



Beverley to Narrogin Transport Trail

Interim Report

Submitted by:



BEVERLEY TO NARROGIN TRANSPORT TRAIL FEASIBILITY STUDY: INTERIM REPORT

Prepared for:



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CONTENTS

Section 1 – Introduction and Background	3
Section 2 – The Scope of Work	6
Section 3 – The Route Options: A Summary	7
Section 4 – Issues and Challenges	10
Section 5 – Opportunities	20
Section 6 – Future Analysis	33
Section 7 – Conclusions	37
References	41
Appendices	42
Appendix 1: Plans for the Proposed Beverley to Narrogin Transport Trail	
Appendix 2: Beverley to Narrogin Transport Trail – Length of Maintenance Track	

SECTION 1 – INTRODUCTION AND BACKGROUND

1.1 The Purpose of the Feasibility Study

The primary purpose of the Feasibility Study is to determine whether a 105km ‘transport trail’ between Beverley and Narrogin is practically possible and whether its potential development is a worthwhile proposition.

1.2 Background

The proposed Beverley to Narrogin Transport Trail is a proposed 105km route providing a long-distance off-road riding experience through natural settings connecting the towns of Beverley, Brookton, Pingelly, Cuballing and Narrogin.

The WA Department of Transport, in its various 2050 Cycling Strategies (such as the *2050 Avon Central Coast Cycling Strategy*), defines Transport Trails as “*long-distance, predominantly unsealed trails which are typically used to connect towns. Unlike downhill mountain biking trails, transport trails are non-technical in design. While there will be some level of crossover, transport trails provide users with a more passive bike riding experience.*

In some cases, transport trails cater for other types of users including bushwalkers, trail runners and horse-riders. On such trails, it is essential that paths are managed appropriately to ensure the safety and satisfaction of all user groups.

In terms of their built form, transport trails should ideally be wide enough to allow two people to ride comfortably side-by-side. As they are often located in remote locations, it is important that extensive wayfinding signage is used to direct users to, from and along the route.

Transport trails are often constructed along the alignments of disused or closed railways, watercourses (such as rivers, drains and irrigation channels), utility corridors (such as electricity, gas or water supply), as well as fire breaks and other tracks through forested areas including nature reserves and national parks.”

Perhaps the greatest advantage of transport trails – according to the Department of Transport - is that they can provide long-distance, off-road (predominantly unsealed) riding experiences through natural settings, away from motorised traffic. They often support recreational and tourism trips between towns and regions. Transport trails provide opportunities for longer tourist rides that can be marketed as inclusive itineraries, individual journeys of discovery or providing connections between smaller locations.

The brief for the project indicates the proposed Beverley to Narrogin Transport Trail would form a strategic link in the regional trails network by:

- directly connecting the towns of Beverley, Brookton, Pingelly, Popanyinning, Cuballing and Narrogin;
- connecting the transport trail to planned trails within the Shire of Beverley;
- eventually linking to York, Northam, Toodyay and the Perth Hills from Beverley;
- connecting to a planned rail trail from Narrogin to Williams; and
- linking Dryandra National Park (a planned primary regional trail destination) with secondary/local trail destinations and adjacent primary regional/signature trail destinations of Collie, Dwellingup and York.

This approach (as specified in the brief) suggests that the trail is being viewed as a regional facility to attract a range of users from across south western WA (and further afield).

The proposed trail also has the potential to make connections, and therefore much longer trail experiences, by joining up with proposed trails in the Avon Region, and with the established and proposed trails network in and around Collie (including the proposed Collie River Cultural Trail along parts of the Collie River and further west towards Leschenault Inlet).

1.3 The Current Situation

The project partners – the Shires of Beverley, Brookton, Pingelly, Cuballing and Narrogin, have been successful in receiving funding from the WA Bicycle Network Grants program to undertake the Feasibility Study.

The Interim Report is provided to report on initial findings based on fieldwork and limited consultation with key stakeholders.



Use of the maintenance track along the railway is prohibited.



Typical conditions along many of the roads along the “orange” route.



Considerable clearing of vegetation will be required along the “green” route.

SECTION 2 – THE SCOPE OF WORK

The brief indicates that the Shire of Pingelly, in conjunction with the Shires of Beverley, Brookton, Cuballing, and Narrogin, is seeking to develop concept plans and detailed design (and cost estimates) for the Beverley to Narrogin Transport Trail project.

The trail feasibility study will provide sufficient detail to determine whether the trail has merit. Feasibility is determined by an analysis of several factors. It is not just the cost of the project, but a combination of several factors, which determines trail feasibility. In considering trail feasibility, the costs of construction need to be weighed against the benefits (direct and indirect) that such a trail brings.

The Feasibility Study should seek to answer several questions:

- Is there a viable trail route (i.e. is a trail route physically possible)?
- Are there areas where a trail may be prohibited by the land manager or precluded by existing infrastructure and activities incompatible with a trail?
- Is there a market for the proposed trail (i.e. local people and visitors who will be attracted to use it)?
- Are the local governments and key stakeholders (including land managers) supportive of the concept?
- Are there supportive/strong advocates (in the community)?
- Is there a supportive community?
- Will the trail provide a quality user experience (terrain/landscape/history)?
- Would the trail be value for money?
- Is there a commitment to the ongoing maintenance of the trail (“friends of ...” group or support network)?
- Will the trail provide a unique experience?
- Is there a demonstrated benefit to trail users and, especially, the host communities?

One of the first phases in determining feasibility is examining the various factors that influence the practicality of building a trail. Some of these factors will make construction difficult and/or expensive. These factors can be grouped under “issues and challenges” or “opportunities”. Some issues that may impact negatively on the proposal can of course be resolved through design, negotiation or by the spending of funds to mitigate the problem. Other issues are more difficult to deal with and these are canvassed in this Interim Report.

Whilst a feasibility study provides a level of detailed costing, it does not provide the fine level of detail for a construction ready project. This is the role of the trail development plan (unless there are unusual circumstances) which is carried out if the trail is found to be feasible and key stakeholders are willing to proceed to the next stage.

This Interim Report is the first step in determining answers to some of the questions raised above. It sets out the issues and challenges and the opportunities and presents alternative conceptual routes to be further refined by consultation and further fieldwork.

SECTION 3 – THE ROUTE OPTIONS: A SUMMARY

The key questions underpinning the project are:

- What is being sought?
- What will be delivered?
- Who is the market?
- What will the cost be?

The brief for the project indicates that the project partners are looking for a trail option utilising road reserves parallel with the Great Southern Railway line. The existing WA cycling strategies indicate that a “transport trail” is a trail that has the advantage of providing long-distance, off-road (predominantly unsealed) riding experiences through natural settings, away from motorised traffic (as noted in Section 1).

However, initial field investigations and subsequent investigations for the project indicated a range of issues and challenges associated with developing a trail in road reserves alongside the railway line between Beverley and Narrogin.

An alternative route utilising quiet country roads catering to the needs of cycle tourists was proposed as it was also broadly within the definition of a transport trail (in terms of providing for a particular user group/market). The Wild Gravel Trail, centred out of Gnowangerup, is an example of a successful cycle touring route using predominantly quiet, gravel, backroads through interesting wheatbelt scenery.

The two routes and observations were presented to the Project Working Group at its meeting held on June 13, 2025. These two routes were referred in the meeting as the “teal” route (primarily alongside the Great Southern Railway line) and the “orange” route (utilising quiet country roads on both the east and west sides of the “spine”). These alternatives (with the teal route indicated as a green route) are shown on Plans 1 - 5 (in Appendix 1). The issues and challenges are covered in more detail in the next section; Table 1 summarises the arguments for and against each option.



Road bridges exist across all watercourses along the “orange” route.

Table 1: Summary of pros and cons of the two routes

	FOR	AGAINST
Quiet country roads (Orange route)	<p>Long rural vistas.</p> <p>Low costs – limited to signage and promotion.</p> <p>Infrastructure exists (bridges).</p> <p>Reduced/minimised costs and approvals.</p> <p>Connects the towns in a scenic way.</p> <p>Offers the essence of cycle touring.</p> <p>Within the Councils' capacity to deliver.</p> <p>Gets users "up close and personal" with rural activities – canola, sheep, wheat, olives – all the rural experiences the Wheatbelt has to offer.</p> <p>Adds distance with minimum cost – but users stay longer and spend more.</p> <p>Accesses other attractions e.g. old school sites; old town sites e.g. Moorumbine.</p>	<p>An on-road route.</p> <p>Doesn't cater for walkers.</p> <p>Safety concerns during harvest (Oct-Dec) and seeding times (April-May).</p> <p>Adds distance (both a positive and a negative).</p> <p>Not as appealing for family groups.</p> <p>Might not qualify for certain funding programs e.g. Lotterywest – to defray costs of project.</p> <p>Unlikely that it could be considered adventure cycling as defined in the Transport Trail "definitions".</p>
Maintenance track (Green route)	<p>Direct connection between towns.</p> <p>More likely to be classified as adventure cycling – but not particularly adventurous.</p> <p>Safer – provides better opportunities for family groups and those staying in caravan parks who may not be cyclists but like to go for a leisurely short ride (or walk).</p> <p>Provides for local people.</p> <p>Can cater for walkers and horse riders in certain sections.</p>	<p>Costs – substantial trail construction costs.</p> <p>Bridge/main watercourses – bridges and other drainage structures needed at significant costs.</p> <p>Views of railway embankment on one side; thin lines of vegetation on the other.</p> <p>Great Southern Highway is often close by in terms of views.</p> <p>Becomes a "commuter spine" between towns rather than a tourist trail.</p> <p>Project management issues and costs associated with dealing with Arc as the train line is considered an active line.</p>

At the Project Working Group meeting, the consultants presented the case for the road-based route (the orange route) emphasising the advantages offered as above. The assumption (made by the consultants) was that transport trails are primarily for cyclists and are regional facilities, as they are proposed in various “regional” cycling strategies (while noting that the definition in the strategies does not preclude walkers and horse riders). A local illustrative example of a transport trail was the proposed trail connecting Beverley to County Peak (from *Avon Central Coast 2050 Cycling Strategy*) which is aligned along gravel roads.

The Project Working Group members clarified that what the brief was seeking (and the member councils were seeking) is an option utilising road reserves parallel with the railway line to offer a safe, off-road cycle and walk option for local people, families and grey nomads who were staying in local caravan parks. The example offered was that of a “stereotypical” trail user of Pingelly’s proposed MTB trail who would be a family group looking for a MTB ride with some minor “technical” elements then looking for an easy safe off-road path to provide an add-on activity. This is what Project Working Group members believed the market to be for the Beverley to Narrogin Transport Trail and the option offered by the green route. In addition, providing a local trail for local people to use also triggers funding opportunities from Lotterywest. Project Working Group members were of the view that the orange route does not address that demand for a range of reasons.



Existing maintenance tracks are often wet and boggy during winter.

SECTION 4 – ISSUES AND CHALLENGES

Each of the two routes presents issues and challenges. These are presented below for consideration.

4.1 The Green Route – Land Tenure

As noted in Section 3, the project brief indicates that the project partners are looking for a trail option utilising road reserves parallel with the railway line. In most locations there is an existing maintenance track running alongside the railway track; Project Working Group members were of the view that it was possible to use some of this maintenance track to limit the need for constructing new trail thereby limiting cost and environmental impacts.

Using aerial photography and cadastral information, it has been established that the existing railway maintenance track is predominantly within the railway reserve. Table 2 shows the relative percentages of maintenance track that has been constructed in three tenures – entirely within the railway reserve, entirely within the adjoining road reserves and on the boundary of the two reserve types (more detail is included shown on the plans in Appendix 1 and an extensive table in Appendix 2).

Table 2: Tenure of existing maintenance track

	Total distance (along railway reserve)*	% of existing maintenance track constructed within railway reserve	% of existing maintenance track constructed on boundary of railway reserve and road reserve	% of existing maintenance track constructed within road reserve
Shire of Beverley	18,400 metres	100%	0%	0%
Shire of Brookton	20,630 metres	81.6%	0.4%	18%
Shire of Pingelly	14,100 metres	96.9%	2.1%	1%
Shire of Cuballing	32,270 metres	83.7%	6.9%	9.4%
Shire of Narrogin	6,480 metres	8.6%	3.7%	87.7%
TOTAL	91,880 metres	83% (76,455 metres)	3% (2,865 metres)	14% (12,560 metres)

**Distances calculated to northern edge of towns, and from southern edges of towns. It is assumed routes into, through and out of towns will follow local roads and/or existing paths.*

In addition to the very low percentage of maintenance track constructed in road reserve (14%), the sections of track that are constructed within road reserves are in very short sections. Table 3 shows the length of maintenance track constructed within road reserves.

Table 3: Lengths of existing maintenance track constructed in road reserves

	Number of sections of existing maintenance track constructed within road reserve	Location of sections of existing maintenance track constructed within road reserve	Length of sections of existing maintenance track constructed in road reserve
Shire of Beverley	0	N/A	N/A
Shire of Brookton	2	Between the railway crossing on Youralling Rd and the railway crossing at McGrath Rd	3.4 kms
		Between Copping Road and Kulyalling Rd	310 metres
Shire of Pingelly	1	Between Kulyalling Rd and Aviation Rd	135 metres
Shire of Cuballing	4	Between the crossing of the railway on the highway south of Karping Rd and Lot 090336	800 metres
		Between Popanyinning railway crossing and Yornaning Rd East	760 metres
		Between the southern boundary of Yornaning and Watsons Rd	1.09 kms
		Between Darcy St and Chungamunning St	380 metres
Shire of Narrogin	1	Between the Shire's northern boundary to Hillside Rd	5.685 kms

As can be seen from Table 3, with the exception of the section in the Shire of Brookton between the railway crossing at Youralling Rd and the railway crossing at McGrath Rd (3.4 kms), the section in the Shire of Cuballing between the southern boundary of Yornaning and Watsons Rd (1.09 kms), and the track within the Shire of Narrogin (5.7 kms), sections of maintenance track within road reserves are relatively small (less than 1 km). It will be difficult to manage use of these small sections of maintenance track within the road reserve as users will tend to stay on the maintenance track (if new trail is constructed) when it goes back onto the railway reserve unless managed by visual and (probably) physical barriers such as fencing or large chevron signage. In addition, it is not known what Arc Infrastructure's attitude may be to the risk that exists (Arc Infrastructure's role is discussed further below).

Complicating this issue is the fact that in sections along the proposed route there are no road reserves in which a trail can be constructed.

- From Beverley to Kokeby (approximately 13 kms), there is virtually no useable road reserves adjoining the highway. Any trail will need to be on-road (Bremner Rd seems the most suitable in the short term) or within the narrow road verge of the Great Southern Highway. The Shire of Beverley has a plan to develop *The Commonage Walls Trail* which will provide an off-road alternative for trail users for some of this section immediately south of Beverley. South of Kokeby (for another 5.3 kms), there are discontinuous road reserves – any trail will need to be either on-road, in the verge of Great Southern Highway or constructed on private land (which will need to be brought into public ownership or management). Road reserves adjacent to the railway reserve start south of this location.
- Immediately south of Pingelly, road reserves are discontinuous if only for a short distance. Trail users would need to be on the Great Southern Highway (or alongside the highway within the highway reserve in a narrow vegetated verge) or alternative roads (or private land could be used under negotiation).
- Immediately south of Chungamunning Road (in Shire of Cuballing), there is a short distance where there are no road reserves that can be utilised. The options are that trail users would need to be on the Great Southern Highway (or alongside the highway within the highway reserve in a narrow vegetated verge) or on private land which could be used under negotiation.

Another complicating factor is the relative dearth of legal crossing points of the railway (see 4.2 below). The potential for establishing new cyclist/hiker crossings is regarded as negligible – given the anecdotal evidence provided to the consultants by Council staff who have wanted to establish recreational activities within the railway reserve to no avail.

As a consequence of this land tenure arrangement, new trail will need to be constructed for over 81kms of the proposed trail's route should the green trail be the preferred route. This will be a substantial expense. In addition, some private land may need to be utilised.

Project partners put forward the view that the Munda Biddi Trail is the “construction level” in terms of what is being sought for this project. Even constructing new trail to this “low” level (single track MTB) will be a very costly process. It is worth noting that, under the transport trail “definition” discussed in Section 1, other types of users including bushwalkers, trail runners and horse-riders can be catered for. The definition also notes that transport trails should ideally be wide enough to allow two people to ride comfortably side-by-side. This definition implies that new track would need to be constructed to a wider standard than single track and it is suggested that a trail 1.2 – 1.5 m wide would be more appropriate; this would further increase the costs.

It needs to be noted that the proposed trail has generated some interest within the horse riding community. The Department of Transport cycling strategies include the consideration that, in some cases, transport trails may cater for other types of users including walkers, trail runners and horse-riders. Unfortunately, any sections that utilise riding along the Great Southern Highway (as noted above) will preclude walkers and horse riders. Off-highway sections can be utilised by these groups. It is acknowledged that much of the orange route would be unable to be accessed by walkers (from a user rather than a legal perspective). Horse riders may choose to ride the quiet country roads proposed though sections of the orange route may also be challenging for that group of users.

4.2 The Green Route – Dealings with Arc Infrastructure

Any trail construction of the green route will involve discussions, negotiations and (likely) working with Arc Infrastructure, manager of the railway corridor. In consultation for this project, some of the Local Governments had indicated they had worked with Arc Infrastructure on various projects in their shire and it had not been a positive experience.

As part of the initial consultation process, advice was sought from the Public Transport Authority of WA. An email requesting advice was forwarded to several key people within the PTA. The following advice (summarised) was received from the Manager, Rail Freight Infrastructure:

*“Arc is permitted to licence Corridor land to Local Government Authorities for Civic Purposes which allows for this use. **For safety reasons (and this is a relatively active line), Arc’s maintenance /access tracks are not available for shared used by recreational users** (emphasis added).*

Should the corridor be wide enough for, and land available to construct a separate rail trail (that does not require Arc to reduce their track or impede their operations) then Arc may consider it. Arc will very likely require fencing to be installed to separate the rail trail from the access track if land is available. Arc has high public liability insurance requirements (up to \$250 million).

With Arc approval, PTA could lease to the LGA’s however Arc’s requirements would be carried over, such as fencing.”

This advice is taken to mean that – in effect – a new trail cannot utilise the railway maintenance track where it is within railway reserve (the railway is considered an active line). Where the maintenance track falls outside the railway reserve (on public road reserve managed by Local Government), negotiations with Arc Infrastructure may be more positive. However, as discussed above in 4.1, this condition (existing maintenance track constructed in road reserve) is only met in a limited number of locations along the potential route.



Use will need to be made of existing crossings of the maintenance track.

The project partners will need to be aware of “permit/approval” risk in utilising the maintenance track on road reserve. This risk pertains to the potential time and cost of approvals.

In addition, there is the issue of preventing trail users from inadvertently (or deliberately) traversing on to the railway reserve. This situation is likely to require visual and (likely) physical barriers (such as fencing) where there is a risk of this occurring (as noted in 4.1 above).

During consultation, the project partners indicated that working with Arc Infrastructure around the railway corridor requires the deployment of Track Protection Officers at a cost to any relevant project. These may be required during trail construction adding to the project costs.

Another issue in dealing with Arc Infrastructure is the possible need to get approval for the construction of new railway crossings at locations where any trail needs to cross over the railway line. It is envisaged that this will be an extremely difficult and time consuming task with limited chances of success – this has already been considered in the route selection process. There would be a need for use of existing crossover points as permission to create new crossings will be difficult to get.

4.3 The Green Route – Water Crossings

There are a large number of locations along the railway line between Beverley and Narrogin, where water flows are channelled under the railway line by culverts of varying sizes and configurations (pipes or box culverts). There are also numerous bridges. The maintenance track has fewer culverts in “parallel positions” at formalised water crossings (as maintenance vehicles can more easily negotiate wet areas). However, the presence of these structures indicates where water flows (temporarily or permanently) and will need to be considered when new trail is constructed. Solutions come at a cost.

In-field examinations revealed the following numbers of box culverts or pipes under the railway embankment (noting classifications of small, medium and large are somewhat arbitrary and determined by observation of pipe size and do not necessarily relate to the number of pipes or opening within culverts - these vary between 1 and 6 pipes or cells):

- Small structures 31
- Medium structures 34
- Large structures 28

Importantly there are 10 bridges ranging in size from 7 metres (Wabbing Creek) to approximately 35 metres (South Hotham River). There are 4 bridges over 25 metres (Keelocking Creek, Hotham River, Hotham River South and South Hotham River).

It may be possible to address some of these drainage issues by leaving vegetation in place. The railway and railway maintenance track have significant clearing either side of the centreline thus adding to the drainage issue and the need for a large number of culverts which may not all be necessary if construction techniques are correct. However, many of the larger pipe and culvert structures will need to be replicated on any new trail and the 10 bridges will need to be replicated with similar structures (if not at the same level of flood immunity). There is likely to be standing water in pools, even during the drier months of the

year. During winter there is going to be deep water that must be crossed by trail users. Construction of these bridges (even allowing for narrow, lightweight structures), and use of other techniques for crossing the watercourses, represents a significant construction cost.

A new, shorter, low level bridge or culvert structure (compared to the existing railway bridge heights) could be used to cross existing creeks and drain lines. This would typically be constructed at a level at or above the 2 year ARI flood level. The design flood conditions should balance the outcomes of user experience, safety, hydraulic impacts, and maintenance requirements, among other considerations.

The location of the structure would need to consider a range of factors including topography, waterway bathymetry, geology, vegetation, and adjacent land uses which is something to consider during the design development phase of the project. Any ramps down from the surrounding land to the low level bridge or structure should aim to achieve a grade of 5% with a maximum desirable grade of 10%.



Numerous pipe culverts and bridges occur along the railway.

Costs will vary significantly depending on which options are chosen. Recent costings for a lower level crossing consisting only of a culvert structure are of the order of \$600/lineal metre. A bridge would be of the order of \$6,000- \$8,000/lineal metre. Building bridges at a lower level of flood immunity will have the benefits of needing a shorter length but the trade-off is whether the crossing becomes unusable and for how long, and the question of ongoing maintenance.

The other issue in terms of waterflow is the nature of the soil along the railway reserve. It was noted during fieldwork several sections of track had become “boggy” after what amounted to a relatively small amount of rain the previous day. This is likely to be an ongoing issue and short trail sections are likely to need “sheeting” and consequently re-sheeting after rainfall events to ensure they remain useable. Bike riders in particular will find the need to constantly dismount and push their bike around these patches (creating new “tracks” in the process) to be a matter of frustration thus impacting negatively on their experience.

4.4 The Green Route – Trail Construction

Trail construction will necessarily require clearing of vegetation even if the trail is only constructed to single track width - there is a legitimate case to be made that it should be developed to two-way standard (1.2 – 1.5m wide) to allow riders to traverse side by side as envisaged in the definition of transport trail. Offset vegetation will most likely be required.

4.5 The Green Route – Overall Costs

Key costs for construction will be trail construction and water crossings.

To meet the definition of an ideal transport trail (i.e. a trail which allows two people to ride comfortably side-by-side) a trail envelope of between 1.2 metres and 1.5 metres will be required. Discussions with a trail construction business revealed a current cost of between \$45/lineal metre and \$55/lineal metre for trail construction providing this envelope. For 81kms of new trail, the cost will be of the order of \$3.64 million - \$4.45 million. Reducing the trail width to single track (450mm – 600mm) will reduce the cost but it will still be around 60% of the above cost.

As noted in Section 4.3, the cost of waterways crossings will vary significantly depending on which options are chosen - lower level crossing consisting only of a culvert structure are of the order of \$600/lineal metre while bridges would be of the order of \$6,000- \$8,000/lineal metre. Whilst there will be locations where no specific measures are needed to “parallel” existing drainage structures, pipes and culverts will still be required in many of the 93 locations where there are currently drainage structures under the railway corridor. The 6 smaller river crossings (60 metres over 6 structures) will require low level bypasses whilst the 4 major crossings (i.e. crossings 25 metres and over) will require lightweight bridge structures. These 4 bridges total 120 metres – if building at lower levels of flood immunity, shorter bridges may suffice at \$6,000 - \$8,000/lineal metre (costs will still be of the order of \$500,000 - \$700,000 for bridges).

Other significant costs associated with the green route will include the need for sheeting various sections of the trail to manage boggy spots (the extent of this is unknown), fencing associated with managing interactions with the rail corridor, and surveying (to ensure the trail stays within the road reserve). Fencing costs may be quite high depending on the standard that will be needed to address any concerns of Arc Infrastructure regarding a trail close to an operating rail line (even though the train operations are very limited). Standard paddock fencing (such as might be used in a rail trail development to separate users from livestock) generally consist of six or seven strand wire (2 strands of barb wire with 4-5 strands of plain wire) or hinge joint mesh fencing which can be installed for a cost of \$25/lineal metre. However, it is unlikely this will satisfy the needs of Arc Infrastructure in terms of protecting the rail corridor. It is not known what its requirements will be. VicTrack provide some guidance for design for shared user pathways on VicTrack land (*Shared User Pathways on VicTrack Land: Design Guidelines for Applicants* June 2009). In respect of fencing, the shared user pathway is required to be fenced on the trackside. The fence location is necessary due to safety regulations that also require the provision of gates in the rail corridor at regular intervals for track maintenance access.

The VicTrack guidelines note that fencing is to be installed for the purpose of exclusion of the public from areas requiring authorised access. Accordingly, all fencing shall be installed such that:

- Exclusion of persons is effectively achieved over the extent of the fence; and
- Gaps in fencing are minimised as far as practicable.

The fencing standard recommended in the VicTrack guidelines is that any shared user pathway is to be fenced full length trackside with 1.5m high non-climbable fence, weldmesh or equivalent fencing. In high risk areas (not defined in the guidelines), the fencing standard is to be 1.8 metre-high chain wire fencing to reduce safety risks and prevent trespasser access. The guidelines specify that shared use pathways are to be subject to the following minimum clearances to the pathway fencing:

- 8m from the centre line of the nearest track;
- 5m from the top of any cutting or toe of any embankment supporting the track;
- 1.5m from trunking, or underground power, signal and communication cables; and
- 5m from aerial services, equipment and platforms (dependent on access).

VicTrack guidelines state that fencing shall not encroach within 3 metres of the running edge - a practical distance of say 5 metres from the centreline). Costs for such fencing would be of the order of \$120/lineal metre. It is simply not known how much fencing would be needed as the requirements of Arc Infrastructure are not known. Even if Arc Infrastructure has no legal capacity to require fencing if the trail is on road reserve, fencing will need to be built in certain locations to manage the cross-over from maintenance track to newly constructed trail on road reserve. As an indicator of likely cost, \$500,000 would allow for the construction of 4.1 kms of the appropriate fencing.

There are a number of costs that are associated with both routes notably wayfinding and other signage and trailhead development in each of the towns. These costs will be similar (though more management and road crossing signage is envisaged for the green route).

4.6 The Green Route – Limited Aesthetic Appeal

The green route is located very close to the railway line and the railway reserve for much of its length and – particularly in the southern parts – is located quite close to the Great Southern Highway. In fact, many kilometres of the green trail may need to be constructed within the road verge of the highway. Whilst some of the proposed corridor is vegetated, this line of vegetation tends to be “thin” and not particularly attractive in most locations. The cleared corridor of the railway and the highway (and other roads) would be very obvious from a trail constructed alongside the railway reserve. In totality, this route presents limited visual amenity. There is also a lack of scenic variety along the route.

This compares unfavourably with the varied vistas (in both the near and far visual field) offered by the orange route. Along these quiet country roads, users are offered “up close and personal” interactions with rural activities – canola, sheep, wheat, olives – all the rural experiences the Wheatbelt has to offer. Long views to distant mountains and a journey through Dryandra Woodland National Park are also on offer.

The aesthetic appeal of the options is a subjective assessment. Whether the green route offers sufficient appeal to attract users from Perth (and further afield) specifically to use the trail is a key question (noting its length requires a significant time commitment).

As noted in Section 4.3, sections on the maintenance track are muddy and rough. Some sections like this may be difficult to avoid if a trail is constructed adjoining the railway reserve.

4.7 The Green Route – Limited Overall Appeal

It is debatable as to whether a shared use trail built primarily alongside the railway reserve - and within close proximity to the Great Southern Highway - will have significant appeal to a wider cycle touring market. This is an important consideration given what will be a significant investment required to construct a trail. Such a trail may have local appeal as an exercise or relaxation route for local people and is likely to have some appeal to visitors who stay in caravan parks in the towns and villages along the route – despite the often low-grade environs on existing a town (industrial areas, wrecker's yards, etc). This will be more fully explored in the Feasibility Study.

4.8 The Green Route – Maintenance Tasks

Ongoing trail maintenance is a crucial component of an effective management programme – yet it is often neglected until too late. Countless quality trails have literally disappeared because no one planned a maintenance programme, and no one wanted to fund even essential ongoing repairs. It is therefore essential that funds be set aside in yearly budgets for maintenance of the green trail (if it proceeds) - to ensure user safety and enjoyment, and to minimise liability risks for land managers. (Maintenance on the orange route will generally be confined to wayfinding signage as other maintenance tasks will be done as part of road maintenance programs).

It would be short sighted to go ahead and build the trail and then baulk at the demands of managing and maintaining it. If the trail manager is not committed to maintaining the trail once built, the trail should not proceed.

Responsibility for trail maintenance will ultimately rest with the trail manager i.e. the entity responsible for the trail. Maintenance may be outsourced – to commercial contractors, volunteers or through the resource companies – but the trail manager still needs to be responsible.

The Councils are the obvious entities to manage the trail should it proceed. Maintenance tasks will include:

- trail inspections every 3 months;
- signage checking and cleaning, replacing or repairing as required especially road crossing signage and directional markers every 3 months;
- checking trail surface and arrange repair as required every 3 months. Arrange repairs immediately if acute, or schedule maintenance for six monthly work sessions if not;
- maintenance of trail surface every 6 months (and after major rainfall events);
- sweeping or raking debris from trail surfaces, especially at road crossing points every 6 months;
- maintenance of culverts and other drainage measures every 6 months;
- cutting back regrowth, intruding and overhanging vegetation every 6 months;

- checking structural stability of interpretive signage, and interpretive shelters every 6 months;
- checking structural integrity of bridges. Inspecting and maintaining bridges. checking for obstructions and clearing under bridges. All bridge tasks to be done annually; and
- undertaking Hazard Inspection and prepare Hazard Inspection Report annually.

4.9 The Orange Route – Safety Issues and the Impacts on the Target Markets

The orange route – using quiet country roads to appeal to cycle tourists – does have some issues associated with its development. Such a trail has limited appeal to local users and families who stay in caravan parks notably due to the fact that it is a road riding route and does not offer a safe off-road experience for all types of users. It is acknowledged that the orange route offers road riding opportunities and is pitched at a different market.

As noted in Section 1, the Department of Transport lists a primary advantage of a transport trail is that it can provide long-distance, off-road (predominantly unsealed) riding experiences through natural settings, away from motorised traffic. However, the only transport trail currently designated within the region uses gravel roads to connect Beverley to County Peak (see *Avon Central Coast 2050 Cycling Strategy*).

Consultation with the project partners indicate concerns over safety at particular times of the year. Harvest time (October-December) and seeding times (April-May) means that the roads will be carrying more heavy vehicles than usual. However, there are likely to be fewer trail users (cyclists) during harvest season (due to climatic conditions). Importantly, cycle tourism (the key market likely to be attracted to this route) are familiar with riding in traffic; the presence of heavy vehicles for limited times will not be a major concern. For example, the Wild Gravel Trail (a 440 km cycle touring route visiting 8 towns (including Gnowangerup, Katanning, Cranbrook, Mt Barker and Ongerup) and incorporating the iconic Koi Kyeunuruff/Stirling Range) includes one section on a designated Road Train Route and other sections with sealed sections carrying trucks.

In addition, given that the main market envisaged for the trail by the Project Working Group (the cruiser market) is generally looking for shorter rides (rather than the 105km complete trail), it may be possible to highlight sections of the orange route where encounters with heavy vehicles will be limited.

SECTION 5 – OPPORTUNITIES

A Beverley to Narrogin Transport Trail (in some form) will provide several notable opportunities. There are a number of specific elements within the area encompassed by the proposed trail route that provide opportunities and reasons for why a trail should be built.

5.1 Satisfying an Existing Demand

Either (or both) trail options will satisfy an existing demand for cycling trails (as well as walk and horse riding trails to a lesser extent). In the three years to 2018, 29% of Australians had a holiday that involved a cycling experience. Of these, 28% were categorised as destination cycle tourists while 72% were categorised as cyclists while on holiday (*WA Strategic Trails Blueprint 2022-2027*). Mountain biking in particular is enjoying significant growth. Mountain biking saw the greatest percentage increase in participation of trails based sports in Australia, growing by 81% with 174,000 new participants to the sport between 2017 and 2020 (*WA Strategic Trails Blueprint 2022-2027*). The definition of mountain biking used in the *WA Mountain Bike and Off-road Cycling Strategy 2022-2032* is that mountain biking can be broadly defined as cycling offroad on a variety of unsealed surfaces, typically through a natural setting. Mountain biking is a diverse activity that can be enjoyed almost anywhere from a backyard to a gravel road, as well as purpose-built trails.

There are growing markets that can be described as similar but distinct to mountain biking that also use trails and dirt roads for cycling recreation. They (along with mountain biking) are more broadly described as “adventure cycling” defined as any style of cycling that travels off bitumen seeking an experience enjoyed in nature and on two wheels (*Concentric Circles: Guidance for Trails Tourism Close to Perth 2024*). According to the *Concentric Circles* report, adventure cycling can be broken down into categories of mountain biking, bike packing/touring and gravel grinding. Each category has different engagement profiles, if sometimes overlapping.

For the purposes of considering the two trail options for the Beverley to Narrogin Transport Trail, the two key markets are gravel grinding and bike packing/back country touring (as defined in the *Concentric Circles* report). **Gravel grinding** encompasses a fairly broad sweep of riding activity, but pertains mainly to long distance day rides – most often 100km+ - that seek out back country, dirt and fire track roads with little to no traffic. **Bike packing / back country touring** is about exploring remote places via single track trails, gravel and abandoned dirt roads. Daily distances tend to be shorter for backcountry rides (40-50km) and with stops to admire vistas and eat at the country bakery. Bike packing is all about slow travel exploration. Bike packers often stay at B&Bs, hotels, motels and caravan parks and eat out at cafes and restaurants. The cycle tourist is much more likely to undertake a range of other activities compared to non-cycle tourists, explaining why the cycle tourist’s average spend is much higher than non-cycle tourists. Of interest is their tendency to eat at restaurants, go to licensed venues and go shopping; all activities which would benefit the economies of the Wheatbelt region.

Neither trail option (the green route or the orange route) offers a product that falls neatly within these two types of adventure cycling: each offers elements appealing to both groups. Hence either trail will partially appeal to these groups though the orange route is more likely to appeal to dedicated cycling users (as opposed to the ‘cruiser’ market – see below for further discussion on the cruiser market).

5.2 Becoming a Regional Centre for Trails

Just as Collie and Dwellingup are developing themselves as Trail Towns, an opportunity exists for several towns of the Wheatbelt to develop as trail destinations. Beverley, Pingelly and Narrogin for example are well positioned to emulate the progress being made in other trail towns. Though they do not have the Bibbulmun Track or the Munda Biddi passing through their town centres, what the towns between Beverley and Narrogin do have is a unique opportunity to develop a long-distance transport trail of approximately 105km (with potential extensions) connecting the 5 towns, and to capitalise on the existence of existing and proposed trails in the towns and in the region. The *Pingelly Mountain Bike and Cycling Strategy 2022-2026* expresses a desire that Pingelly has of becoming the ‘trails centre for the southern wheatbelt’.

5.3 Specific Opportunities – the Green Route

Opportunity to provide local trails

The Project Working Group has indicated the view that the Beverley to Narrogin Transport Trail will have the added benefit of providing a local trail for local people. This is a legitimate outcome; a trail constructed alongside the railway reserve would provide a local trail to be used by local people on a regular basis. Many trails have “backgate” users – whilst they do not spend significant amounts of money using a trail, they do use trails regularly. However, there may be other better and cheaper options for local people to develop trails particularly given that the combined population of the five shires is a little over 9,000 people (the Beverley to Narrogin Transport Trail will be a significant investment of public funds). Each of the Local Governments along the route offer a range of existing trails (or are proposing several trails) for local and visitor use. Trails master plans have been prepared for some of the Shires and these have identified existing and potential new trail projects that could be developed. The Shires of Brookton and Cuballing have not yet prepared trail master plans.

The Shire of Beverley offers (or plans to offer) the following trails:

- Brooking Street Reserve Trails (Cowslip Orchid Loop and Fringed Mantis Loop - 490m).
- Dale River Reserve Trail (1.2km).
- Vincent Street Heritage Walk.
- Avondale Farm (Avondale Bush Reserve Walk Trail and Avondale Drive Trail).
- Proposed: Commonage Stone Walls Walk Trail (12km return); Avon River Trail (e.g. main town bridge to St Edwards Crossing).
- Drive and Walk Trail (Brooking St Reserve to Dongerdilling old School site, onto Poison Hill, drive to Carolling Bally Bally Reserve then drive to County Peak onto Yenyening Lakes).

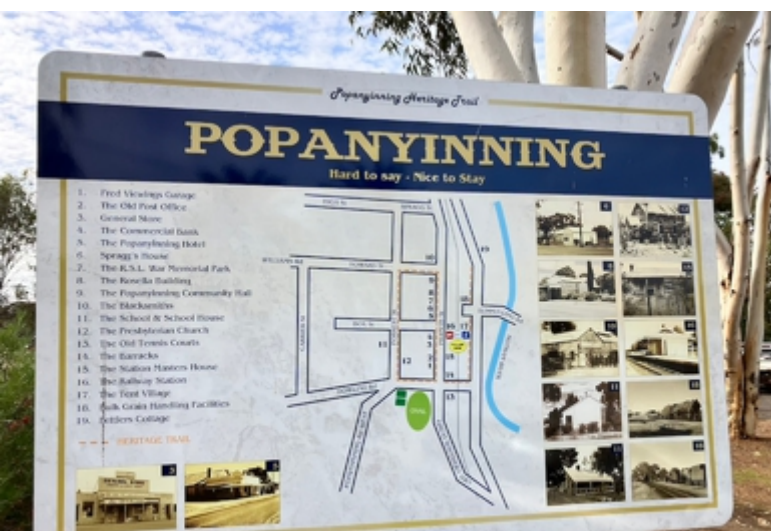
In discussions with a Shire representative, a desire was expressed to continue a trail north along the Avon River from the Vincent Street bridge.

The Shire of Brookton does have limited current trail options offering the Town Lookout. The *Concentric Circles: Guidance for Trails Tourism Close to Perth* report (May 2024) noted that the Shire of Brookton has limited potential for trail-specific development given non-appropriate landscapes and this has been a focus of the Shire’s representative on the Project

Working Group – to provide local trails for local people. The *Strategic Community Plan 2013 – 2023* proposed the development of a pathway and trails master plan for the Shire to identify other opportunities (although this action is not included in the current Strategic Community Plan). There is also a proposed trail to Byabarra Pool.

The Shire of Pingelly offers (or plans to offer) the following trails:

- An in-town Heritage Trail.
- A cycle and walk path between the Pingelly Cemetery and Somerset Street (along Review Street).
- Boyagin Rock Nature Reserve trail.
- Dryandra Woodlands trails.
- Moorumbine Heritage Trail.
- Tutanning Reserve walk trail.
- Proposed: 10km of recreational Mountain Bike Trail in the Town Centre; Pump Track/Skills Park and Skate Park.



A number of trails exist or are proposed in towns along the proposed transport trail.

The Shire of Cuballing offers at Yornaning:

- Yornaning Dam North Block Trail (3.7km).
- Yornaning Dam South Block Trail (1.9km).
- Bridge loop 675m.

At Popanyinning, the Shire offers:

- Popanyinning Heritage Trail (19 sites).
- Saltbush Flats Trail.
- Cuballing to Yornaning Rail Trail (proposed).

The Shire of Narrogin offers (or plans to offer):

- In-town Heritage Trail (1.25km, 25 interpretive panels).
- Paths/trails in Gnarogin Reserve.
- Foxes Lair – both cycle trails and walking trails (400m Breakaway Walk, 2km Banksia Trail, 1.4km Valley Loop, 1.8km Claypit Circuit, 1.2km Granite Trail, 5.5km cycle trail, 1.6km Griffio MTB trail, 1.0km MTB loop, Havoc MTB loop).
- Proposed Narrogin Williams Rail Trail.
- Railway Dam walk trails.

Opportunity to provide trails for existing and new visitors

The *Pingelly Mountain Bike and Cycling Strategy 2022-2026* identifies a series of actions which the Shire believes will position Pingelly as the Trails Centre for the region by delivering a series of trails aimed at the ‘cruiser market’ – families on holidays who incorporate cycling as part of that holiday. The Council believes that the green route will be one of these trail projects with appeal to this market. The strategy includes relevant observations:

- The ‘cruiser market’ represents 9% of the Australian travelling population aged 18-75 (approximately 1,416,000 people).
- It is typically made up of families with school-age children with a casual interest in cycling who tend to take shorter holidays (less than a week) in familiar places. Three-quarters are ‘cyclists while on holidays’.
- Cycling experiences should be easy, unchallenging, casual, low-risk, inclusive, covering short distances and involve sightseeing.
- Cycling is an added activity for this group rather than the primary activity.

The strategy notes that outlying trails (which the Beverley to Narrogin Transport Trail would be) are essential to attract visitors (as opposed to short in-town trails). Discussions within the Project Working Group indicate that other project partners also believe this should be the target market for this trail.

The list of trails already available (or proposed to be offered) needs also to be considered when looking at further trail provision for existing and potential visitors.

The brief for the project indicates the trail would form a strategic link in the regional trails network by:

- directly connecting the towns of Beverley, Brookton, Pingelly, Popanyinning, Cuballing and Narrogin;
- connecting the proposed transport trail to planned trails within the Shire of Beverley;
- eventually linking to York, Northam, Toodyay and the Perth Hills from Beverley;
- connecting to a planned rail trail from Narrogin to Williams; and
- linking Dryandra National Park (a planned primary regional trail destination) with secondary/local trail destinations and adjacent primary regional/signature trail destinations of Collie, Dwellingup and York.

This approach suggests the trail is being viewed as a regional facility to attract a range of users from across south western WA (and further afield).

Information on the bicycle funding programs from the WA Department of Transport indicate that transport trails often support recreational and tourism trips between towns and regions, suggesting they are primarily designed as regional facilities (they will of course have local use as well).

The built trail (should it proceed) should attract users from the Perth metropolitan area who will, in many cases, make it part of a longer regional ride through the Wheatbelt and beyond. The key question is the relative attractiveness of the two routes, noting that their market appeal will be different – the green route would target local people and existing and potential new visitors looking for a safe off-road relatively short ride as part of a holiday (who already have a range of trails that may satisfy this demand); while the orange route targets cycle tourists (discussed below).

5.4 Specific Opportunities – the Orange Route

Attractive scenery

Often in so many directions at certain locations, spectacular views would be provided. What is on offer from this route are varied vistas (in both the near and far visual field) offering trail users “up close and personal” interactions with rural activities – canola, sheep, wheat, olives – all the rural experiences the Wheatbelt has to offer. Long views to distant mountains are attainable along sections of the roads, while also on offer is the opportunity to ride through Dryandra Woodland National Park on a constructed road (there may also be opportunities to ride within the park depending upon outcomes of management planning for the park).

Attractive roadside vegetation

The roadside vegetation along the roads chosen for the orange route is very varied but usually extremely attractive. The overhanging canopy provides not just a visual treat but also many kilometres of shady riding.



Attractive tree-lined gravel roads are a feature of the suggested “orange” route.

Delivering on identified regional outcomes

The *2050 Avon Central Coast Cycling Strategy* identifies cycle tourism as a key growth adventure tourism activity, giving cyclists a range of unique trail experiences and supporting local economies in areas traditionally not visited. The Avon Valley is relatively close to Perth and offers bike riders and visitors with a unique opportunity to develop longer, multi-day riding experiences allowing them to explore some impressive natural landscapes, food and wine locations and heritage sites while staying in local accommodation. Having a selection of settlements within a relatively short distance, and accessible by generally flat terrain along the river, the Avon Valley provides opportunity for an assortment of loops centred on Northam, Toodyay and York. These can provide a variety of landscapes and attractions including rolling farms, natural bush and heritage sites. The transport trails that will deliver this outcome extend to Beverley in the Avon Central Coast Cycling Strategy; it is reasonable to assume that connections to Brookton and beyond will be considered in the future. This market is more likely to be attracted by the orange route.

The *Concentric Circles: Guidance for Trails Tourism Close to Perth* report (May 2024) has been recently finalised and took a region-wide approach to the development of trails within a defined distance from Perth including the five shires that are project partners for the Beverley to Narrogin Transport Trail. The report sets out of directions for the region to enable it to develop its trail market potential. The report looked at both the present situation and recommended some implementation actions that are relevant to consideration of the Beverley to Narrogin Transport Trail.

The report found that in terms of cycle trails:

- the Shire of Beverley currently offers local trails with no trail or network of regional status;
- the Shire of Pingelly offers local trails only;
- the Shire of Narrogin offers Foxes Lair, the Commonage and Railway Dam which were all recommended in the Pump Track and MTB Trail Feasibility Study as appropriate sites for development of purpose designed mountain bike trails of up to approx. 20km. Such developments would remain as a local trail designation.
- In the Shire of Brookton, there is limited potential for trail-specific development given non-appropriate landscapes.

The report stated that neither Narrogin or Pingelly, even with proposed mountain biking developments, have the necessary capacity or attractiveness to achieve Regional trail destination categorisation (the document refers to criteria for national, regional and local mountain bike trail destinations set out in the *WA Mountain Bike Management Guidelines*. Whilst length of available trails is a critical measure (a Regionally Significant destination should have 20-80 kms of trail), a range of other factors contribute to the determination). Consequently, the *Concentric Circles* report shows Beverley, Brookton, Pingelly, Cuballing and Narrogin as local trail supporting destinations.

The report did identify the potential for adventure cycling within the sub-region consisting of the five shires. The report included an action to support long distance adventure cycling experiences through the development of long-distance trail (ride) extensions. This action is

based on a recognition of the growth in the adventure ride market, noting it requires less trail development/investment and more conceptual itinerary/route development.

The brief for the project includes a description of what is being sought from the proposed Beverley to Narrogin Transport Trail. This includes the outcome that the trail would link Dryandra National Park (a planned primary regional trail destination as designated in the Concentric Circles report) with secondary/local trail destinations and adjacent primary regional/signature trail destinations of Collie, Dwellingup and York.

The *Concentric Circles* report includes a number of recommendations for each town on the proposed route:

- Beverley should be considered for any development of adventure cycling as a linked destination piece, with consideration to identifying dirt/gravel road routes in preference to sealed roadways, and well-placed points of interest/features.
- Pingelly's strength lies in its proximity to the Dryandra Woodlands which in conjunction with Narrogin to the south and Williams or Boddington to the west, could collectively become a more significant trails destination, especially for adventure riders (gravel grinders and bike packers).
- Narrogin's current trail offerings, if considered as a component of nearby Dryandra Adventure Ride potential, and in collaboration with local MTB trail development in Pingelly, would have high value as an added-value proposition for cycle tourism and increase dispersal and potential extended stays according to the Wedge model of trail destination travel.

The report goes on to indicate that, should Dryandra be marketed as a destination (not necessarily requiring new trails, given adventure cycling focuses on dirt/backcountry roadways within landscapes of significance), the overall Dryandra and surrounding townships would collectively become a critical mass of attraction, enough to be considered a Regional Trail destination. One of the recommended actions to achieve this is to identify and develop Dryandra Zone including Dryandra Woodlands, Narrogin and Pingelly as an adventure cycling (gravel grind/bike packing) zone, and establish best suggested routes/itineraries.

The *Concentric Circles* concludes that an agglomeration of attractions and facilitation centres in an area covering Dryandra, Pingelly, Narrogin, Cuballing, Wandering and Williams could be developed to represent a 'destination' with a focus on adventure riding. Some mid-level development of local mountain biking infrastructure (Narrogin and Pingelly) would represent added value drawcards for the destination as would developing appropriate, improved hospitality and event-based drivers.

This direction to focus on adventure riding is reflected in other relevant documents. The *Wheatbelt Regional Tourism Development Strategy 2023-2033* includes a number of initiatives to improve the visitor experience for cycle tourists including "*seek the development of additional cycle trails and itineraries, focusing on linking key tourism attractions and towns, utilising existing tracks, service roads, and fire breaks to connect destinations*" to encourage increased length of stay and regional dispersal. A much earlier strategic document (*Wheatbelt Development Commission – Regional Planning and Infrastructure Framework: Part A regional strategic planning 2015*) stated that the development of an overnight tourism (rather than a day-trip) market is essential.

The *Shire of Beverley Trails Master Plan* (2024) includes a general action to formalise on-road cycling routes (road & gravel) to highlight the best riding experiences across the region. Specific actions include embracing opportunities and priority projects outlined in the *Avon Central Coast 2050 Cycling Strategy* and other “opportunities” but there are no specific proposals.

The orange route will clearly be addressed at the cycle touring market and can deliver on some of the outcomes being sought by the various relevant strategies (and adventure riding) and specifically offers the chance to provide a signposted developed cycle link to the Dryandra Woodland National Park. A focus on the orange route does not necessarily preclude the development of the other initiatives that the project partners are investigating to provide for different market elements such as local people and caravan park visitors.

5.5 General Opportunities

Within this Interim Report, it is worthwhile providing some more information on the potential users and economic benefits that any trail might bring. It should be noted that the information below is provided at a general level; specific user number and expenditure forecast will be included within the full Feasibility Report.

Business development

There are a range of business opportunities for private sector investors arising from the potential development of a trail. Providing accommodation, food and beverages, supported and guided tours and equipment, are some of the businesses that have arisen along other trails. The Tumbarumba Rosewood Rail Trail (in southern NSW) led to the development of 9 new or expanding businesses in the rail trail’s area since the opening of the rail trail (in a period of 12 months) (*Rail Trails for NSW Evaluation Summary 2022*). A 2021 survey of New Zealand’s 22 Great Rides surveyed 200 businesses along the 22 different routes and found that 47% had been established since the opening of the nearby trail (22 in all). 16% of those businesses established solely because of the trail while the trail had been a factor in the formation of another 75% of them (*Angus and Associates 2022*).

Attracting new visitors and encouraging existing visitors to stay longer

A trail has some potential to assist in keeping existing visitors longer in the area and potentially attract new visitors. Australians are increasingly looking for passive, non-organised recreation opportunities, often in natural or near-natural settings. Demand for this type of opportunity will only increase as the population ages. While walking remains the most popular of these activities (and is likely to remain so as the population ages), off-road cycling shows a growing and often unmet demand within the trails market. The advent of e-bikes will only accelerate the popularity of cycling on trails. Users are attracted to trails that are both ‘known’ or advertised in some way and offer a range of facilities such as signage and interpretation, parking, toilets and water.

Non-monetary benefits

Trails can improve community connectivity and provide increasing recreational options for local people thus contributing to both physical and mental health of communities through which they pass.

5.6 Trail Users

Within this Interim Report, it is worthwhile providing some more information on the potential users and economic benefits that any trail might bring. It should be noted that the information below is provided at a general level; specific user number and expenditure forecast will be included within the full Feasibility Report.

It should be noted that no distinction is made in the following discussion between the two route options. That is the case to be presented within the Feasibility Report – each of the two trails will offer different experiences and are likely to appeal to different markets.

Visitors

Recreation trails provide an important piece of tourism infrastructure and provide experiences in the nature-based tourism market and particularly the adventure tourism market. Nature-based tourism is estimated to be growing at 10-30% per annum – a significant growth market to target (*Victorian Nature-based Tourism Strategy 2008-2012*).

Recent Tourism Research Australia data shows a growing demand for nature-based tourism over the last 10 years. This demand applies across both overnight and daytrips. 20% of overnight trips in 2020 were for:

- visiting national or state parks;
- bushwalking; and/or
- whale watching.

This compares to just 14% in 2010 (<https://www.miragenews.com/nurturing-nature-is-good-for-tourism-641621/>)

Visitors most likely to participate in cycling or walking activities are ‘nature visitors’.

According to Tourism Research Australia (TRA), the majority of nature visitors in Australia are domestic visitors rather than international visitors.

A number of high-profile trails (cycle, shared use and walk) in Australia and New Zealand provide examples of user numbers that can be achieved on tracks and trails (a product within nature-based tourism).

- Despite Covid-19 effectively closing its international borders, the 22 Great Rides (cycle trails) in New Zealand’s Ngā Haerenga cycle trail network attracted 2.19 million trips in the year ending 30 June 2021. This is an increase of more than 204,000 trips on the previous year, or 10.3 per cent growth in trail usage. The number of visitor nights in accommodation providers along the Great Rides cycle trails was 3.62 million in the year to June 2021. It was an annual increase of 560,000 visitor nights, representing growth of 18 per cent (*Angus and Associates 2022*). This is a network of trails with rides of varying lengths across the country.
- The first section of the Northern Rivers Rail Trail in NSW (a 24 km section from Murwillumbah to Crabbes Creek) opened in March 2023. In the first 16 months (March 2023 – July 2024), the trail was used by over 165,000 people. The use of the trail is far above the forecast numbers of 27,000/year. The second section of the trail (a 14km section from Casino to Bentley at the other end of the 132 km railway corridor) opened in March 2024 and had attracted over 43,000 users by July 2024.

The user numbers doubled in June 2024 as the first 3 months had seen unseasonably high rainfall which deterred users (data sourced from relevant Councils using on-trail counters).

- The Tumbarumba Rosewood Rail Trail – a shared use trail - in southern NSW is the first rail trail opened in NSW on a Government-owned railway line. It opened in April 2020 and has been used by over 76,00 people up to the end of May 2025 (data sourced from on-trail counters).
- The Munda Biddi Trail is WA's off-road cycle touring equivalent of the Bibbulmun Track. Running from Perth to Albany (a distance of 1,088 km), it attracts 21,000 users per year (*Munda Biddi Website*).
- Use of the Bibbulmun Track (WA's long-distance walking track linking Perth and Albany) increased from 10,000 in 1998 to 35,000 in 1999-2000 to 137,500 in 2003 (*Colmar Brunton 2004*) to over 167,000 in 2008 (*Colmar Brunton 2009*). In 2015, it was used by over 300,000 people (*Hughes et al 2015*). 79% of 2007/08 users came to the track specifically to use the track.

Local Users

Tourism numbers are important. However, it is important not to overlook the contribution of local residents to the success of a trail.

In 2001, the Mundaring Shire (in Western Australia) trail network was used by over 200,000 people (*Jessop and Bruce 2001*), having grown from a low base when the network was first fully opened. Only 10% of these users were locals (residents of Mundaring Shire) with many other users drawn from the Perth metropolitan area. The total annual visits (people generally use trails more than once a year) were a staggering 2.454 million visits annually, with local residents accounting for 63% of these visits.

It should be noted that the combined populations within the five project partners is a little over 9,000 people; the Mundaring Shire local numbers will not be replicated on the Beverley to Narrogin Transport Trail (regardless of which route is chosen).

5.7 How Much Do Trail Users Spend?

Successful trails are already attracting large numbers of visitors, and they are spending reasonable amounts of money both in the local economies and in the broader economy. The following figures provide a snapshot of expenditures from a range of trails to demonstrate user expenditures. (Most of the data is drawn from rail trail studies – this simply reflects where the work has been done).

- Along the Northern Rivers Rail Trail – Tweed section (opened in March 2023), user numbers reached 165,000 to the end of July 2024. An independent economic assessment analysed the benefits of the Rail Trail to the Tweed since opening on 1st March 2023. The report found that rail trail has attracted significant visitor spending, driving a 15.7% average increase in monthly spend compared to the previous year and stimulated growth in unique visitors (+23% year-over-year) and visitor transactions (+19% year-over-year). Businesses along the trail reported increased visibility, foot traffic and in many cases, higher revenues in both Murwillumbah and less-frequented hinterland villages. The total value of visitor spend has increased by \$3.717 million compared to the previous year (*Muller Enterprises 2024*).

- The *Rail Trails for NSW Evaluation Summary* (2022) identified that spending in the Tumbarumba region (NSW) was up by 20% over the two six-month periods either side of the Tumbarumba Rosewood Rail Trail opening. Discretionary spending on leisure-based activities in Tumbarumba was up 55% for the same six month periods.
- A study of the Brisbane Valley Rail Trail (Qld) (*Service Innovation Alliance 2021*) shows that rail trail users who use the trail as day trippers are spending an average of **\$118.88/day**, while overnight visitors are spending **\$179.81/day**. Overnight visitors are staying an average of 2.75 nights, increasing their total spend to almost \$500/trip.
- The Murray to the Mountains Rail Trail in North East Victoria is one of the better-known rail trails in Australia. Research work undertaken over Easter 2006 (*Beeton 2006*) found that average daily expenditure was **\$258/user/day**. The bulk of this expenditure was on food and beverage (57% of daily expenditure which equates to \$147/user/day). Beeton applied accepted economic multipliers to these figures and calculated that the direct contribution to the local economy per user per day was in excess of \$480. Follow-up work by Beeton (2009) made similar findings.
- Users of New Zealand's Otago Central Rail Trail are spending **\$NZ 177/day** with the average length of stay in the region of 3.8 days. There is a range of expenditures – users doing the whole trail spend \$NZ 166/day while those doing part of the trail spend \$NZ 247/day. The trail created 81 direct jobs and a total of 102 jobs. Accommodation derives 41-48% of the benefit, followed by food and consumables. The trail is contributing some \$3.55 million directly to New Zealand Gross Domestic Product (GDP) and \$5.2 million in total (*Central Otago District Council 2015*).
- Users of New Zealand's Hauraki Rail Trail are spending around \$5 million/year using the trail. Visitors are spending an average of \$172 per trip, and 50 full time positions had been created because of the trail.
(<https://www.stuff.co.nz/travel/destinations/nz/94123407/hauraki-rail-trail-contributes-millions-to-local-economy>).
- At the broader New Zealand level, 1.065 million users of the Great Rides of New Zealand network spent an average of \$NZ 892.20/trip (for a total expenditure of \$NZ 951 million) in 2021 (*Angus and Associates 2022*).
- The economic impacts of the Bibbulmun Track (WA's long-distance walking track) have been studied over two periods (in 2003 and 2007/08). In 2003, the track was shown to have generated **\$21 million** of expenditure **annually** by track users, well in excess of its one-off construction costs of \$5 million (*Colmar Brunton 2004*). More recent figures show an increase in this amount (due to an increase in both users and how much time they spend on the track). The estimated expenditure in 2008 was around **\$39 million annually** (*Colmar Brunton 2009*). The 2007/08 study shows that the average day walker (some 70% of all users) is spending \$50-\$60/day, while those walking the track for 2-3 days are spending around \$200/visit. Those using the trail for 6 weeks or more, while small in number, are spending \$1,400/visit.
- The Mundaring Trails Network, 1 hour from the Perth CBD, injected some **\$12.62 million** into the local economy and a **further \$15.21 million** into the State economy annually. Local residents spent \$4.06/visit to the network and visitors (primarily day users) spent \$23.71/visit. The key is that the total number of trips on the trails studied was a staggering 2.454 million visits annually (*Jessop and Bruce 2001*).

5.8 What Types of Businesses Serve Trail Users?

A trail generally offers the opportunity for existing businesses to expand and new businesses in this sector (and other sectors) to develop, employing more people in the region.

Identifying specific business opportunities along a trail that may take years to develop is not a simple task. Businesses that have succeeded elsewhere are in the fields of:

- Equipment Hire;
- Supported Tour Opportunities;
- Guided Walking/Cycle Touring;
- Off-trail Accommodation; and
- Food and Beverages.

A trail increases the opportunities offered to existing businesses that currently provide relevant services to provide such services on a more regular basis. These types of examples are critical economic opportunities to diversify and solidify the sub-region's economic base.

- The *Rail Trails for NSW Evaluation Summary* (evaluating the success of the Tumbarumba Rosewood Rail Trail) found that the economic activity in the Tumbarumba region during the June to December periods 2019 and 2020 increased by 20% from \$14.0 million to \$16.9 million. Interestingly, the Tumbarumba Rosewood evaluation found that spending on consumer staples increased 14% in Tumbarumba once the Tumbarumba Rosewood Rail Trail opened. The evaluation report identified that it was likely that the rail trail contributed to this increase due to visitors staying in the town, visiting the supermarket and similar outlets. It is not only the obvious businesses (accommodation, cafes, bike hire businesses) that take positive outcomes from a trail.
- A New Zealand study (*Angus and Associates 2022*) of the impacts of the Ngā Haerenga cycle trail network (the 22 Great Rides network) shows that visitor spending attributable to the Great Rides Cycle Trails was \$951 million in the year to June 2021, an increase of \$221 million from the previous year, or an impressive 31% growth in economic activity. These economic benefits have been driven solely by domestic users as virtually no international visitors were allowed into New Zealand during this period.
- Earlier New Zealand research across four recreation trails subject to detailed research (*New Zealand Ministry of Business, Innovation and Employment 2013*), 1 in 5 businesses surveyed reported that they had either expanded their services (e.g. added capacity) or added new services since the trail opened in their region. These ranged from provision of cycle tours to cellar door tasting sessions, but were commonly in the provision of accommodation, transport or shuttles, or cycle hire. There was anecdotal evidence that trails have been beneficial for existing businesses either by absorption of existing excess capacity or by spreading the risk through the diversification of product.
- On the Hauraki Rail Trail in New Zealand, one in seven businesses along the trail have adjusted their offerings to meet the needs of cycle trail users (<https://www.stuff.co.nz/travel/destinations/nz/94123407/auraki-rail-trail-contributes-millions-to-local-economy>)

5.9 Central West Cycle Trail, NSW – a case study of trail benefits

This trail was opened in 2021 and links a large number of small towns in NSW's Central West region and provides a good illustration of the range of benefits offered by cycle touring trails. The cycle trail follows the quiet backroads in a circuit connecting the towns and villages of Mudgee, Gulgong, Dunedoo, Mendoora, Ballimore, Dubbo, Geurie, Wellington and Goolma. The quiet cycle trail features rural landscape, native bush areas, villages, small towns and regional cities on a combination of sealed and gravel roads.

User numbers and visitor nights

Evidence to date has only been anecdotal but what has been observed makes powerful arguments for the benefits of cycling trails. One town resident of Dunedoo noted an average of around 10 to 20 people a day, but up to 45 riders a day passing through in peak times. At any one time, there can be 100 riders on the trail somewhere.

Economic impact

Reports are that users are spending around \$75/night/person at a range of cafes, bakeries and accommodation options. A recent weekend event (Mendooran Food Cycle 2025) attracted 80 cyclists and the CWCT Committee sent some \$4,000 off to two local community organisations. The local Showground also picked up \$700 in camping fees for the event (*information drawn from www.bicyclensw.org.au/the-central-west-cycle-trail-is-open, www.abc.net.au/news/2021-11-13/central-west-cycle-trail-sparking-nsw-economy, and www.centralwestcycletrail.com.au/trail-description*), and

The Central West Cycle Trail



- Only 36km of the 400km are on 'busy' roads. No leg between settlements is more than 65km (around 4 hours of riding). Gravel roads with arching eucalypts in some sections and sealed roads in others – the CWC really explores all the central west has to offer. For the more adventurous there are side trips with creek crossings, loose rocks and sharp climbs which link up to the main route again.
www.bicyclensw.org.au/the-central-west-cycle-trail-is-open/
- "All of us in our little cycling group had been overseas for these week-long cycling holidays and we were frustrated that Australia and particularly NSW wasn't offering anything like that. We know how much trouble we'll go to, to get a week-long holiday in France or Italy in the past, so we needed to have one here. And because almost all of the route is on country roads and fire trails, it's pretty rare to get passed by a car." *Barbara Hickson, President of the Central West Cycle Trail Group.*
- "Our seven rooms are booked out on most nights by cyclists, whereas it used to be just the odd shearer or motorist needing a break. I'm employing more staff and putting on kitchen hands to try to make it a pleasant experience for everyone. We didn't realise how big it (the CWC) was going to be, I didn't realise cycling was so big." *Kylie Ward, Licencee, Royal Hotel, Mendooran.* www.abc.net.au/news/2021-11-13/central-west-cycle-trail-sparking-nsw-economy.

SECTION 6 – FUTURE ANALYSIS

6.1 Use of Multi-Criteria Analysis to Compare Route Options

A Multi-Criteria Analysis is a tool designed to assist decision makers with making an informed decision a particular issue – in this case a decision on the best route for the transport trail - considering the full range of potential issues. It is a highly subjective tool using relevant criteria and weightings to assess a range of options. Its use was suggested in the Project Working Group meeting of 13 June 2025.

This consultancy was recently involved in preparing an MCA examining several route options for a bike route connecting two towns on the NSW North Coast. The process is described to some extent in the following discussions so the project partners can come to an understanding of the use of the tool in such circumstances.

6.2 Multi-Criteria Analysis: An Indicative Study

The analysis was used as noted above to critically analyse a number of route options for a bike route connecting two small towns. Each of the six possible routes achieved the Council's (the client) overall objective for the project to provide a safe cycleway connection. Some opportunities presented by the various route options include active transport, recreation, and regional tourism. The six route options all had their own issues including land tenure, ecological impacts, construction costs, and approval and delivery timeframes. The final decision on the preferred route was made by the Council considering the balance of all the constraints and opportunities of each option.

The MCA was completed for the route options considering a number of assessment criteria developed by the project team and weighted according to their relative importance. The MCA is a comparative analysis only and does not reflect the overall value of the development of each route.

The MCA included consideration of the key constraints and opportunities. The framework of the MCA includes the following:

- Six route options;
- A set of social, environmental and economic evaluation criteria selected for the project;
- A series of weightings that represent the relative importance of each of the assessment categories and criteria; and
- A score from 1 (low score) to 5 (high score) for each criterion.

The process involved developing a long list of criteria under each of the three main categories: social, environmental and economic. The first decision taken was to weigh each of these categories (social, environmental and economic) equally – no one category was considered any more important than any other category.

The consultants developed a “long list” of evaluation criteria in each category before shortlisting to the preferred criteria. On the long list of criteria were:

Social

- Impact on existing recreation;
- Visibility of the trail;
- User experience (quality/amenity/points of interest);
- Visual amenity of the trail (to passers-by and users);
- Cyclist safety (interaction with road users);
- Road safety/traffic permeability – construction and operational;
- Road closure/traffic diversions (construction) – impact on local residents and businesses;
- Impacts on cultural heritage;
- Directness of route; and
- Conflict with native title claims.

Environmental

- Significant water course crossings;
- Impact on significant species/communities/features;
- Permit approvals risk (such as NSW State Environmental Planning Policies);
- Bushfire hazard; and
- Overall ecological impact.

Economic

- Capital expenditure – construction costs;
- Operational and maintenance costs;
- Property acquisition – where required, a low score is given reflecting costs and acceptability;
- Impact on local agriculture and forestry;
- Impact on local business;
- Impact on local residents; and
- Impact on adjoining landholders.

This long list was reduced to the following short list (some criteria were amalgamated):

Social

- User experience (quality/amenity/points of interest);
- Cyclist safety (interaction with road users);
- Directness of route; and
- Conflict with native title claims.

Environmental

- Significant water course crossings;
- Permit approvals risk (such as NSW State Environmental Planning Policies); and
- Overall ecological impact.

Economic

- Capital expenditure – construction costs;
- Property acquisition – where required, a low score is given reflecting costs and acceptability; and
- Impact on adjoining landholders.

These 10 criteria were then weighted for scoring purposes depending on their (perceived) importance.

- A top weighting of 15% (for each) was given to:
 - User experience (quality/amenity/points of interest). The accessibility, utility, enjoyability, and attractiveness of the route for the intended users.
 - Cyclist safety (interaction with road users). The extent to which the route is free from major safety issues (e.g. interaction with road users); and
 - Conflict with native title claims.
- A weighting of 10% (for each) was given to:
 - Permit approvals risk (such as NSW State Environmental Planning Policies). The potential time and cost of approvals;
 - Overall ecological impact. Extent of vegetation clearing required and potential conflicts with ecological values;
 - Capital expenditure – construction costs. The cost of delivering the route; and
 - Significant water course crossings.

A weighting of 5% (for each) was given to:

- Directness of route;
- Property acquisition; and
- Impact on adjoining landholders.

Each route was then given a score against each criterion from 1 (low or poor score) to 5 (high or positive score) and given a final ranking based on the weighted score to arrive at the preferred option.

The MCA process was not intended to be definitive but is a useful tool to differentiate between the options. The selected criteria and weightings were developed by the project team in conjunction with Council officers; however these are all highly subjective and may be altered to achieve an entirely different outcome. If using an MCA, weightings need to be determined to best reflect the values of the community and stakeholders.

6.3 Multi-Criteria Analysis: Relevance to Beverley to Narrogin Transport Trail Options

Using an MCA to assess the relative merits of the two route options requires more information than is presented in this Interim Report. It may become a useful tool as more information becomes available through the feasibility study process. What the MCA used in the example cited above did not cover was the relative economic benefits of the various routes. All routes were assumed to deliver similar economic outcomes as they would provide a link between the two towns and user numbers and expenditure patterns would be similar (user safety and experience were in a sense proxies for different use patterns in that they would dictate who used each option). This will be a critical element if an MCA is used in the future to examine the two options presented in the Interim Report – the green route and the orange route.



As well as attractive landscapes, the suggested “orange” route provides access to a range of other historic locations.



SECTION 7 – CONCLUSION

At its meeting of 13 June, 2025, the Project Working Group considered the observations of the consultants and the two options presented. Members acknowledged the appeal of the orange trail to a certain market but was of the consensus view that the Beverley to Narrogin Transport Trail should be designed for a particular market whose needs are better addressed by the green trail. The Project Working Group was of the view that provision of both trail routes (orange and green) would benefit the maximum number of potential users. Creating the orange trail first delivers a “quick win”; construction of the green trail section by section is required. Construction of the orange trail and progressively sections of the green trail will eventually create a series of loop trails out of each town.

The Project Working Group also issued some key directions for the consultants to be cognisant of for the next stage of work for the project:

- The green trail is to be entirely within existing road reserves: where the existing maintenance track is in road reserve, it can be used. Advice received by the consultants from the Public Transport Authority is that, for safety reasons, Arc’s maintenance/access tracks are not available for shared use by recreational users. Should the corridor be wide enough for, and land available to construct a separate trail (that does not require Arc to reduce their track or impede their operations) then Arc may consider it. Arc will very likely require fencing to be installed to separate the trail from the access track if land is available. Arc has high public liability insurance requirements (up to \$250 million). This advice is taken to mean that – in effect – a new trail cannot utilise the railway maintenance track where it is within railway reserve (the railway is considered an active line). This advice is consistent with the direction agreed by the Project Working Group. The PWG identified that where the maintenance track sits within the railway reserve, new trail will need to be built on adjoining road reserves.
- If there are identified gaps between road reserves, the relevant Local Government will “negotiate” with the relevant landholder to ensure a connection.

This Interim Report has been prepared subsequent to the June meeting and with consideration of the discussions and directions of the Project Working Group. A number of observations and conclusions are relevant.

Land tenure and route alignment

Field investigations and detailed examinations of available mapping and aerial photography have shown that a very low percentage and a limited number of sections of existing maintenance track is constructed in road reserve (14%).

With three exceptions (totalling 10.19 kms), the lengths of maintenance track constructed within road reserves are relatively small (less than 1 km). It will be difficult to manage use of these small sections of maintenance track within the road reserve (as a trail) as users will tend to stay on the maintenance track (even if new trail is constructed) when it goes back into the railway reserve unless managed by visual and (probably) physical barriers such as fencing.

From Beverley to Kokeby (approximately 13 kms), there is virtually no useable road reserves adjoining the highway. Any trail will need to be on-road (Bremner Rd seems the most suitable in the short term) or within the narrow verge of the Great Southern Highway. The Shire of Beverley has a plan to develop *The Commonage Walls Trail* which will provide an off-road alternative for trail users for some of this section immediately south of Beverley. South of Kokeby (for another 5.3 kms), road reserves paralleling the railway are discontinuous— any trail will need to be either on-road or constructed on private land (which will need to be brought into public ownership or management).

Immediately south of Pingelly, road reserves are again discontinuous if only for a short distance. Trail users would need to be on the Great Southern Highway, alongside the highway within the highway reserve in a narrow, vegetated verge, on alternative roads, or on private land which could be used under negotiation.

Immediately south of Chungamunning Road (in the Shire of Cuballing), there is a short distance where there are no parallel road reserves that can be utilised. The options are that trail users would need to be on the Great Southern Highway, alongside the highway within the highway reserve in a narrow vegetated verge, or on private land which could be used under negotiation.

The net result of this limited amount of available maintenance track is that new trail will need to be constructed for over 81kms of the proposed trail's route should the green trail be the preferred route. This will be a significant expense. In addition, some private land may need to be utilised.

Dealings with Arc Infrastructure

Any trail construction of the green route will involve discussions, negotiations and (likely) working with Arc Infrastructure, manager of the railway corridor. In consultation for this project, some of the Local Governments had indicated they had worked with Arc Infrastructure on various projects in their shire and it had not been a positive experience.

Water crossings

There are numerous locations along the railway line between Beverley and Narrogin where water flows under the railway line. 93 culverts/pipes are in place to manage a range of water flows. In addition, there are 10 bridges ranging in size from 7 metres (Wabbing Creek) to approximately 35 metres (South Hotham River). There are 4 bridges over 25 metres (Keelocking Creek, Hotham River, Hotham River South and South Hotham River). The green route will need to put in place structures to enable trail users to pass safely across these watercourses.

The other issue in terms of waterflow is the nature of the soil along the railway reserve. It was noted during fieldwork several sections of track had become “boggy” after what amounted to a relatively small amount of rain the previous day. This is likely to be an ongoing issue and short trail sections are likely to need “sheeting” and consequently re-sheeting after rainfall events to ensure they remain useable.

Trail construction costs

Bringing these considerations together, the key costs for development of the green route will be trail construction and water crossings.

To meet the ideal definition of a transport trail (as articulated in the various cycling strategies) i.e. a trail which allows two people to ride comfortably side-by-side will require a trail envelope of between 1.2 metres and 1.5 metres. Discussions with a trail construction business revealed a cost of between \$45/lineal metre and \$55/lineal metre for trail construction providing this envelope.

The cost of watercourse crossings will vary significantly depending on which options are chosen - lower level crossing consisting only of a culvert structure are of the order of \$600/lineal metre while bridges would be of the order of \$6,000- \$8,000/lineal metre.

Other significant costs associated with the green route will include the need for sheeting various sections of the trail to manage boggy spots (the extent of this is unknown), fencing associated with managing interactions with the rail corridor, and surveying (to ensure the trail stays within the road reserve). Fencing costs may be quite high depending on the standard that will be needed to address any concerns of Arc Infrastructure regarding a trail close to an operating rail line (even though the train operations are very limited). It is not known what Arc Infrastructure requirements will be (or whether it has the legal standing to dictate any fencing built outside its railway reserve). Standard paddock fencing can be installed for a cost of \$25/lineal metre. However, it is unlikely this will satisfy the needs of Arc Infrastructure in terms of protecting the rail corridor. VicTrack guidelines (publicly available fencing guidelines) specify is that any shared user pathway is to be fenced full length trackside with 1.5m high non-climbable fence, weldmesh or equivalent fencing. In high risk areas (not defined in the guidelines), the fencing standard is to be 1.8 metre-high chain wire fencing to reduce safety risks and prevent trespasser access. Costs for such fencing would be of the order of \$120/lineal metre (for the higher fencing).

Trail scenic amenity and its impact on key markets

The green route is located very close to the railway track and railway reserve for much of its length and – particularly in the southern parts – is located quite close to the Great Southern Highway (or within the highway reserve). Whilst some of the proposed corridor is vegetated, this line of vegetation tends to be “thin” and not particularly attractive in most locations. The cleared corridor of the railway and the highway (and other roads) would be very obvious from a trail constructed alongside the railway reserve. In totality, this route presents limited visual amenity. There is also a lack of scenic variety along the route.

This compares unfavourably with the varied vistas (in both the near and far visual field) offered by the orange route. Along these quiet country roads, users are offered “up close and personal” interactions with rural activities – canola, sheep, wheat, olives – all the rural experiences the Wheatbelt has to offer. Long views to distant mountains and a journey thought Dryandra Woodland National Park are also on offer. The varied and attractive trees along the roads chosen for the orange route are a major bonus.

The aesthetic appeal of the options is a subjective assessment. It is debatable as to whether a shared use trail built primarily alongside the railway reserve and within close proximity to the Great Southern Highway (or within the highway reserve) will have significant appeal to a wider cycle touring market. Whether the green route offers sufficient appeal to attract users from Perth (and further afield) specifically to use the trail is a key question (noting its length requires a significant time commitment). This is an important consideration given what will be a significant investment required to construct a trail.

The orange route – using quiet, tree-lined, country roads to appeal to cycle tourists – does have some issues associated with its development. Such a trail has limited appeal to local users and families who stay in caravan parks notably due to the fact that it is a road riding route and does not offer a safe off-road experience for all types of users. It is acknowledged that the orange route offers road riding opportunities and is pitched at a different market.

An option that may be worth considering – given that the local governments want to appeal to local users and the cruiser market – is to proceed with the “orange” route in the short term and, in the medium term (3-5 years), develop short trail sections (up to 5kms) of the “green” route on either or both sides of the 6 towns (including Popanyinning). This will significantly reduce the construction cost while offering a ride and walk opportunity for those identified groups. This trail development program could take place progressively over time as appropriate funding becomes available.

The next step in the process is the conduct of various community consultation events in the five main towns along the route - Beverley, Brookton, Pingelly, Cuballing and Narrogin. This will be accompanied by the opportunity for potential trail users to respond to a survey on potential user preferences. This is a critical next step in determining the relative appeal and merit of the two trail proposals – it is not however the only consideration of trail feasibility as outlined in Section 2.



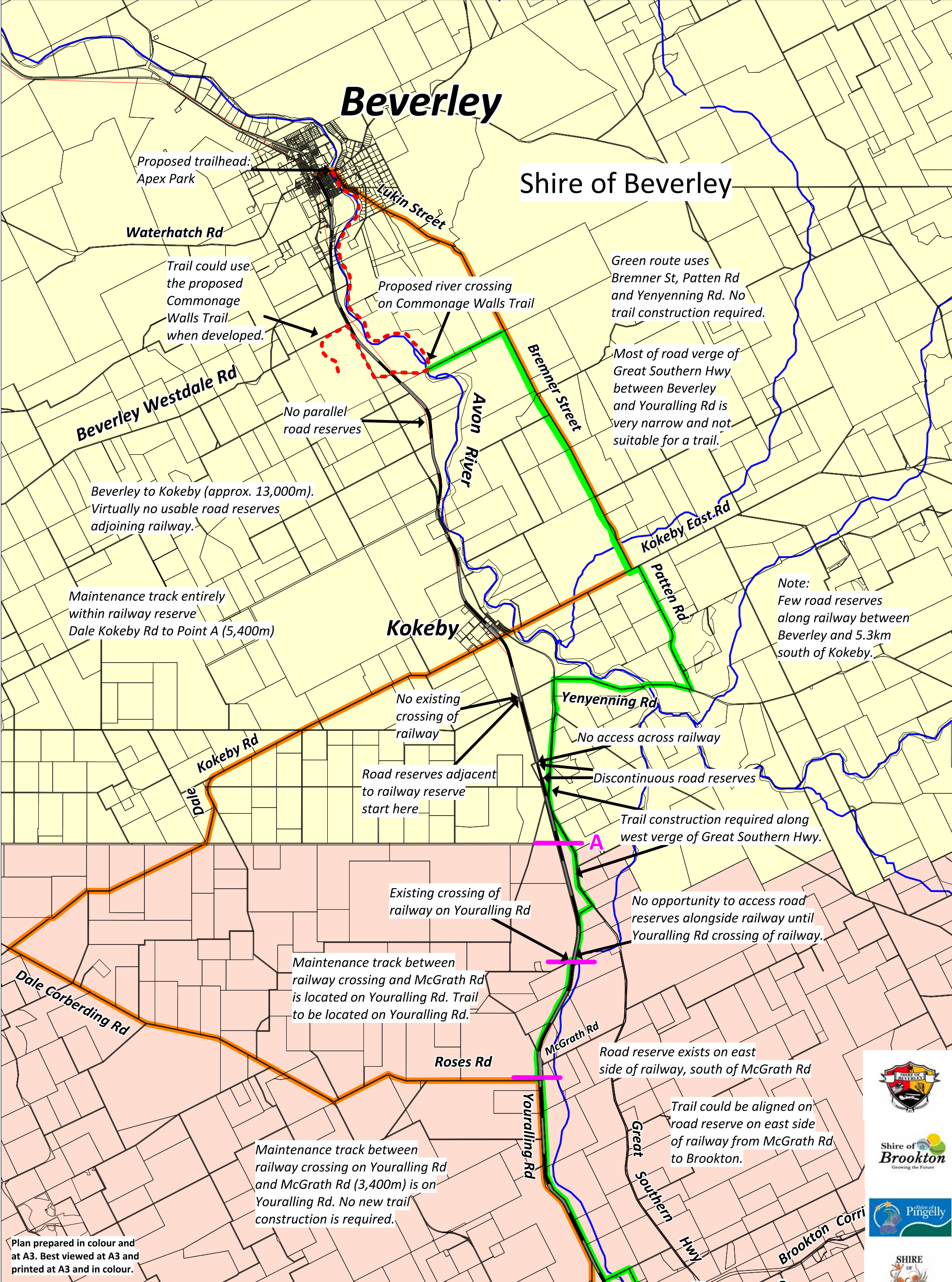
The “orange” route passes through the regional significant Dryandra Woodland National Park.

REFERENCES

- Angus and Associates (2022) *2021 Evaluation of Nga Haeranga Great Rides of New Zealand*
- Beeton, S. (2006) *Regional Communities and Cycling: the Case of the Murray to the Mountains Rail Trail, Victoria, Australia* La Trobe University, Bendigo
- Beeton, S. (2009) *Cycling in regional communities: a longitudinal study of the Murray to the Mountains Rail Trail, Victoria, Australia* La Trobe University, Bendigo
- Central Otago District Council *Otago Central Rail Trail User Survey 2014/2015*
- Colmar Brunton (2004) *Bibbulmun Track User Short Research Project* Report to the Department of Conservation and Land Management and the Bibbulmun Track Foundation
- Colmar Brunton Social Research (2009) *2008 Bibbulmun Track User Research Report* (for Department of Environment and Conservation and Bibbulmun Track Foundation)
- Hughes, M., A. Smith and M. Tuffin (2015) *Bibbulmun Track User Survey Report 2014-15* A report for the Bibbulmun Track Foundation and the Department of Parks and Wildlife
- Jessop, M. and Bruce, D. (2001) *Research Summary, Attitudes of Users towards the Mundaring Recreation Trails*. Sport and Recreation WA, Western Australian Government, Perth Western Australia.
- Muller Enterprises (2024) *Northern Rivers Rail Trail: Tweed section. Economic Impact Assessment Report*
- NSW Government (Regional NSW) *Rail Trails For NSW Evaluation Summary* June 2022
- New Zealand Ministry of Business, Innovation and Employment (2013) *Nga Haeranga – The New Zealand Cycle Trail Evaluation Report 2013*
- Service Innovation Alliance (University of Qld) (2021) *Brisbane Valley Rail Trail Visitor Research Program Report*
- Shire of Pingelly *Pingelly Mountain Bike and Cycling Strategy 2022-2026*
- State Government Victoria *Victoria's Nature-Based Tourism Strategy 2008–2012* (Tourism Victoria, 2008)
- TRC (2024) *Concentric Circles Guidance for Trails Tourism Close to Perth*
- Tredwell (2024) *Shire of Beverley Trails Master Plan*
- WA Department of Transport (2023) *Avon Central Coast 2050 Cycling Strategy*
- WA Trails Reference Group *WA Strategic Trails Blueprint 2022-2027*
- West Cycle Incorporated *WA Mountain Bike Strategy: Mountain Biking and Off-road Cycling in WA 2022-2032*
- Wheatbelt Development Commission (2023) *Wheatbelt Regional Tourism Development Strategy 2023-2033*
- Wheatbelt Development Commission (2015) *Regional Planning and Infrastructure Framework: Part A regional strategic planning 2015*

APPENDICES

APPENDIX 1: PLANS FOR THE PROPOSED BEVERLEY TO NARROGIN TRANSPORT TRAIL



Beverley

Shire of Beverley

Proposed trailhead:
Apex Park

Waterhatch Rd

Trail could use
the proposed
Commonage
Walls Trail
when developed.

Proposed river crossing
on Commonage Walls Trail

Green route uses
Bremner St, Patten Rd
and Yenyenning Rd. No
trail construction required.

Most of road verge of
Great Southern Hwy
between Beverley
and Youralling Rd is
very narrow and not
suitable for a trail.

Beverley Westdale Rd

No parallel
road reserves

Beverley to Kokeby (approx. 13,000m).
Virtually no usable road reserves
adjoining railway.

Maintenance track entirely
within railway reserve
Dale Kokeby Rd to Point A (5,400m)

Kokeby

Note:
Few road reserves
along railway between
Beverley and 5.3km
south of Kokeby.

No existing
crossing of
railway

Road reserves adjacent
to railway reserve
start here

Yenyenning Rd

No access across railway

Discontinuous road reserves

Trail construction required along
west verge of Great Southern Hwy.

Existing crossing of
railway on Youralling Rd

No opportunity to access road
reserves alongside railway until
Youralling Rd crossing of railway.

Maintenance track between
railway crossing and McGrath Rd
is located on Youralling Rd. Trail
to be located on Youralling Rd.

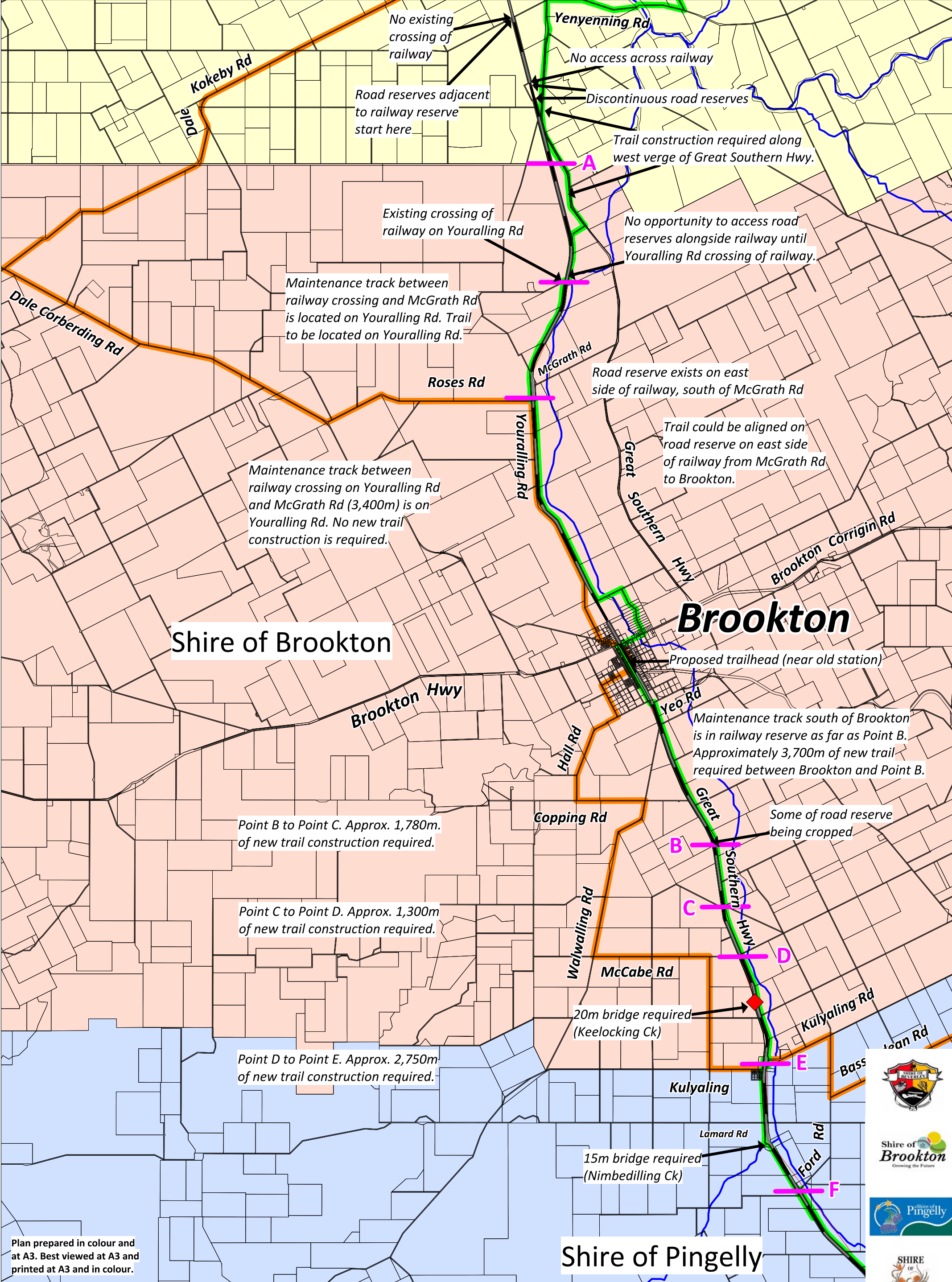
Roses Rd

Road reserve exists on east
side of railway, south of McGrath Rd

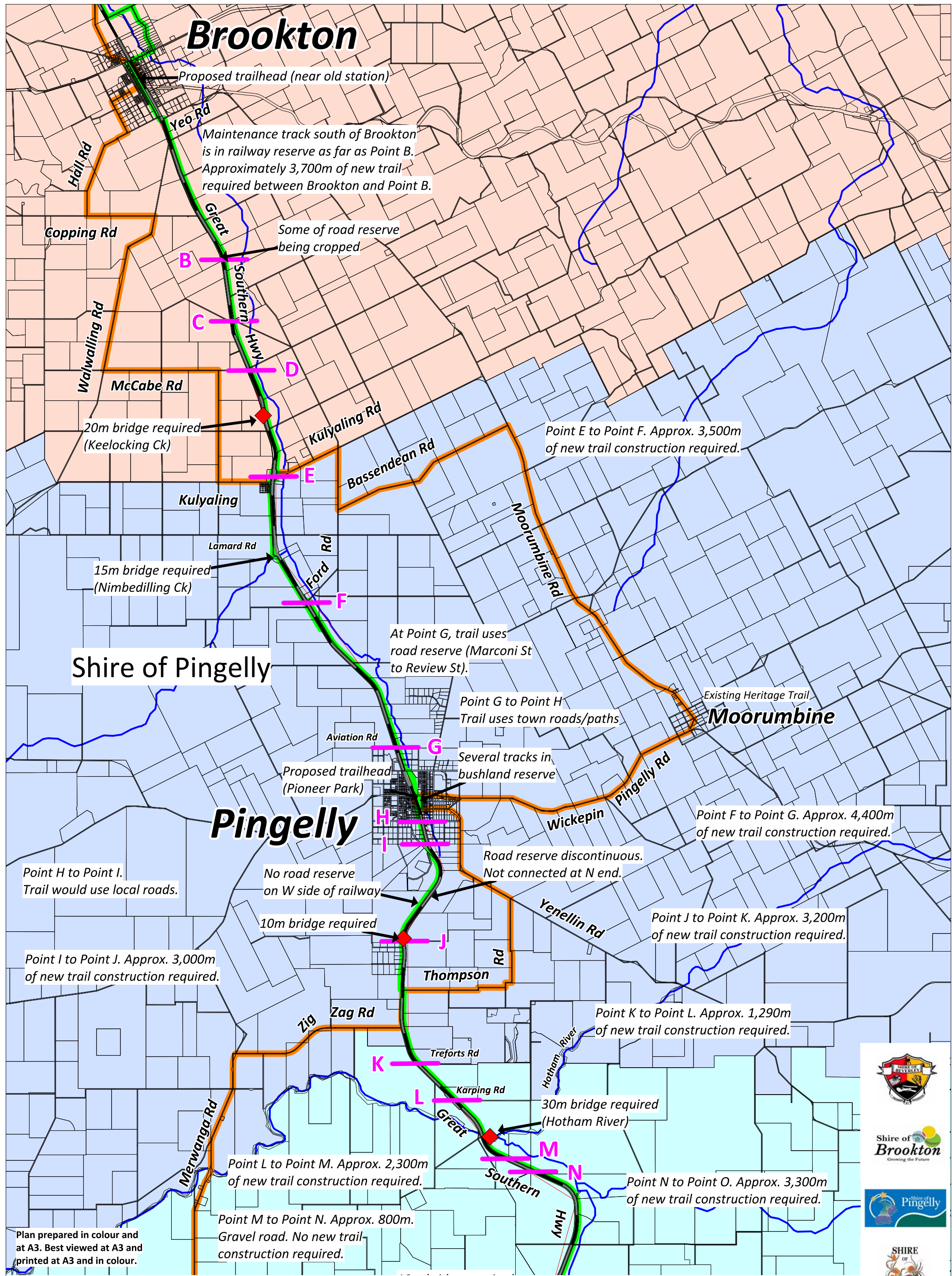
Trail could be aligned on
road reserve on east side
of railway from McGrath Rd
to Brookton.

Maintenance track between
railway crossing on Youralling Rd
and McGrath Rd (3,400m) is on
Youralling Rd. No new trail
construction is required.

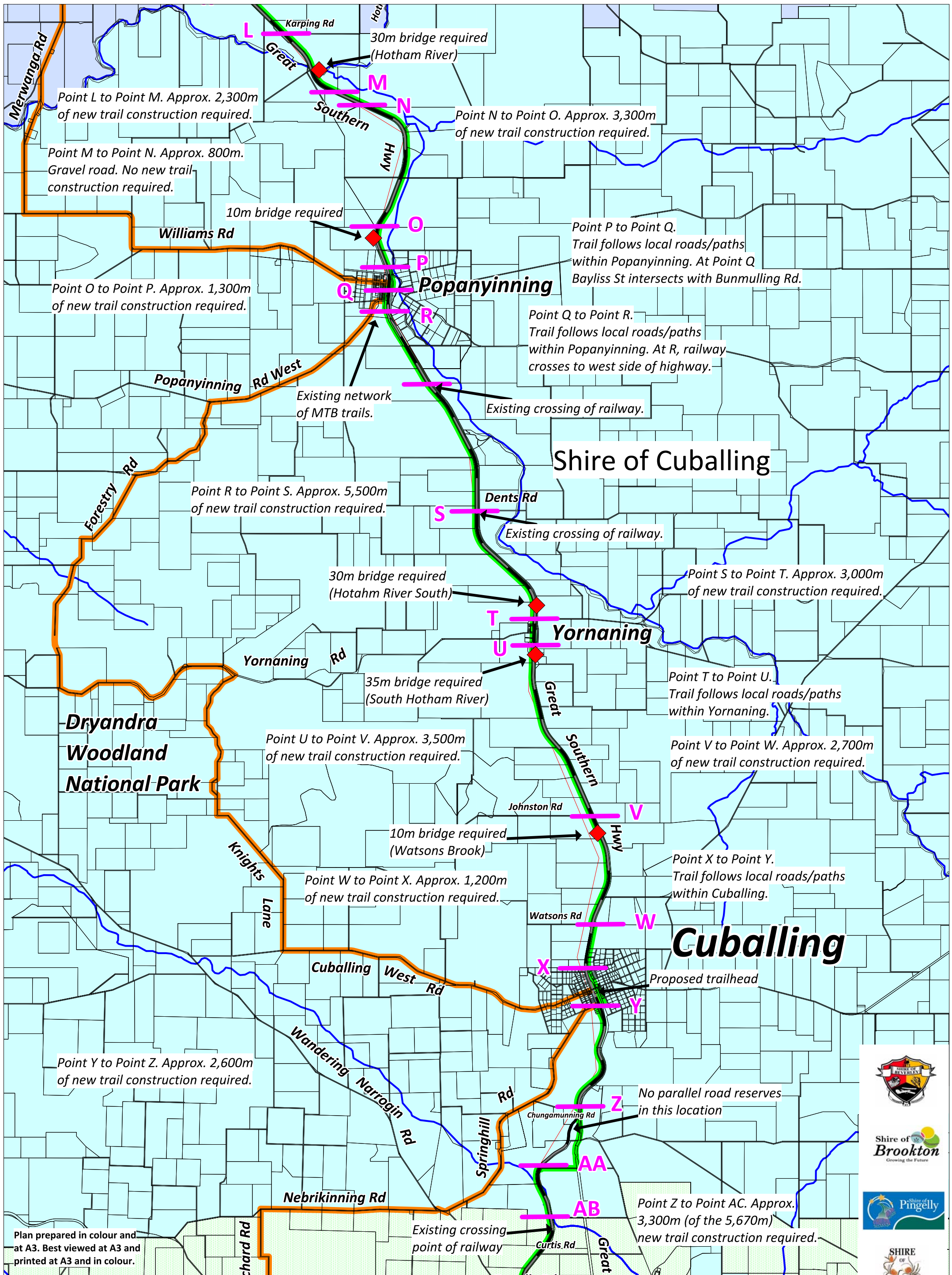
Plan prepared in colour and
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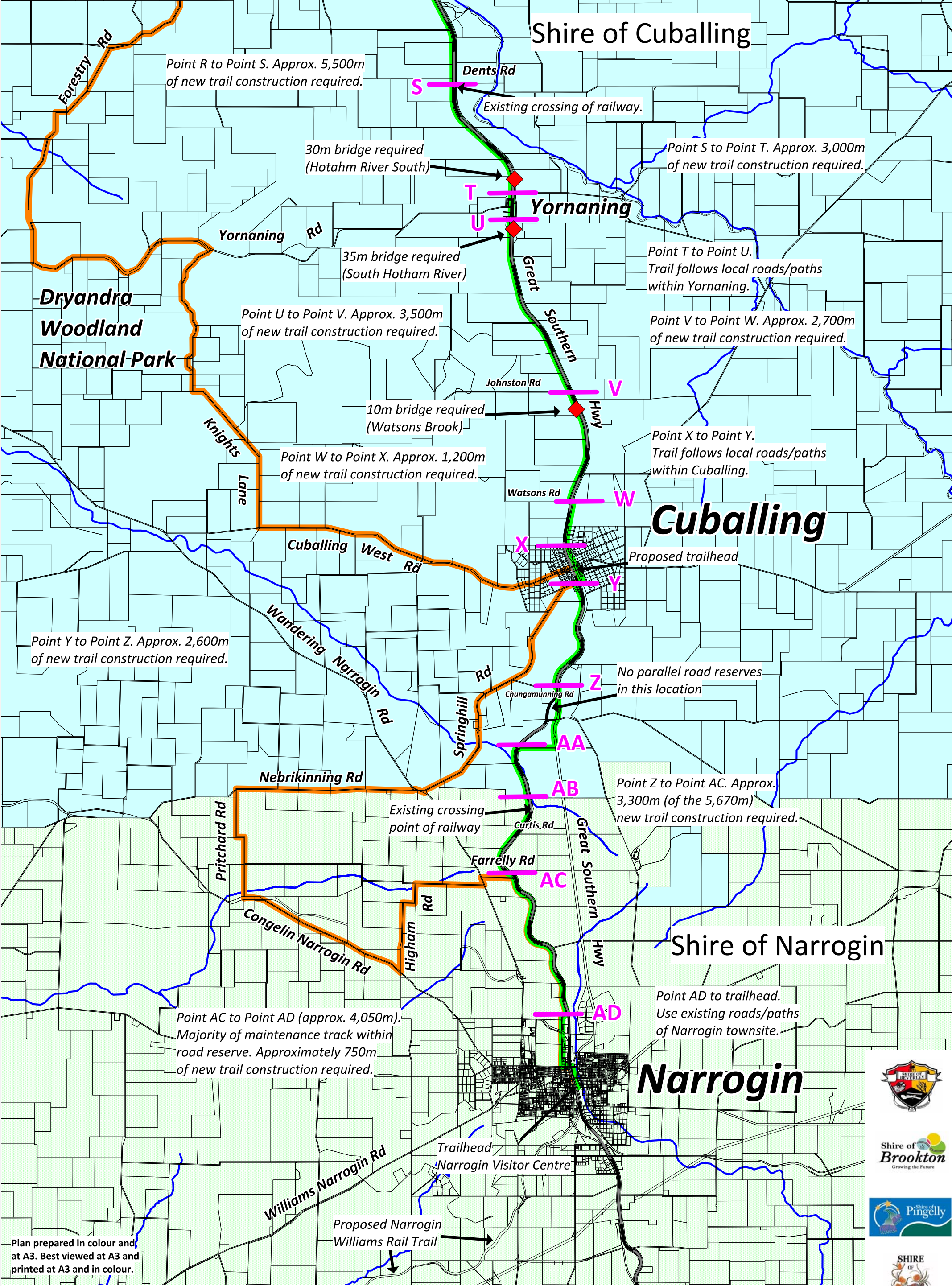
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APPENDIX 2: BEVERLEY TO NARROGIN TRANSPORT TRAIL: LENGTH OF MAINTENANCE TRACK BY TENURE

Beverley to Narrogin Transport Trail - Length of Maintenance Track

Section	Total distance	Distance by tenure						Comments
		Railway reserve		On boundary		Road reserve		
		Distance	%	Distance	%	Distance	%	
Local Government		Shire of Beverley						
Town centre to Kokeby	13,000	13,000	100	0	0	0	0	
Kokeby to LG boundary (A)	5,400	5,400	100	0	0	0	0	
Local Government		Shire of Brookton						
A to railway crossing	2,800	2,800	100	0	0	0	0	Crossing of Youralling Rd
Railway crossing to McGrath	3,400	0	0	0	0	3,400	100	
McGrath to bend in Youralling	4,900	4,900	100	0	0	0	0	
Through Brookton								In Town (Brookton)
S end of Brookton to B	3,700	3,700	100	0	0	0	0	Hall Rd to S of Copping Rd
B to C	1,780	1,600	90	80	4.5	100	5.5	S of Copping Rd to crossing of railway
C to D	1,300	1,140	88	0	0	160	12	Crossing to McCabe Rd
D to E	2,750	2,700	98	0	0	50	2	McCabe Rd to Kulyalling Rd
Local Government		Shire of Pingelly						
E to F	3,500	3,435	98	0	0	65	2	Kulyalling Rd to Ford Rd
F to G	4,400	4,330	98	0	0	70	2	Ford Rd to Aviation Rd
G to H								In town (Pingelly) Aviation Rd
H to I								In town (Pingelly) Narducci Rd
I to J	3,000	2,700	90	300	10	0	0	Narducci Rd to forested reserve
J to K	3,200	3,200	100	0	0	0	0	Forested reserve to Treforts Rd
Local Government		Shire of Cuballing						
K to L	1,290	1,290	100	0	0	0	0	Treforts Rd to Karping Rd
L to M	2,300	2,300	100	0	0	0	0	Karping Rd to crossing of railway
M to N	800	0	0	0	0	800	100	Crossing of railway to Lot 0903360

N to O	3,300	3,300	100	0	0	0	0	Lot 0903360 to crossing of railway
O to P	1,300	1,300	100	0	0	0	0	Crossing of railway to Spragg St
P to Q								In town (Popanyinning) Spragg St
Q to R								In town (Popanyinning) railway crossing
R to S	5,500	5,200	95	0	0	300	5	Railway crossing to Dents Rd
S to T	3,370	2,230	66	680	20	460	14	Dents Rd to Yornaning Rd East
T to U								In town (Yornaning)
U to V	4,100	2,095	51	1,145	28	860	21	S end of town to Johnston Rd
V to W	2,900	2,250	77	420	15	230	8	Johnston Rd to Watsons Rd
W to X	1,200	1,200	100	0	0	0	0	Watsons Rd to Cuballing St
X to Y								In town (Cuballing to Darcy St)
Y to Z	2,970	2,590	87	0	0	380	13	Darcy St to Chungamunning St
Z to AA	1,950	1,950	100	0	0	0	0	Chungamunning to crossing of railway
AA to AB	1,290	1,290	100	0	0	0	0	Crossing to shire boundary

Local Government

Shire of Narrogin

Boundary to AC	2,430	60	3	0	0	2,370	97	Shire boundary to Farrellys Rd
AC to AD	4,050	495	12	240	6	3,315	82	Farrelleys Rd to Hillside Rd

91,880 76,455 83% 2865 3% 12560 14%

Note: Distances calculated to northern edge of towns, and from southern edge of town. It is assumed route to and through and out of town will follow local roads and/or existing paths. Therefore total distance is only 91.88km, not ~ 105km.