

**REPORT TO: TAY ROAD BRIDGE JOINT BOARD – 15 SEPTEMBER 2014**  
**REPORT ON: REPORT ON OPERATIONAL RESTRICTIONS AND CLOSURES**  
**REPORT BY: THE BRIDGE MANAGER**  
**REPORT NO: TRB19- 2014**

**1 PURPOSE OF REPORT**

1.1 To appraise the Joint Board of the number and nature of operational restrictions and closures applied between 1 May 2014 and 31 July 2014.

**2 RECOMMENDATIONS**

The Board are asked to note the contents of this Report as at 31 July 2014.

**3 FINANCIAL IMPLICATIONS**

There are no financial implications as a result of this report.

**4 POLICY IMPLICATIONS**

4.1 None.

**5. COMMENTARY ON RESTRICTIONS AND CLOSURES**

5.1 Restrictions are applied to the traffic on the bridge for a number of reasons including recovering debris, breakdowns, high winds and other operational requirements.

A summary of the restrictions applied between 1 May 2014 and 31 July 2014 is given over:-

5.1.1 Single Carriageway Closure

Reason	Total Duration (Minutes)	No of Occasions	Average Duration (Minutes)
Operational	252	54	5
Breakdown	126	16	8
Misc. Incidents	653	93	7
Road works TRBJB	0	0	0
Road works External Contractor	0	0	0

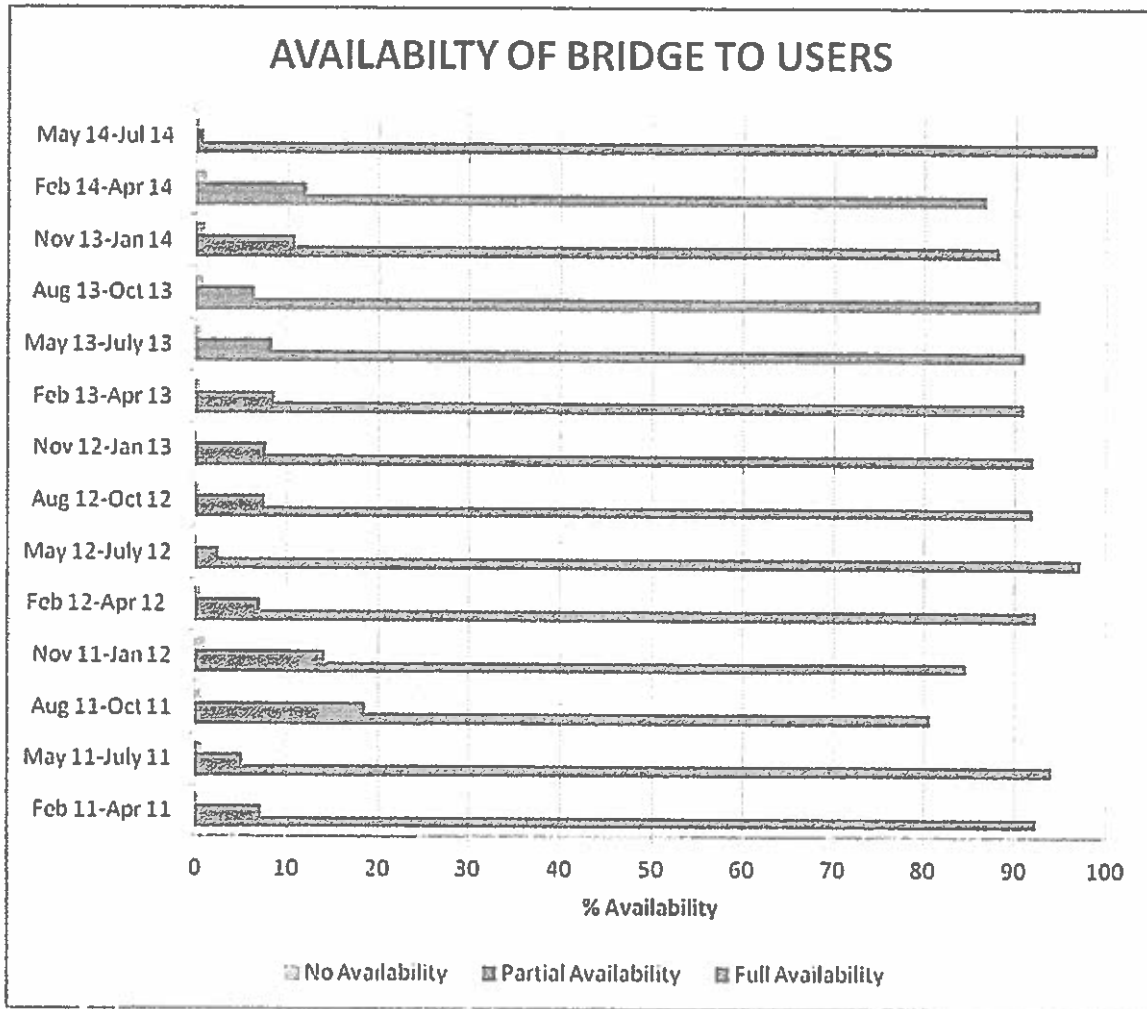
5.1.2 Full Bridge Closure

Reason	Total Duration (Minutes)	No of Occasions	Average Duration (Minutes)
Operational (Night Closures)	0	0	0
Police Incidents	74	3	25
Wind	0	0	0

5.1.3 High Winds/Weather Restrictions

Traffic restricted	Total Duration (Minutes)	No of Occasions	Average Duration (Minutes)
Double Deck Buses	265	1	265
High Sided	0	0	0
All traffic	0	0	0

5.1.4 Availability of Bridge



	May 13-July 13	Aug 13-Oct 13	Nov 13-Jan 14	Feb 14-Apr 14	May 14 – Jul 14
Full Availability	91.1	92.8	88.3	86.8	98.96
Partial Availability	8.4	6.4	10.8	12.14	0.98
Full Closure	0.5	0.8	0.9	1.06	0.06

**Figure 1 – Comparison of Availability of Bridge to Users**

Full availability of the bridge has increased by 12.16% compared with the last quarter and is high at 98.96% availability. No operational night closures and good weather has assisted with this figure.

**5.1.5 Summary of Bridge availability 1 February to 30 April 2014**

Full availability (No restrictions)	98.9 %
Partial Availability (Some restrictions)	0.98 %
No Availability (Full Closure)	0.06 %

**6 CONSULTATIONS**

- 6.1 The Treasurer, Clerk and Engineer to the Board have been consulted in the preparation of this report and are in agreement with the content.

**7 BACKGROUND PAPERS**

- 7.1 None

**ALAN HUTCHISON  
BRIDGE MANAGER  
20 AUGUST 2014**

**REPORT TO:** TAY ROAD BRIDGE JOINT BOARD – 15 September 2014  
**REPORT ON:** REPORT ON ANNUAL REVIEW OF STRATEGIC RISK MANAGEMENT  
**REPORT BY:** THE BRIDGE MANAGER  
**REPORT NO:** TRB 20- 2014

**1 PURPOSE OF REPORT**

1.1 To appraise the Joint Board of the annual review of Strategic Risk Management issues.

**2 RECOMMENDATIONS**

The Board are asked to note the contents of this Report as at 7 August 2014 and changes made to the Strategic Risk Register given in Appendix A.

**3 FINANCIAL IMPLICATIONS**

There are no financial implications as a result of this report.

**4 POLICY IMPLICATIONS**

4.1 None.

**5. OUTCOME OF REVIEW**

5.1 The Board's Risk Management Strategic Plan and Risk Register (2012-2014) were approved in September 2012.

As part of the ongoing management of risk it was agreed that the Risk Register would be reviewed annually and updated to take account of new or changed risks faced by the Board.

This review was carried out in August 2014 in conjunction with the Insurance and Risk Manager from Dundee City Council and it can be reported that there have been no new major risks identified or any changes to other previously identified risks that require any changes to the Strategic Risk Register

**6 CONSULTATIONS**

6.1 The Treasurer, Clerk and Engineer to the Board have been consulted in the preparation of this report and are in agreement with the content.

**7 BACKGROUND PAPERS**

7.1 None

**ALAN HUTCHISON  
BRIDGE MANAGER  
22 AUGUST 2014**



*Tay Road Bridge Joint Board*

**TAY ROAD BRIDGE JOINT BOARD  
RISK MANAGEMENT STRATEGIC PLAN  
AND STRATEGIC RISK REGISTER  
(2012-2014)**

<b>Review Date</b>	<b>Reviewed By</b>	<b>Next Review</b>
7 August 2014	Alan Hutchison, Bridge Manager	August 2015

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## 1. INTRODUCTION

A working definition of Risk Management would be

**"A management discipline through which concerted and co-ordinated action is taken to identify, evaluate and control current and potential causes of loss which could threaten the Board's ability to deliver an efficient and effective service."**

Skilled Risk Management offers the Tay Road Bridge Joint Board the prospect of both tangible and intangible benefits, three examples of each are shown below:

### **Tangible**

- Reduced financial loss
- Fewer injuries to staff/public
- Preserved assets  
(bridge/buildings/vehicles/  
equipment)

### **Intangible**

- Better Public Image
- Orderly consideration of risk

Intelligent application of Risk Management concepts should serve to reduce the "fear of the unknown". In this way the discipline should be viewed as a catalyst to service delivery rather than viewed as a reason why certain activities cannot be undertaken.

To achieve this vision requires a disciplined approach to risk which percolates through all levels of the Organisation and its numerous operations. In turn, tiers of management require to absorb and apply Risk Management concepts in their every day thinking and actions and in many ways this "cultural change" is the primary objective of this first Risk Management Strategy Plan.

Whilst this objective could have previously been viewed as desirable, the heightened profile of Corporate Governance in Local Government and the increasing external focus by bodies such as Transport Scotland and Audit Scotland on the issue of Organisational Risk Management increasingly demands attainment of the core objective.



## **2. POLICY STATEMENT**

2.1 The Tay Road Bridge Joint Board is committed to the management of risk in order to:-

- Minimise loss, damage or injury to Board employees or members of the public
- Protect Board assets and property
- Preserve and enhance the management and operation of the Tay Road Bridge
- Maintain effective stewardship of public funds
- Promote a favourable corporate image

The efficient management of risk forms part of the Board's overall business objectives. To achieve this, standards and principles will be developed and maintained. This process will involve identification and evaluation of risks to create practical and cost effective means of loss control and avoidance.

Risk management is recognised as a continuous process, demanding awareness and action from employees at every level, to reduce the possibility and impact of injury and loss.

### 3. RISK MANAGEMENT STRATEGY

The strategy aims to provide a framework for building a sustainable structure that recognisably supports Risk Management across all areas of Board activity and allows for monitoring and reporting on the effectiveness of that management.

Whilst acknowledging the majority of risks are relatively low-level in terms of severity there are in addition significant Strategic or Corporate risks that must also be managed.

#### 3.1 Status

Risk Management should be as much a part of the duties of all employees as are the control of budgets and the deployment of staff and equipment.

It should also be an element of the consultation process prior to altering existing service delivery and/or implementing new initiatives.

If the Board is to satisfy its external scrutiny obligations it will be required to demonstrate that Risk Management is carried out in this systematic and structured manner and be subject to monitoring.

#### 3.2 Management Arrangements

Risk Management needs to be fully integrated with normal management processes. The Bridge Manager is primarily responsible for the management of risk. The Treasurer is required to produce and/or maintain:

- A Risk Register
- A Risk Management Action Plan to address unacceptable risk exposures which have been detailed in the Risk Register
- Monitoring reports as appropriate

#### 3.3 Risk Management Forums

It is acknowledged there can be high level areas of risk which would benefit from a Risk Management forum.

It is proposed where such a need is identified, the forum will be chaired by the Bridge Manager.

#### 3.4 Accountability

Accountability for performance must be an integral part of the Risk Management process. Progress ought to be monitored and the following routine reporting pattern will operate:

The Bridge Manager will report to the Board summarising Risk Management performance and updating the Risk Register on an annual basis.

#### 3.5 Monitoring and Review

Full implementation of this strategy will take time and effort. Similarly, adherence to its requirements on an ongoing basis will require a resource commitment.

In mitigation it should be remembered that significant elements of the strategy are, already being performed.

The implementation and operation of the strategy will be kept under review to ensure both that it is operating effectively and that there are no aspects taking up disproportionate effort.

### 3.6 **Management Information**

Many aspects of the strategy will be driven by the quality of information available over loss profiles. Risk Management Information is provided under a Service Level Agreement with Dundee City Council.

## 4. ROLES AND RESPONSIBILITIES

### 4.1 Board Members

Board Members are responsible for making the strategic decisions affecting the management and operation of the Tay Road Bridge. They are responsible for understanding the strategic risks the Board has to face and be aware of how they are managed.

Board Members main tasks are to:

- Approve the risk management Strategic Plan
- Monitor the reporting of risk management activity
- Approve the annual report on Risk Management performance.

### 4.2 Board Officers

The Bridge Manager is responsible for ensuring risks the Board face are adequately managed. To enable the Bridge Manager to fulfil this responsibility he will liaise with the following Board Officers on the various elements listed below:-

Clerk to the Board	Legal, Contractual and Personnel related Risk
Engineer to the Board	Engineering Risk
Treasurer to the Board	Financial Risk

The Bridge Manager's key tasks will be to:

- Implement the risk management strategic plan.
- Review the Risk Register annually in conjunction with the Clerk, Engineer, Treasurer and Dundee City Council's Risk Manager.

**5. Risk Management**

**5.1 Risk Identification Process**

A number of techniques have been used to construct the Board's Risk Register.

The Risk Register identifies strategic and significant operational risks. In addition, an assessment of risk probability coupled with a risk severity analysis is included within the register.

**5.2 Risk Prioritisation and Control**

Risks identified are prioritised in the following manner:

- a Risk score determined through multiplication of probability and severity scores as follows:-

Score	Probability	Severity
1	Rare	Insignificant
2	Unlikely	Minor
3	Possible	Moderate
4	Likely	Major
5	Certain	Catastrophic

The Matrix produced using the above scores is shown below:-

Probability

5	10	15	20	25
4	8	12	16	20
3	6	9	12	15
2	4	6	8	10
1	2	3	4	5

Severity

b Risks are then prioritised using the "Traffic Light System" as indicated below:

Risk Score	Status	Control	Review Timescale
1 to 8	Green	Risk adequately controlled	No specific action required
9 to 16	Amber	Risk partially controlled	Within 24 months
17 to 25	Red	Further control required	Within 12 months

The potential to control risks will be addressed continuously through the upkeep of the Risk Register. Most risks are capable of being managed - by controlling the probability or severity of the risk or both. Very few risks require to be avoided completely.

It is anticipated that many risks will be realigned through this process. It is unrealistic to conceive that at any given time all risks will be "Green" but it will be possible to critically analyse risks with a view to improving their "score".

### 5.3 Monitoring Arrangements

To avoid stagnation of the Risk register process the following monitoring arrangements are in place.

- risk register to be reviewed annually or at the time of any organisational/legislative changes

### 5.4 Current Risk Status

The following Risk Status graph has been prepared using the information taken from the Strategic Risk Register in Appendix A. The numbers shown identify the risk stated in the Register.

4	7			
	6			
	5,8, 9	1,2, 3		
		10		

APPENDIX A

Strategic Risk Register

No	Risk Description	Probability (P)	Severity (S)	Inherent Risk (P) x (S)	Existing Controls	Residual Risk	Further Action Required	Responsible Officer	Priority
<b>Risk Category: External</b>									
1	Change of Government with revised policies/strategies	3	4	12	N/A	3x4 =12	None	Clerk Treasurer	Amber
2	Legislative changes e.g. Health & Safety , Environmental, Procurement etc	3	4	12	Maintain awareness of changes to legislation and amend policies and procedures timeously	3x3 = 9	Review and update Policies and Procedures on regular basis	Clerk Bridge Manager Engineer	Amber
3	Effects of changes to Economy – budget limitations etc	3	4	12	Financial planning, monitoring and control systems	3x3 = 9	None	Bridge Manager Treasurer	Amber

No	Risk Description	Probability (P)	Severity (S)	Inherent Risk (P) x (S)	Existing Controls	Residual Risk	Further Action Required	Responsible Officer	Priority
<b>Risk Category: Operational</b>									
4	Loss of structure/ operational capacity through ship impact	3	5	15	Dundee Port Authority Controls. Insurance Provision of pier protection system at Navigation Spans	1x5 = 5	None	Bridge Manager Engineer	Green
5	Loss of structure/ operational capacity through effects of Dundee City Waterfront Development works	3	5	15	Early involvement in discussions on design/operation and maintenance requirements Asset Protection Agreement with DCC	2x3 = 6	Ongoing review of design and traffic management proposals throughout works	Bridge Manager Engineer	Green
6	Loss of operational capability through loss of bridge/buildings	2	5	10	Frequent inspection/maintenance of assets	2x4 = 8	None	Bridge Manager Engineer	Green
7	Losses through poor governance	3	5	15	Scheme of Delegation / Anti Fraud and Corruption Policy etc in place. Undertake Internal and External Audit	2x5 = 10	Continue to review and apply Governance Policies and Audits	Bridge Manager Treasurer	Green
8	Failure to deliver projects to time and/or cost	3	4	12	Major schemes submitted to Board for approval – None Pending at Present	2x3 = 6	Adopt robust project management procedures including Business Case preparation for schemes in excess of	Bridge Manager Engineer	Green



										£50,000			
9	Lack of financial resources:-	3	3	9	Submission of applications for Grant in Aid to include robust estimates as back up. Monitor and control expenditure against agreed budgets	2x3 = 6	None	Bridge Manager Treasurer	Green				
10	Lack of staff resources:- Pandemic Industrial Action Recruitment problems	3	3	9	Business Continuity plans Liaison/Consultation with Staff and Trade Unions on matters affecting staff Monitor/manage staff absences Monitor retiral dates and plan recruitment accordingly	3x2 =6	Review BC plans on regular basis  Develop Staff Planning Strategy	Bridge Manager	Green				

**APPENDIX B**  
**Risk Management Action Plan 2012-14**

Subject	Task	Responsibility	Timescale	Update
Strategic	Maintain Risk Management Planning process	Bridge Manager	2012-2014	Ongoing
Operational	Review Risk Register	Bridge Manager	Annually	Ongoing
Operational	Test Business Continuity Plans	Bridge Manager	Annually	Ongoing

**REPORT TO: TAY ROAD BRIDGE JOINT BOARD – 15 SEPTEMBER 2014**

**REPORT ON: ENGINEERING WORKS**

**REPORT BY: ENGINEER TO THE BOARD**

**REPORT NO: TRB 22-2014**

**1 PURPOSE OF REPORT**

1.1 To advise the Joint Board on the current situation regarding Engineering works on the bridge.

**2 RECOMMENDATIONS**

2.1 It is recommended that the Joint Board note the position on current progress.

**3 FINANCIAL IMPLICATIONS**

3.1 There are no financial implications arising from this report.

**4 SUSTAINABILITY POLICY IMPLICATIONS**

4.1 There are no Sustainability Policy implications of relevance to this report.

**5 EQUAL OPPORTUNITIES IMPLICATIONS**

5.1 There are no equal opportunities implications of relevance to this report.

**6 IMPLICATIONS TO BRIDGE USERS**

6.1 There are no major implications for bridge users arising from this report. To minimise inconvenience to Bridge users, the proposed surfacing works will be carried out over three consecutive weekends (Friday 7.30pm to Monday 6.00am) starting 3 October 2014 using a contraflow system.

**7 BACKGROUND**

**7.1 Carriageway Resurfacing/Replacement of Expansion Joints**

Reference is made to Article IV of the Tay Road Bridge Joint Board meeting of 16 June 2014 where the Board:

- authorised the acceptance of a tender of £315,098.56 from Tayside Contracts for bridge deck surfacing maintenance repair works
- noted the required overall expenditure of £350,000.00 including allowances of £34,901.44 for professional fees and contingencies
- noted that the works would be carried out over three consecutive weekends (Friday 7.30pm to Monday 6.00am) starting 15 August 2014 using a contraflow system whereby one carriageway is fully closed to enable works to be carried out unhindered.

- noted that advance works would require to be carried out at the Fife Roundabout which can then be used in future works requiring contraflow.

As part of the approvals process for carrying out these works, consultation was carried out with the Road Network Management Teams of BEAR/Transport Scotland, Fife Council and Dundee City Council. During this process, alternative traffic management proposals were considered at the south end of the Tay Road Bridge. These alternative arrangements which are currently being finalised and agreed, significantly minimise the advance works required to the roundabout and provide a better entry into the contraflow system than the original proposal. Consequently there are associated savings in the order of £50,000.

In order to finalise the proposals and provide sufficient notice to all stakeholders, the Tay Road Bridge Surfacing Works have been reprogrammed to be carried out over the three consecutive weekends starting 3 October 2014. This also avoids the Ryder Cup which takes place over 23 to 28 September 2014.

## **8 CONSULTATIONS**

- 8.1 The Clerk, Treasurer and Bridge Manager have been consulted in the preparation of this report and are in agreement with the contents.

## **9 BACKGROUND PAPERS**

- 9.1 None.

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Fergus Wilson  
Engineer to the Board

FW/EH

Dundee City Council  
Dundee House  
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26 August 2014