

Track Maintenance Know-How

Track marking



Photo: K Moss

Waugals: the triangular directional markers are integral to the Track's character.

Their varying age, location and sometimes quirky placement has inspired countless poems, stories and photographs of 'following the waugal'.

They are not only found on trees; markers may be fixed on timber posts, large logs and (with approval) boulders, fences, stiles, bridges, and even power poles through towns.

It is important that the Track is consistently marked in keeping with its Class 4 grading. We also have DBCA "Track and Trail Signage Guidelines" which dictate standards for the Bibbulmun Track.

Flexibility and common sense in the implementation of the standards is often required, depending on the situation on the ground. Points of possible 'navigational confusion' vary widely in their landscape location, intersection angle, obscuring vegetation, and representation on maps or navigation applications. The marking of new alignments (or extensive remarking) is carried out by our Support Volunteers or by PaWS staff.

The role of the sectional volunteer is to:

- **Monitor and maintain the condition of markers**
- **Identify and replace missing markers**
- **Keep vegetation clear of marked trees and structures (to enhance visibility and minimise potential fire damage)**

This factsheet should assist you in understanding the principles of Track marking as seen on your section, and to carry out maintenance of marking when necessary.

Frequency

- Markers are positioned at an optimum of 500 metres apart where the trail is distinct and there are no other options for the walker to take.
- In practice, this distance will vary depending on intersections and other features. Where such a section of trail is between 500-1000m, markers are installed at the halfway point e.g. a distance between intersections of roughly 700m is marked at roughly 350m.



Photo credits: Ce Kealley



The Life of Py

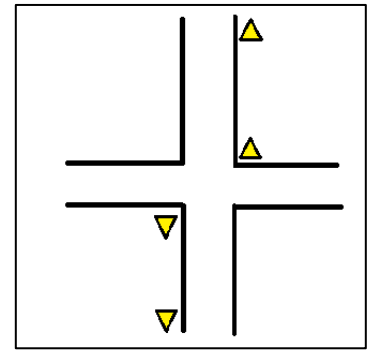


The Life of Py

Marking an intersection (cross over)

Four markers are used to mark a Track crossing straight over an intersection (refer to diagram, right):

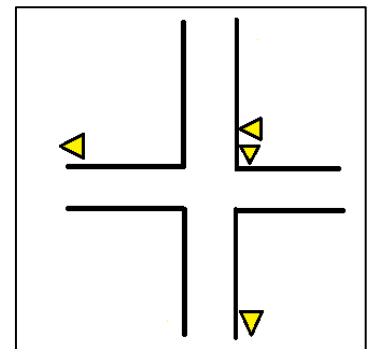
- A marker is placed on the opposite side (for both directions), visible to approaching walkers.
- An additional (confirmation) marker is installed a maximum 50m beyond the intersection (for both directions). Confirmation markers should be visible from the centre of the intersection.
- The left or right side of the Track may be used (as convenient).
- Confirmation markers are always vertical. The only exception is where they double as an intersection turn marker.



Marking an intersection (turn)

Four markers are used to mark the Track turning at an intersection:

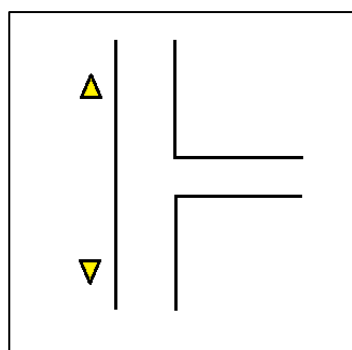
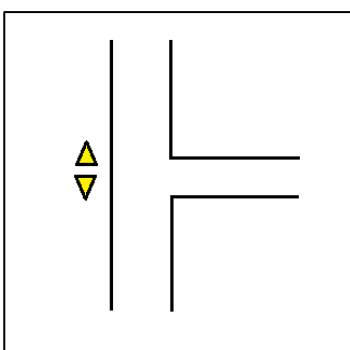
- Two markers are placed on or very close to the corner (one for each direction of travel), visible to approaching walkers.
- These markers are placed on the outer corner wherever possible. They are more likely to be seen in this position, especially for walkers not anticipating a turn off from a well-defined track.
- The inner corner may also be marked for added insurance where turning off wide tracks, or where the marked tree on the outer corner is less than ideally located.
- Two confirmation markers are also installed as previously described.



Marking a side road pass

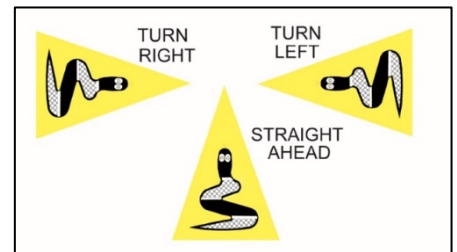
Only two markers are used to confirm the route past a side track or road:

- The best location for marking is usually directly opposite the side track or road. Markers are ideally installed on both sides of one tree (first diagram).
- If this is not possible, a marker is placed a minimal distance beyond the side track (for both directions; second diagram).
- Confirmation markers are not required.



Positioning

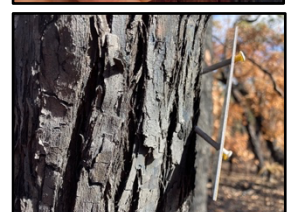
- There are only three standard options for marker position: either perfectly vertical with the point facing up (indicating that the trail goes straight ahead); or perfectly horizontal pointing left or right (indicating a left or right hand change of direction, even if it is not a 90° turn). Angling the marker can cause confusion and should be avoided.



- Where they are installed on trees, markers are nailed at roughly eye height (maximum of 2 metres).
- Ensure equal visibility from both directions; it's possible that pre-existing marking might only have been installed and checked travelling in one direction.
- Installing markers on both sides of a suitable tree makes future maintenance easier. However, mark the best tree available to achieve clarity, especially when marking intersections. Don't use the opposite side of a tree if the marker is not clearly visible from a reasonable distance.

Installation

- It is preferable to install markers on jarrah, wandoo, blackbutt/yarri, sheoak or mature karri. Marri may be used if there is no alternative, but running sap can obscure the marker. Ensuring a gap and appropriate nail angle (see below) minimises this issue.
- Markers should not be placed on young trees unless unavoidable, due to their relatively rapid growth rate. If the only good position for a marker is a young tree, however, then use it.
- Markers are best fixed using two 75mm galvanised decking nails (griplock helical).
- Use a short hammer stroke. This reduces the chance of the hammer slipping off the nail head and damaging the marker.
- There should be a minimum 10mm, or finger width gap between the marker and the tree (see photo). The gap allows for tree growth, improves the chance the marker will not be damaged during fire (especially cool burns where the tree bark only smoulders), and allows for removal and reinstallation when growth eventually fills the gap.
- The gap is established by angling the top nail slightly down into the tree from the nail head and the bottom nail up, to "spring" the marker out against the nail heads (see photo).
- On trees with thick bark growth, the gap is optimised by scraping back a small section of bark slightly larger than the marker. Scraping should not go too deep, to avoid damaging the cambium tissues between the bark and wood of the tree.
- Markers should be removed and reinstalled when tree growth eventually fills the gap – before the marker begins to be 'eaten'! While there is still some gap, nails can be pulled out with hammer/pliers, or cut by hacksaw, without damage to either the marker or the tree.
- When resetting a marker in young marri, care needs to be taken as their bark tends to come away easily from the wood. It may be better to use side cutters or a hacksaw to cut the nails rather than attempt to extract them.



Ongoing maintenance

- It is important to remember that the primary purpose of a trail marker is to aid walker navigation. Markers that still serve this purpose should not be replaced unless they are so damaged that they are no longer functional.
- Once each year, intentionally focus on checking and maintaining Track marking on your sectional visit.
- Prepare by taking spare waugals and nails, and the tools you might need.
- Try to see your Track marking as a new walker would... we can become so familiar with the route of our section that we might not realise points which would confuse new walkers!
- Make note of waugals which may soon need reinstalling due to a reduced gap.

Maintenance after bushfires and prescribed burns

- Markers generally need replacement after hot burn bushfires. Prescribed burns tend to be less severe, but some damage may occur.
- Provided the section had previously been brought up to guideline standard, only those locations previously marked should have new markers installed.
- In areas where the loss of vegetation has made the tread of the Track indistinct, additional markers should not be added. Instead, flagging (surveyors) tape is used to provide guidance between the established marked locations. Once sufficient regrowth has occurred and the tread is clear, section volunteers may remove the flagging.