

Southend-on-Sea Borough Council

Report of Corporate Director for Place

To

Place Scrutiny

On

8TH July 2013

**Agenda
Item No.**

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**New Lower Thames Crossing
Place Scrutiny Committee
Executive Councillor: Councillor Cox
A Part 1 Public Agenda Item**

1. Purpose of Report

- 1.1.1 To seek Members views on the consultation options for a New Lower Thames Crossing. The deadline for the submission to Department for Transport (DfT) is 16th July 2013.

2. Recommendation:

- 2.1 That Members note the report.
- 2.2 That the response to the consultation is considered by Members of the Place Scrutiny Committee on 8th July and the views of the Committee are included in the Council's formal response.
- 2.3 That the Council's response is submitted via SO46 by the consultation deadline of 16th July 2013.

3. Background

- 3.1 This consultation is designed to gather views on the preferred location for additional road-based river crossing capacity in the Lower Thames area. Responses to this consultation will form part of the evidence base that Government will use to make a decision on where to locate a new crossing. The consultation runs from 21st May 2013 until 16th July 2013. **Appendix 1** list the questions being asked on this consultation. In November 2012, the South East Local Enterprise Partnership (SELEP) met and there was a unanimous agreement on three key issues:-
- Accelerating the delivery of Free Flow Tolling
<http://www.highways.gov.uk/roads/road-projects/dartford-free-flow-charging-project/>
along with existing capacity improvements at Junction 30/31, should be an immediate priority.

- In building future capacity, an additional route adjacent to the existing crossing at Dartford/Thurrock will not work due to the impact on the M25 and adjoining roads
- All other options need to be reviewed in the context of both local needs and national infrastructure requirements

Building on this, Members may wish to consider the following points in considering the response to the consultation

- There should be no further delay to the Free Flow Tolling (the Highways Agency is planning to introduce the new remote charging arrangements in October 2014. Engineering work to change the road layout will follow, and we expect all work on this project to be completed by summer 2015).
- It could be considered premature to consult on the options until the outcome of the Free Flow Tolling is established.
- There needs to be a long term solution to the congestion at M25 J30/31, with a clear timetable and scheme specifics becoming a priority
- The impact on the surrounding road networks need to be considered with clear improvements set out to manage new demand and different travel patterns. It is not clear whether this has been factored in?
- Why does the Option C variant only apply to Option C? This could be applied to both Option A and B as well.
- Can there be mitigation to the environmental damage by refining the routes further?
- Options A and B could be considered sub-optimal in stimulating economic growth
- It could be considered regretful that more radical options further East had been ruled out

3.2 The decision on where to locate a new Lower Thames Crossing will be based on the extent to which a new crossing at each location will:

- contribute to the national economy, through improving journey times and the connectivity of the strategic road network, both to and within the Thames Gateway and the South East;
- reduce congestion at the existing crossing and improve the resilience of the strategic road network;
- contribute to reducing greenhouse gas emissions;
- avoid unacceptable impacts on environmentally sensitive areas and improve quality of life; and
- avoid unacceptable impacts on committed development.

3.3 It is also expected that each location option will be considered in terms of the distributional impacts on different income groups. The decision on where to locate a new Lower Thames crossing will also be based on cost, the impact that has on affordability, and value for money.

- 3.4 The Department for Transport commissioned a study in 2009 to review the ways in which the capacity constraints at the existing crossing could be addressed. The 2009 study concluded that there was a problem at the existing crossing which required resolution through the provision of additional road-based river crossing capacity in the Lower Thames area.
- 3.5 The 2009 study identified five location options that could help alleviate the congestion problems at the existing crossing. Two of the five options were not considered worthy of further investigation. Both were located further east than any of the other options considered and were shown to bring very limited congestion relief to the existing crossing. Both were also shown to encourage a low level of traffic demand, which, when coupled with the relatively high scheme costs, meant that they would be unlikely to provide value for money.

The identified five locations were:

- Additional capacity at the existing Dartford Crossing
- Swanscombe Peninsula link A2 to the A1089
- East of Gravesend and link to the M20
- M2 link to Canvey Island; and
- Isle of Grain link to east coast of Southend

The November 2011 update to the National Infrastructure Plan also included the Lower Thames Crossing as one of the top 40 priority infrastructure projects.

- 3.6 The existing crossing experiences high levels of traffic, with typical daily traffic flows of 140,000 vehicles compared to the original design capacity of the crossing, which was 135,000 vehicles. The crossing was found to have operated above its design capacity on 257 days during 2010.
- 3.7 The impact of incidents and accidents is great, owing to the fact that the crossing is often operating at, or above, capacity. This means that the crossing has poor resilience and that motorists experience significant variation in their journey times. Between October 2011 and September 2012, the crossing was the least reliable section of the strategic road network, with data from the year to April 2012 showing that only 60.2% of northbound journeys and 56.3% of southbound journeys were completed within the expected time.

4. Future Issues

- 4.1 The 2012 review included consideration of the likely situation at the existing crossing if no new crossing was built. The south east of England is forecast to experience higher population growth than the rest of the country, which is a significant factor underpinning the forecast increase in traffic flows.
- 4.2 In the absence of a new crossing, traffic flows are forecast to increase by 10–20% southbound and by 2–10% northbound between 2009 and 2041. The 2012 review found that on a typical day, with no incidents, delays resulting from queuing on the crossing could exceed 10 minutes northbound (from around 3 minutes in 2009) and 3 minutes southbound (from around 1 minute in 2009) by

2041. The review also found that the existing crossing would be placed under significant stress by 2041 if no new crossing were to be provided.

- 4.3 It is important to recognise that parts of the strategic road network near to the crossing are also likely to experience longer delays by 2041, owing to volumes of traffic using them. Significant delays, adding approximately 17 seconds to the time needed to travel each kilometre of the existing crossing, are likely to be experienced by users of the existing crossing in the southbound direction and the A229 northbound. Users of the existing crossing in the northbound direction, the A13 east of M25 junction 30 and the A229 southbound would be likely to experience delays of approximately 49 seconds to travel each kilometre at these locations.

5. Suggested Department for Transport Options to consider

- 5.1 The three options investigated as part of the 2012 review are:

- **Option A:** At the site of the existing A282 Dartford-Thurrock crossing;
- **Option B:** Connecting the A2 with the A1089; and
- **Option C:** Connecting the M2 with the A13 and the M25 between junctions 29 and 30.

A variant of **Option C** was also considered that would involve widening the A229 between the M2 and the M20. The variant was considered to understand whether the added value of widening the A229 would materially improve the business case for **Option C**.

- 5.2 **Option A** is expected to provide additional long-term capacity at the site of the existing crossing and offers the shortest route of the three options investigated.

A crossing at **Option B** would be located between the Swanscombe Peninsula and the A1089.

Option C would be located between east of Gravesend and east of Tilbury. This would form a major new piece of infrastructure on the strategic road network, and provide a direct route for longer distance journeys using the M25 and the M20.

Appendix 2 shows above Options.

- 5.3 Each crossing option presents a road-based solution that would need to be linked to the existing strategic road network. At each location option, the design of a scheme would be subject to the River Thames navigation requirements and highway and junction design standards, which will influence the cost of any future structure. The review has concluded that, subject to the appraisal and consideration of the environmental impacts, it would be feasible to build a new crossing and link it to the existing strategic road network at all three location options, although significant engineering difficulties have been identified in relation to **Option C variant**.

- 5.4 The findings of the review indicate that the benefits, including wider economic impacts, of all the location options are likely to outweigh the costs, meaning that at this early stage each option is deemed economically justified.
- 5.5 A new crossing at any of the location options could, depending on the structure used, potentially impact on the Thames Estuary marine environment, and would also have varying impacts on the noise and air quality levels in the surrounding areas. A future scheme at any of the location options would need to carefully consider and mitigate any potential adverse environmental impacts.
- 5.6 The forecasts generated show that a new crossing would be expected to change travel patterns and traffic levels, provide economic benefits, but also bring a range of environmental and social impacts. Compared with a situation where no new crossing has been provided, all location options are likely to deliver the following, albeit to varying extents:
- increase the level of traffic crossing the Lower Thames;
 - reduce congestion, and therefore delay, on the existing crossing;
 - provide a large benefit to business users including freight, due to reduced congestion;
 - improve journey times for trips made using the existing crossing;
 - increase the population experiencing levels of noise from the strategic road network; and
 - lead to some relocation of jobs eastwards from London into the Thames Gateway area.
- 5.7 The future development of a scheme will have to consider decisions made, or pending, on other transport and development projects. Potential project dependencies that were identified include:
- developments in the Thames Gateway area; and
 - improvements at the M25 J30.

The M25 J30 where the M25 intersects the A13, this junction is currently operating at capacity during peak hours. Depending on which option is taken forward, there may be a need to consider further improvements at this junction.

6. Comparison of impacts of the options

- 6.1 **Option A** is predicted to perform better than the other options in terms of alleviating congestion on the existing crossing and adjacent sections of the M25, but could add delay to A13 eastbound. It would not improve the connectivity of the strategic road network and is therefore forecast to stimulate relatively limited economic growth when compared with the other options. The reduction in congestion that **Option A** is predicted to deliver also leads to a modest reduction in greenhouse gas emissions.

Forecasts show that there is the potential for congestion around junctions 30 and 2 of the M25 if a new crossing is located at **Option A**. Improvements to these junctions may need to be considered in future.

Option A is the shortest route of all the options. It would potentially impact on a number of planned developments within Dartford and Thurrock but would have the least overall impact on the natural environment of all the options.

- 6.2 **Option B** is predicted to alleviate congestion at the existing crossing to a lesser extent than **Option A**, but could add delay to the A2 and A13 east of Basildon. This option would improve connectivity and is therefore forecast to be more effective than **Option A** in supporting the development of economic activity in the local area. The route changes forecast for **Option B** do not offset the forecast growth in traffic, leading to a forecast increase in greenhouse gas emissions.

Option B traverses planned development sites north of the A2 in the area of the Swanscombe Peninsula. Any future development in this location would have to carefully consider its impact on these sites. In addition, a new route would cross an area of nationally important heritage and archaeological value and would therefore cause more environmental harm than **Option A**.

- 6.3 **Option C** is the longest route of all the options, passing largely through undeveloped land that is designated as Green Belt. A route at this location would also pass through environmentally sensitive areas, including the Kent Downs Area of Outstanding Natural Beauty, ancient woodland and the Thames Marshes Ramsar site, where development would need to be proven to be of 'overriding public interest' before it could go ahead. Overall, **Option C** would result in the greatest impacts on environmentally sensitive areas of all the options.

Option C variant additionally involves widening the A229 between the M2 and the M20. It has been shown to have similar impacts to **Option C** but, owing to the enhanced connectivity it provides, it is expected to bring the largest economic benefits.

7. Value for Money as reported in the Final Review Report

- 7.1 The monetary values expressed in the paragraphs and tables below are expressed in 2010 values and prices and do not include any non-monetised impacts. The table below compares the estimated capital costs of the location options and the benefit cost ratio of each, both with and without the inclusion of monetised wider impacts. All values are presented as ranges. The range of values presented for each location option reflects the differences between the costs and benefits of the three engineering solutions.

Comparison of costs and value for money				
	Option A	Option B	Option C	Option C variant
Estimated capital cost range	£1.2bn – £1.6bn	£1.8bn – £2.2bn	£3.1bn – £3.2bn	£4.9bn – £5.0bn
Indicative BCR with our wider impacts	1.0 – 1.8	0.5 – 0.8	1.2 – 1.3	1.2
Indicative BCR with wider impacts	1.4 – 2.4	1.1 – 1.7	1.9 – 2.0	1.7

- 7.2 The construction costs of **Options C** and **C variant** are substantially greater than those for **Options A** and **B**. This may mean that any revenues received from crossing users are not sufficient to meet the total project costs over the projected length of the project concession. Additional financial support may therefore be required from public finances in the event that the Government chooses to develop **Options C** or **C variant**.
- 7.3 On the basis of the monetised wider impacts, a bridge at **Option A** produces the highest BCR of the three locations (2.4) and, comparably, a bridge at **Option B** the lowest (1.7). On the same basis, **Option C** has a BCR of 2.0. When **Option C variant** is compared with **Option C**, the costs of the additional infrastructure outweighs nearly all of the additional benefits, implying that the economic case for **Option C** does not rely on it being delivered in conjunction with the variant.

8. Other Options

- 8.1 The Council does have the option to not respond to the consultation. However given how this will have an impact for residents and visitors to the Borough, it is essential that the authority's views are submitted.
- 8.2 Each location option has been shown to reduce congestion at the existing crossing, albeit to varying extents. The location options were also shown to produce varying social and environmental effects.
- 8.3 The location options were appraised in comparison with a base case, which represents the situation without a new crossing, to determine their relative performance in relation to a number of economic, social and environmental factors.
- 8.4 The views and comments received in response to the consultation will be analysed and interpreted to help inform the selection of the location for a new crossing. Once Government has reached a decision on the location for a new crossing, there is potential for work to commence on developing a scheme, which will include further consideration of the financing options.

9. Reasons for Recommendations

- 9.1 Given how the crossing affects indirectly road access for traffic coming into and out of the Borough it is important that comments are submitted.

10. Corporate Implications

10.1 *Contribution to Council's Vision & Corporate Priorities*

- 10.1.1 Due to the recommendation of not submitting a bid there is no contribution

10.2 *Financial Implications*

- 10.2.1 There are no financial implications

10.3 Legal Implications

10.3.1 There are no legal implications

10.4 People Implications

10.4.1 There are no people implications

10.5 Property Implications

10.5.1 Nil

10.6 Consultation

10.6.1 This is a DfT consultation

10.7 Equalities and Diversity Implications

10.7.1 No equalities or diversity implications

10.8 Risk Assessment

10.8.1 A risk assessment is not required

10.9 Value for Money

10.9.1 Nil due to being a consultation report

10.10 Community Safety Implications

10.10.1 No community safety implications

10.11 Environmental Impact

10.11.1 None

11. Background Papers

11.1 Department for Transport Options for a New Lower Thames Crossing - May 2013

11.2 Department for Transport Review of Lower Thames Crossing Options: Final Review Report – April 2013

11.3 Department for Transport Review of Lower Thames Crossing Options: Final Review Report Appendices – April 2013

Consultation questions:

- Q1.** Do you agree that there is a strong case to increase road-based river crossing capacity in the Lower Thames area?
- Agree
 - Disagree
 - Neither agree nor disagree

Please explain your reasons.

- Q2.** Which of the following location options for a new crossing do you prefer?

- Option A: at the site of the existing A282 Dartford-Thurrock crossing
- Option B: connecting the A2 with the A1089
- Option C: connecting the M2 with the A13 and the M25 between junctions 29 and 30
- Option C variant: connecting the M2 with the A13 and the M25 between junctions 29 and 30, and additionally widening the A229 between the M2 and the M20
- Other

If other, please provide details.

- Q3.** Please indicate how important the following factors were in influencing your preference for the location of a new crossing, in answer to Q2. Please mark whether they were very important, important or not important.

- Forecast contributions to the national economy
- Forecast reductions in congestion at the existing Dartford-Thurrock crossing and forecast improvements to the resilience of the surrounding road network
- Forecast reductions in greenhouse gas emissions
- Smaller forecast adverse impacts on environmentally sensitive areas and larger forecast improvements in quality of life relative to other location options
- Smaller forecast adverse impacts on planned development relative to other location options
- The distribution of forecast impacts on people within a range of different income groups
- Lower estimated costs relative to other location options
- Forecast value for money
- Other

If other, please provide details.

Q4a. Is your preference for the location of a new crossing, in answer to Q2, conditional on whether a bridge, bored tunnel 30 or immersed tunnel is provided?

- Yes
- No

Q4b. If yes, please indicate which type of crossing you would prefer:

- Bridge
- Immersed tunnel
- Bored tunnel

Q5. Do you wish to add any further comments?

Appendix 2

Location options for a new Lower Thames Crossing

