

7.4 PYALONG PINE PLANTATION RECREATION RESERVE

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SUMMARY

This report is in response to requests from members of the Pyalong community concerned about the potential fire risk of vegetation (pine plantation) on the southern side of the Pyalong Recreation Reserve, situated on West Road, Pyalong.

Members of the community are concerned that the pine trees present a fire risk to their community and the Pyalong Primary School requesting Council undertake a fire risk assessment and reduction in the vegetation (removal of the pine trees) to reduce the threat to their community.

Country Fire Authority (CFA) conducted a fire risk assessment, which determined that removal of the pine trees is not necessary. However, work can be done to reduce ground level fuel and that will minimise the risk the pine trees may create.

This report outlines the actions taken to assess the fire risk and options to address the perceived fire risk of vegetation (pine plantation) at the Pyalong Recreation Reserve with the preferred option to reduce ground level fuel.

RECOMMENDATION

THAT Council:

1. Note the risk assessment advice and methodology provided by CFA.
2. Acknowledge CFA's fuel hazard assessment as 'Moderate' and a low likelihood and low consequence from ignition.
3. Endorses Option Two to mitigate the bushfire risk and allocate funds from the 2019 / 2020 organisational budget.

BACKGROUND

There is a substantial plantation of mature pine trees (approximately 291 trees) located along West Road and Northern Highway frontage of the Pyalong Recreation Reserve. In addition to the pines, there are a small number of Indigenous trees scattered throughout the plantation.

Residential housing and the Pyalong Primary School are located directly across from the Reserve on West Road, with the Pyalong township principally spread to the south and east of the reserve.

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The plantation has long been perceived by the community as a bushfire risk, with the reserve's proximity to the school and houses, and its status as a Neighbourhood Safer Place – Bushfire Place of Last Resort frequently cited as a compounding concern.

In 2019, the community's concern while long standing, was formally captured via the Place-Based community planning pilot project. As part of the community facilitation element of this project, an internal working group was convened to investigate the bushfire risk and explore cost options to mitigate any identified risk and redress community concerns.

ISSUES AND DISCUSSION

To ensure there is a sound understanding of the bushfire risk, it is important to assess the relative probability and scale of risk posed by this site and the type of vegetation on it.

Council has not previously undertaken this detailed level of bushfire risk assessment on a Council reserve and sourced qualified experts were consulted to assess and provide advice.

Two key inputs have informed the costings and recommendation detailed in this report:

- CFA fire behaviour modelling and fuel load assessment.
- A detailed, onsite assessment from a qualified arborist to cost a range of options, including some ground level fuel load clearing and uplifting regime, through to a complete removal program.

CONSULTATION

Community

While there hasn't been a formal consultation process related to the pine plantation, community engagement throughout the Place-Based community planning pilot provides a clear indication that there is community concern that the vegetation presents a significant bushfire risk. This input has come directly from the reserve Committee of Management and user groups, the primary school community and local residents. As noted above, concerns regarding the vegetation have long been expressed by the community, with Place-Based planning project pilot engagement activity serving to test and affirm the extent of community concern.

Internal

The convened working group comprised input from the following program and operational areas:

- Emergency Management
- Fire Prevention
- Recreation and Open Space
- Community Development
- Environmental Programs
- Transport and Development (Landscape Planning)

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External and Specialist advice

- Country Fire Authority (CFA)

The CFA conducted a detailed assessment exercise to identify risk and recommended mitigation action.

Key methodology elements of this assessment included:

- A calculation based on the Bushfire Attack Assessment standard tool (also used for assessing Neighbourhood Safer Places – Bushfire Places of Last Resort and Bushfire Attack Levels for construction).
- The vegetation was classified as “Forest”, which equates to a tonnage of 35 tonnes per hectare. It is noted that the plantation is not forest’ therefore was an exceeded classification and provided a worst-case scenario.
- Noted the Pyalong Primary School buildings are over 100 metres from the plantation.
- Modelling included two Fire Danger Index (FDI) scenarios; 100 FDI (Code Red) and 120 FDI (Code Red).
- A fuel load assessment for the reserve utilising a standard overall fuel hazard assessment.
- A desktop fire behaviour modelling exercise.

Key assessment outputs were:

- A fuel load hazard assessment rating of ‘Moderate’.
- ‘Benign’ fire behaviour assessment including a ‘low likelihood’ and ‘low consequence’ from ignition.
- At an FDI of 100, the radiant heat potential at the northern wall of the school building is 3.26 kW/m².
- At an FDI of 120 (Code Red), the radiant heat potential on the northern wall of the school is 5.65 kW/m².

CFA Recommendation:

- CFA recommends to mitigate the identified risk by removal of ground fuels under the pines (i.e. wind fall limbs and understorey plantings); and ‘uplifting’ via removal of pine tree branches up to two metres from ground level.

Conclusion:

- While the plantation vegetation is not without bushfire risk, it can be concluded that the perceived risk is greater than the actual risk.
- The compliance for sheltering in place within a building for a Neighbourhood Safer Place – Bushfire Place of Last Resort is 10 kW/m² or less. Noting, that the school would not be operational on a declared

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Code Red day, it is concluded that the school provides a safe place to shelter during a fire event.

- Complete removal of plantation cannot be justified from a bushfire risk perspective.

- Powercor

An onsite inspection was carried out to check span compliance and to identify any hazardous trees, concluding that there was no need for tree removal works from a power asset protection nor hazard reduction perspective.
- Department of Education (DET)

Summary advice includes:

 - The Pyalong Primary School is ranked as highest risk under the DET regime which triggers a closure during declared Code Red days.
 - Their bushfire risk assessment is based on a range of factors and the proximity of the pine plantation is not a key consideration.

FINANCIAL, RESOURCE AND ASSET MANAGEMENT IMPLICATIONS

There are a range of financial, resource and asset management implications associated with proposed work (varying for each option) and it is noted that there is currently no budget allocated.

The working group considered not just the upfront financial implications of the works, but also future financial, resource and asset management implications including:

- The additional investment for complete removal would necessitate including site rehabilitation, revegetation and maintenance costs.
- The comparatively higher fire risk posed by replacement planting of native vegetation.
- The precedent effect of works, including community expectations for other sites within the Shire.
- The potential of these works to undermine/be contrary to Council's efforts to increase tree canopy, and suite of land management and environmental management imperatives.
- If complete plantation removal was decided on, the significant impact on the community in terms of traffic management, site safety and amenity impact during burn off would necessitate extensive forward planning and community consultation.

An assessment was undertaken to determine the potential to harvest removed timber, the Arborist concluding that there is limited potential at best for any commercial level harvesting and although it would be pursued, it should not be considered as a substantial cost offsetting exercise.

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Over and above the upfront cost of the works, the following are noted in terms of not yet scoped and costed requirements. Further required inputs include:

1. A comprehensive Arborist assessment to determine the structural integrity and overall health of the trees.
2. A long-term Tree Management Plan to ensure proper long-term risk management of the asset addressing issues relating to safety, fire risk and tree health.
3. A Weed Management and Revegetation Plan nominating weed management activities and the frequency of weed management activities to be undertaken. This plan will enable the long-term re-establishment of native plant species and improve environmental health.

These inputs will identify both immediate and ‘long term’ proposed actions to be undertaken. Potential outcomes may include:

1. The potential for ‘thinning out’ of plantation by removal of some trees posing safety related issues. Rationale for this is to create a ‘visual break’ i.e. a less dense plantation. Therefore, may slightly reduce the community’s concern.
2. The potential for removal of understory and wind-blown tree limbs posing a fire risk. Rationale for this is to minimise ground fuel loads in support of fire mitigation. Therefore, may slightly reduce the community’s concern.
3. Identify Council’s future operational (maintenance) requirements.

While Council has internal, credentialed expertise to carry out this assessment, it is recommended that assessment is outsourced to avoid any community concerns at a lack of transparency/undue influence to limit removal recommendations.

Costing for the carrying out of works would be the subject of further discussion with Council once proposed assessment and estimates are obtained.

Costs estimates per option

	Works	Cost
Option One	Take no action to reduce ground level fuel or remove pine trees.	\$0.00
	CFA fire risk assessment indicates a low likelihood and low consequence from ignition.	
	Community will continue to perceive the vegetation as a fire risk to their community	
		\$0.00

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	Works	Cost
Option Two	Arborist Assessment and Tree Management Plan (for the assessment of 291 trees)	\$15,000 (estimate only)
	Uplift and clean-up of 291 trees as per CFA recommendation	\$24,024
	Carrying out of critical removal works as determined by Arborist Assessment	Unable to quantify at this stage
	Carrying out of recommendations as determined by the Tree Management Plan relating to any future operational expenditure.	Unable to quantify at this stage
	Corporate overheads i.e. Project Management and Community Engagement	\$ 5,000 (estimate only)
	No ongoing maintenance plan to manage fuel levels and weed management.	\$0.00
		\$44,024 (Plus, further costs to be determined by Arborist Assessment and Tree Management Plan)

	Works	Cost
Option Three	291 trees removed, stump removal and burn	\$105,633 (quote in hand)

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	<p>Weed Management and Revegetation Plan. The Plan is likely to consist of the following:</p> <ul style="list-style-type: none"> a. The compilation of detailed landscape plans (estimated at \$10,000). b. Undertaking of weed management activities (estimated at \$15,000). c. The supply and installation of plantings (estimated at \$40,000). d. A 24 month landscape maintenance and defects liability period (\$15,000). 	\$85,000 (estimate only)
	Corporate overheads i.e. Project Management and Community Engagement	\$ 5,000 (estimate only)
	Ongoing maintenance of this area of the recreation reserve will add approx. \$2,000/annum to the Operations budget.	\$2,000/annum
		\$197,633

POLICY AND LEGISLATIVE IMPLICATIONS

Council has a number of policy and governance obligations and legislative accountabilities that have been considered in producing this report. These include risk and asset management, hazard reduction, emergency management, public open space management, community safety and well-being; and environmental management.

The recommended option delivers an outcome that is fiscally responsible and equitable, that also ensures an appropriate level of risk mitigation.

RISK IMPLICATIONS

Risk Ranking is determined using [ROHS201-G1- Corporate Risk Matrix](#). Risk is identified as Low, Medium, High or Very High.

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Risk	Risk Ranking	Proposed Treatments	Within Existing Resources?
Bushfire risk to community as assessed by CFA	Medium	Implement CFA recommendation to remove ground level fuel	Not within existing resources. Requires reallocation of funding to implement CFA recommendation.
Community perceive bushfire risk to their community	High	<ul style="list-style-type: none"> • Remove all pine trees and rehabilitate and revegetate site (native vegetation higher risk) • Wider community consultation 	Not within existing resources. Significant capital investment and project management
Precedence if the planation is removed - expectation that similar would occur for other communities	High	Removal fuel load instead of trees	Not within existing resources. Requires reallocation of funding
Bushfire risk to revegetated site with native trees and shrubs in accordance with Council environmental plans	Medium	Not treatment	Not within existing resources. Requires reallocation of funding for ongoing site management

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SUSTAINABILITY IMPLICATIONS (SOCIAL AND ENVIRONMENTAL)

Social

As noted, there is a significant level of community concern regarding the perceived bushfire risk of the pine plantation at the Pyalong Recreation Reserve.

Resolution of this issue provides an opportunity to contribute to sustainable community capacity building, facilitation and participatory budgeting outcomes, which are core objectives of the Place-Based community planning pilot project

Environmental

Targeted fuel load reduction is an important and necessary risk mitigation tool; based on the 'moderate' only level of identified risk complete removal of the vegetation and consequent loss of tree canopy, subsequent site rehabilitation requirements and increased fire risk from replacement vegetation presents a range of sustainability implications.

CHARTER OF HUMAN RIGHTS IMPLICATIONS

The rights protected in the *Charter of Human Rights and Responsibilities Act 2006* were considered in preparing this report and it's determined that the subject matter does not raise any human rights issues.

CHILDREN AND YOUNG PEOPLE IMPLICATIONS

Children and young people were considered in the preparing this report and its determined that the subject matter does not have any explicit implications.

OFFICER DECLARATION OF CONFLICT OF INTEREST

No Officers involved in the preparation of this report have any direct or indirect interest in this matter.

CONCLUSION

It is recommended Council consider Option Two as the appropriate option to achieve risk mitigation and alleviate community concerns.

While acknowledging the strength and extent of the community's concern about the perceived fire risk of the pine plantation, Officers note the expertise of the CFA in undertaking a detailed assessment and that the findings of this assessment are compelling in countering this perception.

The assessment was conducted using the CFA's Bushfire Attack Assessment Tool and methodology to assess the risk of fire on a community. This needs to be a consideration when deciding on a course of action.