

## 8. Summary of Triple Bottom Line Assessment - Pulp Mill

The summary tables from each element have been collated in the following table for ease of comparison.

Potential Impact	Potential Impact Rating	Proposed Management	Management Impact	Overall Rating
<b>Land Use and Planning</b>				
Inconsistencies with subdivision approvals	Minor negative impact	Planning Scheme amendment	Minor positive impact	Insignificant impact
To meet the requirements of Use and Development Principles	Minor negative impact	Environmental Management Plans and specific sub-plans such as vegetation management, landscaping etc.	Minor positive impact	Insignificant impact
<b>Infrastructure and Services</b>				
Impacts on existing buildings	Insignificant impact	New buildings are proposed for the site. There are no impacts on existing buildings structures.	Insignificant impact	Insignificant impact
Increase in demand for water supply	Moderate negative impact	New raw water supply pipeline from Trevallyn Dam	Moderate positive impact	Insignificant impact
Increase in demand for sewerage services	Insignificant impact	Independent sewerage treatment system	Insignificant impact	Insignificant impact
Increase in demand for power supply	Insignificant impact	New transmission line to Bell Bay sub station. Cogeneration facility as part of the project	Moderate positive impact	Moderate positive impact
Increase in demand for gas	Minor negative impact	Utilise existing capacity in gas network	Insignificant impact	Minor negative impact
Increase in demand for telecommunications	Minor negative impact	Utilise existing capacity in telecommunications network	Insignificant impact	Minor negative impact
Relocation of services	Minor negative impact	Only require relocation of transmission line to the existing woodchip facility	Insignificant impact	Minor negative impact
<b>Topography Climate and Meteorology</b>				
Climate change from Greenhouse gases	Minor negative impact	Biofuel power generation as part of pulp mill plant	Moderate positive impact	Minor positive impact

Potential Impact	Potential Impact Rating	Proposed Management	Management Impact	Overall Rating
<b>Air Quality</b>				
Construction Phase Dust Impacts	Moderate negative impact	Construction EMP which includes details on dust controls, operating conditions, monitoring, issues resolution and responses	Minor negative impact	Minor negative impact
Operation Phase Air Emissions	Major negative impact	Use of BAT in emission control	Moderate positive impact	Minor negative impact
Operation Phase Odour Emissions	Major negative impact	Collection and incineration of concentrated and diluted malodorous gases	Moderate positive impact	Minor negative impact
<b>Geology and Soils</b>				
Pulp mill design	Moderate negative impact	Geotechnical assessment and Acid Sulphate Soils testing	Moderate positive impact	Insignificant impact
Erosion of soils	Moderate negative impact	Sediment and Erosion Control Plan	Moderate positive impact	Insignificant impact
Landslip	Moderate negative impact	Appropriate consideration in design of banks and batters as well as stabilising treatments	Moderate positive impact	Insignificant impact
<b>Water quality and hydrology</b>				
Groundwater diversion and contamination	Moderate negative impact	Segregated stormwater system, treatment and reuse of clean and contaminated stormwater.	Major positive impact	Minor positive impact
	Moderate negative impact	Sediment and Erosion Control Plan	Moderate positive impact	Insignificant impact
	Moderate negative impact	Spill management strategy and training, appropriate construction and bunding of chemical handling areas.	Moderate positive impact	Insignificant impact
Construction Phase water quality impacts	Moderate negative impact	Sediment and Erosion Control Plan	Moderate positive impact	Insignificant impact
	Moderate negative impact	Water Quality Monitoring Plan	Moderate positive impact	Insignificant impact
Modification to Williams Creek hydrology	Moderate negative impact	Appropriate engineering design	Moderate positive impact	Insignificant impact

Potential Impact	Potential Impact Rating	Proposed Management	Management Impact	Overall Rating
Release of contaminated stormwater	Major negative impact	First flush and contaminated stormwater treated in the effluent treatment plant.  Overflow stormwater only released to surface waters during 1 in 10 storm event.	Major positive impact	Insignificant impact
<b>Estuarine Ecology</b>				
Construction Phase discharges to waterway	Major negative impact	Sediment and Erosion Control Plan	Moderate positive impact	Minor negative impact
	Major negative impact	Water Quality Monitoring Plan	Moderate positive impact	Minor negative impact
	Major negative impact	Construction EMP	Moderate positive impact	Minor negative impact
Construction Phase Accidental spills	Major negative impact	Construction EMP Chemical Spill Plan	Moderate positive impact	Minor negative impact
Operational phase discharges to waterways	Major negative impact	Segregated stormwater system, treatment and reuse of clean and contaminated stormwater.	Moderate positive impact	Minor negative impact
Operational phase Accidental spills / failures	Major negative impact	Spill management strategy and training, appropriate construction and bunding of chemical handling areas.	Moderate positive impact	Minor negative impact
<b>Terrestrial Flora</b>				
Loss and fragmentation of native vegetation	Major negative impact	Minimise disturbance and preparation of Vegetation Management Plan	Minor positive impact	Moderate negative impact
	Major negative impact	Offsets of 3.2 ha of 'Allocasuarina littoralis forest'	Moderate positive impact	Minor negative impact
	Major negative impact	Establish a 150 ha network of reserves at the pulp mill site	Moderate positive impact	Minor negative impact
	Major negative impact	Rehabilitation of disturbed areas including retention of seed bank	Minor positive impact	Moderate negative impact
Loss or damage to significant flora species	Major negative impact	Minimise disturbance and preparation of Vegetation Management Plan	Minor positive impact	Moderate negative impact

Potential Impact	Potential Impact Rating	Proposed Management	Management Impact	Overall Rating
	Major negative impact	Rehabilitation of disturbed areas including retention of seed bank	Minor positive impact	Moderate negative impact
Spread and/or introduction of weeds, pests and pathogens	Moderate negative impact	Weed management strategy and	Minor positive impact	Minor negative impact
Introduction and spread of <i>Phytophthora cinnamomi</i>	Moderate negative impact	DPIW Interim <i>Phytophthora cinnamomi</i> Management Guidelines	Moderate positive impact	Insignificant impact
Alteration to fire and grazing regimes	Minor negative impact	Fire management strategy and minimise disruption of native herbivore grazing	Minor positive impact	Insignificant impact
Erosion and sediment	Minor negative impact	Construction EMP	Minor positive impact	Insignificant impact
Impacts from dust and emissions	Minor negative impact	Construction EMP	Insignificant impact	Minor negative impact
Altered hydrology	Minor negative impact	Construction EMP	Insignificant impact	Minor negative impact
<b>Terrestrial Fauna</b>				
Habitat loss	Major negative impact	Minimise disturbance, offsets and preparation of Fauna Management Plan	Minor positive impact	Moderate negative impact
Habitat fragmentation	Minor negative impact	Fire management strategy	Insignificant impact	Minor negative impact
Loss or damage to fauna species	Major negative impact	Minimise disturbance and preparation of Fauna Management Plan	Minor positive impact	Moderate negative impact
	Major negative impact	Timing of construction activities	Minor positive impact	Moderate negative impact
Alteration to fire regimes	Minor negative impact	Fire management strategy and minimise disruption of native herbivore grazing	Minor positive impact	Insignificant impact
Erosion and sediment	Minor negative impact	Construction EMP	Minor positive impact	Insignificant impact
Impacts from dust, light, noise and emissions	Minor negative impact	Construction EMP	Insignificant impact	Minor negative impact

Potential Impact	Potential Impact Rating	Proposed Management	Management Impact	Overall Rating
Altered hydrology	Minor negative impact	Construction EMP	Minor positive impact	Insignificant impact
<b>Reserves and Protected Areas</b>				
Impact on the values of the private reserve	Minor negative impact	Construction EMP	Minor positive impact	Minor negative impact
	Minor negative impact	Establish a 150 ha network of reserves at the pulp mill site	Minor positive impact	Minor negative impact
<b>Transport Infrastructure, Traffic and Access</b>				
Additional traffic generated from construction of workers accommodation facility	Major negative impact	Undertake detailed traffic impact assessment to determine appropriate access locations and traffic distribution.	Moderate positive impact	Minor negative impact
	Major negative impact	Undertake appropriate traffic management measures in George Town area to accommodate general increase in traffic.	Moderate positive impact	Minor negative impact
Short term traffic issues associated with construction of effluent pipeline	Moderate negative impact	Prepare traffic management plan for construction and consult with adjacent land owners and effected stakeholders.	Minor positive impact	Minor negative impact
New permanent intersection on East Tamar Highway for quarry, landfill and water storage reservoir and temporary access roads for pulp mill	Moderate negative impact	Comply with Forest Practices Code 2000 and monitor traffic operations during the early stages of the development to evaluate and amend trucking operations if required.	Minor positive impact	Minor negative impact
Reduction of LOS of existing Gunns' access to pulp mill site during construction	Moderate negative impact	Modify junction to Austroads Type C with extended left turn lane exit.	Minor positive impact	Minor negative impact
	Moderate negative impact	Monitor traffic operations during early stages to evaluate and amend if necessary	Minor positive impact	Minor negative impact

Potential Impact	Potential Impact Rating	Proposed Management	Management Impact	Overall Rating
	Moderate negative impact	Conduct road corridor review to determine additional construction warning signage requirements, and identify existing road safety deficiencies with road.	Minor positive impact	Minor negative impact
Decreased traffic on identified road corridors	Minor positive impact			Minor positive impact
Decreased log truck VKT on Tasmanian road network due to utilisation of rail compared to the future base case	Moderate positive impact			Moderate positive impact
Increased log truck traffic on Frankford Main Road if rail is not utilised	Moderate negative impact	Prepare detailed route corridor assessment to ensure traffic management along corridor is adequate	Minor positive impact	Minor negative impact
Increase in rail freight movements resulting from the use of rail	Minor negative impact	Monitor all rail level crossings on haulage routes for safety and ensure rail infrastructure is in an adequate and serviceable state.	Minor positive impact	Insignificant impact
Road pavement deterioration arising from increased log truck activity	Moderate negative impact	Monitor roads with identified increased log truck and heavy vehicle traffic movements and upgrade as necessary	Minor positive impact	Minor negative impact
<b>Wharf Infrastructure, Traffic and Access</b>				
Increased operational, accidental and physical hazards as a result of additional shipping	Moderate negative impact	Wharf design, environmental management systems, spill controls and training	Minor positive impact	Minor negative impact
<b>Waste Management</b>				
Waste generation and minimisation	Moderate negative impact	Waste Management Plan – construction phase	Minor positive impact	Minor negative impact
	Moderate negative impact	Reuse opportunities	Minor positive impact	Minor negative impact
<b>Noise</b>				
Construction Noise	Major negative impact	Environmental Management Plan	Minor positive impact	Moderate negative impact

<b>Potential Impact</b>	<b>Potential Impact Rating</b>	<b>Proposed Management</b>	<b>Management Impact</b>	<b>Overall Rating</b>
Operational Noise – Pulp Mill	Moderate negative impact	Noise Management Strategy	Minor positive impact	Minor negative impact
Operational Noise – Woodchip Mill	Major negative impact	Noise Management Strategy	Minor positive impact	Moderate negative impact
	Major negative impact	Attenuation of existing chippers	Major positive impact	Minor negative impact
<b>Vibration</b>				
Vibration Impacts	Minor negative impact	Environmental Management Plan	Minor positive impact	Insignificant impact
Vibration impact on structures	Minor negative impact	Detailed Blasting Risk Assessment	Minor positive impact	Insignificant impact
Vibration impacts on aquaculture	Minor negative impact	Detailed Blasting Risk Assessment	Minor positive impact	Insignificant impact
<b>Visual</b>				
Contrast with the vegetated backdrop	Major negative impact	Implement a colour scheme which minimises contrast and glare	Minor positive impact	Moderate negative impact
	Major negative impact	landscaping management plan	Minor positive impact	Moderate negative impact
	Major negative impact	Minimise loss of screening vegetation especially on the East Tamar Highway	Minor positive impact	Moderate negative impact
	Major negative impact	Screening vegetation for key affected landholders	Minor positive impact	Moderate negative impact
Lighting	Moderate negative impact	Minimise light spill as per Australian Standards	Minor positive impact	Minor negative impact
<b>Heritage</b>				
Disturbance to Aboriginal Heritage Sites	Moderate negative impact	Cultural Heritage Management Plan	Minor positive impact	Minor negative impact
Disturbance to Aboriginal Sites TASI 9903	Moderate negative impact	Proposed reserve system	Minor positive impact	Minor negative impact

<b>Potential Impact</b>	<b>Potential Impact Rating</b>	<b>Proposed Management</b>	<b>Management Impact</b>	<b>Overall Rating</b>
Disturbance to Aboriginal Sites TASI 9896 (part)	Moderate negative impact	Further archaeological test-excavation	Minor positive impact	Minor negative impact
Disturbance to Aboriginal Sites TASI 9905	Moderate negative impact	Application to re-locate the artefacts	Minor positive impact	Minor negative impact
Disturbance to Historic Heritage sites	Moderate negative impact	Flagging and exclusion zone	Minor positive impact	Minor negative impact
	Moderate negative impact	Cultural Heritage Management Plan	Minor positive impact	Minor negative impact
	Insignificant impact	Inclusion in reserve system	Major positive impact	Major positive impact
<b>Odour</b>				
Odour and Amenity effects	Moderate negative impact	BAT odour management as specified in Volume 1 Section 6 of the Draft IIS	Moderate positive impact	Insignificant impact
	Moderate negative impact	Difuse odour monitoring and community consultation	Moderate positive impact	Insignificant impact
<b>Health</b>				
Direct chronic health effects	Major negative impact	BAT Emission controls as specified in Volume 1 Section 6 of the Draft IIS	Moderate positive impact	Minor negative impact
Health effects for the Launceston area	Moderate negative impact	BAT Emission controls as specified in Volume 1 Section 6 of the Draft IIS	Moderate positive impact	Insignificant impact
Health effects from Dioxins	Moderate negative impact	BAT Emission controls as specified in Volume 1 Section 6 of the Draft IIS	Moderate positive impact	Insignificant impact
Health effects from secondary exposure pathways	Moderate negative impact	BAT Emission controls as specified in Volume 1 Section 6 of the Draft IIS	Moderate positive impact	Insignificant impact
Odour and Amenity effects	Moderate negative impact	BAT odour management as specified in Volume 1 Section 6 of the Draft II	Moderate positive impact	Insignificant impact
<b>Greenhouse and Ozone Depleting Substances</b>				
CO <sub>2</sub> Generation	Moderate negative impact	Cogeneration plant	Major positive impact	Minor positive impact

<b>Potential Impact</b>	<b>Potential Impact Rating</b>	<b>Proposed Management</b>	<b>Management Impact</b>	<b>Overall Rating</b>
Transport Greenhouse Emissions	Moderate negative impact	Utilisation of Rail Transport	Moderate positive impact	Insignificant impact
Ozone Depleting Substances	Insignificant impact	Will not use ozone depleting substances	Insignificant impact	Insignificant impact
<b>Economic</b>				
Economic benefit to the Tasmanian and Australian economies	Major positive impact			Major positive impact
Accommodation pressure in George Town	Major negative impact	Workers accommodation facility	Minor positive impact	Moderate negative impact
Skill shortages for mill operators	Moderate negative impact	Training initiatives	Major positive impact	Minor positive impact
Employment opportunities	Minor negative impact	Preferential sourcing of skills and services within Tasmania	Major positive impact	Moderate positive impact
<b>Social</b>				
Improved economic and physical wellbeing	Major positive impact			Major positive impact
Influx of large number of construction workers	Major negative impact	Workers accommodation facility	Minor positive impact	Moderate negative impact
	Major negative impact	Workforce management strategies	Minor positive impact	Moderate negative impact
Construction impacts at Rowella	Major negative impact	Construction EMP and community liaison	Minor positive impact	Moderate negative impact
Cumulative impacts	Major negative impact	Construction EMP and community liaison	Minor positive impact	Moderate negative impact