

FLHCoP February Update

To support the development of a national code of practice specifically for log haulage EY have completed the risk assessment consultation phase of their project. Three workshops were delivered over late November and early December, with over 70 people attending. There was a healthy representation from forestry contracting businesses, land owners and consigners, and trailer manufacturers. Each workshop was also attended by Aaron Moeller from the NHVR and Peter Elliot from the Australian Logistics Council who spoke about changes to the NHVL and the development of a Master Code of Practice (MCoP).

The objectives of the workshops were to get industry involvement in the identification of critical risks associated with log haulage and collect information and data about controls and better practice. The information and insights collated is to inform EY's report to AFCA that will then be used to build the Forestry Log Haulage Code of Practice (FLHCoP). Outcomes of the workshop, including the risks for inclusion and exclusion, were circulated for comment via the Steering Committee and Working Group, and to broader industry via AFCA's website, with stakeholders invited to provide feedback. EY also reached out to organisations for additional data and information regarding risk events. Thank you to everyone who took the time to provide additional data, respond to the December update, or provided feedback on the risks in the December update. The data was collated and analysed to provide additional insight into the different types of incident events, as well as their frequency and severity. Analysis was presented back to the Steering Committee and Working Group for final comment. The outcomes of the consultation and summary of the keys risks identified for log haulage are outlined in Table 1.

Risks to be assessed and included in the CoP

- | | |
|---------------------------------------|---|
| 5. Rollover and/or full loss of load. | 1. Partial loss of load |
| 6. Third party collision | 2. Loss of control of log during loading/unloading. |
| 7. Loss of control of the vehicle | 3. Loss of debris |
| 8. Load shift | 4. Manual handling |
| 9. MHE crash/ crush | |

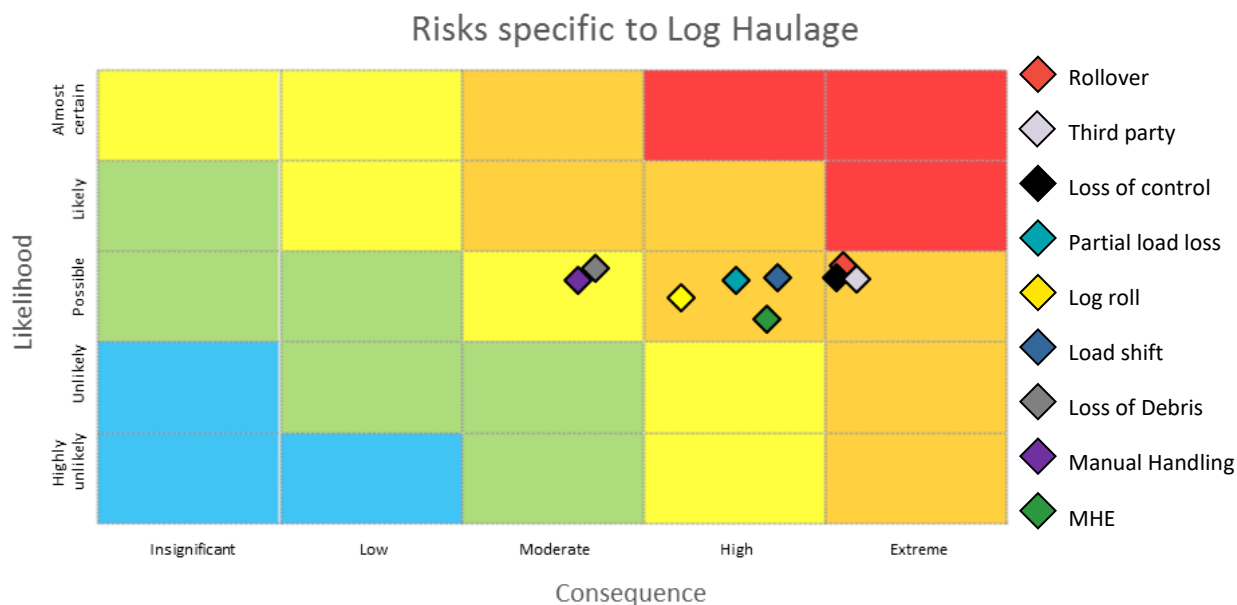
Mechanical failure (inc. decoupling) may be a contributing factor that may trigger an event, or may be a risk event in itself. If a separate risk event, we are not clear yet about incidents rate or causes specific to log haulage. Further consultation required before it is determined to be included in the FLHCoP.

Risk Summaries

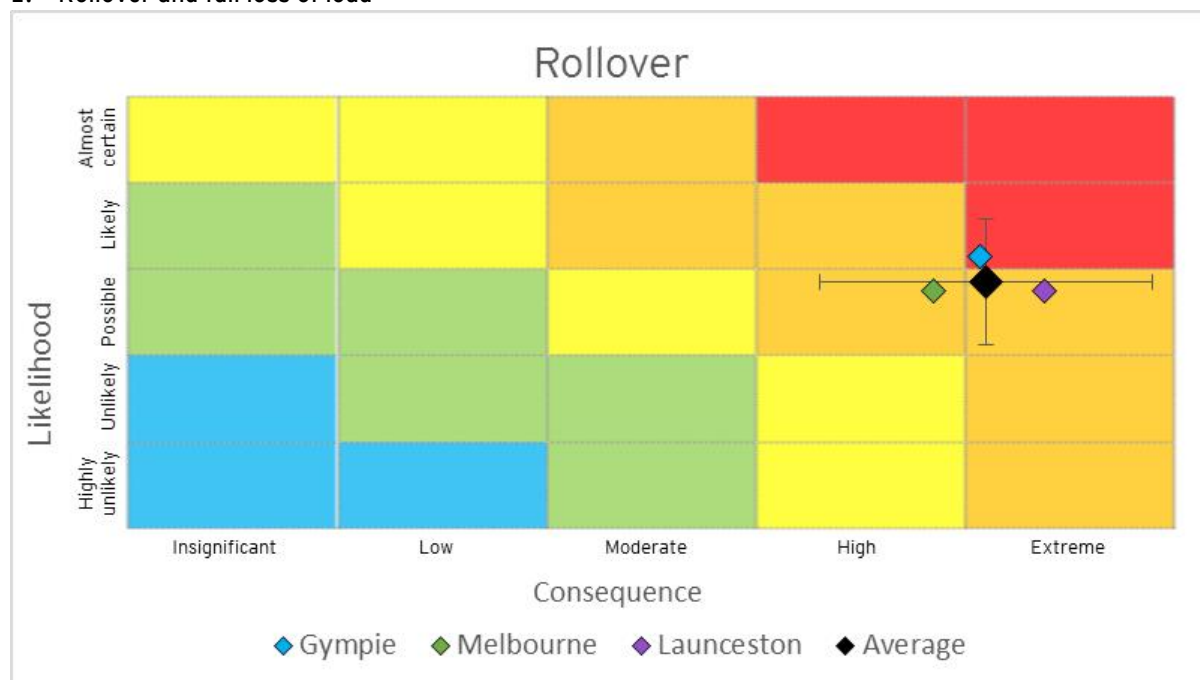
During the risk workshops, EY used a tool called Resolver to collate data to assess risk. Each hazard was presented to the workshop attendees, who were asked to vote on likelihood and consequence using remote control voting clickers. The following risk matrix was used to assess the risk.

		Consequence				
		Insignificant Minor injury requiring no treatment, or first aid treatment.	Minor Injury requiring non-emergency medical attention.	Moderate Admission to hospital, partial disability, or multiple minor injuries	Major Long term disability, multiple hospital admissions, Notifiable Incident.	Extreme Fatality, permanent total disability or multiple major injuries.
Likelihood	Almost certain Event will occur in most circumstances, is expected to occur during an activity (eg daily). >90% chance.	MODERATE	MODERATE	HIGH	EXTREME	EXTREME
	Likely Expected to occur in most circumstances but not certain (eg Monthly). 50-90% chance	LOW	MODERATE	HIGH	HIGH	EXTREME
	Possible Not expected to occur, but not uncommon, happens occasionally (eg annually). 10-50% chance.	LOW	LOW	MODERATE	HIGH	HIGH
	Unlikely Not expected to occur - conceivable but uncommon. 1-10% chance	INSIGNIFICANT	LOW	LOW	MODERATE	HIGH
	Highly unlikely Not expected to occur. Conceivable but very rare. Less than 1% chance	INSIGNIFICANT	INSIGNIFICANT	LOW	MODERATE	HIGH

Results were collated and presented in real time to the group for discussion. Voting results were retained to inform the risk assessment scores presented in the following pages. As individuals scores were recorded, EY was also able to present an analysis based on the average and standard deviation of scores. Note that the below results are the perceived risk ratings and have not been normalised or weighted based on industry incident data analysis.

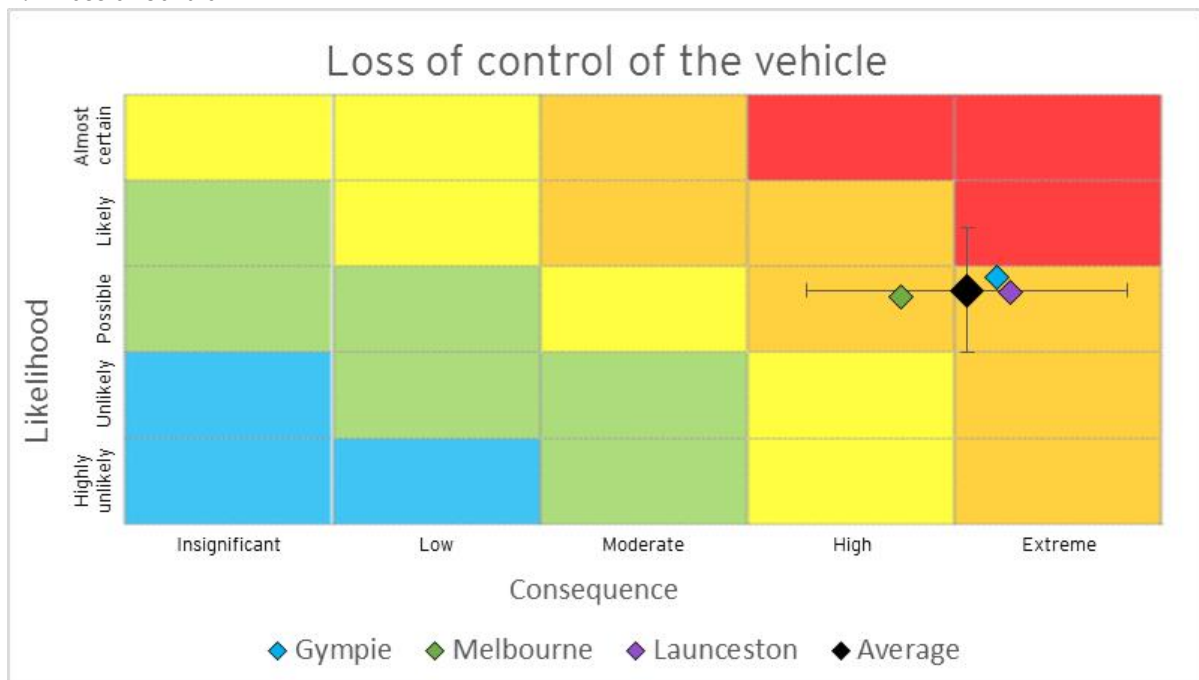


1. Rollover and full loss of load



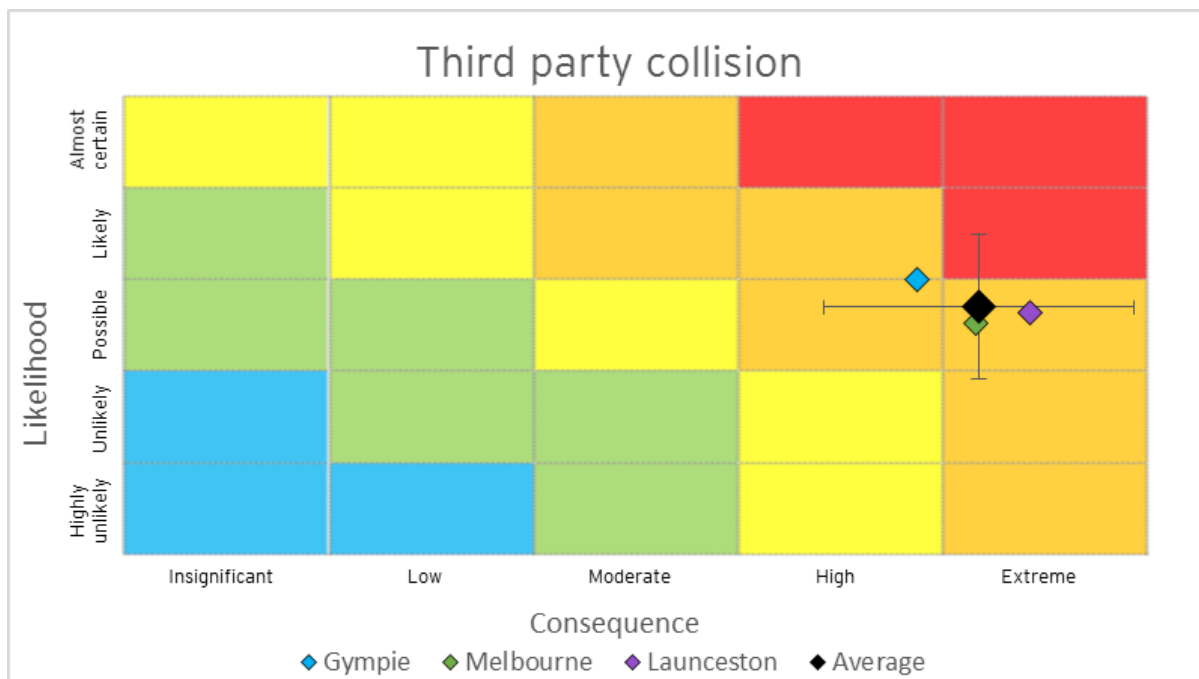
- This risk includes trailer and/or cab rollover. Rollover also includes events which result in total loss of load. The two risks have been assessed together as they are very similar in terms of contributing factors, controls and consequences, as a full loss of load is almost always a result of rollover. This risk is specific to log haulage due to the dynamic nature of the load, road types, trailer design, and the SRT of log haulage vehicles.
- Rollover was the highest rated risk at each location, but there was geographic variation in the risk ranking.
- There was a broad variation in the perceived consequence, with a large standard deviation. This was reflected in incident data provided by log haulage operators and forest owners, which showed that while there have been a number of fatal rollovers, some incidents only record equipment damage.

2. Loss of Control



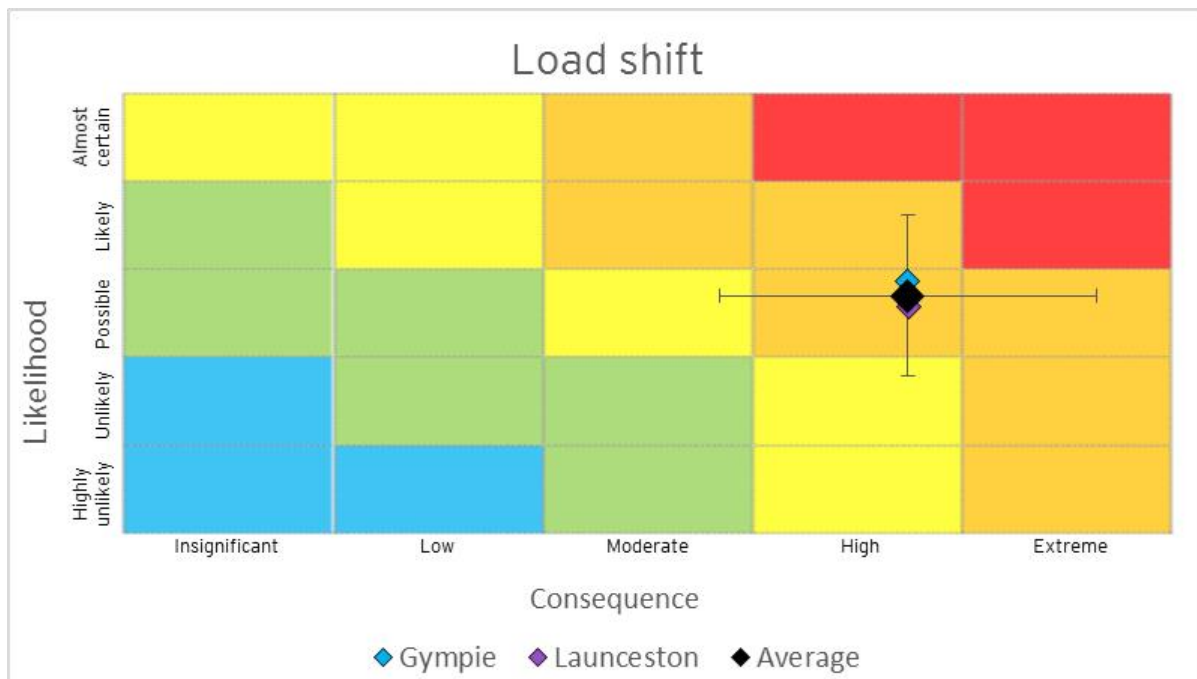
- This is specific to log haulage due to the dynamic nature of the load, road conditions, trailer design requirements, and the SRT of log haulage vehicles.
- Loss of control of a vehicle also had a large standard deviation with regards to consequence, but there was less variation with regards to likelihood. Gympie and Launceston reported fairly similar results, with Melbourne attendees assessing the risk as less extreme.

3. Third party collision



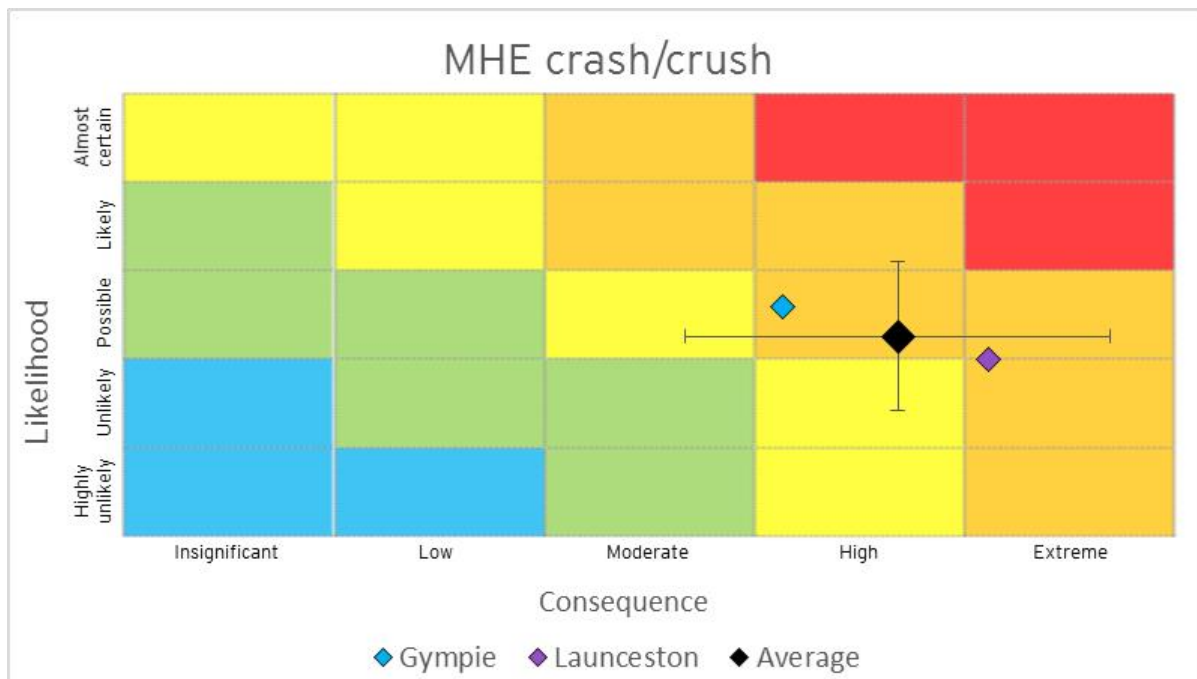
- Third party collision is not unique to log haulage in that there are risk events that are common across all heavy vehicle transport. However, the risk has been included as environments and situations specific to log haulage impact contributing factors and increase risk (eg many operations are based in remote/rural locations winding roads and high levels of tourism). In these contexts there are controls that operators can put in place to mitigate risks, such as route management, blocking public access and signage.
- Third party collision had the highest consequence rating of all risks, however there was a large standard deviation. Launceston had the highest consequence rating, which may be a result of the different operating environments (road types) and the volume of tourist activity in logging areas.

4. Load shift



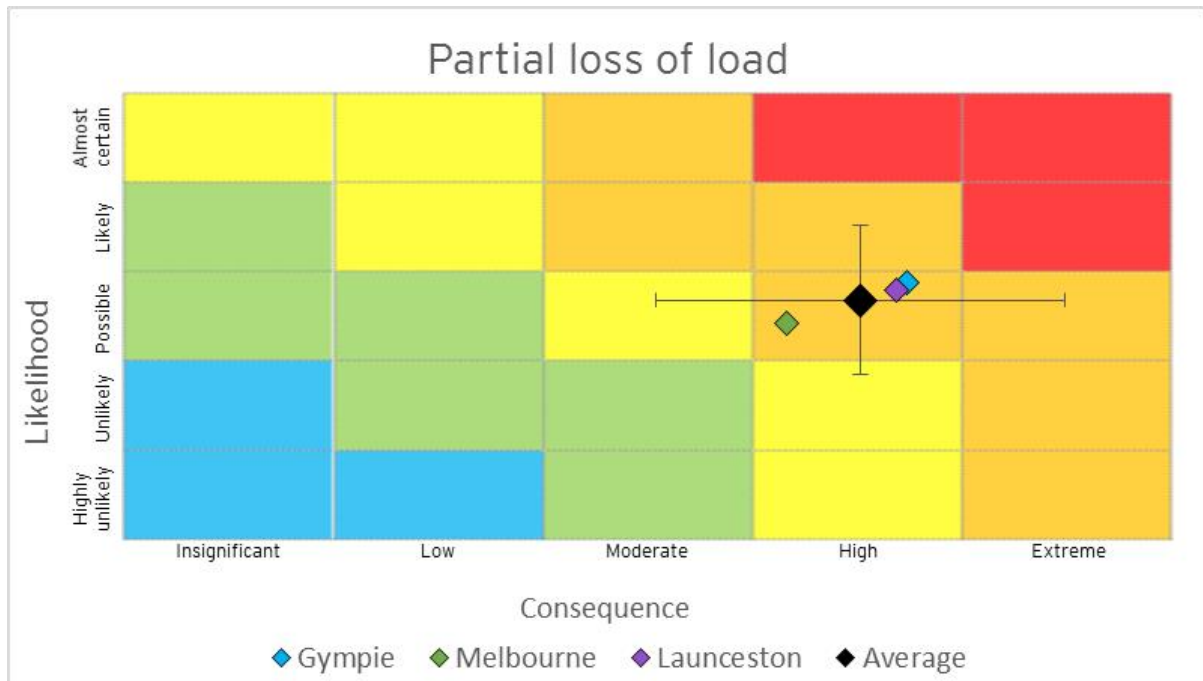
- This risk considers any shift of the load from under restraint straps during transport. This is included as load restraint requirements are unique due to the organic nature of the load and equipment type/design.
- This risk wasn't identified in Melbourne so no risk assessment data was compiled. Launceston and Gympie assessed the risk very similarly.

5. MHE Crash/crush



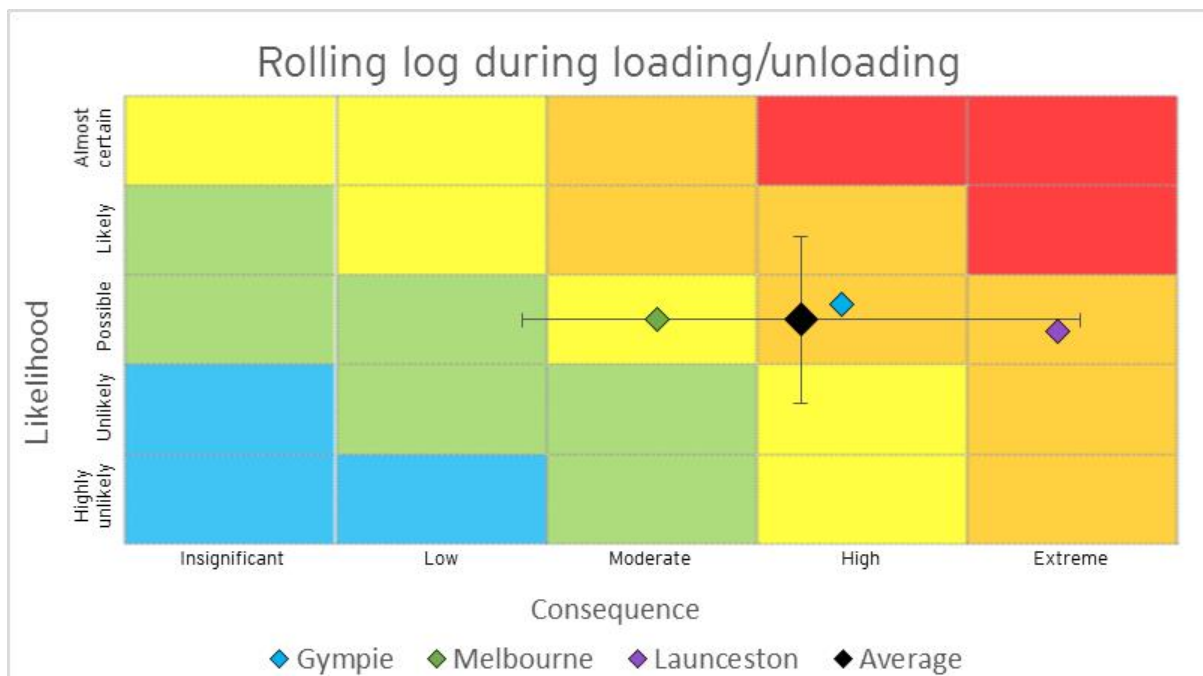
- The risk of injury to workers as a result of a crash or crush involving loading or unloading equipment, or other materials handling equipment (MHE) such as forklifts. This is specific to log haulage due to the nature of the loading equipment, loading environment, landing management, and the organic nature of the load.
- This risk was not identified and assessed at the Melbourne workshop, and there was a significant difference in the scores received in Launceston in comparison to Gympie.

6. Partial Loss of Load



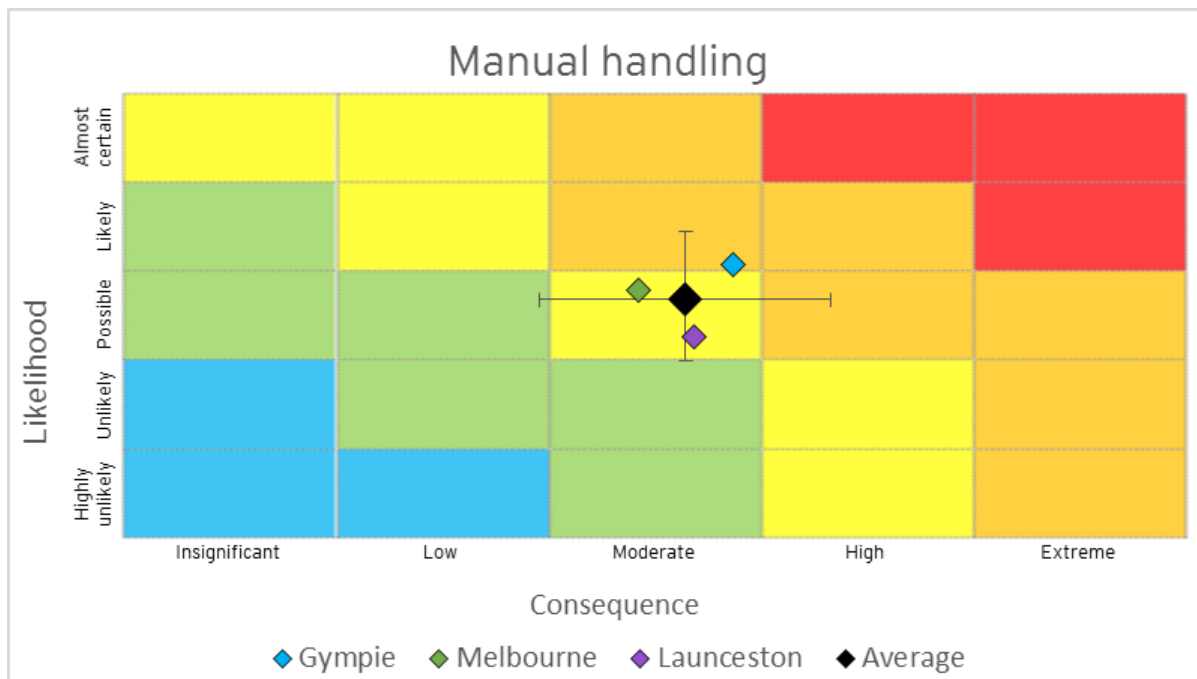
- This risk is defined as loss of single or multiple logs, but not an entire bay. While very similar to full loss of load, it is viewed as a different risk profile as it has different contributing factors (such as restraint failure) compared to loss of an entire bay (which generally results from a rollover). This risk is included as load restraint requirements are unique due to the organic nature of the load and equipment type/design.
- There was a broad range of consequence ratings with a large standard deviation across the geographies. Gympie and Launceston had a similar rating, however Melbourne was noticeably lower.

7. Loss of control of log during loading/unloading



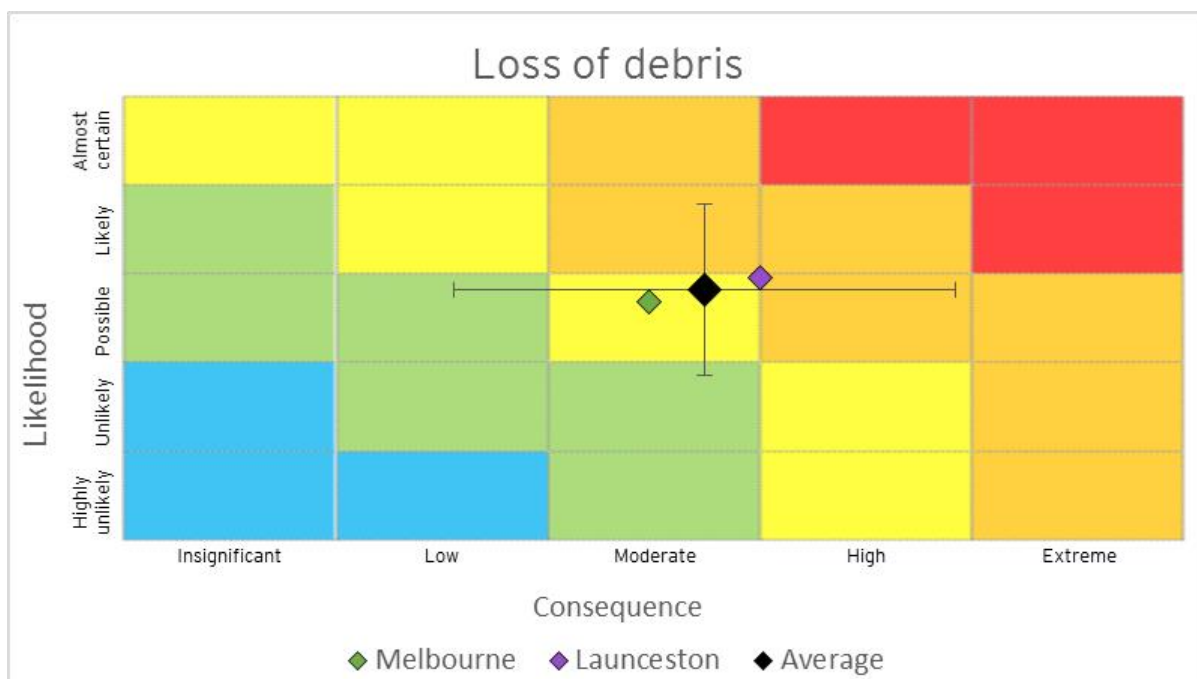
- This risk includes rolling logs during loading and unloading, and the risk of log fall or spring during unlashing. While the risks are slightly different, they have been clustered as there is a high level of similarity. This risk is included due to the very specific loading and unloading requirements of the load, and the environment/conditions under which the activities are undertaken.
- This risk had the largest spread between the three geographies, and the consequence had the largest standard deviation of any risk score.

8. Manual Handling



- This risk is specific to load restraint manual handling risks only (ie positioning and tensioning lashings). Other manual handling risks (such as replacing a tyre) are not specific to log haulage.
- Identified as a risk at all workshops, with a high level of consensus across all groups.

9. Loss of debris



- This risk considers loss of bark, branches, rocks or other foreign matter during driving.
- It is one of the lowest rated risks and was not assessed as a risk at Gympie.

Risks that will not be included in the CoP

There were a number of risks identified that are to be excluded from the CoP as they are:

Not a top risk: The issue assessed is considered a contributing factor or consequence (and therefore should be reflected in other risk analysis and considerations).

Not in scope: It is expected that this risk should already be considered as part of the organisations risk management process. While this is an important risk for organisations to address, it is too specific to operations.

Not industry specific: This risk occurs in other industries and other types of heavy vehicle operations. Therefore, this risk should be covered by the MCoP or other legislation.

Risk	Context
Full loss of load	Not a top risk - This was considered to be a potential aspect of rollover.
Infrastructure failure	Not industry specific - A catastrophic failure (eg. bridge collapse) is not specific to log haulage and there was no incident data to suggest that the risk should be included.
Bogged vehicle retrieval	Not in scope and not a top risk - generally a consequence of loss of control of a vehicle. Risks associated with vehicle retrieval to be considered within an organisation's own operating procedures.
Slips/trips	Not industry specific.
Falls from heights	Not industry specific - falls whilst getting in/out of cabin is a whole of industry risk.
Falls from heights during loading /unloading	Not in scope. This is considered a risk event/operational risk to be covered by an organisation's safe operating procedures. The CoP may however chose to indicate that this activity should also not be undertaken.
Medical event (e.g. heart attack)	Not industry specific - not a unique top risk, but emergency response procedures may be impacted by remoteness.
Overloading/ load construction.	Not a top risk - While some participants identified overloading as a risk in itself, it has been assessed as a contributing factor.
Site conditions	Not a top risk - a contributing factor but not deemed a top risk.
Loss of social licence to operate	Not within scope and not a top risk - The loss of social licence to operate is a consequence. Risk of occurrence is an organisational/ strategic risk not a safety risk.
Struck by foreign body	Not within scope - This is a risk event rather than risk category. It is deemed too specific for the CoP.
Environmental damage (e.g. fire)	Not industry specific or a top risk - This event is not specific or significant enough to log haulage. This could be considered a consequence rather than a risk.
Beast strike	Not industry specific - While there were a number of incidents reported in industry data provided, the risk is considered to be applicable to all industry.