

Report to:	<b>Tamar Bridge and Torpoint Ferry Joint Committee</b>	
Date:	<b>01/09/2017</b>	
Title:	<b>Tamar Crossings Travel Analysis Study</b>	
Portfolio Area:	<b>Transport</b>	
Divisions Affected:	<b>all</b>	
Relevant Scrutiny Committee: <b>Economic Growth and Development Overview and Scrutiny Committee</b>		
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Approval and clearance obtained:	<b>Y</b>	
<b>For Cabinet and delegated executive decisions only</b>		
Key decision? ( $\geq$ £500k in value or significant effect on communities in two or more electoral divisions)	<b>N/A</b>	
Published in advance on Cabinet Work Programme?	<b>N/A</b>	
Urgency Procedure(s) used if 'N' to Work Programme?	<b>N/A</b>	
Date next steps can be taken	<b>15/09/2017</b>	

### **Recommendations:**

1. The Committee to note the findings of the Tamar Crossings Travel Analysis Study.
2. The Committee to set aside funding to progress The Pricing Strategy on Tamar Bridge: preparation of detailed study (£20,000).
3. The Committee to recommend to the Councils of the joint authorities that work commences on a study which investigates the long term strategic options for the Tamar Crossings.

### **1. Executive Summary**

The River Tamar is a key constraint to movement between South-East Cornwall and Plymouth. The future demands that are anticipated to be placed on the existing crossings and in particular the Tamar Bridge, need to be planned for, so that the efficiency and effectiveness of the crossings are not adversely affected.

WSP/Parsons Brinckerhoff were commissioned by Cornwall Council to undertake a data collection and analysis study for the Tamar Bridge and Torpoint Ferry Crossings (the Tamar Crossings).

The purpose of the study was to gather and analyse data from a variety of sources (travel survey data, census data, TamarTag, Department for Transport traffic data and modelling data from Plymouth City Council) to understand current travel patterns, including origin and destinations, mode choice and journey purpose. From the analysis of this data, a set of options was to be created which promote sustainable alternatives to single car occupancy travel, and would therefore have the potential to free up capacity on the Tamar Crossings. These options would serve to identify and inform any future projects.

The objectives of this study can be summarised as follows:

To gather and analyse a range of data sources to understand:

- Current travel patterns of users who cross the Tamar;
- Frequency of use by people using the Tamar Crossings;
- Existing user mode choice, susceptibility to change; and reason for travelling.
- Options to promote sustainable travel alternatives to single occupancy car usage; and
- The estimated success of each of the proposed options (based on the data collected) against expected capacity.

The key findings of the report are as follows;

- A total of 19,196,427 cars/vans and HGV vehicles were recorded using the Tamar Crossings during the year 2015 based on the data provided by the Department for Transport (DfT).
- 95% of the vehicles using the crossings were cars or vans and 5% were HGVs. A greater percentage (5%) of vehicles on the bridge was HGVs than on the ferry (3%). The percentage of HGV traffic doubles on weekdays when compared to Saturdays or Sundays.
- 2,247 responses to the travel survey.
- For bridge users, in response to the travel survey question regarding barriers to travelling by bus,
  - 45% of total respondents (1,307 to the specific question) said they wouldn't change to bus;
  - 16% of respondents stated they would consider changing to bus travel if there were a more direct service.
- Users of both the bridge and ferry may consider shifting their departure to allow them to cross the Tamar outside of the peak hour for a lower charge. For eastbound journeys a large number of respondents felt there was no option to change the time of their crossing (39%). However, of those who may consider crossing earlier, the majority would be able to change the time by roughly 15 minutes.

- However the 'no option to change' becomes more significant for people travelling at peak times in both directions suggesting that this measure may have a limited effect. As an example in the AM peak 47% of people would not be able to cross earlier and 57% would not be able to cross later.
- According to the 2011 Census there was 9,425 Travel to Work Trips (TTW) from Cornwall to Plymouth per day. There was an opposite flow of 3,742 trips from Plymouth into Cornwall.
- Derriford was the most common destination of journeys crossing the Tamar, with a total of 1,383 trips. Journeys to Derriford were primarily undertaken by car, with that mode accounting for 89% of those journeys and accounting for a total of 1,227 vehicle trips.
- In terms of TTW trips into Cornwall the most common destination was Carkeel to the north west of Saltash with a total of 797 trips, of which 643 of them were vehicle trips.

In terms of Capacity on Tamar Bridge (The 2013 Peter Brett report findings were updated with the most recent traffic flows available and an update to the future traffic flow demand scenario based on traffic data from the Plymouth Highways Assignment Model (HAM 2)).

Each of the three main lanes on the bridge has a theoretical lane capacity of 1,800 vehicles per hour, as does the cantilevered lane between Saltash and Plymouth. However, given road factors it is considered that the capacity is more like 1,500 vehicles per lane per hour.

- **AM peak westbound:** traffic is **close to capacity at selected short periods** when only one lane is operating. The operation of the Tamar Bridge allows flexibility to rearrange the direction of the lanes and by increasing lane operation at these peak moments the bridge performs adequately.
- **PM peak westbound:** traffic would be **close to exceeding capacity during 2021.**
- **AM peak eastbound:** demand is **not expected to exceed capacity until after 2029** based on the assumption of a 1,500 vehicles/hour capacity per lane.
- **PM peak eastbound:** there will be **spare capacity likely to continue beyond 2034.**

## Conclusions

Analysis of the census travel to work data, the Travel Survey, traffic flows and future demand has identified the following key findings:

- Significant 2011 census Travel to work destination to Derriford (1,383) and Plymouth City Centre (1,347).

- Significant origin flows from Saltash (4,109) but also from origins west of the town (3,040).
- Smaller though still significant 2011 census Travel to work flows into South East Cornwall in particular to Carkeel (797), Saltash (555) and Callington (531) although gaps in data are evident.
- Trips on both the Tamar Bridge and Torpoint Ferry dominated by car and van trips accounting for over 70% of the trips to all census areas, except from Plymouth city centre, with 56% of the trips undertaken by car or van.
- Lack of more direct/frequent bus services identified as a barrier to public transport use.
- Both Plymouth City Council and Cornwall Council have identified the potential to manage traffic through of park and ride services in South East Cornwall.
- Lack of cycle infrastructure can be seen as a barrier to increase in cycling.
- Scope to investigate a strategy of pricing management to manage traffic on Tamar Bridge.

From analysis of the data, WSP/PB have proposed a number of measures that if implemented have the potential to free up capacity on the crossings. Timescales, estimated provisional costs and suggested lead authority have also been recommended.

It is recommended that as part of the progression of the measures presented below, the impacts of the individual measure on the business case of the Tamar Bridge/Torpoint Ferry, particularly in terms of revenue, are fully understood.

MEASURE	ESTIMATED COST (UNSECURED FUNDS TO BE ALLOCATED)	TIMESCALE	LEAD AUTHORITY/FUNDED BY	STATUS
Traffic Data Collection: undertake new traffic surveys and traffic counts	£50,000	Short Term	CC/PCC	Currently being further scoped as part of CC/PCC commission
<b>Pricing Strategy on Tamar Bridge: preparation of detailed study</b>	<b>£20,000</b>	<b>Short Term</b>	<b>TBTFJC</b>	<b>Recommended to be progressed through TBTFJC</b>
Bus Based Park and Ride: Investigate feasibility of new rail station	£15,000	Short Term	CC/PCC	Currently being progressed as part of CC/PCC commission
Rail Frequencies: Investigate feasibility to increase track capacity to improve rail frequencies	£25,000	Short Term	CC/PCC	Currently being progressed as part of CC/PCC commission
Marketing Campaign (Bus): Promotion of benefits of buying public transport season tickets	£10,000	Short Term	CC/PCC	Not yet started
New Bus Services: Monitoring of the uptake of new bus services provided in the area	£10,000	Short Term	CC/PCC	Not yet started

MEASURE	ESTIMATED COST (UNSECURED FUNDS TO BE ALLOCATED)	TIMESCALE	LEAD AUTHORITY/FUNDED BY	STATUS
Car Sharing: Implementation of new scheme to be introduced along with car sharing database	£10,000	Short Term	CC/PCC	Not yet started
MOV Bays: Study about viability to implement MOV bays being installed at workplaces	£5,000	Short Term	CC/PCC	Not yet started
PTP: Study implementation of full PTP campaigns for Saltash, Torpoint and Liskeard	Variable	Short Term	CC/PCC	Not yet started
Highway Bridge Capacity: Update model based on updates to Plymouth Joint LP (HAM 2)	£5,000	Short Term	CC/PCC	Model being updated as part of Plymouth Local Plan development
Cycling: Study and design of new cycling infrastructure and promotion of cycling	£10,000 to £50,000	Medium Term	CC/PCC	Currently being progressed as part of CC/PCC commission
Study looking at the long term Strategic future of the Tamar Bridge	TBC	Medium to Long Term	TBTFJC/CC/PCC	Progression by CC/PCC subject to TBTFJC recommendation

In terms of specific actions identified for the Tamar Bridge and Torpoint Ferry Joint Committee it is recommended that the Committee takes forward the development of a Tamar Bridge Pricing Study. The proposed study would investigate the impacts of toll changes and variable pricing regimes to understand willingness of car drivers to adjust their time of departure or return journeys with lower tolls. This supports the findings of the PBA study and recommendations of the committee report to the Tamar Bridge and Torpoint Ferry Joint Committee in December 2013.

It is apparent from the outcome of the WSP/PB report that the Tamar Bridge is anticipated to reach capacity within the next 10 – 15 years. Highways England, Cornwall Council and Plymouth City Council are now preparing transportation strategies through to 2040 and beyond. It is therefore recommended that initial long term options for the crossings be considered to inform the development of these strategies. It is proposed that this work is undertaken jointly by Cornwall Council and Plymouth City Council.

## 2. Purpose of Report

### 2.1 Background

The River Tamar is a key constraint to movement between South-East Cornwall and Plymouth. The future demands are anticipated to be placed on the existing crossings, and in particular the Tamar Bridge, need to be planned for, so that the efficiency and effectiveness of the crossings are not adversely affected.

Peter Brett Associates (PBA) were commissioned in April 2012 to examine the impacts of traffic growth associated with future housing development across the Tamar river and develop a strategy to manage demand in the short, medium and long term.

The 'River Tamar Crossings Study Final Report' was presented to the Tamar Bridge and Torpoint Ferry Joint Committee in December 2013. The Committee noted the findings of the report and accepted the recommendations to progress with a data collection study which is the focus of this report

The Travel Analysis Study forms part of a strategic partnership approach led by Cornwall Council, Plymouth City Council and the Tamar Bridge and Joint Committee to managing traffic on the Tamar Crossings and movements between the wider South East Cornwall and Plymouth areas.

The study also supports current feasibility study work being undertaken by Cornwall and Plymouth City Council which looks to identify and investigate potential measures (including park and ride) to manage travel demand between South East Cornwall and Plymouth.

## **2.2 Tamar Crossing Travel Analysis Study**

In 2015 WSP/Parsons Brinckerhoff were commissioned by Cornwall Council to undertake a data collection and analysis exercise for the Tamar Bridge and Torpoint Ferry Crossings (the Tamar Crossings).

The purpose of the exercise was to gather and analyse data from a variety of sources to understand current travel patterns, including origin and destinations, mode choice and journey purpose. From the analysis of this data, a set of options was to be created which promote sustainable alternatives to single car occupancy travel, and would therefore have the potential to free up capacity on the Tamar Crossings in the future as traffic increases. These options would serve to identify and inform any future projects.

The objectives of this study can be summarised as follows:

To gather and analyse a range of data sources to understand:

- Current travel patterns of users who cross the Tamar;
- Frequency of use by people using the Tamar Crossings;
- Existing user mode choice, susceptibility to change; and reason for travelling.
- Options to promote sustainable travel alternatives to single occupancy car usage; and
- The estimated success of each of the proposed options (based on the data collected) against expected capacity.

## **2.3 Methodology**

The following data sources have been analysed in this study:

- Travel Survey data (informed by the creation of a bespoke travel habits survey) ;

- 2011 Census data (at the Middle Layer Super Output Area [MSOA] and Output Area [OA] geographical levels);
- Data provided by the Tamar Bridge and Torpoint Ferry Joint Committee (TBTFJC);
- Traffic Flow Data System (TRADS) data obtained from the Department for Transport (DfT), and
- Data taken from the Plymouth Highways Assignment Model (HAM 2).

### **2.3.1 Travel Survey**

An online travel survey was designed and advertised to cash payers and TamarTag users on the bridge and ferry in June 2015. From the combined 48,648 users of the Tamar Crossings in the two days when the survey took place, there were 2,247 responses, equating to a response rate of 5%. This was in line with expectations of a survey without an incentive.

### **2.3.2 Census Data**

Census data was processed and analysed using different geographical areas that comprised:

- MSOA (Middle Super Output Layers). These areas were created following the 2001 Census and comprise the following minimum and maximum thresholds:
  - Population between 5,000 and 15,000.
  - Number of households between 2,000 and 6,000.
- OA (Output Areas). These areas are the lowest geographical level at which census estimates are provided and have also been in place since the 2001 census. The minimum and recommended thresholds are:
  - Minimum of 100 people.
  - Minimum of 40 households but recommended size of 125.

### **2.3.3 Data provided by the Tamar Bridge and Torpoint Ferry**

This has comprised traffic flow data at the Tamar Bridge and Torpoint Ferry with information on toll transactions for vehicles travelling in the eastbound (tolled) direction on both crossings.

### **2.3.4 Traffic flow data from the Department for Transport**

Traffic flow data from the DfT has been obtained and used to update traffic flows on the Tamar Bridge using Average Annual Daily Traffic counts from 2015 and Traffic Flow Data System (TRADS) data on the Tamar Bridge and nearby locations.

### **2.3.5 Data taken from the Plymouth Highways Assignment Model (HAM 2)**

2009 traffic flow data has been taken from the Forder Valley Link Road base model and 2034 traffic flow data from the Plymouth Joint Local Plan model. Both models derive from the same Plymouth HAM 2.

The 2034 forecast flows have been calculated from committed growth and proposed Local Plan developments.

### **2.3.6 TamarTag ID Data**

The data obtained from the TamarTag provides information about trips in the Eastbound direction only (June 2015 to May 2016).

Cash payments are also available. These are related to more occasional use of the Tamar Crossings and generally generate approximately 40% of crossings through the year.

The tolls at the Tamar Bridge and Torpoint Ferry only operate in an eastbound direction. The analysis has only considered cars/vans and HGV vehicles.

## **2.4 Key Data findings**

### **2.4.1 Current Travel demand and modal choice**

- A total of 19,196,427 cars/vans and HGV vehicles were recorded using the Tamar Crossings during the year 2015 based on the data provided by the Department for Transport (DfT). The data collected for the Tamar Bridge in the entire year was 16,748,390, which comprised of 87% of the total data and for the Torpoint Ferry was 2,448,037 vehicles comprising the remaining 13% of the total data.
- The AM peak hour for traffic flows at both the Tamar Bridge (with a peak of 2,364 vehicles) and the Torpoint Ferry takes place at 07:00 to 08:00 hours. The PM period is 16:00 to 18:00 at the Bridge (with a peak of 2,083 vehicles for each hour) and 16:00 to 17:00 hours at the Ferry.
- Daily traffic in both directions on weekdays is significantly higher than that on Saturday and Sunday. The vehicular crossing on Fridays was found to be higher when compared to the rest of the weekdays, and accounts for 23,974 eastbound trips and 27,092 westbound. One reason for the increase in traffic on a Friday could be seasonality. Sunday is the day with a lower number of vehicles crossing the Tamar Bridge, with an average of 16,362 eastbound trips and 18,490 westbound.
- As with daily traffic on the Tamar Bridge, weekday vehicle usage of the ferry is higher than at the weekend. Also in parallel with the Tamar Bridge, Friday is the busiest day of the week on average, experiencing the most vehicles crossing, with an average total of 4,520.
- For the Tamar Bridge the busiest months of the year were July and August for total traffic, and October and March for Tag users, based on the daily



average. The lightest months of the year were January and December and April for total traffic and August and December for Tag users.

- For the Torpoint Ferry the busiest months of the year were July and September for total traffic, and July and March for Tag users, based on the daily average. The lightest months of the year were December and April for both total traffic and Tag users.

#### **2.4.2 Mode Share**

- 95% of the vehicles using the crossings were cars or vans and 5% were HGVs. The percentage of HGV traffic doubles on weekdays when compared to Saturdays or Sundays. On weekdays, 10% of eastbound traffic is comprised of HGVs while westbound it is 12%. A greater percentage (5%) of vehicles on the bridge was HGVs than on the ferry (3%).
- HGVs were shown to have a higher percentage of Tag use when compared to the total traffic at the Tamar Crossings.

#### **2.4.3 Percentage of Tag Users and Journeys**

- 6,370,258 TamarTag users were recorded between June 2015 and May 2016 with 87% of these using the bridge, the same proportion as of all road users. TamarTag users account for 60% of all the vehicle trips undertaken at the crossings. It is also most common during the AM peak and to a lesser extent, the PM peak.
- There is a reduction of Tag journey use during the weekends, which suggests the use of the TamarTag may be associated with regular users with their main purposes of commuting and business travel:
- For the Tamar Bridge the highest percentages of Tag use occur between Tuesday and Thursday, with a total of 61% of daily journeys being undertaken by Tag users, with the lowest percentages taking place in Sunday (46%) and Saturday (52%).
- For the Torpoint Ferry the highest percentages of Tag use also take place between Tuesday and Thursday, with a total of 62% of daily journeys being undertaken by Tag users. The lowest percentages take place in Sunday (45%) and Saturday (48%).
- The percentage of Tag journey use was also reduced during the summer season, with a low peak use in the month of August at both crossings, which suggests the higher impact of occasional user traffic:
- For the Tamar Bridge the highest percentages of Tag use occur in the months of January (63%) and February (61%), with the lowest percentages taking place in August (51%) and July and September (56%).
- For the Torpoint Ferry the highest percentages of Tag use occur in the months of January (62%) and February (61%), with the lowest

percentages taking place in August (51%) and July and September (55%).

#### **2.4.2 Barriers to change**

- The travel survey was undertaken in June 2015. There were 2,247 responses to the survey, of which a total 216 journeys were made by alternative means to the car. Of the respondents travelling by car the survey asked questions about what would need to change for them to travel either by bus, train, bicycle or foot. This was to identify what people felt were the main barriers to them changing their mode of travel.
- For bridge users, there were a total of 1,307 responses to the travel survey question regarding barriers to travelling by bus;
  - 45% of total respondents said they wouldn't change to bus (39% for ferry users, with 106 from a total of 273 responses);
  - 16% of respondents stated they would consider changing to bus travel if there were a more direct service (and 23% for ferry users).
- In terms of barriers to travelling by train there was 1,183 responses;
  - While only 14% of respondents indicated they wouldn't change to train, 25% indicated that distance to a station was a barrier and 22% indicated train travel was not practical.
  - The remaining 39% of respondents highlighted barriers that may be comparatively easier to address such as a more regular service or cheaper train fares.
  - In terms of ferry users 92% of respondents highlighted barriers to rail that are unlikely to be overcome including 'wouldn't change to train', 'no station in Torpoint' and distance to train station.
- 24% of the respondents using the bridge (277 out of 1,164) said they wouldn't change to travelling by foot or by bicycle (60% of ferry users or 141 out of 234 responses). Distance was considered a barrier for 37% of the respondents using the bridge, equating to 426 respondents. 4% of respondents referred to unsafe roads or stated safer roads would encourage them to cycle, whilst a further 4% said improved cycle paths would encourage them to. However, the 8% of these two categories only amounts to 86 respondents.
- Numerous factors may be deterring people from using cycling as their main mode of transport, which may include the topography, distance and weather factors like the wind at the Tamar Bridge, locations further from the bridge, lack of cycling infrastructure or safe parking.
- Users of both the bridge and ferry may consider shifting their departure to allow them to cross the Tamar outside of the peak hour for a lower charge. For eastbound journeys a large number of respondents felt there was no option to change the time of their crossing (39%). However, of

those who may consider crossing earlier, the majority would be able to change the time by roughly 15 minutes.

- However the 'no option to change' becomes more significant for people travelling at peak times in both directions suggesting that this measure may have a limited effect. As an example in the AM peak 47% of people would not be able to cross earlier and 57% would not be able to cross later.
- Only 6% of those who responded to the travel survey engaged in car sharing when crossing the Tamar.

### 2.4.3 Key origins and destinations

- The Census data was analysed to find key destinations both east and west of the Tamar Crossings based on the analysis of the 2011 Census data.
- According to the 2011 Census there was 9,425 Travel to Work Trips (TTW) from Cornwall to Plymouth per day. There was an opposite flow of 3,742 trips from Plymouth into Cornwall.
- Saltash was a key origin in terms of TTW into Plymouth trips. There were 1,731 TTW trips from east Saltash into Plymouth, 1,095 from central Saltash and 1,283 from the area to the west of Saltash (this includes a significant geographical area. With the exception of Calstock the remaining most common origins were to the west of Saltash and account for 3,040 TTW trips. The 10 most common origins are shown in the table below;

Origin	Number of TTW trips
E02003900(Saltash)	1,731
E02003897(Carkeel)	1,283
E02003899(Saltash)	1,095
E02003898(Landrake)	961
E02003894(Callington)	569
E02003892(Calstock)	504
E02003895(Menheniot)	497
E02003901(Widegates)	357
E02003893(Liskeard)	356
E02003896(Liskeard)	300

Derriford was the most common destination of journeys crossing the Tamar, with a total of 1,383 trips. Journeys to Derriford were primarily undertaken by car, with that mode accounting for 89% of journeys and accounting for a total of 1,227 vehicle trips. The 10 most common destinations are shown in the table below;

Destination	Number of TTW trips
E02003126(Derriford)	1,383
E02003148(City Centre)	1,347

E02003150(Barbican)	637
E02003147(Devonport)	565
E02003135(Keyham)	527
E02004189(Roborough)	464
E02003129(Crownhill)	274
E02003122(Estover)	235
E02003144(Plymouth Station)	231
E02003149(Prince Rock)	217

- The number of journeys originating from the east of the Tamar is low compared to those originating from the west of the crossings. The most common destination was Carkeel to the north west of Saltash with a total of 797 trips, of which 643 of them were vehicle trips.
- The analysis of the survey data provided by the Tamar Bridge and Torpoint Ferry Joint Committee (TBTFJC), provided a full set of data for TamarTag users for an entire year between June 2015 and May 2016.
- When assessing postcode areas, the main origins from trips crossing the Tamar Bridge were based on Saltash and surrounding area, along with bus depots and commercial sites located in Plymouth and Exeter. This is likely to have happened due to the number of TAGs registered to these depot addresses.

## 2.5 Key findings of the report

Analysis of the census travel to work data, the Travel Survey, traffic flows and future demand has identified the following key findings:

- Significant 2011 census Travel to work destination to Derriford (1,383) and Plymouth City Centre (1,347).
- Significant origin flows from Saltash (4,109) but also from origins west of the town (3,040).
- Smaller though still significant 2011 census Travel to work flows into South East Cornwall in particular to Carkeel (797), Saltash (555) and Callington (531) although gaps in data are evident.
- Trips on both the Tamar Bridge and Torpoint Ferry dominated by car and van trips accounting for over 70% of the trips to all MSOAs, except from Plymouth city centre, with 56% of the trips undertaken by car or van.
- Lack of more direct/frequent bus services identified as a barrier to public transport use.
- Both Plymouth City Council and Cornwall Council have identified the potential to manage traffic through investigation of park and ride services in South East Cornwall.

- Lack of cycle infrastructure maybe seen as a barrier by respondents to increase in cycling.
- Scope to investigate a strategy of pricing management to manage traffic on Tamar Bridge

In terms of Capacity on Tamar Bridge;

- **AM peak westbound:** traffic is **close to capacity at selected short periods** when only one lane is operating. The operation of the Tamar Bridge allows flexibility to rearrange the direction of the lanes and by increasing lane operation at these peak moments the bridge performs adequately.
- **PM peak westbound:** traffic would be **close to exceeding capacity during 2021.**
- **AM peak eastbound:** demand **is not expected to exceed capacity until after 2029** based on the assumption of a 1,500 vehicles/hour capacity per lane.
- **PM peak eastbound:** there will be **spare capacity likely to continue beyond 2034.**

From this a series of suggested measures have been developed. The following recommendations provide some costs based on initial estimates.

## 2.6 Potential measures

From the findings of the data collection study a series of suggested measures have been developed. The following recommendations provide some costs based on rough estimates. More precise figures can be provided at an appropriate time after each element of the work has been properly defined in terms of needs and objectives.

It is recommended that as part of the progression of the measures presented below, the impacts of the individual measure on the business case of the Tamar Bridge/Torpoint ferry, particularly in terms of revenue, are fully understood.

Short Term (funding uncommitted)

- *Carry out surveys to determine and update traffic data, at both the Tamar Bridge and Torpoint Ferry, especially for westbound trips, due to the lack of available data as the Toll at the Tamar Bridge operates only on eastbound trips. £20,000*
- *Carry out surveys of traffic on the cantilever lanes of the Tamar Bridge and enable monitoring capacity of these. £15,000*
- *Undertake travel survey for non-car users of the Tamar Crossings with the objective to achieve a significant number of responses. £15,000*

- **Tamar Bridge Pricing Strategy:** Undertake new data collection and surveys to understand in detail current travel patterns and elasticity of drivers to inform any potential change in travel habits, taking into account wider impacts on TamarTag costs etc. and form the basis of a more detailed study into the impacts of toll changes and variable pricing regimes to be developed and understand willingness of car drivers to adjust their time of departure or return journeys with lower tolls. £20,000
- *Study of public transport options that could be feasible and viable and would promote a change away from the car. This would include the following studies:*
  - *The provision of a Park and Ride may complement the potential benefits that could be generated by the provision of direct bus services to Plymouth. Further work is required to scope out the feasibility of Park and Ride sites to the west of the Tamar Crossings. It is recommended to investigate cost of bus based Park and Ride linked with the feasibility of a new rail station in East Cornwall. £15,000*
  - *There are plans to improve the frequency of rail services between Saltash and Plymouth City Centre and/or St Budeaux to provide a half hourly service on the Cornish Mainline from 2018. These do not include plans for more frequent stops at the stations between Saltash and Plymouth although some of them (St Budeaux) could be highlighted as a potential. It is recommended to investigate the feasibility to increase track capacity to improve frequencies to two local rail journeys per hour and allow hourly long distance service from London services, Bristol and the North. £25,000*
  - *Public transport could be promoted through the use of a new marketing campaign extolling the benefits of buying weekly or monthly season tickets, enabling people to see how travelling by public transport could be cost effective and the savings they could make by buying season tickets. £10,000*
  - *Monitoring of the uptake of new bus services provided in the area, such as the 'Saltash Hopper Service', providing access between Saltash and Derriford. £10,000*
  - *Car sharing - A marketing campaign advertising a car sharing database could be run in conjunction with the car sharing database. It is recommended the implementation of a new car sharing scheme that could be introduced in conjunction with a car sharing database with journey matching capabilities, which people could use to find similar people making the same or similar journeys. £10,000 (based on PBA estimates)*
  - *As part of workplace travel planning targeting areas such as Moorlands Trading Estate and Derriford, car sharing to workplaces could be encouraged, potentially in conjunction with Multi Occupancy Vehicle (MOV) bays being installed at workplaces. It is recommended the preparation of a study about the viability to implement Multi Occupancy*

*Vehicle (MOV) bays being installed at workplaces, and how these could be monitored and enforced. £5,000*

- *Smarter Choices Initiatives – While Cornwall does not currently have any PTP projects planned in the study area, Plymouth has "Plymotion Three", which is the delivery of the PCC Access Fund bid. This could be promoted in other locations within the study area. It is recommended to study the implementation of full household PTP campaigns for Saltash, Torpoint and Liskeard as appropriate, and to investigate the success of Plymotion Three. Variable depending on study area.*
- *Update of the highway bridge capacity provided in this report based on future updates to the Plymouth Joint Local Plan model (HAM 2). £5,000*

Medium Term (funding uncommitted)

Study on promotion of cycling – There are various different ways in which cycling could be promoted and the perceived lack of safety overcome and this could be further investigated, along with the provision of softer measures such as cycle training courses. It is recommended the study and design of new cycling infrastructure and soft measures based on the provision of information and promotion of cycling, with details of the quickest and safest cycle routes around Saltash, Torpoint and Plymouth via a website or another form of advertisement. £10,000 to £50,000 (based on PBA estimates)

It is apparent from the outcome of the WSP/PB report that the Tamar Bridge will reach capacity within the next 10 – 15 years. Highways England, Cornwall Council and Plymouth City council are now preparing transportation strategies through to 2040 and beyond. It is therefore recommended that initial long term options for the crossings be considered to inform the development of these strategies.

## **2. Benefits for Customers/Residents**

The study forms part of the development of a strategic partnership approach led by Cornwall Council, Plymouth City Council and the Tamar Bridge and Torpoint Ferry Joint Committee to managing traffic on the Tamar Crossings and movements between the wider South East Cornwall and Plymouth areas.

Should no further work be progressed or a strategic approach to managing demand between South East Cornwall and Plymouth be put in place increased housing and employment growth in both South East Cornwall and Plymouth is likely to result in increased traffic on an already congested transport network, in particular the A38. In the medium to longer term the Tamar Bridge and Torpoint Ferry will meet and exceed capacity leading to a constraint in economic growth.

A strategic approach to managing travel demand between Plymouth and South East Cornwall informed by the data collection study will contribute to the realisation of the following benefits:

- More reliable journey times between South East Cornwall and Plymouth City.

- Unlock growth housing growth in South East Cornwall and Plymouth.
- Increase opportunities for new public transport services.
- Address potential barriers to crossing the Tamar.
- Economic growth and the support of new employment opportunities in both South East Cornwall and Plymouth.
- Improve demand management for all trips between South East Cornwall and Plymouth.
- Increase life of current crossings as a result of reduced maintenance and better management of capacity.

#### **4. Relevant Previous Decisions**

Tamar Bridge and Joint Committee December 6<sup>th</sup> 2013 – Resolved to note the findings of the Peter Brett Associates report 'River Tamar Crossing's Study Final Report' and progress with recommendations to progress a data collection study and differential tolls and pricing strategy.

#### **5. Consultation and Engagement**

Although led by Cornwall Council the work the study has been developed with significant support from the Tamar Bridge and Torpoint Ferry and Plymouth City Council. The submission of this report to the Tamar Bridge and Torpoint Ferry Joint Committee is part of wider stakeholder engagement. Schemes or programme that are delivered as a result of this and follow on studies will undergo the appropriate levels of consultation.

#### **6. Financial Implications of the proposed course of action/decision**

Progression of the actions identified for Tamar Bridge and Torpoint Ferry Joint Committee funding found require a contribution of £20,000 in 2018/19.

#### **7. Legal/Governance Implications of the proposed course of action/decision**

None

#### **8. Risk Implications of the proposed course of action/decision**

Low risk.

#### **9. Comprehensive Impact Assessment Implications**

None identified at this stage, CIA will be undertaken as part of various supporting projects as they progress.



## 10. Options available

1. The Committee to note the findings of the Tamar Crossings Travel Analysis Study.
2. The Committee to set aside funding to progress The Pricing Strategy on Tamar Bridge: preparation of detailed study (£20,000).
3. The Committee to recommend that work commences on a study which investigates the long term strategic options for the Tamar Crossings.

## 11. Supporting Information (Appendices)

Appendix 1 - Tamar Crossings Travel Analysis Study 2015 (PB/WSP).

Appendix 2 - River Tamar Crossings Study Final Report 2013 (PBA).

## 12. Background Papers

- Tamar Bridge and Torpoint Ferry Joint Committee Report December 2013.

## 13. Approval and clearance

### All reports:

<b>Final report sign offs</b>	<b>This report has been cleared by (or mark not required if appropriate)</b>	<b>Date</b>
Governance/Legal (Required for <b>all</b> reports)	Simon Mansell	4.9.17
Finance (Required for <b>all</b> reports)	Leah Thomas	5 September 2017
Equality and Diversity (If required)	N/A	
Service Director (Required for <b>all</b> reports)		
Strategic Director (If required)	John Betty	04/09/17