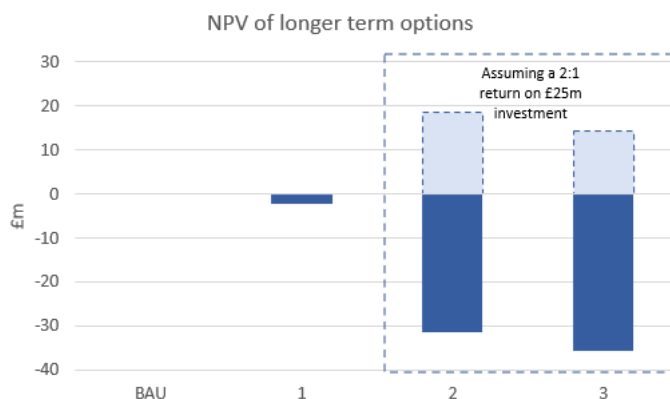
The differences that Option 2 presents compared to Option 1 is that rather than place the river based operations into a separate company, the whole TC operation is placed into a new corporate entity with the motive being around improved governance rather than commercial ethos. There may be monetisable benefits of the former but they would need to be given detailed consideration relative to what can be potentially achieved within the current Joint Committee structure. The additional income resulting from the recruitment of a private sector partner into the new ferry company per Option 1 may be lost under this approach. The key feature, however, of this option is the debt write-off and, as also noted in the analysis of the short term option that featured this, it would need to trigger activity that leads to a projected economic benefit that equated to at least twice the present value of the debt written off. It would be envisaged that the case to Government would involve projects that contributed to putting the river at the heart of a sustainable transport strategy for Plymouth and surrounding area. Such investment projects would need detailed business cases involving transport modelling, viability testing and professional costing.

Finally, Option 3, involves increasing the extent, capacity and frequency of river transport services through yet to be defined means. This could involve investment in new types of vessels and infrastructure as part of the investment facilitated by the headroom created by the debt write-off. However, these new services would also come with revenue costs and previous work has questioned whether demand is likely to exist for this type of expansion.¹⁸

The graph below illustrates the additionality, in terms of present values, that each of the three options described above deliver relative to the BAU option.

¹⁸ Peter Brett Associates – 2013 – River Tamar Crossings Study – “Previous studies have made the case for new passenger ferries serving new routes but our analysis cannot identify sufficient unmet demand to justify the investment required to implement such services”.

Graph 3.2: NPV of longer term options



The graph illustrates that both Option 2 and Option 3 could deliver significant added value over BAU but this is dependent upon the nature of the projects¹⁹ pursued as a result of the capital headroom created by the debt write-off. As highlighted above, such investment is also likely to generate a budget pressure. This is considered further in the Financial Case.

Having reviewed the monetary impacts of each of the longer term options for change, the indications are that there may be a programme of strategic activity, best defined by Option 2, that could deliver additional benefit for the public over and above what will be achieved by continuing in the existing state with the existing scope of service.

However, the dependencies of such a conclusion, which include the development of detailed business cases, are highlighted below in the section on 'Dealing with uncertainty', with the implications of delivery from a commercial, financial and management perspective explored in the remaining sections of this report.

3.3.3 Dealing with uncertainty

I Assessing demand

The case for investment in transport is typically underpinned by population growth. At present, it is not apparent that the area which the TC infrastructure largely serves will experience population increases of any note over the next ten to twenty years. For example, the Office for National Statistics (ONS) predict that the population for Plymouth will grow to 274,300 by 2034, an increase of 4.3 per cent on the estimated current figure of 264,700. There is also no major development or investment in the pipeline that could be expected to bring in significant new demand²⁰.

The case for investment is, therefore, likely to depend upon delivering net zero commitments and encouraging people to make less journeys over the bridge and make more journeys on public transport. There have been numerous studies undertaken into transport pricing and its impact on journeys and there is some evidence (see, for example footnote 21) that bridge toll increases will reduce the number of journeys taken as well as increase overall revenue. However, in order to deliver the level of carbon reduction implicit in a benefit cost ratio of 2:1, as referenced in Section

¹⁹ Under Option 2, the investment is assumed to involve facilitating more carbon friendly journeys and investing in new vessels and infrastructure that will involve charging foot passengers. This option could either add to the VFM impact or reduce it, dependent upon whether such operations proved viable, an aspect which remains to be tested. Under Option 3, the budget impact in the short term would be significantly negative and, dependent upon the source of benefits, could represent a long term additional budgetary pressure too, even if the option generated a 'High' value for money return for the public by, for example, reducing carbon emissions. The investment would need to lead to significant modal switch and wider environmental benefit in order to be acceptable from a VFM perspective.

²⁰ It is assumed that any migration into the region as a result of development at Sherford is captured in the ONS figures

²¹ <https://gov.wales/sites/default/files/statistics-and-research/2018-12/121105severntollsfinalen.pdf>

The study into the impact of the Severn Tolls on the Welsh Economy modelled toll price increases of 50% and predicted a usage decline of 4% and a 41% increase in revenue.

3.3.2 above, the scale of displacement would need to be significantly more than that noted in the example referenced in footnote 21 and there would be wider welfare costs of such change that would need to be factored in too e.g. increased travel time. The transport and economic modelling that would be required to support a detailed business case is complex and substantial but would be a pre-requisite of any decision to progress the PWF.

II Assessing costs of investment and operation

Alongside the need to understand demand and modal displacement, is the need to determine the consequential scale of expansion on the river and understand not only the upfront capital costs but also the costs of maintaining and renewing the additional infrastructure. The net present value (NPV) technique consolidates the costs and benefits over the investment lifetime and discounts them to their equivalent value now. Hence, within the overall NPV figure is a stream of costs and benefits that will need scaling and profiling. The uncertainty around such values and the tendency to over-estimate benefits and under-estimate costs will also require an adjustment to be made for optimism bias.

3.4 Conclusion

A two-stage process whereby the qualitative implications of a long-list of options were assessed, followed by a quantitative, value for money, assessment of a set of short-listed options, has produced a number of helpful conclusions.

Firstly, that changes to the business of TC in terms of the scope and scale of services and infrastructure that it is responsible for would neither be achievable or desirable within the short term. The only change, in the short term, for which there is a value for money case is the move to an indexation mechanism for tolling.

In the longer term, a case, albeit appearing unlikely at this stage, could emerge for increasing the scope and scale of services and infrastructure that TC is responsible for. This could align well with the pursuit of a debt write-off by Government. Such a move would represent a cost to the public purse which would need to unlock investment that could be shown to be capable of delivering a return on cost of at least 2:1.

This investment could involve TC delivering projects that put the river at the heart of a sustainable transport strategy for Plymouth and surrounding area. The progression of such a strategy would be dependent upon detailed business case testing involving specialist transport and economic modelling.

In terms of any changes to the governance model of TC, this is ruled out in the short term but may facilitate higher revenues or more efficient administration, in the longer term. However, the additionality brought about by such a change is unlikely to be significant and would be dependent upon factors referenced above materialising that appear unlikely at this point.

4 Commercial Case

4.1 Purpose

The purpose of the Commercial Case is to assess the feasibility and commercial implications of what has emerged from the Economic Case as a PWF, taking into account the current position and also the alternatives that were assessed as part of the value for money assessment in the Economic Case.

4.2 Delivery Models

The PWF, in the short term, involves no changes to the current delivery model. Over the longer term, a case may emerge for TC to have an expanded role in transport (other than rail) across the Tamar. How it might do that and subsequently manage those operations is considered below.

4.2.1 Achieving an expanded role

The options by which TC could, in practice, become involved in the delivery of other routes on the river would need more detailed assessment through a formal, options appraisal process. The option appraisal would need to consider the nature and value of existing arrangements and the basis on which these are tendered and awarded. It would also have to take into account the impact on the wider market and, for example, seasonal river activity as well as the commercial and financial challenges of scaling up the operation in terms of funding, equipment and recruitment.

4.2.2 Managing TC operations

If the circumstances do arise such that there becomes a case for expanding the operations of TC then the value of changing the current delivery model and placing such operations into a corporate structure should be assessed as part of that, with legal advice taken on how that could be achieved.

One proposal that featured in the Economic Case for the longer term, albeit highly conditional, was the splitting of the ferry operations from the bridge operations and the former placed into a company structure involving the input of a private sector partner.

The factors that would influence the economic and commercial case for doing that are reviewed in Appendix 4. The legal advice would need to assess whether a company could be formed under the governance of TBTFJC.

I Creation of an operating company under the governance of the TBTFJC

Section 70 of the TBA 1957 (as amended) currently requires all matters relating to the discharge of the functions of the constituent councils under the 1957 Act to be referred to the TBTFJC for consideration. It also states that, with a few exceptions, all powers conferred on the councils under the 1957 Act are delegated to the TBTFJC. This would appear to prohibit the contracting out of ferry operation functions to a company as that company would not have the powers to undertake the tasks required nor take the decisions required in order to operate. The Deregulation and Contracting Out Act 1994 does provide for certain statutory functions vested in local authorities and joint committees to be exercised by other persons, such as separate companies, but this would need to be authorised through a Contracting Out Order and involve a prescribed process to be followed.

Another option that featured in the Economic Case was to abandon the Joint Committee model and place both the ferry and bridge operations into a new wholly public sector controlled corporate entity. This responds to the issues presented by the fact that, as a Joint Committee, TBTFJC has no legal personality of its own which means it cannot enter into binding legal contracts, employ staff or borrow money.

4.2.3 Governance

Approximately four years ago, a 'peer challenge review' of TC was undertaken by a small team of experienced elected Member and officer peers from other parts of the country. As part of the review, the existing governance arrangements were considered, and a number of observations and recommendations made as a result. These essentially fell into two categories, the first advocating that TC and the TBTFJC play a more influential role in the economic development of Cornwall and Plymouth owing to the strategic significance and revenue raising potential of the infrastructure it is responsible for and, secondly, ensuring that members of the TBTFJC fully understood their role and what they should be seeking to do. As a result, a complete review of the TBTFJC terms of reference was undertaken which included workshops with Members to walk through and fully explain the implications of the governance model. There are also workshops held for Members throughout the year on various key matters including finance and new and existing TBTFJC Members have an open invitation to visit the undertaking to understand the operational workings and challenges that it brings.

Despite this, it is evident that issues still remain in relation to both categories of findings. The governance model for TC has been under review in response to the long-standing concerns, again reflected in the aforementioned peer review report, that "having to take and promote parallel reports to each Authority which creates a duplication of effort and risk. In addition, the different time periods for decisions in Cornwall and in Plymouth can be a hindrance to operational efficiency and agile decision-making".

However, achieving any structural changes to the governance model would require an amendment to relevant provisions in the TBA which, as already referenced above and in the Economic Case in Section 3 could be difficult to achieve. A company structure would, as noted in the analysis within Appendix 2 also be less tax efficient than the current model. This could conceivably be dealt with by replacing the existing TBA with an entirely new Act that features the establishment of a bespoke statutory body to replace TBTFJC. This would give the governance model its own legal personality and overcome the tax issues. A good example of such a body is the Humber Bridge Board which was created as a statutory body by the Humber Bridge Act (1959) and means that it can contract and employ people and also enjoy the same tax exemptions as the constituent local authorities that are represented, via appointed Directors, on its Board.

It is our view that whatever the scope and scale of what TC undertakes stays as it is, that the TBTFJC model remains, in principle, fit for purpose, and we agree with the view of CC Legal Services given in the workshop we attended in October 2022 that there are alternative ways in which the existing governance arrangements of the Joint Undertaking could be improved without going as far as seeking an amendment to the legislation. This would be by retaining the TBTFJC but having in place appropriate delegations between the Authorities for such things as decision-making and contracting. We would also suggest that there needs to be a greater understanding and appreciation of the role, responsibilities and powers of the TBTFJC amongst those appointed to it and those who represent the constituent councils as officers and members.

The aforementioned peer review report also highlighted that although the ferry and bridge are part of a single organisation, the culture and practice made it feel like two distinct operations to staff, particularly those on the ferry side of the organisation. If, in the longer term, the ferry operation was placed into a company it could, at face value, be seen to reinforce that impression. However, it could also be seen as a positive intervention that reflects the reality that the bridge and ferries are different operations. Such a re-structure could address concerns around identity, leadership, resourcing and status, particularly given that that part of the rationale for a new company would be to help catalyse the delivery of a strategy for river based transport. An overview of the requirements of a new company are set out in Appendix 5.

4.3 Funding

The pursuit of an indexation mechanism is a focus of the short term PWF and, if not obtained in that period, the longer term too. The longer term also involves pursuit of a level of debt write-off and the dependencies and process for this are discussed below.

4.3.1 Secure a toll indexation mechanism

In order to amend the toll charges, TC must apply to the Secretary of State for Transport under the provisions of the 1954 Act under powers derived from the TBAs. Under the 1954 Act, operators are required to make an application, in the form of a business case, to increase tolls to the Secretary of State, who, if satisfied, makes an Order revising the charge as he sees fit. The procedure contains a 42-day period that involves extensive general public, user and stakeholder consultation process during which, following advertisements placed in the local press, objections can be made to the proposed revisions. In the event that an objection, received during that period, is not withdrawn, a local public inquiry must be held which is led by an Inspector appointed by the Department for Transport (DfT). The whole process is time consuming with the business case involving commissioning various pieces of external specialist advice in relation to, as examples, future maintenance obligations and traffic volumes and usually followed by the aforementioned local public inquiry.

There are currently conversations ongoing with DfT officials about how the toll levels can be linked to an indexation mechanism such that they increase on an annual basis in line with inflation without the need for a new Toll Order. The preference is to find an existing piece of legislation that can be amended through a Public General Bill that enables this to occur with the current focus being the Transport Charges &c. (Miscellaneous Provisions) Act 1954.

The alternative would require a change to the TBA 1957 (as amended) in so far as it applies to TC, which would only be possible under a Private Bill. The Private Bill route involves a number of timetabled steps for which there is only one annual opportunity to commence, by the bill being presented in Parliament in November, and its progress through the required stages in each House can be significantly delayed by Parliamentary business or individual Member opposition.

4.3.2 Securing a debt write-off and overseeing capital investment

The concept of a debt write-off was put forward as an option for consideration in the Economic Case. TC is projected to have, by 31 March 2024, £47m of debt outstanding with c. £42m attributable to the financing of capital works on the bridge and c. £5m to capital spent on the ferries. This money has been financed by CC and, therefore, any write-off would need to be recompensed by a payment from Government to CC. A request to Government for a such a sum would need to be supported by a business case that demonstrated how such a payment would deliver a return in excess of the value for money threshold i.e. a return of at least 2:1. This is likely to require a package of projects and initiatives to be developed that can be funded from the headroom created by the debt write-off. The Economic Case noted the merit of projects that would contribute to putting the river at the heart of a sustainable transport strategy for Plymouth and surrounding area. This could include proposals to decarbonise the existing vessels and evolve the fleet that operates on the river to cater for more foot passenger traffic across and along the river. This would be new territory and require TC to consider the additional maintenance obligations in terms of cost and skill sets.

Under the PWF, the capital programme for the bridge actually represents BAU for TC which it has been successfully maintaining and investing for over 60 years. Much of the maintenance work is contracted for under framework agreement arrangements as part of a delivery model that appears to work well (See Section 2.2.1 VII of the Strategic Case).

4.3.3 Financing

TC is self-funded through the raising of tolls and that revenue needs to not only cover the operating costs of the ferries and bridge but also the significant capital maintenance and lifecycle replacement programmes that are attached to each. The cash to pay for that capital expenditure comes from loans taken out with CC and the loan repayment and interest is reflected as an annual cost, typically over a 25-year period but this can vary dependent on the nature of the capital expenditure²².

²² Ferry re-fits are financed over a five year period as an example.

An Excel based workbook is used to profile out projections of revenue and expenditure over the long term, based upon assumptions and calculations linked to debt financing requirements, toll levels, inflation, interest rates and the capital programme.

It became apparent from our work that this workbook was in need of improvement due to it:

- Having a high risk of error as a result of poor design principles
- Being insufficiently flexible with scenario modelling requiring significant manual manipulation

The rapid changes in inflation and interest rates and the need for more frequent toll increases have brought about a need to undertake more 'What-if' scenario testing around the toll levels.

There needs to be investment in the development of an improved financial model that can meet the budgeting and reporting needs of TC, TBTFJC and its constituent councils and we are aware that this work has commenced as we put this report together.

4.4 Procurement and contracting

I Ferry services

In most cases where local authorities want to put some aspect of services in a company to, for example, instil a more commercial culture, better manage risk and increase financial transparency and accountability, they establish the company as a Teckal company²³ which means services can be let to that company without requiring a procurement competition. However, in this case, the conditions of being a Teckal company would run counter to the drivers for placing the ferry operations into a company i.e. accessing wider insights and giving the ferry operations more autonomy and control. This is because TBTFJC would still be required to exercise a decisive influence over both the strategic objectives and significant decisions of the company. Hence, there would be the need to let a contract, albeit acknowledging the difficulties that would need to be overcome, as per Section 4.2.1.

4.4.2 Infrastructure replacement and maintenance

TC has successfully maintained the bridge and Torpoint ferry crossing for over 60 years which has included two cycles of ferry replacements²⁴ and substantial bridge modification work to meet European Union requirements for goods vehicles. Hence, it has significant experience of commissioning and managing major capital works and a well-established delivery model for asset maintenance.

For the bridge, it has largely outsourced routine programme maintenance to a range of providers and has framework agreements in place for specialist and responsive works. For the ferries, day to day, routine programme maintenance is carried out by an in-house team of mechanical and electrical engineers and technicians with contracts let for more significant repair and re-fit work.

If proposals were pursued to place river based operations into a company, there would need to be further and more detailed consideration given to the extent of infrastructure responsibilities transferred to that company. It could, for example have responsibility for asset operation only and not have ownership obligations. This would mean it overseeing routine, day to day and programme maintenance with major replacement and re-fit works being the responsibility of the asset owners. This approach would need testing and specialist tax advice received as part of that.

²³ 'Teckal-compliant' – is the description given to a company which benefits from the award of contracts for works, services or supplies from its controlling Contracting Authority (or Authorities) without having to go through a competitive tender process. "Teckal" refers to the originating case which has since been codified within Article 12(1) to (6) of EU Directive 2014/24/EU and, in the case of the award of concession contracts, Regulation 17(1) to (6) of the CCR 2016.

²⁴ This included the innovative stretching and re-engineering of the first of the two generations of ferries to increase capacity by 60% and extend operating life by 15 years.

The company would most likely (subject to legal advice confirming the position) to possess the features of a 'contracting authority'²⁵ and therefore be expected to adhere to Public Contracts Regulations 2015²⁶ when the value of any works, services or supplies it is procuring is above the applicable thresholds²⁷.

4.5 Technology

The technological capability of TC is crucial to the continued smooth operation of the bridge and ferries as well as the organisation's ability to evolve and continue to deliver in accordance with its strategic objectives. For example, technology underpins its ability to:

- Maximise income generation and collection
- Predict and control traffic flows
- Minimise downtime and disruption arising from maintenance and component failures
- Produce data on user behaviour and journey patterns for the purposes of understanding toll pricing implications
- Transitioning to net zero

TC is part of national and international network groups so is sighted on latest technological developments with respect to its business and it is clear from discussion with management that the potential for technological enabled improvement is kept under continual review.

The section on Income Collection within Appendix 4 highlights the latest position with respect to open tolling for example which should also contribute to improvements in some of the other areas above such as better management information and traffic flows. In respect of net zero, TC is undertaking a ferry decarbonisation feasibility study in partnership with Vectis Marine Design Ltd (Vectis) and is in continual dialogue with its maintenance partners in respect of new and innovative solutions to its maintenance challenges e.g. bridge re-surfacing and re-coating.

Given the importance of technology to the continued safety, efficiency and effectiveness of TC, we would recommend the development of a technology strategy to set out what TC considers as important areas for progression and investment and to show how such areas i) align with broader corporate objectives, ii) have been the subject of consultation and agreement, and iii) can be afforded as part of capital budgets going forward.

4.6 Conclusion

A PWF emerged from the Economic Case that ruled out changes to the business of TC in terms of the scope and scale of services and infrastructure in the short term with the only change justified from a value for money perspective being a move to an indexation mechanism for tolling.

In the longer term, a case could emerge for increasing the scope and scale of services and infrastructure that TC is responsible for, subject to a number of dependencies which would need

²⁵ The term "contracting authorities" includes "bodies governed by public law", defined in the Public Contracts Regulations 2015 as "bodies that have all of the following characteristics:— (a) they are established for the specific purpose of meeting needs in the general interest, not having an industrial or commercial character; (b) they have legal personality; and (c) they have any of the following characteristics:—(i) they are financed, for the most part, by the State, regional or local authorities, or by other bodies governed by public law; (ii) they are subject to management supervision by those authorities or bodies; or (iii) they have an administrative, managerial or supervisory board, more than half of whose members are appointed by the State, regional or local authorities, or by other bodies governed by public law";

²⁶ <https://www.legislation.gov.uk/uksi/2015/102/contents>

²⁷ Current threshold for works under the Public Contracts Regulations 2015 is £5,336,937 and for supplies and services is £213,477 (including VAT). Source: Regulation 5 of the Public Contracts Regulations 2015.

to be tested in a detailed business case supported by specialist transport and economic modelling.

An initial assessment in this section of the commercial implications of such changes has identified that there would be significant but not insurmountable complexity involved in achieving some of those changes. However, there are worthwhile activities that could be embarked upon in anticipation of those changes being validated as value for money such as:

- Development of a vision and strategy for future public transport across the Tamar
- Establishing a memorandum of understanding type agreement with other route operators on the river with the intent of ultimately jointly delivering the aforementioned strategy

In the short term, there is some activity that would benefit from being undertaken which includes:

- Continue the investment that has begun in the development of an improved financial model that can meet the budgeting and reporting needs of TC, TBTFJC and its constituent councils
- Ensuring that the future of the Tamar Crossings is a fundamental part of any regional transport strategy developed by Peninsula Transport
- Development of a technology strategy to set out how TC will embrace technology to continue to meet its corporate objectives
- Continue to work on establishing, with DfT, the legal route for securing a toll indexation mechanism
- Reviewing the induction programme for new appointees to the TBTFJC to ensure they have a strong understanding and appreciation of the role, responsibilities and powers of the TBTFJC and also widen awareness amongst those who represent the constituent councils as officers and members

5 Financial Case

5.1 Purpose

The purpose of the Financial Case is to consider the affordability and financing implications of the PWF that has been identified in the Economic Case and considered further in the Commercial and Management Cases.

In the short term, the PWF involves a continuation of periodic toll re-sets based on new Toll Orders while working on securing a mechanism that links toll levels to a price index and provides protection from general inflation. In the longer term, the PWF could, subject to factors that appear unlikely at this stage, involve a change in delivery model and, potentially, a more explicit cross-subsidy between the bridge and the ferry as well as a broader capital programme than currently envisaged.

5.2 Baseline position

5.2.1 Cost base

TC has three cost centres – i) Tamar Bridge; ii) Torpoint Ferries; iii) Corporate. The first two cost centres are self-explanatory, accounting for the operating costs of the bridge and ferries while the third captures the support and administrative costs of the overall organisation as well as toll income and the capital financing costs for both the bridge and ferries.

I Tamar Bridge

The table below shows the projected operating costs of Tamar Bridge over the next four years excluding capital financing costs attributable to the bridge. The corporate costs have also been apportioned on the basis of the relative scale of income generated by the bridge compared to the ferries. These are captured in the 'Other' cost line.

Table 5.1: Tamar Bridge operating costs (£'000s)

Bridge operations	Baseline			
	2023/24	2024/25	2025/26	2026/27
	1	2	3	4
Expenditure				
Staff	1,544	1,577	1,608	1,640
Buildings and Premises	1,953	1,717	1,787	1,832
Supplies and Services	1,924	2,006	2,025	2,068
Other - including corporate expenditure	509	513	519	525
Learning Centre	135	213	291	148
Total	6,065	6,026	6,230	6,213

II Torpoint Ferries

The table below shows the projected operating costs of Torpoint Ferries over the next four years, excluding capital financing costs attributable to the ferries. As per the bridge and noted above, the apportioned corporate costs of TC are reflected in the 'Other' cost line.

Table 5.2: Torpoint Ferries operating costs (£'000s)

Ferry operations	Baseline			
	2023/24	2024/25	2025/26	2026/27
	1	2	3	4
Expenditure				
Staff	4,231	4,315	4,402	4,489
Buildings and Premises	298	309	322	326
Supplies and Services	2,007	2,010	2,051	2,064
Other - including corporate expenditure	86	87	88	89
Total	6,622	6,721	6,863	6,968

It is apparent from comparing Tables 5.1 and 5.2 how different the cost bases of the two operations are with ferry staff costs approaching three times the level of the bridge but the bridge bearing significantly higher Buildings and Premises costs as a result of the maintenance costs associated with the bridge itself.

5.2.2 Income

The main source of income is the tolls generated by bridge and ferry crossings and the projections for these are shown below.

Table 5.3: Tamar Bridge income (£'000s)

Bridge operations	Baseline			
	2023/24	2024/25	2025/26	2026/27
	1	2	3	4
Income				
Cash	(8,006)	(8,006)	(8,895)	(8,895)
TAG	(6,206)	(6,206)	(6,896)	(6,896)
Sub-total	(14,212)	(14,212)	(15,791)	(15,791)
Other	(897)	(905)	(915)	(925)
Total	(15,109)	(15,117)	(16,706)	(16,716)

Table 5.4: Torpoint ferries income (£'000s)

Ferry operations	Baseline			
	2023/24	2024/25	2025/26	2026/27
	1	2	3	4
Income				
Cash	(1,063)	(1,063)	(1,063)	(1,085)
TAG	(772)	(772)	(772)	(788)
Sub-total	(1,835)	(1,835)	(1,835)	(1,873)
Other	(119)	(120)	(121)	(123)
Total	(1,954)	(1,955)	(1,956)	(1,996)

The crossing numbers remain lower than those experienced pre-pandemic and the working assumption for budget purposes is that they have now stabilised and will not return to those levels.

The tolls that are charged are set out in an order of the TBA and each time they need to be raised a new Toll Order is required. The process for a new Toll Order to be granted involves an

independent inspector, appointed by the DfT to be satisfied that the toll increase requested is justified²⁸. The figures shown assume no new Toll Order is secured.

5.2.3 Net position

The current baseline position bringing together the income and cost positions from above highlights that TC will have an operating deficit this year and fully extinguish its reserves next year if toll levels are not increased.

Table 5.5: TC financial summary

Combined	Baseline			
	2023/24 1	2024/25 2	2025/26 3	2026/27 4
Income				
Total	(17,063)	(17,072)	(18,662)	(18,712)
Expenditure				
Total	12,687	12,747	13,093	13,181
Net position (excluding finance charges)	(4,376)	(4,325)	(5,569)	(5,531)
Net position (including finance charges)	421	1,330	525	471
Reserves b/f	(614)	(193)	1,137	1,662
Reserves c/f	(193)	1,137	1,662	2,133

At the point where TC has no more reserves, its only source of funding would be the two constituent councils but neither have any provision in their budget to financially support the organisation.

Hence, the short term PWF involves determining the basis of a new Toll Order to increase the tolls and also continued efforts to secure an indexation mechanism by way of the process described in the Commercial Case.

5.3 Preferred way forward – short term

In determining the basis of a new Toll Order there are various factors to take into account and these are under active consideration by the TBTFJC at the time of this report.

These factors are as follows:

- The level of cash reserve that is prudent for TC to maintain for contingency purposes
- The projections for crossing numbers on both the ferries and the bridge and how this will impact overall income
- The economic outlook and the effect this could have on inflation and the cost of borrowing

²⁸ Section 6(3) of the 1954 Act states that in reaching a decision on the application, the decision-maker shall have regard to: ...the financial position and future prospects of the undertaking and shall not make any revision of charges which in his opinion would be likely to result in the undertaking receiving an annual revenue either substantially less or substantially more than adequate to meet such expenditure on the working, management and maintenance of the undertaking and such other costs, charges and expenses of the undertaking as are properly chargeable to revenue, including reasonable contributions to any reserve, contingency or other fund...

- The profile and scale of the capital programme and the impact this will have on finance charges
- The length of time over which the toll rise should prove sufficient based on assumptions made in respect of the above factors

The process involved in seeking a toll revision as well as the reputation management that needs to accompany it means the exercise is pursued as infrequently as possible. However, an unexpected change in one or more of the factors above can significantly impact the financial position of TC.

The effect of the rise in inflation and interest rates, initiated by the outbreak of war in Ukraine, is the reason that TC is having to re-visit toll levels more frequently than has been the historic norm²⁹.

As well as the different assumptions that can be adopted for the factors above and which, in turn, drive a different toll requirement, there are variables around the tolling principles too which also impact the toll level.

Currently, the same toll is levied for both a ferry or bridge crossing but this principle could be changed such that the ferry toll becomes higher to reduce the net deficit cost of its operation.

Table 5.6: Ferry financial summary

Ferry operations	Baseline			
	2023/24 1	2024/25 2	2025/26 3	2026/27 4
Income				
Cash	(1,063)	(1,063)	(1,063)	(1,085)
TAG	(772)	(772)	(772)	(788)
Sub-total	(1,835)	(1,835)	(1,835)	(1,873)
Other	(119)	(120)	(121)	(123)
Total	(1,954)	(1,955)	(1,956)	(1,996)
Expenditure				
Staff	4,231	4,315	4,402	4,489
Buildings and Premises	298	309	322	326
Supplies and Services	2,007	2,010	2,051	2,064
Other - including corporate expenditure	86	87	88	89
Total	6,622	6,721	6,863	6,968
Net position (excluding finance charges)	4,668	4,766	4,906	4,972
Net position (including finance charges)	5,230	5,439	5,623	5,754

The table above highlights that the ferry operation costs over c.£5m more to run than it generates in income and this gap has to be compensated for by toll income from the bridge.

In effect, the bridge subsidises the ferry and the extent of this subsidy going forward could, theoretically, be anywhere between zero i.e. the ferry toll is set at a level that is judged as self-sustaining to the other end of the spectrum where the level of the bridge toll enables the ferry toll to be zero.

²⁹ An application for a new Toll Order was made in April 2022, a year earlier than had been intended in the modelling that supported the previous Toll Order in 2019.

It is important to note, however, that if a differential tolling policy is adopted then the impact must be assessed on a consolidated basis with overall toll income generated by the bridge and ferries being the key metric given that TC is a single entity³⁰.

As well as the headline toll levels, the TBA provides for the granting of ‘compositions’ which effectively enables a discount to be granted for pre-paid tolls and is the basis upon which the Tamar Tag operates i.e. a pre-paid electronic tolling system. Approximately 59% of bridge tolls and 60% of ferry tolls are collected via the Tag and this provides holders with a 50% discount on the headline toll level.

Hence, the level of overall toll income generated by TC is not only a function of the toll level but also the number of users with the Tamar Tag and the level of discount attached to it.

This presents a wide range of scenarios for tolling combinations and discounts that could be adopted in order to generate the overall level of income required by TC.

The table below illustrates what toll levels would be required across these options to sustain reserve levels at a value equivalent to at least three months revenue, assuming there will be no impact on usage levels. The reality is that there would be an impact on usage levels and this is considered in the section below.

Table 5.7: Toll scenarios

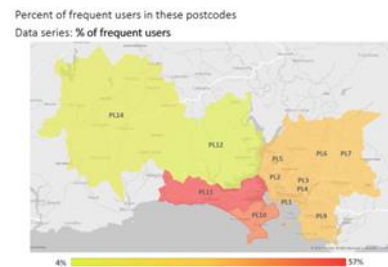
Principle	TAG discount Headline toll level (£)	10%		25%		50%	
		Bridge	Ferry	Bridge	Ferry	Bridge	Ferry
Bridge subsidises the ferry such that:							
Ferry and bridge toll remains equal		2.20	2.20	2.50	2.50	3.20	3.20
Ferry toll changes and bridge toll remains at current level		2.60	nil	2.60	1.70	2.60	8.40
Ferry toll increases to a self-sustaining level		1.20	10.90	1.40	12.10	1.90	14.80

I Impact assessment of increased tolls

The changes in tolling options referenced above will disproportionately affect those who rely more on the ferry crossing than the bridge. The most regular users of the ferries are likely to have a Tamar TAG because of the financial saving it brings and an analysis of six months of TAG data³¹ for such users identified that c. 80% reside in the postcode areas shown below.



The second map, below, shows how many of those users, per postcode, are regular users of the ferry i.e. use the ferry on average once a week or more.



³⁰ Section 43(2) of the Tamar Bridge Act 1957 and section 13 of the Tamar Bridge Act 1979 state that, for the purposes of considering an application to revise tolls or charges: ...the bridge and the ferry shall be regarded as one undertaking

³¹ 1st April 2022 to 30th September 2022

Overall c. 20% of ferry TAG users used the ferry on average once a week or more, with c. 65% ferry TAG users using the ferry on average once a month or less.

Given this data indicates that most of the people who use the ferry crossing live in and around Plymouth and the Rame peninsula, but the majority only use it less than once a month, there should be an impact assessment of;

- a) retaining the principle of equal tolling between the bridge and ferry;
- b) charging the same toll rate to frequent and infrequent ferry users;
- c) retaining one-way tolling on the ferry.

This is because as tolls increase, political pressure will grow to look at the fairness of how the burden of such increases is felt and it is apparent that there is a desire to ensure this is not disproportionately felt by;

1. bridge users
2. those reliant on the ferry crossings

By way of illustration, if tolls for the ferry were aligned to bridge toll levels for frequent users but increased for all other users such that overall income would be at a level where no cross subsidy was required, as shown in Table 5.7, it would mean the ferry toll charges being approximately 11% higher for non-frequent users compared to the values shown in Table 5.7. This is shown in Table 5.8 below.

Table 5.8: Toll scenarios for regular and irregular ferry users

Principle	TAG discount		10%		25%		50%	
	Headline toll level (£)		Bridge	Ferry	Bridge	Ferry	Bridge	Ferry
Ferry toll increases to a self-sustaining level - per Table 5.7			1.20	10.90	1.40	12.10	1.90	14.80
			Bridge & FF	IF	Bridge & FF	IF	Bridge & FF	IF
Ferry toll for frequent (FF) and infrequent (IF) users			1.20	12.10	1.40	13.50	1.90	16.40
		% change	0%	11%	0%	12%	0%	11%

An impact assessment would need to consider what impact such an increase would have on the travel habits and circumstances of infrequent users and the volume of journeys made. It would also make sense to re-consider the introduction of two way tolling on the ferry to reduce the 'per journey' impact as well as the headline value, putting it on a comparable basis with other similar ferry operations around the country that charge both ways, as shown in Table 5.9 below. The column in bold highlighting the costs on comparable basis to current Torpoint ferry tolling.

Table 5.9: Cost of similar ferry crossings

	Single	Return
Woolwich	free	free
King Harry	7.00	14.00
Windermere	5.00	10.00
Sandbanks	5.00	10.00
Cowes	2.40	4.80

Clearly there would be logistical and technological constraints to overcome in order for two way tolling to be implemented but it would provide stronger foundations for some of the longer term proposals which may require explicit subsidising via bridge tolls.

5.4 Preferred way forward – longer term

5.4.1 Indexation mechanism

A key financial objective for TC is to secure a mechanism that allows the organisation to plan and budget with the certainty of having its revenue base linked to inflation. A pre-requisite is that the starting point provides sufficient revenue to fund the operation and the table below shows the

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difference in toll level required, assuming, for simplicity, that tolls remain the same for the bridge and ferries, if an indexation mechanism is in place compared to the position if it is not. This assumes that the toll level is re-set for the start of 2024/25 at a level sufficient to sustain the organisation's reserve levels at no less than the equivalent of three months' revenue.

Table 5.10: Benefit of an indexation mechanism

Toll level in 2024/25 with an indexation mechanism by 2027/28	£3.20
Toll level in 2024/25 without an indexation mechanism	£3.60

5.4.2 Impact of the capital programme

The table below is a repeat of Table 2.1 in Section 2 and sets out the long term capital programme required to keep the bridge and ferries operational.

Table 5.11: Capital programme

Items	Estimate (£m)	Start year	End year
Bridge access improvements – phase 4	0.5	2021/22	2023/24
Ferry gantry replacement	0.9	2021/22	2024/25
Bridge main cable remediation	2.0	2022/23	2023/24
Bridge supplementary cable works	2.0	2022/23	2023/24
Bridge rocker/pendle remedial works	10.0	2022/23	2024/25
Ferry refits	5.1	2023/24	2025/26
Ferry refits	6.0	2028/29	2030/31
Free flow tolling ³²	3.5	2029/30	2029/30
Bridge recoating	25.0	2030/31	2032/33
New ferries	45.0	2033/34	2035/26
Bridge re-surfacing	7.0	2040/41	2040/41
Total	107.0		

For those items scheduled to occur after 2026/27 there is less confidence about the cost estimates as there is less certainty about the timing, extent and specification of works. As a result, we have applied an illustrative contingency of 20% to reflect the likelihood that the cost values have an element of 'optimism bias'. Optimism bias is the tendency to be over-optimistic about the likely cost of capital projects and for which HM Treasury recommend that "empirically based adjustments to the estimates of a project's costs based on data from past projects or similar projects elsewhere" should be made.

The impact of applying the optimism bias figure to the toll levels computed in Table 5.10 above are shown in Table 5.12 below.

Table 5.12: Impact of optimism bias

Toll level in 2024/25 with an indexation mechanism by 2027/28	£3.30
Toll level in 2024/25 without an indexation mechanism	£3.70

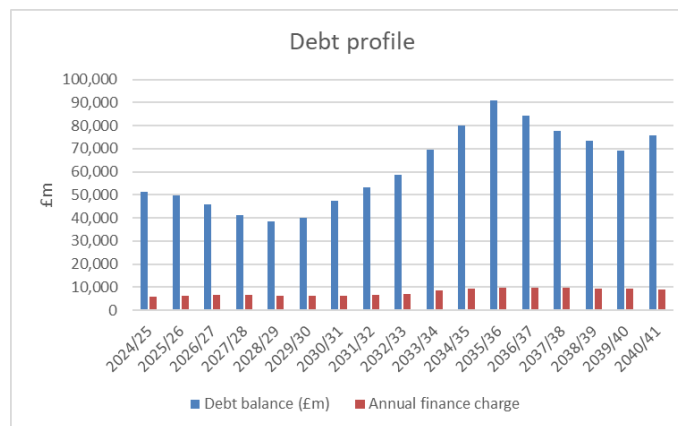
³² Excludes the costs of civil engineering works that will be required to re-model the highway

5.4.3 Debt write-off

As at the end of the current financial year i.e. 31st March 2024, the level of outstanding debt attributable to TC is expected to be c. £47m. The planned capital programme will see additional debt drawn down of £124m up to 2040/41 while £96m of principal repayments on historic and new debt will mean an expected debt balance of £75m by the end of 2040/41.

The average debt balance over the period is projected to be £60m and this will entail average annual finance charges of £7.8m for TC. The graph below shows the profile of debt alongside the annual finance charges that TC is projected to face³³.

Graph 5.1: Debt balances and finance charges



Under the longer-term PWF, it is proposed that an element of debt write-off is sought from HM Government to create the headroom that will support financing the capital requirements of the river transport strategy. The headroom will not only need to provide for the finance charges on the new debt but also any growth in operating cost that implementing the strategy may generate.

5.4.4 Additional revenue

By way of either part or wholly funding any additional capital or services resulting from enhanced or changed provision on the river, the constituent councils can increase the tolls³⁴ and therefore have a mechanism by which some or all of a Tamar public transport strategy could be funded. As highlighted in the Economic Case, any bid for central government support will need a detailed business case that can demonstrate a 'High' value for money return.

The creation of a company to operate and maintain the public transport service on the river will be the instrument relied upon for driving ancillary income but the viability of that as a proposition will need to be subject to detailed testing.

5.5 Accounting and tax

If the company is set up, then it will need its own accounting system and will need to publish annual accounts as well as management accounts for financial management purposes. It will

³³ This is based on an interest rate of 3.38% which is the current average cost of borrowing applied by Cornwall Council to its debt finance calculations.

³⁴ Tamar Bridge Act 1998, Part IV, clause 31 – 'the Authorities may apply money received by them on account of the revenue of the undertaking and, notwithstanding section 60(4) of the Act of 1957, surplus revenue of the undertaking for the following purposes:- i) to reimburse, in part or whole, revenue or capital monies expended by the relevant councils pursuant to section 63 of the Transport Act 1985 in securing the provision of public passenger transport services within the district or the city; or ii) to reimburse, in whole or part, revenue or capital monies expended by the relevant councils under any enactment in connection with the provision of highways and transportation infrastructure works, vehicles and rolling stock, traffic systems or other improvements of highways and transportation services within the district or the city.'

need to be VAT registered and specialist VAT and corporation tax advice will need to be taken to ensure that it is able to fully recover input VAT and that no un-necessary corporation tax obligations are created.

5.6 Conclusion

The financial implications of the PWF for the short term are clear and well-practised in terms of seeking a new Toll Order, albeit such a statement belies the difficult political choices that the toll scenarios present.

A toll indexation mechanism must be a priority focus that runs alongside that work in order to provide the foundations for the longer term. In order for the financing implications of this period to be assessed, work will be required to define both a vision for public transport across the Tamar and the detail of any underpinning projects that will be necessary to deliver it .

6 Management Case

6.1 Purpose

The purpose of the Management Case is to determine whether arrangements for the delivery, monitoring and evaluation of the PWF are likely to be sufficient and that there is the capacity and capability to implement it. We have looked at the key tasks and workstreams that are likely to be involved, given the findings of the Commercial Case and Financial Case, and reflected our assessment below.

6.2 Project organisation, resources and governance

The PWF involves activity over different timescales with some requiring immediate focus, others relevant for the short term (next five years) and others with a longer term perspective.

The table below (see Appendix 7 for a larger version) summarises the tasks and workstreams emanating from this work which encapsulate the recommended activity over those timescales.

Diagram 6.1: Overview of PWF activity

Immediate		Short-term		Longer-term	
What	New toll order	What	Councils to define a vision for a Tamar public transport system	What	Councils to develop a strategy for a Tamar public transport system
Why	TC is currently operating at a deficit and reserves will extinguish by '24/25 without it	Why	Enables a subsequent strategy to be developed which will influence the future operating parameters and objectives of TC	Why	Will influence decisions around cross-subsidy levels and the future scope, governance and funding of TC
Dependencies	DFT approval	Dependencies	Will need constituent councils to lead and require completion of, and alignment with, sub-regional transport strategy	Dependencies	Constituent councils agreeing a joint vision
What	Review induction programme	What	Technology strategy	What	Implement a memorandum of understanding with other vessel operators
Why	Ensure new appointees have a strong understanding and appreciation of the role, responsibilities and powers of the TBTFJC	Why	Technology will increasingly under-pin the operations and offer opportunities for greater efficiency and effectiveness as well as targeted policy implementation	Why	Explore potential benefits and synergies of closer working
Dependencies	Engagement of officers and members	Dependencies	Budget for strategy development and TBTFJC approval of the subsequent strategy	Dependencies	Will need constituent councils to lead
What	Financial model upgrade	What	Clarity on legal mechanisms	What	Investigate differential tolling
Why	Previous model not suitable for scenario planning and long-term budgetting	Why	Need clear pathway for desired changes to the scope, governance and funding of the operation	Why	Political, financial and strategic challenges posed by the bridge toll create an opportune time to re-test justification and appetite for equal tolls
Dependencies	Budget for a new model	Dependencies	Agreement on changes to the scope, governance and funding and budget for legal advice	Dependencies	Political support, budget for consultation and impact studies

The activity will have resource implications with budgets required for consultancy spend to help develop a technology strategy and access to legal resources to steer the TBTFJC through any changes in the scope, funding and governance of TC over the longer term. However, the sums required should be affordable without placing noticeable strain on the existing budget envelope of TC.

The work will also rely on the continued joint working between officers of the constituent councils on transport strategy, policy and wider economic development matters. The TBTFJC remains, in principle, suitable to oversee this and hold delivery to account but, as noted in Section 4.2.3, there are aspects of the current model that need to be addressed to ensure it operates as intended.

6.3 Project timeline

In terms of scheduling the activities in Diagram 6.1 above, the need to get a new Toll Order in place is the most urgent. The other activities have less intensity attached to them but should be started as soon as possible with the aim of concluding all three items within the next 12 months. The visioning piece is dependent upon the wider regional transport strategy being finalised which is currently awaiting the completion of various contributing technical studies.

Building on above, suggested timescales for each of the activities is set out below.

Table 6.1: Implementation timetable

Activity	Start	Target completion
New Toll Order	On-going	November 2024
Induction programme	September 2023	September 2024
Financial model upgrade	June 2023	January 2024

Legal pathway	On-going	April 2027
Technology strategy	June 2023	Jan 2025
Tamar public transport vision	April 2025	April 2026
Differential tolling	April 2026	April 2028
Memorandum of understanding	April 2027	April 2028
Tamar public transport strategy	April 2027	April 2029

6.4 Contract management arrangements

There are no new significant contractual arrangements proposed by the PWF in the short term but the recommendation to seek a memorandum of understanding with other vessel operators would require investment in relationship management as would the outcome of any decisions around changes to the future delivery of river crossings. There would need to be resources committed to the initiative by relevant stakeholders in terms of, for example, an on-going level of time for meetings and discussions, and possibly joint investment in activity that may be of mutual benefit e.g. pursuing grant funding for de-carbonisation work or commissioning feasibility studies.

6.5 Stakeholder engagement and communication

With the exception of the recommendations relating to legal advice and an upgraded financial model, the other changes will require their own, individual, stakeholder engagement and communication plans. These will need co-ordinating to ensure there is consistency in approach and that certain stakeholders do not feel over consulted or dis-engage because of dis-satisfaction with the process.

6.6 Risk management

An initial risk assessment has been provided at Appendix 6 which has assessed the notable risks attached to each of the recommendations within the PWF. These have each been assessed from a probability and impact perspective with potential mitigations considered. The risks that stand out as currently holding most concern are summarised in the table below.

Table 6.2: Risk summary

Risk
Lack of engagement by one or more of TC officers, TBTFJC members, constituent council members and officers preventing the advancement of a vision and strategy for a Tamar public transport system with implementation being constrained by a lack of funding
Failure to allocate lead responsibility for overseeing the development and implementation of a technology strategy with recommendations not taken forward
TBTFJC and the constituent councils unable to agree on the level of toll increase being sought through a new Toll Order and objections delaying approval with the need for a public inquiry
Lack of resources committed by constituent councils to the initiative to work closer with vessel operators in pursuit of agreement of an MoU
Budget to undertake consultation work into differential tolling not approved due to political resistance

Appendix 6 sets out a more detailed risk register which includes the detail supporting the assessment ratings and proposed mitigations.

6.7 Assurance

There are three main methods through which assurance over the delivery of the PWF can be established. The first is internal audit and making sure that a risk-based approach is taken to defining the scope of the audit programme and that it is sighted on the activities associated with the PWF. The second is the role of the TBTFJC to scrutinise and hold the work of officers of the constituent councils

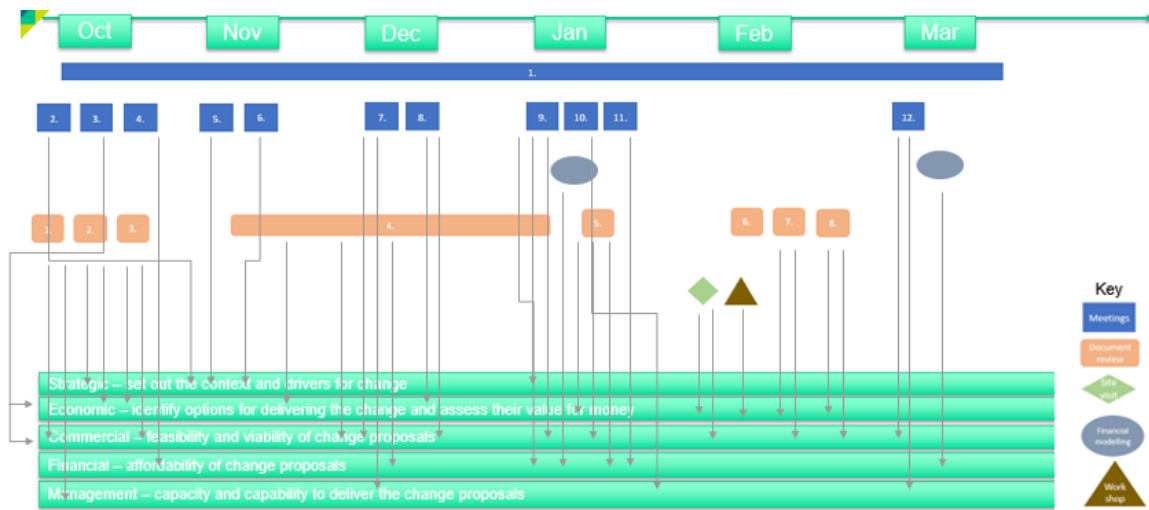
[Review of Tamar Crossings](#)

and TC to account. The third is by TC periodically subjecting itself to a peer challenge review, as last undertaken in 2018, which is designed to complement and add value to an organisation's own performance improvement system.

6.8 Conclusion

We have considered the capacity and capability of TC, TBTFJC and its constituent councils to deliver, monitor and evaluate the recommended activity that has emerged from this work and have not identified any noteworthy concerns. Clearly, there are risks and dependencies attached which we have highlighted. These also place important emphasis on there being a robust assurance framework in place and we have given our view on what the design of that should look like.

Appendix 1: Work undertaken and information sources



Meetings

No.	Reference
1.	Fortnightly call with project steering group (David List, Andrew Vallance, Adrian Trim)
2.	Portfolio leads from both PCC and CC
3.	Governance session for JC members
4.	Finance support team from CC
5.	JC joint chair and portfolio lead – PCC
6.	JC joint chair and portfolio lead – CC
7.	JC meeting
8.	PCC Public Transport Officer
9.	TC Engineering Manager
10.	JC joint chairs and portfolio leads – PCC and CC
11.	Finance support team from CC
12.	CC and PCC SROs

Document review

No.	Reference
1.	Peer Challenge Report 2019
2.	Inspector's Report 2019
3.	Tamar Bridge Acts 1957, 1979, 1998
4.	Various policy, strategic and operational documents relating to other crossings
5.	TC traffic and passenger data
6.	River Tamar Crossings Study 2013 – pba
7.	Site development feasibility study 2013 – Arup
8.	Market appraisal of sites 2022 – Vickery Holman

Appendix 2: Option appraisal

	Business as Usual (BaU)	Do Minimum	Intermediate	Do Maximum
Scope - the points of crossing the River Tamar between Cornwall and Plymouth and vice versa.	Maintain the bridge crossing between Plymouth and Saltash and the river crossing between Plymouth and Torpoint.	Maintain the bridge crossing between Plymouth and Saltash and cease the river crossing between Plymouth and Torpoint.	Maintain the bridge crossing between Plymouth and Saltash and the river crossing between Plymouth and Torpoint as well as other existing river crossings between Plymouth and Cornwall,.	Maintain the bridge crossing between Plymouth and Saltash as well as other existing river crossings and be responsible for the development of additional public transport crossings.
Pros	Provides critical connectivity for local, regional and national journeys. The ferries provide rapid emergency service access to the Rame peninsula and reduce local journey times and carbon emissions. The current provision has met need for over sixty years and opportunities exist to improve efficiency through open tolling on the bridge and electronic card payments on the ferries. The possibility exists to de-carbonise the chain propulsion mechanism for the ferries as well as introduce differential tolling for electric vehicles.	Would improve the financial viability of the crossings organisation and sustain critical connectivity for local, regional and national journeys. Efficiency could be further improved by investing in open tolling on the bridge.	As for BaU but could deliver operational synergies and efficiencies as well as contribute to net zero agenda. Provides an opportunity to develop an integrated Tamar public transport strategy.	As for 'Intermediate' but adds the ability to review the mode of crossing of local journeys undertaken by foot passengers and passenger vehicles across the Tamar.
Cons	The ferry link represents more of a local rather than strategic route and requires a cross subsidy from bridge revenues. The location of the ferry terminals has inhibited Wi-Fi	The loss of the Plymouth to Torpoint crossing would have a significant impact on emergency service response times and will result in a significant number of skilled job losses. It will also	As for BaU but significant complexity attached to achieving an expanded remit.	As for 'Intermediate' but long term demand un-tested and the option would require capital investment.

	payment systems up until recently and the ferry operation is labour intensive. The nature of the crossings means significant cyclical repair and replacement expenditure is incurred which has to be cash flowed through a mix of reserves and borrowing.	increase journey times and add to air pollution and carbon emissions. Removing the Plymouth to Torpoint crossing will not meet the needs of the localities on either side of the river and consequently it will be politically undeliverable to agree to the cessation of the Plymouth to Torpoint crossing.		
Short term	Preferred Way Forward	Discounted	Discounted	Discounted
Medium to long term	Carried Forward	Discounted	Preferred Way Forward	Carried Forward
	Business as Usual (BaU)	Do Minimum	Intermediate	Do Maximum
Solution - the type and availability of infrastructure relied upon to cross the River Tamar between Plymouth and Cornwall.	Utilise and maintain existing bridge and ferry infrastructure across the various crossings.	Utilise and maintain existing bridge and ferry infrastructure but reduce the service frequency of the various ferry crossings.	Utilise and maintain existing bridge and ferry infrastructure but increase the service frequency across the various ferry crossings.	Utilise and maintain existing bridge and ferry infrastructure and increase the service frequency and capacity of various public transport crossings.
Pros	Maximises the economic life and return from the existing asset base. Sustains provision at a level that has been sufficient and deliverable for over sixty years and presents no new operating risks for the organisation.	As for BaU but will lower carbon emissions of the organisation and may serve to reduce carbon emitting journeys over the long term.	As for BaU but will reduce ferry waiting times and carbon emissions from idling engines. The ferries operate with a low net marginal cost of operation and therefore increased activity could reduce their operating deficit.	As for BaU but expanded frequency and capacity may reduce the risk of congestion around the chain ferry terminals and displace some journeys onto alternative modes of crossing. It may increase development opportunities on the Rame peninsula and serve to discourage local road journeys within Plymouth over the longer term.
Cons	Long term nature of the infrastructure means it is difficult	As for BaU but likely to represent a sub-optimum	As for BaU but only scope to increase frequency is at non-	As for BaU but the viability and feasibility of increasing the

	to benefit from developments in design and technology that can reduce operating expenditure and unanticipated or additional maintenance obligations can occur.	utilisation of ferry assets, create congestion in the shorter term, displace traffic onto the bridge causing longer journey times and higher carbon emissions.	peak times, as peak times maximises frequency and capacity. It would reduce the opportunity to undertake programme maintenance on the vessels and may increase the unreliability of the service. The frequency may see ferries operating at under-capacity and may not lead to additional income if latent demand does not exist. Recruiting and training requisite additional ferry staff is likely to be challenging.	frequency and capacity of crossings is extremely doubtful
Short term	Preferred Way Forward	Discounted	Discounted	Discounted
Medium to long term	Carried forward	Discounted	Discounted	Carried forward
	Business as Usual (BaU)	Do Minimum	Intermediate	Do Maximum
Delivery - the management organisation relied upon to govern the operation of the crossings.	An unincorporated body, jointly owned by the two authorities and governed by a Joint Committee.	Separate the bridge and ferry operations by placing the latter into an incorporated body jointly owned by the two authorities.	Separate the bridge and ferry operations by placing the latter into an incorporated body involving a private partner.	Keep the bridge and ferry operations together by placing both into a single incorporated body jointly owned by the two authorities.
Pros	Possesses easy access to competitive finance and benefits from the covenant strength of parent authorities for contracting purposes. Binds together two of the largest local authorities in the South-West region for strategic transport purposes. The model of working is established and proven and stakeholders understand their role and responsibilities within it,	As for BaU for the bridge and may increase the possibility of future DfT financial support for the bridge. For the ferry operations, it would still benefit from the parental guarantees and covenant strength of the existing model while employment, contracting and commercial decision making should be easier. Corporate status for the ferries operation	As for 'Do Minimum' but creates the opportunity to bring a new commercial model and efficiencies into the ferries operation and reduce the financial dependency on the parent authorities. It could also help in the recruitment of suitable non-executive directors, and it may facilitate private investment into the ferries operation that would not be	It could make employment, contracting and commercial decision making more efficient.

	all of which are underpinned by legislation. It is also tax efficient with no VAT or corporation tax costs to absorb.	could make it more commercially responsive and agile.	possible under the current model.	
Cons	<p>Retains the comfort of two funders of last resort which may undermine the commercial sharpness of the organisation. The balance sheet strength of those two funders is also under unprecedented stress and their ability to absorb operating losses no longer exists. The cross subsidy approach may become more difficult to sustain, particularly if it is a deterrent to future DfT financial support.</p> <p>The model requires significant democratic input and support and decision making and reporting is time consuming. There is the potential for strategic inertia if the political aspirations of the two parent authorities differ with respect to the crossings or wider strategic transport objectives which will impact on the operational effectiveness of the organisation. Governance is linked to local election cycles and potentially subject to significant and frequent churn which can be de-stabilising for the organisation's business.</p>	<p>As for BaU for the bridge, but the ferry operation would need on-going financial support from both parent authorities or be successful in securing a significant increase in toll fares. Suitably experienced and skilled non-executive directors would need recruiting which may prove difficult in practice and would also contribute to an overall increase in the cost of governance associated with the crossings.</p> <p>In order for a contract to run the ferries to be let to a jointly owned council company without the need for a procurement competition, it would need to be established in accordance with Regulation 12(5) of the Public Contracts Regulations i.e. as a 'Teckal' company. This would require the councils to demonstrate that they jointly exerted decisive influence over the strategic objectives and significant decisions of the company, in effect self-defeating the purpose of putting the operations into a local authority owned company.</p> <p>The corporate body is unlikely to be as tax efficient with pensions</p>	<p>As for 'Do Minimum' although it would alleviate the 'Teckal' requirements to demonstrate that the local authorities have decisive influence over strategic objectives and significant decisions thus giving it more commercial independence. There would need to be a procurement process to identify the private sector partner and that is not guaranteed to be successful. The underlying cost of finance and procurement for the ferries operation may increase. The prospect of a private company being involved in running the ferry service may create uncertainty amongst the workforce and issues with recruitment and retention.</p>	<p>In order to avoid a procurement, a company would need to be established in accordance with Regulation 12(5) of the Public Contracts Regulations i.e. as a 'Teckal' company. This would require the councils to demonstrate that they jointly exerted decisive influence over the strategic objectives and significant decisions of the company, potentially self-defeating the purpose of putting the operations into an incorporated body.</p> <p>The corporate body is unlikely to be as tax efficient unless it is established as a statutory body through the disapplication of the existing TBA and the creation of a new Act. Could lose the additional commercial ethos brought through partnership with the private sector.</p>

		and TUPE issues also needing to be worked through.		
Short term	Preferred Way Forward	Discounted	Carried forward	Discounted
Medium to long term	Carried forward	Discounted	Carried forward	Carried forward
Business as Usual (BaU)		Do Minimum	Intermediate	Do Maximum
Implementation - the timescales for implementing the proposed changes.		Deliver within the next five to ten years.	Deliver within the next five years.	Deliver within the remaining term of the current UK Government.
Pros		Allows for any necessary consultations, business cases, due-diligence and legislative change to be executed.	As for 'Do Minimum'	It would provide certainty over the direction of travel for the operations and would be achieved within the existing term of the current UK Government and Cornwall Council election cycle.
Cons		A lengthy timescale introduces more risk and operational difficulties in respect of investment and recruitment for example. The timescales run across local and national election events which is likely to result in changes in control, policy and decision making.	As for 'Do Minimum' but if changes require legislative change, then the process will run across a General Election which would affect local political sponsorship of the changes and also the Parliamentary timetabling.	As for 'Intermediate' but, if applicable, any necessary consultations, business cases, due-diligence and legislative change may be challenging to complete within the next two years, dependent upon the extent of changes proposed.
Short term		Discounted	Preferred Way Forward	Discounted
Medium to long term		Carried forward	Discounted	Discounted
Business as Usual (BaU)		Do Minimum	Intermediate	Do Maximum
Funding - the source of funding	Revenue raised through existing tolling mechanism with	Revenue raised via tolls with local ability to raise annually in	Revenue raised via tolls with local ability to raise annually in	Revenue raised via tolls with local ability to raise annually in

the crossing organisation.	approvals required from the Department for Transport for periodic increases. Seek support with capital from available grant funding competitions.	line with RPI. Seek support with capital from available grant funding competitions.	line with RPI and a level of debt write off by UK Government to achieve a sustainable business plan over the long term.	line with RPI and an annual revenue grant from UK Government to contribute towards the maintenance obligations of the bridge.
Pros	The process for seeking toll increases requires independent scrutiny of the justification of the rise. It retains the principle of user pays and prompts recognition of the costs and benefits that the infrastructure and service provide. The revenue approach has been relied upon since the legislation was passed over sixty years ago and therefore has proved effective up to now.	This would be a relatively non-contentious and objective method of protecting the cost envelope of the organisation, providing comfort that the income stream is protected against inflation and provides certainty to users over current and future charges. It would also be an administratively easier process to execute.	As for 'Do-Minimum' but would represent recognition by Government of the strategic importance of the bridge crossing and the local investment that has been made in it over previous decades. It would enable future toll increases to be suppressed from the levels they will otherwise need to be.	As for 'Intermediate'
Cons	The approvals process for toll increases is a time consuming, slow and bureaucratic process and consumes corporate resource. The charging of a toll arguably acts as a drag on economic growth and incurs a cost of collection. The need to revert to Government for toll increases inhibits financial planning as it creates a level of uncertainty about future income levels and compromises the viability of the operation in periods of economic volatility and high inflation. Grant funding competitions are highly uncertain in terms of eligibility criteria, success criteria and	As for 'Business as Usual' but will require the political support of both councils and a change in legislation which will take time and potentially money, if the Private Bill route is taken, to secure the necessary Parliamentary approval. Annual RPI rises may be insufficient if underlying costs of the business increase in excess of RPI.	As for 'Do-Minimum' but Government has previously indicated that no central financial support is available.	As for 'intermediate' but a long term Government commitment to recurring annual revenue support is likely to be more difficult to secure than one-off capital.

	timing and quantum of funding available.			
Short term	Preferred Way Forward	Carried Forward	Carried Forward	Discounted
Medium to long term	Carried Forward	Carried Forward	Preferred Way Forward	Discounted

Appendix 3: Value for money analysis

The table below contains an indicative assessment of the value for money potential of each of the short-listed, short term options.

Table A3a: Value for money impact of short term, short-listed options relative to BAU

Movement in monetary outcome of BAU generated by:	Indicative impact	Observations
Option 1 - Maintain the existing bridge and ferry crossings with the same level of availability but place the ferry operation into a company structure involving a private sector partner. Revert to Government for a new Toll Order to enable tolls to be increased as and when required. a company involving a private partner		
Add increased benefits:		
Higher passenger numbers leading to increased toll income	Negligible	Without additional routes or investment, changes in policy and practice that a new partner might bring will not deliver a material change in income.
Higher revenue from non-toll sources e.g. advertising, retail	Negligible	Scope for retail on vessels or around the waiting areas is minimal. Brand value of the ferry operation is un-tested. Difficult to expand available space for more local advertising.
Less increased costs:		
Periodic cost of running a procurement exercise	c.£0-50k every 10 years	Frequency would depend on the contract length. Cost would depend on availability of in-house procurement and project management resource.
Cost of specialist legal, pension and HR advice	c. £0-50k every 10 years	Main advice may only be required once unless company model is subsequently terminated.
Administration and management costs of the company	c. £20-150k per annum	Additional costs of audit, directors' insurances, compliance etc.
Net VFM impact	Additional income of c. 10% per annum required to deliver a positive net impact	With current ferry income c. £2m p.a., potential additional annual costs of £150k plus would mean income needing to grow by c. 10% to generate a positive impact on the bottom line.
Option 2 - As for Option 1 plus secure an indexation mechanism for the tolls		
Add increased benefits:		
As per Option 1 plus:		
Avoided cost of making a new Toll Order	c. £50k per order	Cost of officer time, external consultancy work
Less increased costs:		
As per Option 1		
Cost of achieving the necessary changes to legislation	c. £50k	Cost of officer time and potential legal costs if the mechanism for securing index linked toll increases is via a Private Bill
Net VFM impact	As per Option 1 but with the	This is likely to represent a marginal VFM improvement on Option 1 with the one-off costs of

	benefit of the elimination of the periodic cost of applying for a new Toll Order	achieving legislation change delivering a payback from avoided costs of toll orders over subsequent years.
Option 3 - As for Option 2 plus secure a level of debt write-off by Government that is sufficient to produce a sustainable business plan for the long term		
Add increased benefits:		
As per Option 2 plus:		
The capital investment that a write-off of debt would support would need to generate quantifiable benefits with a present value of at least double to be considered 'High' value for money by the DfT	Expected sources of benefit could be carbon savings and uplifted land values	Projects would need to be identified during the short term period that could deliver such scale of change
Less increased costs:		
As per Option 2 plus:		
Debt write-off unlikely to be achieved without a supporting plan for investment	A value of £25m has been assumed for illustrative purposes	Projects would need to be defined, costed, approved and delivered within the short term period.
New capex infrastructure will add to the maintenance element of the capital programme	Additional annual maintenance costs of at least 1/40th of the value of new investment	Revenue provision for such costs would need to be made from the start of service of any new infrastructure
Costs of capex project management and procurement	One off cost of up to 5% of capex could be incurred	The scale and profile of cost would depend on the nature of capex investment
Net VFM impact	As per Option 2 plus additional one-off implementation costs and recurring maintenance costs	The budget impact in the short term would be significantly negative and, dependent upon the source of benefits e.g. carbon savings, could represent a long term additional budgetary pressure too even if the option generated a 'High' value for money return for the public.

The table below contains an indicative assessment of the value for money potential of each of the short-listed, longer term options.

Table A3b: Value for money impact of long term, short-listed options relative to BAU

Movement in monetary outcome of BAU generated by:	Indicative impact	Observations
Option 1 - Become responsible for all ferry crossings and place the expanded ferry operations into a company involving a private partner. Secure an indexation mechanism for the tolls and seek support with capital from available grant funding competitions		
Add increased benefits:		

Revenue from other existing routes	c. £250k p.a.	Does not represent passenger growth but income from existing routes currently delivered by other parties.
Higher passenger numbers leading to increased toll income	c. £100k p.a.	It may be possible through journey analysis, timetabling, pier investment and investment in different types of vessels to grow the total revenue stream from ferry operations without displacing passengers and traffic from the bridge or local train services. An increase of 5% would generate c. £100k p.a.
Higher revenue from non-toll sources e.g. advertising, retail	c. £50k p.a	Scope for retail on vessels or around the waiting areas is minimal. Brand value of the ferry operation is un-tested but worth a discussion with a marketing consultancy to explore potential associations with major local employers. Difficult to expand available space for more local advertising on existing fleet but could be given renewed focus by a profit incentive with the private partner.
Avoided cost of making a new Toll Order	c. £50k per order	Cost of officer time, external consultancy work.
The capital investment that a write-off of debt would support would need to generate quantifiable benefits with a present value of at least double to be considered 'High' value for money by the DfT	Expected sources of benefit could be carbon savings and uplifted land values	The projects under this option are likely to be part of putting the river at the heart of a sustainable transport strategy for Plymouth and surrounding area.
Less increased costs:		
Periodic cost of running a procurement exercise	c.£0-50k every 10 years	Frequency would depend on the contract length. Cost would depend on availability of in-house procurement and project management resource.
Cost of specialist legal, pension and HR advice	c. £0-50k every 10 years	Main advice may only be required once unless company model is subsequently terminated.
Administration and management costs of the company	c. £20-150k per annum	Additional costs of audit, directors' insurances, compliance etc.
Cost of taking on other Tamar ferry crossings	c. £1-2.5m	A worst-case scenario would involve the need to acquire either the assets or business of existing operators
Operating costs of additional ferry crossings	c. £200k pa	Recognition of running costs of additional ferries at an assumed margin of c. 20%.
Net VFM impact	The range in assumption values reflects the difficulty at this stage of assessing the VFM impact. It could deliver a relatively small positive impact but equally could deliver an	It may be possible to offset the increased annual costs of a company structure from additional annual income and savings. Whether the addition of other ferry routes generates a net benefit will depend on the cost of acquiring the routes, necessary assets and whether operating synergies can be leveraged.

	overall negative one.	
Option 2 - As for Option 1 but keep the bridge and ferry operations together within a jointly owned, single incorporated body and seek a level of debt write off by UK Government to achieve a sustainable business plan over the long term		
Add increased benefits:		
As per Option 1 (less non-toll income) plus:		
The capital investment that a write-off of debt would support would need to generate quantifiable benefits with a present value of at least double to be considered 'High' value for money by the DfT	Expected sources of benefit could be carbon savings and uplifted land values	The projects to generate this level of benefit will need to be defined. They are likely to be part of putting the river at the heart of a sustainable transport strategy for Plymouth and surrounding area. Investment projects would need detailed business cases involving transport modelling, viability testing and professional costing.
Less increased costs:		
As per Option 1		
Debt write-off unlikely to be achieved without a supporting plan for investment	Up to £25m is being considered as a viable ask	As above in terms of project requirements.
New capex infrastructure will add to the maintenance element of the capital programme	Additional annual maintenance costs of at least 1/40th of the value of new investment	Revenue provision for such costs would need to be made from the start of service of any new infrastructure
Costs of capex project management and procurement	One off costs of up to 5% of capex could be incurred	The scale and profile of cost would depend on the nature of capex investment
Net VFM impact	As per Option 1 plus increased infrastructure investment is likely to generate net cost pressures.	This option may generate a positive net VFM impact dependent upon how the capital headroom created by the debt write-off is applied. However, such investment is also likely to generate a budget pressure that will need exploring in the financial case.
Option 3 - As for Option 2 but expand the scope of responsibility to include other public transport crossings on the river and increase the service frequency and capacity of public transport crossings		
Add increased benefits:		
As per Option 2 plus:		
Additional income may be generated by displacing chain ferry foot passengers onto other fare charging vessels	c. £300k p.a.	Over 500k of foot passenger journeys are made per annum so dependent on displacement assumptions and fare levels, a reasonable six figure income stream could be achieved.
Providing more crossing options and increasing capacity and accessibility of river transport which generates additional revenue from induced demand	Negligible	Would require expert analysis but previous work in 2013 considered existing capacity and accessibility along with projections for housing growth and employment (as primary drivers of journey volumes) and concluded

		these were insufficient to warrant increasing river transport capacity.
Less increased costs:		
As per Option 2 plus:		
Costs of running more routes and frequent services	c. £200k p.a. per route	This would be dependent upon numerous variables so an illustrative figure is inserted here to give a sense of scale.
Net VFM impact	As for Option 2 but increasing capacity is likely to have an adverse VFM impact.	Such investment would need to lead to significant modal switch and wider environmental benefit in order to be viable from a VFM perspective.

Cashflow profiles supporting the value for money illustrations

Short term	Total	NPV	Year																			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	£'000s																					
Option 1																						
Benefits																						
Increased toll income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Increased non-toll income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Costs																						
Procurement exercise	150	109	50	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	50
Specialist advice	150	109	50	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	50
Company administration	2,700	1,847	0	0	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
Sub-total	3,000	2,065	100	0	150	150	150	150	150	150	150	250	150	150	150	150	150	150	150	150	150	250
Net VFM	3,000	2,065	100	0	150	150	150	150	150	150	150	250	150	150	150	150	150	150	150	150	150	250
Option 2																						
Benefits																						
Savings from toll orders	(300)	(198)	0	0	0	0	(50)	0	0	(50)	0	0	(50)	0	0	(50)	0	0	(50)	0	0	(50)
Sub-total	(300)	(198)	0	0	0	0	(50)	0	0	(50)	0	0	(50)	0	0	(50)	0	0	(50)	0	0	(50)
Costs																						
Legal costs	50	45	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total	50	45	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net VFM from Option 1	3,000	2,065	100	0	150	150	150	150	150	150	150	250	150	150	150	150	150	150	150	150	150	250
Net VFM	2,750	1,912	100	0	200	150	100	150	150	100	150	250	100	150	150	100	150	150	100	150	150	200
Option 3																						
Benefits																						
Return on investment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Costs																						
Capital investment	25,000	21,418	0	0	0	12,500	12,500															
Project management and procurement	1,250	1,129	250	250	250	250	250															
Additional capital programme - maintenance	10,313	6,859	0	0	0	313	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625
Sub-total	36,563	29,406	250	250	250	13,063	13,375	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625
Net VFM from Option 2	2,750	1,912	100	0	200	150	100	150	150	100	150	250	100	150	150	100	150	150	100	150	150	200
Net VFM	39,313	31,317	350	250	450	13,213	13,475	775	775	725	775	875	725	775	775	725	775	775	725	775	775	825

Longer term				Year																			
		Total	NPV	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		£'000s																					
Option 1																							
Benefits																							
Increased toll income		(1,340)	(843)	0	0	0	0	0	(30)	(50)	(70)	(90)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
Increased non-toll income		(690)	(437)	0	0	0	0	0	(20)	(30)	(40)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)
Savings from toll orders		(300)	(198)	0	0	0	0	(50)	0	0	(50)	0	0	(50)	0	0	(50)	0	0	(50)	0	0	(50)
Expanded operations		(3,750)	(2,424)	0	0	0	0	0	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)
Sub-total		(6,080)	(3,903)	0	0	0	0	(50)	(300)	(330)	(410)	(390)	(400)	(450)	(400)	(400)	(450)	(400)	(400)	(450)	(400)	(400)	(450)
Costs																							
Procurement exercise		150	109	50	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	50
Specialist advice		150	109	50	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	50
Company administration		2,700	1,847	0	0	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
Cost of expanding operations		5,500	4,044	0	0	0	0	2,500	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Sub-total		8,500	6,109	100	0	150	150	2,650	350	350	350	350	450	350	350	350	350	350	350	350	350	350	450
Net VFM		2,420	2,206	100	0	150	150	2,600	50	20	(60)	(40)	50	(100)	(50)	(50)	(100)	(50)	(50)	(100)	(50)	(50)	0
Option 2																							
Benefits																							
Return on investment		0	0																				
Sub-total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Costs																							
Lost benefit of additional non-toll income from Option 1		690	437	0	0	0	0	0	20	30	40	50	50	50	50	50	50	50	50	50	50	50	50
Capital investment		25,000	21,418	0	0	0	12,500	12,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Additional capital programme - maintenance		9,688	6,324	0	0	0	0	313	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625
Project management and procurement		1,250	1,129	250	250	250	250	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total		36,628	29,308	250	250	250	12,750	13,063	645	655	665	675	675	675	675	675	675	675	675	675	675	675	675
Net VFM from Option 1		2,420	2,206	100	0	150	150	2,600	50	20	(60)	(40)	50	(100)	(50)	(50)	(100)	(50)	(50)	(100)	(50)	(50)	0
Net VFM		39,048	31,514	350	250	400	12,900	15,663	695	675	605	635	725	575	625	625	575	625	625	575	625	625	675
Option 3																							
Benefits																							
Income from displacing foot passengers onto other vessels		(4,400)	(2,828)	0	0	0	0	0	(200)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)
Income from increasing extent, capacity and frequency of river transport		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total		(4,400)	0	0	0	0	0	0	(200)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)
Costs																							
Additional costs of new type of passenger fleet and infrastructure maintenance		3,520	2,262	0	0	0	0	0	160	240	240	240	240	240	240	240	240	240	240	240	240	240	240
More routes and more frequent services		2,900	1,858	0	0	0	0	0	100	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Sub-total		6,420	4,120	0	0	0	0	0	260	440	440	440	440	440	440	440	440	440	440	440	440	440	440
Net VFM from Option 2		39,048	31,514	350	250	400	12,900	15,663	695	675	605	635	725	575	625	625	575	625	625	575	625	625	675
Net VFM		41,068	35,634	350	250	400	12,900	15,663	755	815	745	775	865	715	765	765	715	765	765	715	765	765	815

Appendix 4: Factors impacting the economic and commercial case for a company

Revenue generation

As well as receiving toll revenue for transporting vehicles across the river via the bridge and Torpoint ferry, there are other opportunities for TC to generate revenue and help mitigate, albeit slightly, the pressure on that main income source. Section 13 of the Tamar Bridge Act 1979 Act allows "any other services rendered by the Authorities in connection with the bridge or ferry" to demand "such reasonable charges as they may think".

I Sponsorship and advertising

Approximately £20k per annum is generated from the sale of 1x1m advertising space on each of the three ferries at £200 per sign. The advertising opportunity is targeted at regular users of the ferry who are likely to be car owning and living and working locally.

TC could seek new commercial arrangements aligned to growth as part of a broader river transport strategy which could increase the level of income that could be generated from sponsorship and advertising. This would need the advice of a specialist marketing and branding consultant and potentially involve, for example, vessel branding or the addition of advertising billboards in the line of sight of queuing lanes.

II Retail, hospitality and other commercial opportunities

There are potential opportunities to establish facilities for retail and hospitality at both the Tamar Bridge office site at St Budeaux and in buildings at both sides of the river at the ferry crossing. The Tamar Bridge Act 1998 gives TBTFJC the power to provide "meals, refreshments and entertainment and facilities therefore and facilities for recreation, conferences and exhibition". The opportunities at St Budeaux have been the subject of previous workshops with the TBTFJC as well as a professional feasibility study in June 2022. This considered the following as worthy of further investigation:

- Creating an electric vehicle charging area in the current car park (estimated £2k per space per annum)
- Establishing a drive-thru café (capital receipt of between £500k and £750k from a national operator less development costs)
- Letting part of the existing office building as a café and meeting venue (estimated £50k per annum exclusive of occupation costs)

The major caveat that the feasibility study notes is the unknown impact on traffic flow across the bridge with the level of usage necessary to make these opportunities attractive likely to cause congestion into and out of the site and require some level of highway modifications.

At the ferry crossings, the lack of any amenities for waiting vehicles and passengers waiting to embark or those disembarking is noticeable. However, this has not always been the case with a small food and drinks concession operating at the Devonport side of the river until closing in the mid-noughties. There are a number of factors that work against re-establishing a viable concession opportunity in terms of the limited wait time facing customers before embarking on the ferry, the safety implications of people moving across queue lines while embarkation and disembarkation occurs and the emergence of food delivery services which can absorb the demand from the immediate residents in the vicinity of the crossings.

It is clear that there are genuine constraints to generating revenue from commercial activity and that the scale of what could be achievable will only ever be a relatively insignificant element of the income needed by TC. However, it is important that opportunities to generate additional income remain in-focus.

III Foot passengers

Section 43(1) of the TBA (as amended) states that "no tolls shall be demanded or received from any pedestrian³⁵ using the bridge or ferry" However, with over half a million crossings made a year by such passengers on the ferry, a material level of income is being sacrificed, albeit introducing a charge would also create associated collection costs and logistical challenges. Notwithstanding the fact that the benefits case for levying a pedestrian toll has not been explored, having the provision to introduce such a charge should feature in consideration of desirable amendments to the TBA.

IV Income collection

There is undoubtedly growing pressure being placed on TC to develop proposals for open tolling (through the use of an electronic toll collection system) on the bridge and these are starting to be investigated. It will have implications for staffing, existing IT systems and also the physical infrastructure leading onto the bridge including the need for some highway reconfiguration. Although the operational imperative to make the change is not significant at this stage, there is a risk that what users of the bridge experience with respect to tolling relative to their experience elsewhere starts to define TC and its reputation. Although a comprehensive business case will need to be developed to ensure the payback and extent of wider benefits are understood, the reality is that there will be limited acceptance amongst the general public and thus politicians of the logistical reasons for persisting longer term with the current approach.³⁶

For the Torpoint ferry, the challenge up until recently has been the ability to take payments via a card reader due to Wi-Fi connectivity issues but this has been resolved and a solution in place since the beginning of May 2023. There should be a re-appraisal of the value of two way tolling on the Torpoint ferry for a couple of reasons as follows:

- A future decision to abandon the principle of common toll levels for both the bridge and ferry would open up the opportunity to increase the ferry toll by more than the bridge toll but halve the 'per journey' impact.
- It would bring the payment policy into line with PBT as well as other similar ferry operations around the country.

The re-appraisal would need to consider the possible displacement of ferry journeys onto the bridge for the west-bound, Devonport to Torpoint journeys, as well as the operational impacts for income collectors who use that leg of the journey to add charge to mobile collecting equipment, have a short break and undertake other administrative activities.

³⁵ We have not investigated the status of pedal cyclists within this.

³⁶ This is apparent in some TBTFJC members resistance to the proposed investment in new toll booths

Appendix 5: Technical issues to consider when establishing a local authority company

Governance

A new company would need articles of association setting out its constitution and addressing purpose and more generally setting out the rules for the running of the company including the conduct of meetings and the appointment of directors. It is assumed that the company would be limited by shares but the suitability of this structure over a company limited by guarantee would need to be tested once the precise scope of its activities, financing requirements and operating objectives are agreed. A shareholder's agreement between the two councils and any equity holding private sector partner would also be required to cover more detailed and confidential aspects of the company's governance with respect to, for example, funding and dividends. At least half of the appointed directors should be independent of the owners and bring relevant expertise and insights. The appointment of any council (either TC or non-TC) representatives to the board should be with regard to the skills and experience they bring to the company and be mindful of the need to avoid any potential future conflicts of interest, recognising that the duties of the directors are to the company and not the organisations they represent.

Employment

The establishment of a company is likely to involve staff moves and changes which would be subject to TUPE³⁷ legislation. Before such an exercise commences, a clear, TUPE Regulations-compliant consultation strategy would need developing and implementing to ensure affected staff are; a) supportive, b) understanding and supportive of the proposal and the objectives it is seeking to achieve.

It would be vital, for the continued quality and resilience of services, that staff do not lose morale or confidence in their employment position or that the changes do not affect the on-going ability to recruit and retain staff.

There would need to be a review of terms and conditions to determine whether there are aspects that would benefit from changing to suit the needs of the company. Any changes would need to be consulted on (with ongoing legal input) and, if amendments are sought post transfer, then they would need to demonstrate that they are as a result of a changed business need rather than an opportunity presented by the re-structure. There are risks arising from staff operating on different terms and conditions with the potential for different sets in the company as a result of it containing staff on retained terms and conditions and new staff joining on the company's terms and conditions.

A decision would need to be made about the accessibility of new recruits to the Local Government Pension Scheme (LGPS) and whether an alternative employer pension scheme is provided instead. This is likely to prove cheaper over the longer term as the cycle of staff churn will result in a growing proportion of staff falling under the alternative provision but is an example of where terms and conditions would differ between transferred staff and new company employees. The LGPS liabilities attributable to transferring staff will need to be crystallised and either funded or under-written by the constituent councils as those would not be a liability that a newly formed company could meet from accumulating surpluses.

³⁷ Transfer of Undertakings (Protection of Employment)

Appendix 6: Risk matrix

Recommendation	Risks	Probability	Mitigation	Mitigated Probability	Impact	Mitigation	Mitigated Impact	Residual risk rating
Define a vision for a Tamar public transport system	Lack of engagement by one or more of TC officers, JC members, constituent council members and officers	M	Align with regional transport strategy and transport as well as net zero policies, strategies and plans of both councils	L	H	None	H	LH
Develop a technology strategy	Failure to allocate lead responsibility for the workstream	M	JC give clear instruction and timescales	L	H	None	H	LH
	Sub-regional strategy fails to progress and be finalised	L	Funding for technical studies has conditions attached	L	H	Align with outcome of existing work undertaken	M	LM
	Procurement fails to appoint an appropriate consultancy	M	Soft market test prior to procurement	L	H	Explore the interim market for an associate or fixed term appointment of a Technology Officer to develop it in-house	M	LM
	Strategy recommendations not taken forward	M	JC give clear instruction and timescales	L	H	None	H	LH
Commission a new financial model	New model proves unsuitable or difficult to work with	M	Supplier works closely with TC on specification and design	L	H	Have to develop work arounds and add new functionality	M	LM
Clarify legal instruments for changes	Significant fees are paid for advice which does not bring clarity	H	Changes sought in terms of scope, governance and funding are agreed in advance	M	H	Secure DfT and local MP support for a private bill amendment	L	ML
Secure a new toll order	JC unable to agree on the level of increase being sought	M	Clear scenarios and implications presented to JC by TC	L	H	None	H	LH
	Objections delay approval with the need for a public inquiry	H	Consultation exercise carried out and clear communication strategy established	M	M	None	H	MH
Induction programme	Lack of engagement by one or more of TC officers, JC members, constituent council members and officers	M	Secure the buy-in of political and executive leaders across the constituent councils and TC	L	M	None	M	LM
Develop a strategy for a Tamar public transport system	Vision remains undefined	M	Portfolio leads act as champions on the JC and within their own councils	L	H	None	H	LH
	Implementation is constrained by a lack of funding	H	Business case developed and shared with potential sponsors including DfT	M	H	Modify the scope to what is judged affordable	M	MM
Implement an MoU with other vessel operators	Lack of engagement by other vessel operators	H	Operators contribute to the vision and strategy development	M	H	Pursue in-house delivery of routes once contracts expire	L	ML
	Lack of resources committed to the initiative by constituent councils	M	Cycle of meetings with operators to be included as an action defined as part of strategy implementation	L	H	None	H	LH
Investigate differential tolling	Budget to undertake commissioning work not approved due to political resistance	M	Potential benefits of differential tolling to be shared and discussed objectively amongst JC members	L	H	None	H	LH

Appendix 7: Summary of recommendations

Immediate		Short-term		Longer-term	
What	New toll order	What	Councils to define a vision for a Tamar public transport system	What	Councils to develop a strategy for a Tamar public transport system
Why	TC is currently operating at a deficit and reserves will extinguish by '24/25 without it	Why	Enables a subsequent strategy to be developed which will influence the future operating parameters and objectives of TC	Why	Will influence decisions around cross-subsidy levels and the future scope, governance and funding of TC
Dependencies	DfT approval	Dependencies	Will need constituent councils to lead and require completion of, and alignment with, sub-regional transport strategy	Dependencies	Constituent councils agreeing a joint vision
What	Review induction programme	What	Technology strategy	What	Implement a memorandum of understanding with other vessel operators
Why	Ensure new appointees have a strong understanding and appreciation of the role, responsibilities and powers of the TBTFJC	Why	Technology will increasingly under-pin the operations and offer opportunities for greater efficiency and effectiveness as well as targeted policy implementation	Why	Explore potential benefits and synergies of closer working
Dependencies	Engagement of officers and members	Dependencies	Budget for strategy development and TBTFJC approval of the subsequent strategy	Dependencies	Will need constituent councils to lead
What	Financial model upgrade	What	Clarity on legal mechanisms	What	Investigate differential tolling
Why	Previous model not suitable for scenario planning and long-term budgetting	Why	Need clear pathway for desired changes to the scope, governance and funding of the operation	Why	Political, financial and strategic challenges posed by the bridge toll create an opportune time to re-test justification and appetite for equal tolls
Dependencies	Budget for a new model	Dependencies	Agreement on changes to the scope, governance and funding and budget for legal advice	Dependencies	Political support, budget for consultation and impact studies

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