

## Appendix C. Risk assessment

Project Risks - Environmental/Social

Ref. No.	Risk Issue	Risk Description	Project Phase	Causes	Potential Impacts	Existing Controls	Future Controls	Current Risk	Residual Risk (post controls)				Risk Level	Risk_Rank_Target
								Type	Consequence	Consequence Description2	Likelihood	Likelihood - Description2		
001	Noise emissions	General noise emissions during construction	Construction and commissioning	<ul style="list-style-type: none"> <li>- Earthworks on site</li> <li>- General construction activities</li> <li>- Vehicle movements to and from site (along roads and on site)</li> <li>- Piling</li> <li>- Planned boiler tripping and safety valve lifting</li> <li>- Planned steam blowing</li> </ul>	<ul style="list-style-type: none"> <li>- Reputational damage</li> <li>- Complaints from community or stakeholders</li> <li>- Complaints from construction workforce</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Equipment shut down or reduced operation when not in use</li> <li>- Noise reduction devices (i.e. mufflers) on equipment</li> <li>- Compliance with EPA guidelines on construction noise</li> <li>- Buffer zone surrounding the Project exists and is incorporated into the planning scheme</li> <li>- <b>Community Awareness, Communications and Reporting (1609)</b></li> </ul>	<ul style="list-style-type: none"> <li>- On site noise monitoring to be conducted by the construction contractor</li> <li>- Contractor EPC tender evaluation and selection process</li> <li>- Noise mitigation measures prescribed in construction contracts</li> <li>- Noisy machinery operated during daytime hours where practicable</li> <li>- Robust maintenance regime for equipment</li> <li>- Advise local residents when unavoidable excessive noise work will occur.</li> <li>- Schedule deliveries to the site so that disruption to local amenity and traffic are minimised</li> <li>- Speed restrictions onsite</li> <li>- Piling activities restricted to operating hours to between 7 am and 6 pm weekdays and 7 am to 1 pm Saturday, where practicable</li> <li>- Contractor traffic management plan</li> <li>- Environmental Management Plan (CEMP) by the contractor and approved by owner to ensure adequacy of measures</li> <li>- Owner compliance/audit process on Contractor compliance</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Possible	Possible - The event might occur once every 3 to 10 years.	M13 - Medium	13
	Noise emissions	General noise emissions during operations	Operation	<ul style="list-style-type: none"> <li>- Primary noise sources include blowers, fans, cooling towers, turbines and boilers.</li> <li>- Compressed air plant</li> <li>- Intermediate Pressure (IP) steam plant</li> <li>- Induced draft fans</li> <li>- Feed material transported into site (reach stackers operation, trucks, additional train on existing rail line)</li> <li>- Waste material transported offsite (trucks, mobile plant)</li> </ul>	<ul style="list-style-type: none"> <li>- Complaints from community or stakeholders</li> <li>- Non-compliance with the EPA Guideline on Noise from Industry in Regional Victoria (NIRV)</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Noise modelling conducted to assess predicted noise outputs and levels at nearest sensitive receptors (to ensure below guideline levels)</li> <li>- Buffer zone surrounding the Project exists and is incorporated into the planning scheme</li> <li>- Project is sited as far away from noise sensitive receptors as practicable</li> <li>- <b>Community Awareness, Communications and Reporting (1609)</b></li> </ul>	<ul style="list-style-type: none"> <li>- Point source dB limits for high noise output ENW plant components</li> <li>- Enclosure of boilers, turbines, tipping hall, flue gas treatment</li> <li>- Contractor commissioning plan</li> <li>- Operations environmental management plan</li> <li>- Operational &amp; Maintenance (O&amp;M) manuals</li> <li>- Silencers of fans</li> <li>- Specification of low noise fans for cooling towers</li> <li>- Schedule deliveries to the site so that disruption to local amenity and traffic are minimised</li> <li>- Further evaluation of controls during detailed design</li> </ul>	Environment	Minor	Minor - Localised environmental event contained within the Mill boundary	Possible	Possible - The event might occur once every 3 to 10 years.	L9 - Low	17
	Noise emissions	Noise emissions during non routine event	Non routine or emergency	<ul style="list-style-type: none"> <li>- Unexpected plant shutdown</li> <li>- Emergency scenario: plant failure, cooling plant failure</li> <li>- Existing paper mill trip or failure</li> <li>- Power trip causing black or brown out</li> <li>- Boiler trip event leading to safety valve release (120-130 dBA) - safety valves must be located externally</li> <li>- Turbine trip</li> </ul>	<ul style="list-style-type: none"> <li>- Complaints from community or stakeholders</li> <li>- Non-compliance with the EPA Guideline on Noise from Industry in Regional Victoria (NIRV)</li> <li>- Health impacts to workforce</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Noise modelling conducted to assess predicted noise outputs (including during non-routine events) and levels at nearest sensitive receptors (to ensure below guideline levels)</li> <li>- Buffer zone surrounding the Project exists and is incorporated into the planning scheme</li> <li>- Project is sited as far away from noise sensitive receptors as practicable</li> <li>- <b>Community Awareness, Communications and Reporting (1609)</b></li> </ul>	<ul style="list-style-type: none"> <li>- Operating procedures and emergency shutdown procedures</li> <li>- Turbine bypass condenser avoiding venting via safety valve</li> <li>- Advise local residents when expected and unavoidable excessive noise work will occur</li> <li>- Orientate valves away from sensitive receptors where possible</li> <li>- Further evaluation of controls during detailed design</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Possible	Possible - The event might occur once every 3 to 10 years.	M13 - Medium	13
	Air quality	General air emissions (dust and non-ENW combustion emissions)	Construction	<ul style="list-style-type: none"> <li>- Earthworks</li> <li>- Vegetation clearance</li> <li>- Site preparation</li> <li>- Mobile plant emissions</li> <li>- Vehicle movements (wheel generated dust)</li> <li>- Temporary diesel generator</li> <li>- Temporary lighting plants</li> </ul>	<ul style="list-style-type: none"> <li>- Complaints from community or stakeholders</li> <li>- Amenity impacts</li> <li>- Health impacts to employees/contractors</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Environment Manual</li> <li>- Speed limits on existing Maryvale mill site</li> <li>- Buffer zone surrounding the Project exists and is incorporated into the planning scheme</li> </ul>	<ul style="list-style-type: none"> <li>- Development and Implementation of Construction Environmental Management Plan (CEMP) by the contractor and approved by owner to ensure adequacy of measures</li> <li>- Use of water trucks and spray hoses where required (using dust control polymer if required)</li> <li>- Owner compliance/audit process on Contractor compliance with CEMP</li> <li>- Soil stockpiles located as far from receivers as possible</li> <li>- Vegetation clearance minimised</li> <li>- Revegetation/landscaping/stabilisation to be done as soon as practicable</li> <li>- Windbreaks, silt fences etc. used in dry/windy conditions</li> <li>- Vehicle speeds managed in accordance with Contractors Traffic Management Plan (TMP) to minimise vehicle generated dust</li> <li>- Maintenance of construction plant and in good working order to minimise exhaust emissions</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Possible	Possible - The event might occur once every 3 to 10 years.	M13 - Medium	13
	Air quality	General air emissions (dust and non-ENW combustion emissions)	Operations	<ul style="list-style-type: none"> <li>- Vehicle movements (wheel generated dust from roads)</li> <li>- Transport to/from site of waste residues, reagents, equipment</li> <li>- Unloading of materials from transport (e.g. lime, activated carbon)</li> <li>- Handling and transportation of residues (e.g. Incinerator Bottom Ash (IBA), Air Pollution Control (APC) residues)</li> </ul>	<ul style="list-style-type: none"> <li>- Complaints from community or stakeholders</li> <li>- Amenity impacts</li> <li>- Health impacts to employees/contractors</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Buffer zone surrounding the Project exists and is incorporated into the planning scheme</li> </ul>	<ul style="list-style-type: none"> <li>- Operational EMP</li> <li>- Further evaluation of controls during detail design</li> <li>- Enclosure of boilers, tipping hall, flue gas treatment</li> <li>- Vehicle and container washing facility</li> <li>- Dispatch of APC waste in sealed container</li> <li>- Dispatch of IBA to be quenched in water to minimise dust generation</li> <li>- Delivery of waste to be in enclosed container</li> </ul>	Environment	Minor	Minor - Localised environmental event contained within the Mill boundary	Possible	Possible - The event might occur once every 3 to 10 years.	L9 - Low	17

Air quality	Odour emissions during operations	Operation and Non-routine event	<ul style="list-style-type: none"> <li>- Plant start-up</li> <li>- Plant failure</li> <li>- Operator error</li> <li>- Waste from tipping hall stored for too long</li> <li>- Failure of tipping hall ventilation system</li> <li>- Incomplete fuel (MSW) combustion</li> <li>- Waste deliveries to/from site</li> </ul>	<ul style="list-style-type: none"> <li>- Complaints from community or stakeholders</li> <li>- Amenity impacts</li> <li>- Health and/or nuisance impacts to employees</li> <li>- Non-compliance with potential EPA operating licence conditions (TBD)</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Community Awareness, Communications and Reporting (1609)</li> </ul>	<ul style="list-style-type: none"> <li>- Tipping hall maintained under negative pressure to prevent odour escape.</li> <li>- Tipping hall automated roller doors for vehicle entry</li> <li>- Odorous air captured and combusted through boilers</li> <li>- High temperature and residence time in boiler eliminates most VOC's and odours</li> <li>- Odour monitoring (olfactometry measurements) outside the tipping hall if required</li> <li>- Application of deodorisers if required</li> <li>- Waste delivery containers enclosed</li> <li>- Back up power system to provide emergency power during non-routine events</li> <li>- Multiple boilers</li> <li>- Operational fuel management plan (including fuel waste contingency)</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	L8 - Low	18
Air quality	General air emissions (combustion air pollution products)	Commissioning	<ul style="list-style-type: none"> <li>- Plant start-up</li> <li>- Plant failure</li> <li>- Inadequate design</li> <li>- Operator error</li> <li>- Incomplete fuel (MSW) combustion</li> <li>- Continuous Emission Monitoring System (CEMS) out of calibration</li> <li>- Poor fuel quality/composition</li> </ul>	<ul style="list-style-type: none"> <li>- Complaints from community or stakeholders</li> <li>- Amenity impacts</li> <li>- Health and/or nuisance impacts to employees</li> <li>- Non-compliance with potential EPA operating licence conditions (TBD)</li> </ul>	<ul style="list-style-type: none"> <li>- Community Awareness, Communications and Reporting (1609)</li> <li>- Ambient air quality control monitoring network</li> </ul>	<ul style="list-style-type: none"> <li>- Continuous Emission Monitoring System (CEMS)</li> <li>- Standby CEMS (in case of failure of primary CEMS)</li> <li>- Emission control systems (activated carbon dosing, lime dosing, Selective Non-Catalytic Reduction (SNCR), bag filter, flue gas circulation)</li> <li>- Residence time (&gt;2 seconds) above 850 degrees in boiler</li> <li>- Combustion controls including: combustion stability gas burner, O2 and CO measurements feeding into online combustion tuning</li> <li>- Commissioning and start-up procedure</li> <li>- On stream analysers and monitoring equipment</li> <li>- Operational manuals (emission controls)</li> <li>- Clean burning gas fuel used to start-up boiler</li> <li>- Air quality testing (stack emission monitoring)</li> <li>- Fuel quality maintained through Waste Acceptance Procedures</li> <li>- Fuel blending in bunker</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Possible	Possible - The event might occur once every 3 to 10 years.	M13 - Medium	13
Air quality	General air emissions (combustion air pollution products)	Operations	<ul style="list-style-type: none"> <li>- Plant start-up</li> <li>- Stack emissions</li> <li>- Operator error</li> <li>- Incomplete fuel (MSW) combustion</li> <li>- Poor fuel quality/composition</li> <li>- Continuous Emission Monitoring System (CEMS) out of calibration</li> </ul>	<ul style="list-style-type: none"> <li>- Complaints from community or stakeholders</li> <li>- Amenity impacts</li> <li>- Health and/or nuisance impacts to employees</li> <li>- Non-compliance with potential EPA operating licence conditions (TBD)</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Community Awareness, Communications and Reporting (1609)</li> <li>- Ambient air quality control monitoring network</li> </ul>	<ul style="list-style-type: none"> <li>- CEMS</li> <li>- Standby CEMS (in case of failure of primary CEMS)</li> <li>- Emission control systems (activated carbon dosing, lime dosing, Selective Non-Catalytic Reduction (SNCR), bag filter, flue gas circulation)</li> <li>- Residence time (&gt;2 seconds) above 850 degrees in boiler</li> <li>- Combustion controls including: combustion stability gas burner, O2 and CO measurements feeding into online combustion tuning</li> <li>- Commissioning and start-up procedure</li> <li>- On stream analysers and monitoring equipment</li> <li>- Operational manuals (emission controls)</li> <li>- Clean burning gas fuel used to start-up boiler</li> <li>- Fuel quality maintained through Waste Acceptance Procedures</li> <li>- Fuel blending in bunker</li> <li>- On stream analysers and monitoring equipment</li> <li>- Fuel quality maintained through Waste Acceptance Procedures</li> <li>- Air quality testing (stack emission monitoring)</li> </ul>	Environment	Minor	Minor - Localised environmental event contained within the Mill boundary	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	L5 - Low	21
Air quality	General air emissions (combustion air pollution products)	Non routine or emergency	<ul style="list-style-type: none"> <li>- Plant start-up</li> <li>- Unexpected plant shutdown/power failure</li> <li>- Operator error</li> <li>- Failure of flue gas treatment system eg. bag filter failure</li> </ul>	<ul style="list-style-type: none"> <li>- Complaints from community or stakeholders</li> <li>- Health and/or nuisance impacts to employees or community</li> <li>- Non compliance with air quality criteria set out in the State Environmental Protection Policy (SEPP) Air Quality Management</li> <li>- Non-compliance with potential EPA operating licence conditions (TBD)</li> </ul>	<ul style="list-style-type: none"> <li>- Existing community complaint reporting and management process</li> <li>- Emergency management plan</li> </ul>	<ul style="list-style-type: none"> <li>- Design controls (HAZOP studies)</li> <li>- EW control systems (on line analysers and monitoring equipment)</li> <li>- Emergency management plan</li> <li>- Plant operator training</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Possible	Possible - The event might occur once every 3 to 10 years.	M13 - Medium	13
Surface water	Impact to surface water quality	Construction	<ul style="list-style-type: none"> <li>- Loss of containment of chemicals</li> <li>- Spills and leaks from mobile plant, diesel generators, mobile lighting towers</li> <li>- Erosion and the increased sedimentation (particularly during high rainfall events)</li> <li>- Increase in stormwater runoff from plant</li> <li>- Vegetation clearance</li> <li>- Earthworks</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced water quality (primarily sediment load)</li> <li>- Public complaints (environmental damage, social values, recreational usage)</li> <li>- Non compliance with SEPP Waters of Victoria</li> <li>- Non-compliance of existing EPA licence</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Sediment and erosion management in accordance with approved construction drainage / erosion / sediment management plans and Environmental Management Plan</li> <li>- Regular/scheduled Inspection of installed erosion and containment devices</li> <li>- Revegetating/stabilising/landscaping disturbed areas as soon as practicable</li> <li>- <b>Bund Integrity Audit (53506)</b></li> <li>- <b>Chemical Storage and Bunding Requirements (53620)</b></li> </ul>	<ul style="list-style-type: none"> <li>- Development and Implementation of Construction Environmental Management Plan (CEMP) by the contractor and approved by owner to ensure adequacy of measures</li> <li>- Lined/bunded area for washdown of equipment to capture runoff</li> <li>- Contractor vehicle washdown procedures</li> <li>- Chemical storage facilities bunded / design in accordance with EPA and Australian Standards</li> <li>- Chemical management and handling procedures</li> <li>- Temporary stormwater control system</li> <li>- Spill kits available</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Probable	Probable - The event is known to have occurred several times or more in industry every 1 to 3 years.	M18 - Medium	8
Surface water	Impact to surface water quality	Operations	<ul style="list-style-type: none"> <li>- Increase in stormwater runoff from plant</li> <li>- Increase in waste water generation from cooling towers</li> <li>- Loss of containment of chemicals</li> <li>- Spills and leaks</li> <li>- Leachate from bunker</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced water quality</li> <li>- Public complaints (environmental damage, social values, recreational usage)</li> <li>- Impacts to human health</li> <li>- Health and/or nuisance impacts to employees</li> <li>- non compliance with SEPP Waters of Victoria</li> <li>- Non-compliance with potential EPA operating licence conditions (TBD)</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Mill Water and Steam Environmental Control Procedure (7523)</b></li> <li>- <b>Bund Integrity Audit (53506)</b></li> <li>- <b>Chemical Storage and Bunding Requirements (53620)</b></li> <li>- Existing stormwater treatment system</li> </ul>	<ul style="list-style-type: none"> <li>- Design of plant above floodwater levels</li> <li>- Design of drainage network including holding basins to accommodate for 1:100 year ARI</li> <li>- Design of existing waste water treatment plant to accommodate additional waste water generated from the EW plant</li> <li>- Design EW plant to reuse as much water as possible</li> <li>- Washdown bay connected to an oil/water separator to collect any contaminants before discharge</li> <li>- Containment of boiler chemical cleaning effluent</li> <li>- Segregation of dirty and clean stormwater systems</li> <li>- Chemical management procedures</li> <li>- Spill kits</li> <li>- Chemical storage facilities bunded / design in accordance with EPA and Australian Standards</li> <li>- Sediment and erosion management in accordance with approved drainage / erosion / sediment management plans</li> <li>- Regular/scheduled Inspection of installed erosion and containment devices</li> <li>- Additional volumes of waste water discharged to be accommodated in a revised EPA licence</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	L8 - Low	18

	Surface water	Natural flood event (>1/100 year storm event)	Construction and operations	Extreme regional rainfall	<ul style="list-style-type: none"> <li>- Site access restricted or cut-off</li> <li>- Non compliance with SEPP Waters of Victoria</li> <li>- Reduced water quality</li> <li>- Public complaints (environmental damage, social values, recreational usage)</li> <li>- Impacts to human health</li> <li>- Health and/or nuisance impacts to employees</li> <li>- Non-compliance with potential EPA operating licence conditions (TBD)</li> </ul>	<ul style="list-style-type: none"> <li>- Site monitors weather conditions and potential flooding events</li> <li>- Construction of existing plant is located above 1:100 year ARI flood level (4.5m)</li> </ul>	<ul style="list-style-type: none"> <li>- Construction of new plant and equipment is located above 1:100 year ARI flood level</li> <li>- Emergency Management Plan</li> <li>- Site selection (plant on the highest area of the site)</li> <li>- Chemical storage facilities bundled / design in accordance with EPA and Australian Standards</li> </ul>	Environment	Major	Major - Serious impact environment extending beyond Mill boundary. Significant harm but reversible.	Very Unlikely	Very Unlikely - Event/s has occurred in Industry less than once every 30 years.	L7 - Low	19
	Surface water	Loss of containment from oil/water separator or neutralisation pit	Construction and operations	<ul style="list-style-type: none"> <li>- Not enough freeboard allowed in ponds</li> <li>- Overflow</li> <li>- Operator error</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced water quality (mainly sediment load)</li> <li>- Non compliance with SEPP Waters of Victoria</li> <li>- Non-compliance with potential EPA operating licence conditions (TBD)</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Loss of Containment - Clean-up &amp; Further Investigation (62949)</li> </ul>	<ul style="list-style-type: none"> <li>- Maintain a freeboard of 300mm or suitable level</li> <li>- Monitor levels in tanks and pits</li> <li>- Visual/audible alarm on oil/water separator</li> </ul>	Environment	Minor	Minor - Localised environmental event contained within the Mill boundary	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	L5 - Low	21
	Groundwater	Contamination of groundwater during construction and operations	Construction and operations	<ul style="list-style-type: none"> <li>- Large uncontained fuel/oil or chemical spills</li> <li>- Vehicle collision</li> <li>- Process solution release</li> <li>- Waste bunker failure (leachate release)</li> </ul>	<ul style="list-style-type: none"> <li>- Local or regional groundwater contamination</li> <li>- Non compliance with SEPP Waters of Victoria</li> <li>- Non-compliance with potential EPA operating licence conditions (TBD)</li> <li>- Notice from EPA (pollution abatement notice)</li> </ul>	<ul style="list-style-type: none"> <li>- Site monitors weather conditions and potential flooding events</li> <li>- Construction of existing plant is located above 1:100 year ARI flood level (4.5m)</li> <li>- The site currently maintains a freeboard of 300mm in ponds</li> <li>- Spill kits available</li> <li>- Chemical storage facilities bundled / design in accordance with EPA and Australian Standards</li> <li>- Groundwater Quality Management Plan (67777)</li> <li>- Bund Integrity Audit (53506)</li> <li>- Chemical Storage and Bunding Requirements (53620)</li> </ul>	<ul style="list-style-type: none"> <li>- Construction of new plant and equipment is located above 1:100 year ARI flood level</li> <li>- Environmental Management Plan (CEMP) by the contractor and approved by owner to ensure adequacy of measures</li> <li>- Emergency Management Plan</li> <li>- Site selection (plant on the highest area of the site)</li> <li>- Chemical storage facilities bundled / design in accordance with EPA and Australian Standards</li> <li>- Bunded vehicle refilling facility+L24</li> <li>- Bunker design and testing prior to operations</li> <li>- Groundwater monitoring program</li> </ul>	Environment	Major	Major - Serious impact environment extending beyond Mill boundary. Significant harm but reversible.	Very Unlikely	Very Unlikely - Event/s has occurred in Industry less than once every 30 years.	L7 - Low	19
	Land contamination	Existing site contamination	Construction	<ul style="list-style-type: none"> <li>- Existing site contamination from previous operations, land uses, spills or other contaminated soils (e.g. asbestos containing material)</li> </ul>	<ul style="list-style-type: none"> <li>- Contamination of soil</li> <li>- Release of contaminated leachate</li> <li>- Health impacts to employees/contractors</li> </ul>	<ul style="list-style-type: none"> <li>- Contaminated land assessment conducted</li> <li>- Bund Integrity Audit (53506)</li> </ul>	<ul style="list-style-type: none"> <li>- Excavate material in a manner which minimises disturbance and avoids/minimises off-site environmental disposal</li> <li>- Dispose of contaminated material in a landfill licensed to take the type of contaminated material or wastes</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	L8 - Low	18
	Land contamination	Site contamination	Operation	<ul style="list-style-type: none"> <li>- Spills, leaks of chemicals or fuel occurring in non bunded areas e.g. during transport</li> <li>- Septic overflow or leakage</li> <li>- Leakage of existing waste water ponds</li> <li>- Leakage through hardstand or bund structures</li> </ul>	<ul style="list-style-type: none"> <li>- Contamination of soil</li> <li>- Release of contaminated leachate</li> <li>- Health impacts to employees/contractors</li> <li>- Local or regional groundwater contamination</li> </ul>	<ul style="list-style-type: none"> <li>- Soil Investigation Trigger Levels (64866)</li> <li>- Chemical Storage and Bunding Requirements (53620)</li> </ul>	<ul style="list-style-type: none"> <li>- Dispose of contaminated material in a landfill licensed to take the type of contaminated material or wastes</li> <li>- Conduct soil contamination sampling</li> <li>- Site selection in area not likely previously contaminated</li> </ul>	Environment	Minor	Minor - Localised environmental event contained within the Mill boundary	Possible	Possible - The event might occur once every 3 to 10 years.	L9 - Low	17
	Waste	General waste disposal	Construction	<ul style="list-style-type: none"> <li>- Construction materials (e.g. steel, concrete, other waste building materials etc.)</li> <li>- Demolition of existing infrastructure/materials</li> <li>- Organic food wastes from construction workforce</li> <li>- Escape of waste materials from the site / from vehicles during transport</li> <li>- No segregation of waste materials</li> <li>- Incorrect disposal</li> <li>- Non-compliance with waste management procedures</li> </ul>	<ul style="list-style-type: none"> <li>- Litter</li> <li>- Vermin (birds and animals)</li> <li>- Stormwater runoff from waste storage areas / stockpiled material</li> <li>- Nuisance odour / health impacts to employees/contractors</li> <li>- Materials not recovered for recycling / recovery</li> <li>- Breach in waste transport disposal requirements</li> </ul>	<ul style="list-style-type: none"> <li>- Management and Disposal of Waste (1813)</li> </ul>	<ul style="list-style-type: none"> <li>- Contractors Construction Environmental Management Plan (including spoil management, waste minimisation and recycling requirements and measures)</li> <li>- Bins provided for construction workers and staff at locations by contractor with lids that can be locked or sealed to keep out vermin</li> <li>- Segregation of wastes for reuse, recycling and disposal into different skips / stockpiles, and at staff compounds (for beverage containers particularly)</li> <li>- General housekeeping and routine site inspection measures to maintain the tidiness of the site and to ensure segregation procedures are being followed</li> <li>- Stockpile placement and management measures away from stormwater drains</li> <li>- Timing of services and works to prevent waste</li> <li>- All vehicle loads travelling to / from the site to be covered to prevent escape of materials / waste materials during transport</li> <li>- Assess excavated soils to determine appropriate categorisation (clean fill or other) and reuse/ disposal options</li> <li>- Conduct inductions and ongoing awareness with staff on why waste minimisation is important, and on waste recycling and disposal procedures</li> </ul>	Environment	Minor	Minor - Localised environmental event contained within the Mill boundary	Possible	Possible - The event might occur once every 3 to 10 years.	L9 - Low	17
	Waste	Disposal of Air Pollution Control (APC) residue, boiler ash	Operation	<ul style="list-style-type: none"> <li>- Waste generated from the flue gas treatment / air pollution control (APC) equipment (APC residues)</li> </ul>	<ul style="list-style-type: none"> <li>- Contamination of soil</li> <li>- Release of contaminated leachate</li> <li>- Increased hazardous waste requiring disposal</li> <li>- Potential increase in contaminants for bottom ash</li> </ul>	<ul style="list-style-type: none"> <li>- Management and Disposal of Waste (1813)</li> </ul>	<ul style="list-style-type: none"> <li>- Contractors Waste Management Plan</li> <li>- Conservative treatment of boiler ash with APC residues</li> <li>- Conduct leachability tests to determine waste categorisation and resultant disposal requirements</li> <li>- Assess binding options in matrix to stabilise residue prior to disposal</li> <li>- Containment during transport and controlled methods of transfer</li> <li>- Protocol and procedure for waste classification</li> </ul>	Environment	Moderate	Moderate - Threat to environmental values and potential for short term exceedance of licence limits, but limited harmful effects.	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	L8 - Low	18
	Waste	Management and disposal of rejected waste	Operation	<ul style="list-style-type: none"> <li>- Waste supply outside waste acceptance criteria</li> </ul>	<ul style="list-style-type: none"> <li>- Increased waste volume disposal</li> <li>- Increased hazardous waste requiring disposal</li> </ul>	<ul style="list-style-type: none"> <li>- Management and Disposal of Waste (1813)</li> </ul>	<ul style="list-style-type: none"> <li>- Screening protocols and inspections for waste input feedstock</li> <li>- Development of waste input feedstock acceptance criteria</li> <li>- Additional sorting of waste via waste crane grab in bunker</li> <li>- Containment bay in tipping hall for rejected waste</li> <li>- Waste input feedstock acceptance criteria included in waste supply contracts</li> <li>- Protocol and procedure for waste classification</li> </ul>	Environment	Insignificant	Insignificant - Localised environmental event contained within the WIE boundary.	Probable	Probable - The event is known to have occurred several times or more in industry every 1 to 3 years.	L10 - Low	16
	Waste	Disposal of bottom ash	Operation	<ul style="list-style-type: none"> <li>- Waste generated from the moving grate following combustion</li> <li>- Waste generated inorganic content greater than expectation (&gt;15% IBA)</li> </ul>	<ul style="list-style-type: none"> <li>- Release of contaminated material</li> <li>- Increased waste volume disposal</li> <li>- Incorrect waste disposal classification</li> </ul>	<ul style="list-style-type: none"> <li>- Management and Disposal of Waste (1813)</li> </ul>	<ul style="list-style-type: none"> <li>- Explore reuse options for bottom ash including in road base or other construction materials</li> <li>- Conduct leachability tests to determine waste categorisation and resultant disposal requirements</li> <li>- Containment during transport</li> <li>- Waste input feedstock acceptance criteria</li> <li>- Waste input feedstock auditing at landfills and transfer stations to better determine waste composition</li> </ul>	Environment	Minor	Minor - Localised environmental event contained within the Mill boundary	Possible	Possible - The event might occur once every 3 to 10 years.	L9 - Low	17
	Flora and fauna	Loss of flora or fauna during construction and operational activities	Construction and operations	<ul style="list-style-type: none"> <li>- Vegetation clearance</li> <li>- Disturbance of fauna (i.e. noise)</li> </ul>	<ul style="list-style-type: none"> <li>- Loss of habitat</li> <li>- Death of fauna</li> </ul>	<ul style="list-style-type: none"> <li>- Clearing to be conducted is primarily in planted vegetation</li> <li>- Flora and fauna assessment conducted to determine sensitivity of project area</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental Management Plan (CEMP) by the contractor and approved by owner to ensure adequacy of measures</li> </ul>	Environment	Minor	Minor - Localised environmental event contained within the Mill boundary	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	L5 - Low	21
	Disturbance of cultural heritage	Impact to unexpected cultural heritage	Construction	<ul style="list-style-type: none"> <li>- Vegetation clearance</li> <li>- Excavations</li> <li>- Site preparation</li> </ul>	<ul style="list-style-type: none"> <li>- Damage/destruction of to cultural heritage or artefact</li> <li>- Relationship with traditional land owners</li> </ul>	<ul style="list-style-type: none"> <li>- Cultural Heritage Assessment of the site</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental Management Plan (CEMP) by the contractor and approved by owner to ensure adequacy of measures</li> <li>- Stop works if any items of cultural heritage are discovered</li> </ul>	Reputation_and_image	Major	Major - Need to report to authorities. Public or media outcry/embarrassment for Board, Government. Potential for ongoing management of issue.	Very Unlikely	Very Unlikely - Event/s has occurred in Industry less than once every 30 years.	L7 - Low	19

	Visual amenity	Reduced visual amenity due to Project	Construction and operations	<ul style="list-style-type: none"> <li>- Construction activities</li> <li>- Project design</li> <li>- Emission stack (95m height)</li> <li>- Building elevation</li> <li>- Additional lighting</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced visual amenity</li> <li>- Lighting visible from distance at night</li> </ul>	<ul style="list-style-type: none"> <li>- Plant design to minimise impact to community</li> <li>- Site selection behind hills to minimise visibility</li> <li>- Light sources to minimise light spill</li> </ul>	<ul style="list-style-type: none"> <li>- Contractors Environmental Management Plan</li> <li>- Design consistent colour scheme and finishing schedule which must fit with current Maryvale industrial landscape</li> </ul>	Reputation_and_image	Moderate	Moderate - Need to report to authorities. Significant adverse local/State media and public attention, reporting to the Project Executive committee.	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	L8 - Low	18
	Traffic	Increased traffic movements	Construction and operations	<ul style="list-style-type: none"> <li>- Transport of materials to site</li> <li>- Transport of feed waste to site (trucked or via rail)</li> <li>- Rail offline</li> </ul>	<ul style="list-style-type: none"> <li>- Interaction with vehicles/people</li> <li>- Increased road traffic</li> <li>- Noise</li> </ul>	<ul style="list-style-type: none"> <li>- Transport study determine negligible additional impact due to Project.</li> <li>- Speed restrictions onsite</li> </ul>	<ul style="list-style-type: none"> <li>- Contractors Traffic Management Plan</li> <li>- Operational traffic flow modelling to be conducted</li> <li>- Operational Traffic Management Plan</li> <li>- Super loading of bunker above tipping hall floor, vehicle queuing bays onsite if required (to accommodate waste already on the way to site)</li> <li>- Preference to use rail transport on existing line for waste input feedstock</li> <li>- Option to use both road and rail transport to/from site</li> </ul>	Reputation_and_image	Minor	Minor - Attention from media and/or heightened concern by local community/criticism by Government and/or Non-Government Agencies.	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	L5 - Low	21
	Community objection to the Project	Concern or anxiety from residents, landowners, and special interest groups with regard to the perceived risks and potential impacts on air and water quality, property values and quality of life in the area.	Construction	<ul style="list-style-type: none"> <li>- Poor communication from AP regarding project, it's benefit and any perceived impacts</li> <li>- Lack of involvement from community and stakeholders in Project</li> </ul>	<ul style="list-style-type: none"> <li>- Project delays or deferment</li> <li>- Reputational damage</li> <li>- Anxiety about perceived risks leads to loss of support and confidence in AP and the project</li> <li>- Political controversy and adverse media coverage regarding the risks</li> <li>- Complaints from community or stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>- Establishment of community centre in Morwell</li> <li>- Discussion of project and details in the Community Consultative Committee (CCC)</li> <li>- Regular open and transparent communications provided to the community and stakeholders</li> <li>- Several information sessions held</li> <li>- Early engagement with government agencies and departments, local government and state environmental regulators to inform a co-ordinated response to environment and health issues related to the project</li> <li>- Community and Stakeholder Relation Plan</li> <li>- Community Awareness, Communications and Reporting (1609)</li> </ul>		Reputation_and_image	Severe	Severe - Direct involvement by authorities-site may be closed. Serious public or media outcry/international coverage/public or Government inquiry/serious and/or on going social impacts.	Unlikely	Unlikely - The event does occur in industry from time to time once every 10 to 30 years.	M16 - Medium	10