1.0 Risk Assessment Process

The NWRA Stand Down Review Committee developed the risk assessment process described here.

The methodology is a structured approach to the accepted risk assessment process of:
- Identifying Hazards;
- Determining Impacts;
- Assessing Risk;
- Identifying Controls; and
- Producing Actions to further mitigate identified risks.

1.1 Key steps

- Define business processes for assessment.
- Develop a list of road safety related risks based on business processes.
- Assign values for the impact and the probability of the event.
- Assign values for the manageability of the risk creating an Overall Risk value that is used for prioritisation.

1.2 Determine values for Consequence (impact) and the Probability of the event

The following matrix is used to assign numerical values for Consequence and Probability.
## Journey Risk Assessment Toolkit - Process

<table>
<thead>
<tr>
<th>Probability</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>1 event over &gt; 10 years</td>
</tr>
<tr>
<td>Med</td>
<td>1 event every 10 years</td>
</tr>
<tr>
<td>High</td>
<td>1 or more events per year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Low</th>
<th>Med</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Med</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
1.3 Definitions
The following definitions are commonly in use through Waste and Recycling Industry. If not appropriate, a Business Unit could develop its own definitions.

**Consequence of Business Impact**

<table>
<thead>
<tr>
<th>Category Potential Severity</th>
<th>People</th>
<th>Property</th>
<th>Process</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>High*1</td>
<td>Fatalities</td>
<td>&gt;USD 500,000</td>
<td>Major fire, exposure, Risk to reputation</td>
<td>&gt;15,900 L. [4200 Gallons]*2</td>
</tr>
<tr>
<td></td>
<td>Multiple Serious Injuries</td>
<td>&gt;USD 100,000</td>
<td>Business Interruption: &gt;USD 500,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Theft/Fraud</td>
<td>&gt;USD 100,000</td>
<td>Potential Commercial Loss: &gt;USD 200,000</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>DART / Restricted Work Injuries</td>
<td>&gt;USD 10,000 to USD 500,000</td>
<td>Business Interruption: &gt;USD 10,000 to USD 500,000</td>
<td>200 L to 15,900 L. [50 – 4200 Gallons]*2</td>
</tr>
<tr>
<td></td>
<td>Medical Treatment</td>
<td>&gt;USD 10,000 to USD 100,000</td>
<td>Potential Commercial Loss: &gt;USD 10,000 to USD 500,000</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>First Aid</td>
<td>&lt;USD 10,000</td>
<td>&lt;USD 10,000</td>
<td>&lt;200 L [&lt;50 Gallons]*2</td>
</tr>
</tbody>
</table>

*1 Based on Waste and Recycling Industry definitions
*2 Subject to locality/circumstances/potential

**Probability of an event**

**High**
One or more events per year are likely.

**Medium**
One event per every 10 years.

**Low**
One event in more than every 10 years.

The assessment is looking for events, which are likely to happen in the comparable industry and environment.

[Note: Event frequencies can be modified to fit Business Unit requirements.]
Manageability of the risk

**High**
If the company has direct operational control of the process

**Medium**
If the company has indirect control of a process, or can only influence

**Low**
If social, political, cultural or technical issues are the reason for risks

The manageability should provide an overall view, if certain risks are fully under the control of management. This could be of course a judgement only but it raises healthy discussions on how far management is able or feels itself empowered to control or influence Environmental, Occupational Health, and Safety matters. The result should be used to tackle the high manageable items first for quick implementation results only. It **does not** mean that low manageable issues should not have actions identified.

2.0 Risk Assessment Template

The Risk Assessment spreadsheets (attached Excel Workbook at the end of this document) are used to document the identification of Business Unit Activities, Hazards, and the values assigned for Consequence, Probability, Manageability and Risk.

It is suggested that a separate Sheet be used for each specific area of Activity. Individual work site locations can be used as well.

For clarity, a completed example is included in the Excel Workbook.

**Number**
To be completed once the ‘Process, Sub-process and Hazard’ columns are filled in.
- In the first column, record number of main activities within a Process.
- In the second column, record the number of activities within sub-processes.
- In the third column, record the number of actual risks/Hazards connected to Process/sub-process

**Process**
Each individual Process is to be listed in the first instance

**Sub-process**
Each individual Process is then to be split in meaningful, not too detailed, sub-processes, if any.
Journey Risk Assessment Toolkit - Process

Hazard
Processes and sub-processes are then to be ‘brain stormed’.

Consequence
Determined using the Risk Matrix described in section 1.2.

Probability
Determined using the Risk Matrix.

Risk
Multiply the value for consequence times the value Probability to get Risk.

Manageability
Critically review Waste and Recycling Industry’s level of Control to determine levels of Manageability.

Classify Manageability as:

- **High:** If the company has direct operational control of the process. Rating = 1
- **Medium:** If the company has indirect operational control of the process, or can only influence. Rating = 2
- **Low:** If social, political, cultural or technical issues are the main reason for the risks. Rating = 3

3.0 Action Plans

Once all risks have been identified, rated and prioritised, action plans can be agreed.

4.0 Risk Assessment Tool

- For collection and documentation, see:
  - NWRA_Journey Risk Assessment_TOOLKIT_Process.doc
  - NWRA_Journey Risk AssessmentTRACKING FORM.xls
  - NWRA_Journey Risk AssessmentSHORT FORM.xls