# PRINCIPLE-BASED DECISION MAKING ASSESSMENT

## (Tree Policy 2016)

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| Approval process |
| Prior to deviating from the guidance outlined in VicRoads Tree Policy, the following context specific assessment must be undertaken. Step 1 – Complete the assessment table for each Principle (1 – 6)Step 2 – Based on the assessment of each Principle, provide an overall recommendationStep 3 – Seek approval of the assessment by the relevant Regional Director. |

***Guidance provided within template – please delete.***

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| Title / Project  |  |
| **To** |  |
| **From** |  |
| **Quickdocs Reference** |  |
| **Purpose** | ***To seek approval for a principle-based decision regarding ....*** |
| **Introduction**(Briefly outline key points for site & background) |  |
| **Summary of Proposal**(Briefly summarise the proposal) |  |

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| 1. **Safe System Risk Principle**
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| The risk of death and serious injury is directly related to the likelihood of a crash and the impact forces on the vehicle occupants when a vehicle impacts an object.Where the planting or retention of trees would clearly result in a high risk of death or serious injury for vehicles leaving the carriageway, then mitigation measures are to be present to eliminate the risk.Where the planting or retention of trees is in a location with a higher likelihood of vehicles leaving the carriageway (i.e. curves, intersections etc.) AND there is potential for a high risk of death or serious injury, then mitigation measures are to be present to eliminate the risk.The planting or retention of trees should not impact on sight lines to hazards and other road users for the safe operation of the road for the whole life of the trees.Austroads Safe System Assessment Framework (AP-R509-16) outlines an approach to guide practitioners to consider exposure to a crash risk, likelihood of it occurring and the severity of a crash should it occur, when assessing road safety risk for different road environments. This approach has been adapted below to assist practitioners consider risk associated with lane departure crashes into trees. For further guidance refer to AP-R509-16.Consider Category 1, 2 and 3 Risk Ratings to make assessment. |

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| **Category 1 - Road User Exposure**  |
| **Attribute** | **Current situation risk** | **Proposed situation risk** |
| **Volume**(include appropriate info, e.g. 15000vpd) | ***Include appropriate information, e.g. 15,000 vpd*** | ***“Unchanged” or describe changes*** |
| **Length of Section** |  |  |
| **Priority Routes / Principal Networks** |  |  |
| **Category 1 - Risk Rating**(i.e. Low, Medium, High) | ***“Unchanged” or describe changes*** | ***Rate proposed road user exposure risk i.e. low, medium, or high*** |
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| **Category 2 - Crash Likelihood**  |
| **Attribute** | **Current situation risk** | **Proposed situation risk** |
| **Context of Location**(urban or rural, activity centre, township, near a school or industrial area) |  |  |
| **Road Infrastructure**(presence or type of kerb, shoulder, divided/undivided, barrier, bicycle paths, off sets, parking, pavement condition) |  |  |
| **Road Geometry**(sight lines, lane width, verge/median width, curves, grade, turning or merge lanes) |  |  |
| **FSI Crash History**(number of lane departure crashes into fixed hazards and discussion of how crash occurred) |  |  |
| **Category 2 -Risk Rating**(i.e. Low, Medium, High) |  |  |
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| **Category 3 - Crash Severity**  |
| **Attribute** | **Current situation risk** | **Proposed situation risk** |
| **Speed** |  |  |
| **Physical Characteristics of Roadside**(non-frangible and frangible hazards, density of hazards, safety infrastructure, run-off area length, landscaping, traversable terrain, swale drains, embankments, earth mounding) |  |  |
| **Road Infrastructure**(presence or type of kerb, shoulder, barrier, parking) |  |  |
| **ANRAM Analysis**(where available undertake an ANRAM analysis to contribute to understanding current risk) |  |  |
| **Category 3 - Risk Rating**(i.e. Low, Medium, High) |  |  |
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| **Discussion****(consider Safe System Risk Principle - Category 1 + 2 +3 )**(Discuss the safety implications of the proposal compared with the current situation. Discuss changes to risk profile with tree planting proposal, where appropriate consider risk during growth and at tree maturity.) | ***[e.g. Explain current risk at location including road user exposure, crash likelihood and crash severity. Include details of FSI crash history related to lane departure crashes into fixed hazards (number of crashes, description of how crash occurred) and where available undertake an ANRAM analysis to contribute to understanding the current risk.*** ***For instance, tree planting without safety barrier can be considered where a location is judged to be low risk and/or the planting of trees is unlikely to increase the risk profile (e.g. due to physical features of the roadside, such as cut batters or barriers inbuilt into the landscape in between the traffic lane and trees). VicRoads Supplement to AGRD Part 6 and Austroads Guide to Road Design Part 6 can be considered in this determination. Often physical structures are hazards themselves and should be protected or eliminated appropriately.]*** |
| **Current Situation**(Risk Level Judgement – Low, Moderate, High) | ***Moderate risk to road users]*** |
| **Proposed Situation**(Risk Level Judgement – Low, Moderate, High) | ***Moderate risk to road users – proposal is not considered to increase the current level of risk and may even reduce it slightly*** |

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| 1. **Road Network Efficiency Principle**
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| Where roads are designated as significant freight or traffic routes, then the planting or retention of trees is to be managed to ensure there are no adverse impacts on the efficiency of vehicle movement on those roads. |
| **Priority Route**(i.e. Principal Traffic Flow Network, Principal Public Transport Network) |  |
| **Volume**(include appropriate information, e.g. 15,000vpd (10%cv) |  |
| **Approach**(Explain approach to meet this principle) | ***[e.g. The infill tree planting will not impact on traffic movement. Tree selection and placement will ensure that the canopy will not encroach on the traffic lane and will not impede vehicular movements, specifically for freight and buses.***  ***Local council will be responsible for maintaining trees in the roadside and has agreed to maintain the median (under a section 15 agreement). Local council is committed to ensuring any branches, canopy, leaves, etc. do not negatively impact the function of the road. Furthermore, local council has agreed to undertake maintenance activities outside of peak periods and bus operating times in consultation with the Region.]*** |
| **Current Situation**(.e. Negative/Positive impact on priority route) | ***No negative impact on priority routes*** |
| **Proposed Situation**(i.e. Negative/Positive impact on priority route) | ***No negative impact on priority routes*** |

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| 1. **Sustainable Transport Principle**
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| Where the planting or retention of trees will significantly enhance opportunity for walking, cycling or public transport participation, and the road is a priority route/area, then trees are strongly supported. |
| **Priority Routes / Principal Networks**(i.e. Principal Public Transport Network (buses)) |  |
| **Estimated Volume**(include appropriate information, e.g. 150 buses per day) |  |
| **Existing Infrastructure**(i.e. currently no bus lanes provided) |  |
| **Related FSIs** |  |
| **Approach**(Explain approach to meet this principle) | ***e.g. This is a priority bus route, the provision of full-time bus lanes and the additional amenity provided by infill tree planting will enhance this priority mode. The additional trees are anticipated to further create a sense of place and provide shade, encouraging increasing public transport use, and consequently pedestrian activity.*** |
| **Current Situation**(i.e. supports/does not support principle) | ***Limited facilities for buses*** |
| **Proposed Situation**(i.e. supports/does not support principle) | ***Provision of full-time bus lanes and enhancement to amenity - Positive impact on priority mode*** |

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| 1. **Maintenance Responsibility and Cost Principle**
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| Where tree planting increases the long term cost to maintain the road, then the planting of trees and the tree management arrangements should be implemented in a way that minimises any cost increase to VicRoads.If the planting of trees will significantly increase the cost to maintain or provide utility services in the road reserve, then planting should be done in a way that minimises the impact. |
| **Estimated upfront costs**(Explain how upfront costs will be managed) | ***Nil to VicRoads. Local council is funding the infill tree planting (~$30k inc. traffic management).*** |
| **Estimated ongoing cost**(including by VR, other parties, what the cost will cover)  | ***Nil to VicRoads (positive)******Ongoing maintenance (~$5k per year inc. traffic management) will be managed and funded by local council. Council will maintain the median, with reduced costs to VicRoads (section 15 agreement).*** |
| **Approach**(Explain approach to meet this principle) | ***e.g. The infill tree planting proposal is funded by the local council. Local council will also maintain the roadside and the median (section 15 agreement).******Trees chosen by local council as part of the proposal have been agreed to with VicRoads Regional maintenance teams and Landscape and Urban Design team, they do not pose a risk of future pavement damage.*** |
| **Current Situation**(i.e. supports/does not support principle) | ***Neutral*** |
| **Proposed Situation**(i.e. supports/does not support principle) | ***Reduced cost to VicRoads with proposal*** |

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| 1. **Environmental Sustainability Principle**
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| When planting trees in the road reserve, consideration is to be given to environmentally sensitive species selection and adopting landscape designs that protect and enhance the environment. |
| **Existing Vegetation**(Explain how upfront costs will be managed) | ***Existing trees - Native vegetation planted by local council in line with local council planting strategy*** |
| **Existing Remnant Vegetation** | ***Nil*** |
| **Water Sensitive Design** | ***Consideration has been given to WSD, in collaboration with VicRoads Environmental Strategy and Landscape design teams*** |
| **Habitat and Biodiversity** | ***Nil. Site is not near any parks or waterways, and is not anticipated to contribute to biodiversity outcomes.*** |
| **Approach**(Explain approach to meet this principle) | ***e.g. The additional trees planted will enhance the environmental outcomes for the area by contributing to:**** ***Increase local native vegetation (alignment with local council planting strategy)***
* ***Reduce heat island effect***
* ***Decrease air pollution***

***Reduce storm water run off*** |
| **Current Situation**(i.e. supports/does not support principle) | ***Supports this principle*** |
| **Proposed Situation**(i.e. supports/does not support principle) | ***Supports this principle*** |

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| 1. **Community Wellbeing Principle**
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| Where managing the presence of trees in the road reserve, consideration is to be given to supporting local planting strategies, improving amenity and reducing visual clutter. |
| **Community & Stakeholder Engagement**(Explain who was engaged with.) | ***Nil community******Council engagement*** |
| **Views**(Explain what views were expressed?) | ***Council and the community are very supportive*** |
| **Existing Community Infrastructure** | ***Within walking distance to a significant shopping strip where high levels of pedestrian participation are encouraged.*** |
| **Planting Design and Species** | ***Council has requested planting include species in line with their planting strategy.*** |
| **Approach**(Explain approach to meet this principle) | ***e.g. VicRoads has worked closely with local council and the community throughout the design of the proposal. Council and the community is supportive of the proposed design.******The proposed design is anticipated to deliver significant benefit to the community by enhancing the amenity of the area and encouraging active travel, namely through increased public transport use and pedestrian activity.*** |
| **Current Situation**(i.e. supports/does not support principle) | ***Supports this principle*** |
| **Proposed Situation**(i.e. supports/does not support principle) | ***Supports this principle*** |

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| **RECOMMENDATION(consider Principles 1 – 6)**(Summarise how the proposal aligns with all principles and provide a recommendation to the approving officer) |
| ***e.g. From the discussion above, the application of the Tree Policy principles in general supports infill tree planting on this section of John-Smith Road. Given the current existing hazards, offset (3 metres) and low crash history, infill tree planting and the installation of a full-time bus lane increasing the clearance to 6.5 metres, this proposal is not considered to increase the risk profile of the road. The provision of full-time bus lanes and the additional amenity provided by the infill tree planting will enhance the priority for buses. The additional trees are anticipated to further create a sense of place and provide shade thereby encouraging increasing public transport use, and consequently pedestrian activity. It is anticipated that this recommendation will be strongly supported by the local community and council. The upfront installation and ongoing maintenance are to be managed by local council as VicRoads will no longer maintain the median, the ongoing costs to VicRoads will be reduced.******It is recommended that the Regional Director XXX (or appropriate delegate) approve infill tree planting in the roadside in accordance with the proposal submitted by XXX as this option is considered to provide maximum benefit to road users and the local community.*** |

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| **APPROVAL** |  |
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| Prepared by: | Endorsed by (where appropriate): |
| Name: | Name |
|  |  |
| **Officer Level / Team Leader** | **Technical Expert / Manager**  |
| Date: | Date: |
| Phone: | Phone: |
| **APPROVED / NOT APPROVED****REGIONAL DIRECTOR / PROJECT DIRECTOR**  |
|  **/ /**  |  |