



*Meeting of Forth Estuary Transport Authority  
28<sup>th</sup> October 2011*

## **Budget Monitoring 2011/12 Quarter 2 to 31<sup>st</sup> August 2011**

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### **1 Purpose of report**

To advise the Authority of the forecasts for revenue and capital expenditure to 31st March 2012. This report has been prepared in consultation with the Chief Engineer and Bridgemaster.

### **2 Summary**

2.1 Based on the forecasts at 31<sup>st</sup> August 2011, a drawdown against the Reserve of £2.746m would be required in 2011/12. The Reserves are detailed in Section 6.

2.2 The requirement to fund 2011/12 expenditure through the Reserve is due to:

- A forecast over spend against approved budget 2011/12 of £0.472m, and
- An obligation to drawdown Reserves totalling £2.274m. An explanation of this is provided in Section 5 of the report.

2.3 Forecast expenditure 2011/12 has reduced by £1.326m from that reported to the Authority in August. The reduction relates mainly to a change in forecast for the Anchorage Investigation project. Details are provided in paragraphs 3 and 4 of the report.

#### **Forecast expenditure to approved budget 2011/12**

2.4 The budget approved is £15.974m, forecast expenditure is estimated to be £16.446m, which would result in an over spend of £0.472m.

2.5 The estimated forecast to budget position and movements in forecast to those reported in August is shown in the table below:

<b>Expenditure 2011/12</b>	<b>Budget</b>	<b>Forecast Quarter 2</b>	<b>(Under) /Over</b>	<b>Forecast Quarter 1</b>	<b>Movement</b>
	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>
Revenue	5,115	4,977	(138)	4,945	32
Capital	10,859	11,469	610	12,827	(1,358)
<b>Total Expenditure</b>	<b>15,974</b>	<b>16,446</b>	<b>472</b>	<b>17,772</b>	<b>(1,326)</b>

### 3 Main Report

#### Revenue expenditure

- 3.1 The revenue forecasts have increased by £0.032m from quarter one. The increase is mainly due to a revision of employee forecasts based on the latest actual costs incurred.
- 3.1 The forecast revenue under spend is £0.138m. This under spend is mainly due to;
- (i) Employee costs – under spend £0.081m – mainly savings associated with vacant posts not being filled.
  - (ii) Other costs – under spend £0.057m – mainly a reduction in the forecast for legal fees and support cost charges.

### 4 Capital expenditure

- 4.1 The forecast capital over spend is estimated to be £0.610m.
- 4.2 The quarter two forecast to budget position, and any movement in forecasts to those reported at quarter one, are included in the table below:

	Budget	Forecast	(Under) /	Forecast	Movement
	£'000	Quarter 2	Over	Quarter 1	£'000
<b>Capital Projects</b>	£'000	£'000	£'000	£'000	£'000
Main Cable Dehumidification	115	292	177	256	36
Viaduct Bearing Replacement	7,818	8,828	1,010	8,499	329
Improvements to Deck Half Joints Trial	300	48	(252)	68	(20)
High Mast Light Replacement	500	128	(372)	123	5
Cable Band Bolt Replacement	250	10	(240)	17	(7)
Other capital projects	440	475	35	547	(72)
	<b>9,423</b>	<b>9,781</b>	<b>358</b>	<b>9,510</b>	<b>271</b>
<b>Revenue costs of Capital Plan</b>					
Main Cable Investigation	400	86	(314)	400	(314)
Anchorage investigation	800	1,241	441	2,497	(1,256)
Other studies and investigations	236	361	125	420	(59)
	<b>1,436</b>	<b>1,688</b>	<b>252</b>	<b>3,317</b>	<b>(1,629)</b>
<b>Total Capital</b>	<b>10,859</b>	<b>11,469</b>	<b>610</b>	<b>12,827</b>	<b>(1,358)</b>

#### Revisions to capital forecasts since quarter one.

- 4.3 The main reasons for forecast movements from quarter one are as follows:
- 4.3.1 Viaduct Bearings Replacement - £0.329m increase - The forecast is based on the latest spend profile prepared by contractor. This is a rephasing issue so the total forecast project cost covering years 2011-14 of £11.6m has not changed to that reported previously.

- 4.3.2 Main Cable Investigation - £0.314m decrease - The award of the main cable inspection contract has been delayed to allow post tender contract negotiations to take place. A report by the Chief Engineer and Bridgemaster on the Main Cable Investigation is presented separately on this agenda.
- 4.3.3 Anchorage investigation - £1.256m decrease – This relates to a rephasing of expenditure based on the latest activity schedule. The quarter one forecast was based on the tender programme submitted by the contractor following award of the contract, this has since been revised following work on site.

#### **Capital budget to forecast variances 2011/12**

- 4.4 The main reasons for the 2011/12 forecast over spend of £0.610m are as follows:
  - 4.4.1 Main Cable Dehumidification - £0.177m over spend - The additional costs relate to essential modifications to the dehumidification system and the implementation of required project improvements. Examples include improvements to air conditioning within the plant rooms and the installation of anti-vibration equipment.
  - 4.4.2 Viaducts Bearings Replacement - £1.010m over spend – The variance relates to the latest expenditure profile submitted by the consulting engineers differing to that previously provided and budgeted in February 2011. The total forecast for the project covering years 2011-14 of £11.6m has not changed from that reported at quarter one. The budget approved by the Board for the project over the same period was £10.275m, which would represent an increase in forecast cost of £1.325m. As reported previously, the variance is due to unforeseen compensation events that were highlighted as a risk at the tender approval stage in February 2010.
  - 4.4.3 Improvements to the Deck Half Joints Trial - £0.252m under spend – On the 17th June 2011, the Board were advised that three tenders had been received and were being evaluated. However, due to a review of all capital works and higher priority projects, the trial improvements to the joints have been deferred.
  - 4.4.4 High Mast Light Replacement - £0.372m under spend – The tender cost received for this project was below the approved budget. Survey work has started on site and the project is expected to be completed in the autumn of this year.
  - 4.4.5 Cable Band Bolt Replacement - £0.240m under spend - The project has been deferred due to higher priority capital projects taking preference and a report stating that no immediate action was required. The consulting engineers for the project, submitted a report to FETA staff in May 2011 recommending that the affected cable band bolt nuts were replaced over the short to medium term. To mitigate the risk of deferring the project, a more rigorous inspection regime has been adopted. It is planned that replacement works will be carried out in future years, unless specific defects and issues are identified through the inspections being carried out.

- 4.4.6 Main Cable Investigation - £0.314m under spend – As reported in paragraph 4.3.2, the award of the main cable inspection contract has been delayed.
- 4.4.7 Anchorage Investigation - £0.441m over spend - Following the Boards approval in April 2011 of the tender for £3.5m, the contractor submitted an estimated activity schedule. This has since been revised and results in £1.241m being forecast in 2011/12. The approved 2011/12 budget of £0.800m was based on an estimate prior to the award of the contract and receipt of an associated activity schedule. Although a budget of £7.5m was approved in February 2011, this related to both the south and north anchorages. Further updates will require to be prepared as the investigation of the southern anchorage progresses, as well any future year requirement to undertake investigation works at the north anchorage.
- 4.4.8 Other studies and investigations - £0.125m over spend - General expenditure increases or studies undertaken during 2011/12 where no work was originally planned.

## 5 Drawdown from Reserves 2011/12

- 5.1 As reported in August, the Authority will require to meet expenditure of £2.274m from the Reserve 2011/12. This drawdown is due to:
- Approved capital expenditure of £10.859m for 2011/12 exceeding the £10m Capital budget set-aside by the Scottish Government by £0.859m.
  - In March 2011, Transport Scotland advanced £1.4m of Capital Grant which was due to be received for 2011/12 in to 2010/11. This effectively moved the requirement to fund capital expenditure between financial years, and
  - Revenue grant being £0.015m less than approved expenditure.

## 6 Reserves/Risk

- 6.1 The Reserves at 31<sup>st</sup> March 2011 totalled **£6.152m**. Based on forecasts at 31<sup>st</sup> August 2011, a total drawdown of £2.746m would be required, leaving a projected Reserve at 31<sup>st</sup> March 2012 of **£3.406m**.
- 6.2 These Reserves are subject to a number of key risks, the most significant of which are;
- 6.2.1 Future bridge strengthening and improvement works yet to be determined.
- 6.2.2 Spending Review 2011 – Transport Scotland have confirmed the grant allocation to the Authority for the period 2012-2015. The revenue budget has not changed and remains at £5.1m per year. However, based on a direct comparison to the 2012-15 capital plan approved by the Authority in February 2011, the capital budget has reduced by around 58%. A separate report on the Spending Review 2011 is presented by the Chief Engineer and Bridgemaster on this agenda.

Based on the capital forecasts provided by FETA officers at quarter two 2011/12, all current contractual commitments can be met. This follows a priority based assessment of all projects included in the capital programme.

This also includes the award of the contract for the third internal inspection of the Main Cable, albeit reduced in scope. However, to fund the capital programme currently estimated for 2012/13, a reserves drawdown of around £2.0m would be required next financial year. Based on the estimated closing reserve for 2011/12 provided in paragraph 6.1, the reserve would fall to below £1.5m at the end of 2012/13. A risk therefore exists that the reserve could be exhausted completely next year if there are significant changes to the spend profiles of the major projects, or any major unforeseen maintenance requirements. Discussion requires to take place with Transport Scotland in respect of contingency funding in such an instance. The outcome of these discussions may require a revision to the letter of grant for 2012/13.

- 6.2.3 Anchorage Investigation. If the investigation does reveal significant deterioration in the steel strands within the anchorage tunnels then, depending on the level of that deterioration, measures may have to be considered to limit loading on the bridge. The investigation of the anchorages in itself carries significant risk and environmental issues are also a key risk. Full scale testing of the sockets within the southern anchorage chambers are not being carried out in the first phase of works but may be required depending on the outcome of the inspection. Any work required on the northern anchorages will also be dependent on the outcome of the work on the southern anchorages. Regular reviews with the contractor and consulting engineer will be required as the project progresses, with a view to reporting any significant changes to activity/spend profile throughout 2011/12.
- 6.2.4 Viaduct Bearings Replacement. Additional work has been required on the project resulting in contractor compensation events. As a result of these significant changes have been required to the activity schedule and expenditure profile of the project. FETA staff require to undertake detailed reviews of future activity schedules and spend profiles and report any significant changes throughout 2011/12.
- 6.2.5 Main Cable Strength. Dehumidification of the main cables continues and the first indication of the system's effectiveness will be available in 2012 when the cable is re-inspected. Whilst there is good reason to have confidence that dehumidification can slow down or halt corrosion there is no body of evidence yet available to allow an unconditional assurance to be given that dehumidification will be effective on the Forth Road Bridge.
- 6.2.6 Cable Band Bolts. A residual risk remains that the replacement of the bolt sets, as well as the nuts, may be required. This may result in replacement costs that have not currently been forecast.
- 6.2.7 Main Expansion Joints. A new permanent access system to facilitate both the inspection and monitoring of the joints is now complete. In addition, FETA staff have also completed the installation of the failsafe devices under the joints. However, given their age, there is still a residual risk that, in the event of an unforeseen significant failure of the joints, full replacement would have to be carried out before 2016. There is also a potential risk of delay to the Forth Replacement Crossing Project and if such a delay occurred then a review of the joint replacement programme would have to be carried out.

6.2.8 It should be noted that the main key risks remain the condition of the Anchorages and the Main Cable. Investigations are continuing into both elements and as results from these investigations become available then the level of risk can be evaluated. No allowance has been made in the Capital Plan for the replacement of the Main Cables or the Anchorages.

## **7 Conclusions**

- 7.1 Forecast expenditure at 31<sup>st</sup> August of £16.446m exceeds the approved budget of £15.974m by £0.472m.
- 7.2 A further Reserves drawdown is required for 2011/12 totalling £2.274m.
- 7.3 The Reserves at 31<sup>st</sup> March 2011 totalled £6.152m. The anticipated total drawdown of £2.746m would reduce the Reserve to £3.406m at 31<sup>st</sup> March 2012.
- 7.4 In the event that mitigating measures continue to be applied to the risks detailed above and the continuing commitment from the Scottish Government with regards to funding, the level of Reserves is considered to be adequate.
- 7.5 The financial position will continue to be monitored closely for the remainder of the financial year.

## **8 Recommendation**

- 8.1 The Authority is recommended to note the report.

**KAREN KELLY**  
Treasurer

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**Appendices:** None  
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**Background Papers:** Held at offices of the Treasurer