The ForthRight Alliance
campaigning against a second Forth road bridge

Repair the Forth Road Bridge - *and save Scotland £4,000 million*

1. INTRODUCTION

The ForthRight Alliance is renewing its campaign against a new Forth crossing in response to the Scottish Government's decision to build a Second Forth Road Bridge, a project which we believe is wrong on engineering, transport, environmental and economic grounds.

2. THE FORTHRIGHT ALLIANCE: BACKGROUND

The ForthRight Alliance was formed in the early 1990s, successfully resisting plans at that time for a Second Forth Road Bridge. Following the discovery in 2004/5 of a significant degree of corrosion in the main cables of the existing bridge, the run-up to the 2007 Scottish elections saw pressure for a second road crossing increase, with the support of business groups, sections of the media and many politicians.

3. THE SCOTTISH GOVERNMENT'S CURRENT POSITION – AND THE CURRENT ENGINEERING POSITION

On the 15th of January 2008, the Cabinet Secretary for Finance and Sustainable Growth, John Swinney MSP, told the Parliament's transport committee that the primary reason for deciding to build a new bridge was the risk that the Forth Road Bridge might have to close to HGVs (heavy goods vehicles) by 2013 if cable-drying was unsuccessful.[1]

However, evidence from official reports suggests that even if drying – which has been successfully installed on sixteen similar suspension bridges worldwide – fails to arrest corrosion then cable augmentation or replacement can be carried out without weekday closure of the bridge. The cost range for this is £91-122 million,[2] compared with £3,200 - 4,200 million for a new bridge.[3]

Moreover, following a further internal inspection of the main cables in February and March 2008, FETA (the Forth Estuary Transport Authority) have concluded that "the rate of deterioration is following the more optimistic line" and that "any consideration of a restriction in traffic loading is now more likely to occur between 2017 and 2021".[4]

They have further indicated that initial results from cable-drying are "encouraging" and that "the trial is showing that initial lengths of the west cable are drying out".[5]

4. AN ADDITIONAL – *NOT A REPLACEMENT* – BRIDGE IS PLANNED

Although Ministers usually refer to the new bridge as a 'replacement', Transport Scotland's consultation exercise in autumn 2007 indicated – *even in the artist's impressions!* - that the new bridge will be additional, *not* a replacement.[6] This has important implications for traffic levels and greenhouse gas emissions: the City of Edinburgh Council has stated that the impact of an additional crossing is likely to include *"large increases in cross Forth traffic with the associated environmental and congestion impacts, regardless of whether a new crossing is 'multi modal' or not."*[7]

1 Scottish Parliament Transport, Infrastructure and Climate Change Committee Official Report, 15/01/08, Col 363 - <www.scottish.parliament.uk/s3/committees/ticc/or-08/tr08-0102.htm#Col356>.

2 Forth Estuary Transport Authority (2008a): *Feasibility Study for the Replacement or Augmentation of the Main Cables – Update and Interim Stage 2 Report*. Report to FETA, 22/02/08: Table 1, Section 3.3 - <www.feta.gov.uk/index.php?option=com_remository&Itemid=126&func=download&id=400&chk=7a4d304530eb57a333d3ac367bfbb58c>.

3 £91-122 million is at 2007 prices; £3,200 - 4,200 million is at 2016 prices.

4 Forth Estuary Transport Authority (2008b): *Second Internal Inspection of Main Cable - Update Report*. Report to FETA, 20/06/08: Section 3.5 - <www.feta.gov.uk/index.php?option=com_remository&Itemid=126&func=download&id=427&chk=7971f984622be7654ac9db2ce57ff29b>.

5 Forth Estuary Transport Authority (2008c): *Dehumidification of Main Cable - Update Report*. Report to FETA, 10/10/08: Sections 3.3 and 4.1 - <www.feta.gov.uk/index.php?option=com_remository&Itemid=126&func=download&id=436&chk=9494bae213a569bf2ffb726e206a48f2>.

6 Transport Scotland (2007): *Forth Replacement Crossing Study Report 5 Final Report.* The report makes no mention of removal of the existing bridge but suggests using it alongside the "replacement" crossing - <transportscotland.gov.uk/files/documents/reports/FRCS-Report5-Non-Technical-Summary26-06-07.pdf>.

7 City of Edinburgh Council (2007) *New Forth Crossing Options - Proposed Council Response.* Report to CEC Transport, Infrastructure and Environment Committee, 25/09/07: Section 2.10(e) - <cpol.edinburgh.gov.uk/getdoc_ext.asp?DocId=101929>. Amongst other things, the report *"[e]xpress[ed] concern at the fact that an additional road-based crossing, whether or not it gives priority to public transport and high occupancy vehicles, is likely to significantly increase cross Forth traffic and therefore increase congestion, bus and car journey times and noxious pollution in Edinburgh, as well as increase traffic and Carbon Dioxide emissions overall."*

5. AN ADDITIONAL BRIDGE WILL CAUSE TRAFFIC GROWTH

A study commissioned by SEStran (the South East of Scotland Transport Partnership) in 2003 found an additional bridge would cause a 55% increase in traffic over 10 years, a 190% increase by 2026, and that by 2031 all additional road capacity would have been used up.[8] Thus all additional capacity from a new bridge would have been used up within 15 years of opening. This scenario assumed that bridge tolls remained on both the new and existing bridges, with charges increasing yearly in real terms. Tolls have now been removed on all road bridges, and a study presented to Parliament shows that this will increase Forth Road Bridge traffic by a further 10%.[9]

These findings confirm earlier work by the Standing Advisory Committee on Trunk Road Assessment (SACTRA) which concluded in 1994 that new roads, and in particular estuary crossings, generate extra traffic and congestion.[10] Therefore it would be counter-productive to build an additional road crossing.

6. AN ADDITIONAL BRIDGE WILL DAMAGE THE ENVIRONMENT

If the Forth Road Bridge was ever found truly to be unserviceable, the ForthRight Alliance believes that any new crossing should be a replacement and not an additional one. This means that the old bridge would have to be dismantled. Although the Government has presented a budget for this (£129 million),[11] it is unlikely to happen, as the bridge is a category A listed structure.

It is therefore reasonable to conclude that the true intention is to maintain the Forth Road Bridge alongside the new crossing, potentially doubling road traffic capacity. Given the increase in CO_2 emissions – not to mention other pollutants - that this would generate, this would be incompatible with the government's budget statement that it intended to implement an "ambitious programme to tackle climate change".[12]

For many, moreover, an additional bridge at Queensferry would severely compromise one of Scotland's most iconic visual environments.

8 MVA (2005): *SESTRAN Integrated Transport Corridors Study Final Report*. §4.17.3.
9 Steer Davies Gleave (2007) *Toll Impact Study* - <www.scotland.gov.uk/Topics/Transport/Road/toll-bridges/TollImpactStudy>.
10 Standing Advisory Committee on Trunk Road Assessment (1994) *Trunk Roads and the Generation of Traffic*: "where the existing network is sparse and a large change in network quality occurs as a result of a scheme (for example, the Humber Bridge), significant quantities of induced traffic are unambiguously observed." (p.165, §11.05) ('Induced traffic' is the term given to extra vehicle journeys generated by the opening of a new route.) The research also states that induced traffic is most significant in "roads in and around urban areas, estuary crossings, and strategic capacity-enhancing inter-urban schemes (including motorway widening)." (p.170, §11.23 and 15.05).
11 Letter from Transport Scotland to Friends of the Earth Scotland, 13/09/07.
12 Scottish Government news release "Scotland's Budget and Spending Review", 14/11/07 - <www.scotland.gov.uk/News/Releases/2007/11/14081839>.

7. THE ECONOMIC ARGUMENT

The ForthRight Alliance believes that, given: (i) the confidence expressed by FETA that "the deterioration of the cables can be arrested (by cable-drying) prior to the strength loss reducing to a level where intervention is required",[13] and; (ii) that, even were this not to be the case, cable replacement or augmentation, while presenting "significant engineering challenges" is "achievable"[14] at a capital cost of between £91-122 million, it would be folly at this stage to commit to thousands of millions of pounds of public expenditure on a project which is simply unlikely to be needed. There are many more deserving and pressing demands on the public purse.

8. SUMMARY AND CONCLUSION

The issue of corrosion of the main cables of the existing bridge is being actively addressed – with "encouraging" initial results.

Even were this to fail to hold the degree of corrosion at a level where traffic restrictions would not be necessary, a programme of cable augmentation or replacement to enable the existing bridge to last for its design life of 120 years[15] would still be possible on a timescale similar to that of building an additional crossing – and at small fraction of the cost.

Further internal inspection of the main cables has also led FETA to conclude that the period within which traffic restrictions would need to be considered has now slipped from 2013/2019 to 2017/2021.

The ForthRight Alliance therefore believes that any Ministerial decision to contractually commit to an additional bridge costing the public purse up to £4,200 million[16] would be, to say the least, premature at this stage.

Whilst we would not oppose continued scoping work into a replacement crossing, working to resolve the problems of the existing bridge should be the top priority of the Scottish Government.

13 Forth Estuary Transport Authority (2008b) *Ibid*. See section 3.6.
14 Forth Estuary Transport Authority (2007) *Feasibility Study for the Replacement (or Augmentation) of the Main Cables of the Forth Road Bridge - Preliminary Findings*, Report to FETA, 01/06/07, Section 6.1, Conclusion - <www.feta.gov.uk/index.php?option=com_remository&Itemid=126&func=download&id=363&chk=d6e9d66ba733ed804e6cbfb8cb7df4a9>.
15 FETA website FAQs: "The original design life was 120 years but with proper maintenance the bridge will last longer than that. Within the design life, major components will require to be replaced such as the suspender-ropes (replaced after 35 years), expansion joints and bearings." - <www.feta.gov.uk/download/faqs.pdf>.
16 Secretary for Finance and Sustainable Growth statement to Scottish Parliament on 19/12/07 - <www.scotland.gov.uk/News/This-Week/Speeches/Weathier-and-Fairer/forthcrossing>.

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