

Martin Hawes
Walking Track Design and Management

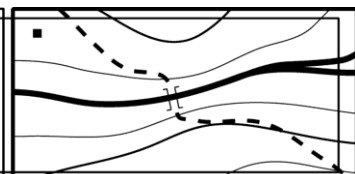
Report on a preliminary survey of a **Trans-Tarkine Track**



Commissioned by the Bob Brown Foundation

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Monster Creek on the Tarkine coast. Photo by Rob Blakers

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Cover photo: View north from Rupert Point to the distant Norfolk Range.
Photos by the author except where otherwise indicated.

Summary

This report presents the findings of an investigation into the feasibility of constructing a multi-day walking track that will traverse the heartland of Tasmania's Tarkine wilderness. The report discusses the recommended route for the track, the recreational opportunities that the track will offer, the requirements and likely costs of constructing the track, and potential locations of campsites.

The Bob Brown Foundation commissioned the study, which spanned the period September 2015 to April 2016. The study involved 70 days of fieldwork, a day-long aerial survey by helicopter, and detailed study of topographic data including vegetation maps and satellite imagery. The on-ground survey covered more than 90 per cent of the proposed track. Most of the remaining sections were inspected by helicopter.

The proposed track will be of Class 3 Standard, comparable to the Overland Track. It will be suitable for use by walkers of moderate fitness and limited overnight walking experience. Walkers will overnight at campsites provided with elevated tent platforms and toilets, close to sources of potable water.

The key findings of the investigation are as follows:

- It will be possible to undertake the walk as a continuous 10-day trip or as two separate 5-day trips, broken at the Western Explorer Road. Roughly three days will be spent in the region's rainforests, two days on highland traverses, two and a half days on the coast, and two and a half days in lowland heath or scrub country.
- The ten-day walk has the potential to rank as one of the world's great wilderness journeys.
- Each half of the walk has the potential to rank as a world-class multi-day wilderness journey.
- The walk will terminate with a ferry trip from Pieman Head to Corinna.
- Each day of the trip will involve walking between 10 and 15 km. Most days will involve some uphill sections.
- The proposed track and its associated infrastructure can be constructed using straightforward and well-established track construction techniques. Several large bridges will be required and large numbers of steps (which are expensive relative to level track) will be required on some sections.
- There are suitable locations for ten campsites along the track. Of these, five will be inland beside major creeks and rivers, one will be high on Mt Bolton, one will be in rainforest, two will be on the coast near river mouths, and one will be near the track terminus at Pieman Head.
- The carrying capacity of the track will be determined by the capacity of its campsites. I recommend that the campsites be designed to accommodate an initial intake of 30 walkers per day. Campsite infrastructure can be expanded to accommodate higher numbers if there is sufficient demand.

- A detailed on-ground survey, backed up with additional aerial survey (ideally using LIDAR if available) will be required to optimise and fine-tune the proposed route before track construction can commence.
- The overall cost of the proposed development will be just under \$20 million. Of this roughly \$17 million will be for track construction, \$2 million will be for campsite platforms and associated infrastructure, \$400,000 will be for vegetation clearance, and \$275,000 will be for the detailed ground survey.
- This study has not assessed the costs of car parks, trailhead infrastructure, road upgrades, marketing, the set-up of a walker registration (booking) system, or additional aerial survey.
- The impacts of the proposed track on the ecological, human heritage and wilderness values of the region should be rigorously assessed before the track is constructed.

1 Background and implementation of this survey

1.1 Background

In late 2014 the Bob Brown Foundation convened an informal group of representatives of conservation groups and tourism operators to discuss launching a proposal for a multi-day Trans-Tarkine Track, as a flagship of the broader campaign to protect the Tarkine as a World Heritage national park. The group agreed and in February 2015 it accepted my suggestion to focus on a track that traversed the Tarkine in a roughly northeast-to-southwest direction, starting at the existing Tarkine Trails trailhead on the Keith River Road and finishing with a ferry trip from Pieman Head to Corinna. The Foundation subsequently commissioned me to survey the proposed route of the track and to report on the feasibility and likely cost of its construction, the recreational opportunities that it would offer, and potential locations of campsites. The survey was to be based primarily on field inspections but was to include at least one aerial survey, for which a separate budget was allocated.

The Foundation recognised that the resources and timescale allocated for my work would be insufficient to allow all the details of the track location to be resolved. Further surveys will be required to optimise the route and to fine-tune it to the point where construction can commence. One of the outputs of this project is an estimate of the amount of fieldwork that will be required for this.

1.2 Implementation

The first stage of the project involved studying digital topographic maps and associated geodata to plot a draft route for the proposed track and plan a series of field inspections. The geodata covered the entire Tarkine region and included:

- Digitised 1:25,000 topographic maps.
- Spatial data on roads and vehicle tracks, reserve boundaries, 10m contours, drainage courses and vegetation types.
- A GPS record of the Tarkine Trails route that I obtained during a previous project.
- Google Earth satellite imagery, which I could reference directly from my mapping software (MapInfo).

The vegetation data included spatial data on the distribution of tall myrtle forest and eucalypt forest, as identified during the 1995 Tasmanian Regional Forests Agreement (RFA) process.

In forested country I located the initial route as far as possible in tall myrtle forest, as this is more likely to contain stands of scenically appealing open forest and tall trees as well as being easier to navigate when exploring track route options. I was able to check the presence of such forest by inspecting the forest canopy in Google Earth. Where tall myrtle was absent my second choice was eucalypt forest, particularly on spurs where eucalypts are often widely spaced and spectacularly tall. Again, I could check the presence of such trees in Google Earth.

Once I had plotted a draft route on digital maps, I plotted digital guide points and transferred them to a GPS as a location/direction guide for the field inspections.

I undertook the bulk of the field inspections between September 2015 and January 2016, at the rate of about one fieldtrip per month. Most fieldtrips were 7-14 days long including the time that I spent travelling to the region from the south of the state.

Following each field inspection I entered the proposed track location and data on appropriate track-construction techniques and approximate costs into a MapInfo file. I also compiled a photographic record to illustrate the types of terrain and environments that the track will traverse and the key recreational attractions that walkers will encounter during each stage of the walk.

Between mid January and mid March 2016 the high fire risk throughout the region and the outbreak of large fires to the north and west of the region forced the suspension of all surveys including aerial surveys.

On 11th March 2016 I made a 300 km helicopter flight over the region to survey the vicinity of the proposed route, to inspect several alternative routes, and to look for features such as waterfalls and stands of spectacular forest that could be incorporated into the walk or accessed by sidetracks. (I will henceforth refer to this as 'the aerial survey'.) Photographer Rob Blakers accompanied me on this survey and took photographs. The aerial survey generally confirmed the merits of the proposed route but revealed features that warranted further on-ground inspections. This report incorporates information from the aerial survey, which I have described in detail in a separate report.

Based on the findings of the aerial survey I undertook two further fieldtrips in March and April 2016. During the first I investigated an extensive area of open rainforest on a ridge south of Pinner Creek, a stand of eucalypt forest on a spur north of the Rapid River, and the section of the Rapid River between Clearwater Creek and the Pipeline Road. In the final trip I visited the deep valley on the Donaldson River east of Pyramid Hill, and discovered extensive stands of open rainforest on the plateau north of this valley.

2 Walk experience, track standard and usage levels

2.1 Outline of the walk experience

The proposed walk will start at the current terminus of the Tarkine Trails loop, i.e. near the point where the Keith River Road fords the Arthur River. The first two days of the walk will be mostly in forest, much of it very beautiful, although on the second morning walkers will enjoy extensive views from the top of 'Lookout Hill'. This stage includes several (bridged) river crossings and features two spectacular waterfalls.



Photo 2.1-1. Eastons Falls.

Much of the third day will be taken up with climbing and traversing the ridgeline of Mt Bertha (703m), which offers extensive views over the entire Tarkine region. On the fourth day walkers will traverse the dense rainforests of the Donaldson Valley, encountering the Donaldson River in at least two places, and on the fifth day they will climb Pyramid Hill and Mt Bolton, which overlooks the Western Explorer Road. Walkers can either break their walk here or camp and keep going.

On Day 6 walkers will cross rolling heathlands flanked by Mt Holloway and Mt Edith to the base of the Norfolk Range. On Day 7 they will climb the range (with a short optional side trip to the summit of Mt Norfolk, at 762m one of the highest peaks in the region) before descending to the coastal plains. The Day 7 campsite will be close to a sidetrack that overlooks a small but spectacular gorge on Italian Creek.

On the eighth day walkers will reach the coast and encounter the beaches and dune systems that dominate much of the coastal landscape between Sandy Cape and the Interview River. From there they will follow beaches and vehicle tracks (which should be closed to vehicles) along the coast to a campsite just north of Camp Creek, near the Lagoon River.



Photo 2.1-2. Lagoon River from dunes to the south

The ninth day will consist almost entirely of beach walking, allowing walkers to admire the vast dune systems and middens. On the final day walkers will continue along former vehicle tracks to Pieman Head, where they will be picked up by ferry for the 90-minute trip to Corinna. A campsite will be provided near Pieman Head for walkers who arrive too late for the ferry, who are heading north from Pieman Head or who wish to spend an extra night in the area.



Photo 2.1-3. Wombat on the Tarkine coast. Photo by Jenny Archer.

It is assumed that the majority of walkers will undertake the walk in a northeast to southwest direction, mainly because of the aesthetic appeal of undertaking a long journey from remote inland forests to the coast. The NE-SW journey will also allow walkers to finish their trip with the ferry trip.

If use of the track is regulated by a permit system it would make sense to require all or most users to walk the track in the NE-SW direction, as this will minimise social encounters and hence increase opportunities for experiencing a sense of solitude.



Photo 2.1-4. Pieman River cruise at the confluence of the Donaldson and Pieman Rivers

2.2 Proposed track standard and walk difficulty

The agreed vision is for a world-class multi-day wilderness track that will allow walkers to experience the outstanding natural and cultural values of the Tarkine, particularly its rainforests, rivers, heathlands, mountains, coastline and Aboriginal heritage. The track is to be of Class 3 standard using the Australian Standard classification system, implying a track standard and hence walking experience comparable to that of the Overland Track. The fact that the track will cross the Western Explorer Road at roughly its halfway point will allow visitors to undertake the walk in two separate trips, or to restock with food if undertaking the entire walk in a single trip. A campsite will be provided for through-walkers on Mt Bolton near the Western Explorer Road, and a shelter (similar to the walkers' shelter at Dove Lake) will be provided beside the road for walkers awaiting transport.

Walkers will overnight at campsites provided with elevated tent platforms, toilets and access to drinkable water. All proposed campsites will be at low altitudes and in sheltered or at least reasonably sheltered locations. The most exposed site will be the one at Mt Bolton, which will be located in a small valley at an altitude of 440m. The NNE orientation of this valley should protect this site from westerly winds. Foot bridges will be provided over all rivers and major creeks, so the track will be passable at all times except times of extreme conditions such as bushfires, floods, snowfalls or exceptionally high seas.

In terms of its overall difficulty the track will be less challenging than the Overland Track thanks to its lower altitude and less mountainous terrain. It is therefore likely to be suitable for, and to attract, a significant proportion of relatively inexperienced walkers. Nevertheless the track will include some challenging sections, particularly the exposed traverses of Mt Bertha and the Norfolk Range. Walkers not travelling in commercial parties will have to carry camping gear and a minimum of five days' food, meaning they will need to be of better than average fitness.

2.3 Projected walker numbers

The proposed track will be subject to a level of usage that will require most of the track surface to be artificially hardened. As hardened track surfaces can withstand use by tens of thousands of walkers annually, the recreational capacity of the track in terms of walker numbers will be limited primarily by the capacity of its campsites.

As a first approximation I propose that the track be designed to accommodate 30 walkers per day. This is two-thirds the projected capacity of the Three Capes Track and half the capacity of the Overland Track.

It seems likely that many walkers will undertake only half the walk in any one trip, although many will make subsequent visits to complete the other half. As each half of the walk will rank as an outstanding wilderness journey in its own right, there is no reason to assume that either half will prove more popular. Hence it is reasonable to assume that at any given time an average of 30 walkers will be using each day-section of the track.

The track will potentially be usable year-round but will be less attractive and occasionally impassable during the core winter months of mid-June to mid-September. Assuming the track receives on average 80 per cent capacity usage during the remaining nine months, this would give an annual usage of approximately 6,570 walkers.

If and when demand for the track exceeds this figure it can be accommodated by expanding the campsites and installing additional toilets.

2.4 Comparison with other great wilderness walks

While it is beyond the scope of this study to provide an in-depth comparison of the proposed track with other well-known multi-day wilderness walks, it is instructive to compare its proposed length and usage levels with those of similar walks in Australia and New Zealand. The following table lists the map-length, time length and approximate annual usage of the proposed Trans-Tarkine Track and eight multi-day walks of comparable difficulty.

The listed lengths for the Trans-Tarkine Track and Overland Track exclude the ferry trips on the Pieman River and Lake St Clair respectively.

Walk	Location	Length (km)	Length (days)	Annual usage
Trans-Tarkine Track	Tas	100	10	6570
Overland Track (Dove Lake to Narcissus)	Tas	65	5	8000
South Coast Track	Tas	85	6	2000
Three Capes (when completed)	Tas	72	6	17,500 (max)
Grampians Peaks Trail (when completed)	Vic	144	13	23,000 (proj)
Larapinta Trail	NT	223	12-16	Not avail
Thorsborne Trail (Hinchinbrook Island)	Qld	32	4	14,000
Milford Track	NZ	54	4	14,000
Routeburn Track	NZ	32	2-4	10,000

Table 1: Lengths and usage levels of selected multi-day wilderness walks in Australia and New Zealand

2.5 Potential income from track fees

Based on the foregoing projected usage estimate, if walkers are charged a track fee of \$25 per adult per day and \$10 per child per day, excluding the cost of the ferry to Corinna, and assuming 80% of users are adults, this will generate an annual income of \$1.4 million. It is reasonable to assume that track and campsite maintenance costs will run at 5 per cent per annum of the initial construction cost, i.e. at roughly \$1 million per year, and that the recurrent cost of track management including booking fees, track rangers and toilet maintenance will not exceed \$400,000 per year. If these assumptions are correct, the suggested track fees would cover the ongoing costs of managing and maintaining the track although they would not repay the initial construction costs.

The foregoing figures do not take into account the potential economic benefits associated with visitor expenditure before and after their walks (for example on transport and accommodation), or the indirect benefits (for example enhanced tourism profile) that would flow from the development to Tasmania's northwest region and to the state as a whole.

2.6 Walker safety issues

The proposed track will generally be fairly non-hazardous, lacking for example the exposed high-altitude traverses of the Overland Track and the flood-prone river fordings of the South Coast Track. Nevertheless the walk will present some hazards, and being easier than the Overland Track it is likely to attract relatively inexperienced walkers who may be poorly equipped to anticipate and deal with these hazards. The main hazards will be as follows:

- The traverses of Mt Bertha, Pyramid Hill, Mt Bolton and Mt Norfolk will at times expose walkers to high winds, driving rain and occasionally snow, and hence to the risk of hypothermia. Three of these traverses (Bertha, Bolton and Norfolk) will include extended sections that offer little or no shelter. Walkers should be discouraged from attempting them in adverse weather unless they are well equipped and confident of their abilities and fitness. To allow walkers to delay the traverse of Mt Bertha and Mt Bolton, the proposed works schedule includes the designation of emergency campsites at the base of the northern ascent of Mt Bertha and on the moorland shelf east of Mt Bolton. Walkers who delay their traverse of Mt Norfolk can stay at the Day-6 campsite at upper Lagoon River.

- To a lesser extent the low-altitude traverses of heathland country will also be exposed and could be hazardous in inclement weather.
- The high traverses will lack water in dry conditions and will offer little shelter from the sun. Walkers should be warned of this risk and advised to carry water and sun protection.
- Bushfires will pose a major risk particularly in the non-forested country west of the Donaldson valley. At times of high fire danger the track should be closed and walkers should if necessary be evacuated.
- All major creeks and rivers will be bridged. However in extreme conditions bridges may be inundated or washed away, and some unbridged creeks may be impassable on the coast. In these circumstances the track should be closed.
- Like all forested environments, the forests traversed by this track will pose a risk of falling limbs and trees. Walkers should be warned of the risk and campsites should be cleared of tree-fall hazards.
- See also the notes concerning the coastal section in 4.8.2.

3 Principles of track alignment and construction

3.1 General principles

The track should be designed and constructed to world-class standards. Specifically, the environmental impact of the track and of its associated usage should be minimised while providing opportunities for outstanding recreational experiences consistent with the track classification. Track construction costs and ongoing maintenance costs should be minimised as far as possible without compromising the foregoing objectives. This can be achieved by adhering to the following well-established guidelines.

- The track should be sited and constructed so as to minimise the occurrence of water flow on the track surface, particularly water flow along the track.
- Track surfaces should be either artificially hardened or naturally self-maintaining. Most of the proposed track will require artificial surfacing but there will be some exceptions, notably beach traverses.
- Track gradients should generally be kept low. Gradients of non-stepped sections should be kept below 5° (approximately 1 in 11) where the track is either unsurfaced or surfaced with timber boarding that lacks a nonslip surface. Extended sections with gradients up to 7° (1 in 8) are acceptable if the track is surfaced with well-packed gravel or with a non-slip surface such as fibre-reinforced polymer (FRP) mesh. Short (up to 20m) sections with gradients up to 10° (1 in 6) are acceptable if the track is surfaced with well-packed gravel.
- The installation of steps should be avoided as far as possible. Altitude loss and gain should be achieved by installing switchbacks in preference to steps where practical. Where steps have to be installed, short flights (up to 18 risers) should be separated by sections of step-free track or at least by landings.
- Switchbacks should be designed to be unobtrusive and to minimise the risk that walkers will cut corners.
- To minimise environmental impacts, visual impacts and track construction costs, steep cross-slopes should be avoided as far as possible particularly in forest environments. (Deep benching in root-dense soils is expensive and may compromise the health of trees.)
- A track width (i.e. walking surface) of 750-1000 mm will generally be suitable. Where the track has a gravel surface the width should generally be 750-900 mm. Where the walking surface is timber, rubber tiling or FRP the width can be as low as 500 mm providing the walking surface is close to the ground. More elevated track (eg duckboard across high buttongrass) should be 1000 mm wide.
- Elevated track structures such as bridges should have handrails in accordance with Australian Standard 2156.2.

- Track markers will generally not be required as the track will be well defined. An exception is likely to occur on some coastal sections, as noted in 3.6. Snow poles are unlikely to be required on high, exposed traverses given the low chance of deep snow on these sections.
- The track and associated infrastructure should be regularly maintained to maintain track standards and minimise deterioration due to factors such as water flow. To ensure that the required maintenance occurs the management agency should draw up, fund and adhere to an ongoing maintenance schedule.

3.2 Existing vehicle tracks in forested section

The recommended track route will follow existing vehicle tracks between the Keith River Road trailhead and the plateau south of Hoof Hill. Most of these tracks are currently unused by vehicles and it is assumed that they will remain so and can gradually be fully converted to walking tracks. The Keith River Road west of the Arthur River still receives some vehicular usage, which ideally should cease if the Trans-Tarkine Track goes ahead.

Where vehicle tracks are benched (as they mostly are), the walking surface should be located on or near the outer edge of the bench to facilitate drainage.

Some sections of vehicle track are fairly stable and have been surfaced historically, and will not require further stabilisation in the short to medium term.

Steep or wet sections of vehicle track will require stabilisation. Steep sections should be stabilised using well-packed, fine gravel that resists abrasion and erosion. Wet sections can generally be stabilised with gravel and geotextile after suitable drainage works have been undertaken.

Where culverts have collapsed or are unstable they will require reconstruction or the installation of foot bridges.

3.3 Existing vehicle tracks in coastal section

Vehicle tracks traverse several sections of the coast between Italian Creek and Pieman Head. While some sections of these tracks have low gradients and reasonably stable surfaces, other sections are undesirably steep, aligned on the fall line, actively eroding or prone to mud development or seasonal inundation (see Photos 3.3-1 and 2). Vehicle tracks also traverse midden sites in places. The installation of new sections of walking track is recommended in places to bypass sections of vehicle track that are poorly located. Where midden sites are difficult to avoid it may be possible to protect them by hardening the walking track (for example with FRP walkway or rubber tiling), in consultation with relevant specialists and representatives of the Aboriginal community.



Photo 3.3-1. Vehicle track on sand south of Rocky Creek



Photo 3.3-2. Boggy area on vehicle track south of Rocky Creek

Where the existing vehicle track surface is gravel it may be possible to leave it unsurfaced, although in most cases it will be preferable to add a layer of finer gravel (either imported or crushed locally) to provide a safer, more comfortable and more stable walking surface.

Where vehicle tracks traverse seasonally wet hollows or mud bowls, it may in some cases be possible to avoid these by locating the walking track along the upper rim of the hollow. If this is not feasible the track should be either realigned or hardened with walkway.

Much of the existing system of vehicle tracks on the coast is located on deep sand (see Photo 3.3-1) and many sandy sections are deeply incised. Under continued foot traffic erosion may slow or even halt, but it is likely to continue on many sections. It is recommended that a walking surface of rubber tiles be installed on much of the coastal vehicle track system subject to a trial of their suitability. Tiles will be relatively cheap, will be easy to lay on sand and will provide a firm walking surface whilst protecting sand from direct abrasion. As with any synthetic track material in such an environment, tiles may be periodically buried by windblown sand in which case they will need to be dug out and re-laid.

For a discussion of bridges on the coastal section, see 4.8.2.

3.4 New track in forested and scrubby areas

Sections of new track in boggy areas and areas subject to occasional inundation should be surfaced with elevated walkway – either ‘planking’ or duckboard. FRP is generally preferable to timber because it can be installed with an inbuilt anti-slip walking surface (see Photo 3.4). Timber in shaded areas is prone to becoming slippery due to the build-up of organic material on its surface.



Photo 3.4. Walkway with 1m wide FRP walking surface at Melaleuca, SW Tas. Photo by Grant Dixon.

Well-drained sections should be stabilised using benching and gravel wherever possible. In forested areas benching will require some cutting into the forest-floor root structure and so may be inappropriate on some sections, particularly steep cross-slopes. In these situations FRP walkway should be installed, with steps where required.

On many parts of the proposed route suitable gravel may be unavailable locally, so if gravel is to be used it will have to be flown in. While flight times are likely to be short owing to the proximity of roads, it may be difficult to drop gravel directly to work sites without substantially opening the forest canopy. This should be avoided as far as possible. Gravel should ideally be flown to a small number

of selected drop sites in natural clearings and transported from there to work sites using powered barrows or other small vehicles (eg a modified ride-on mower with trailer). The use of such vehicles is likely to be practical along extended sections of the track owing to the absence of steps.

All track infrastructure in forested areas is subject to damage due to falling timber and uprooting trees. In this respect gravel surfacing is preferable to planking or duckboard because it is rarely damaged by falling timber, although it can be damaged by uprooting trees.

3.5 New track in heathland areas

Most of the heathland areas associated with the proposed track are located west of the Western Explorer Road, although areas of heathland also occur on 'Lookout Hill', the Mt Bertha Ridge, Pyramid Hill, Mt Bolton, and in isolated pockets elsewhere. The heathland is generally fire-prone and evidently burns frequently; indeed extensive areas between the Western Explorer Road and the Norfolk Range were firebombed in May 2015 and burnt again in January 2016.

The frequency of fire is likely to increase in future due to the combined pressures of climate change and pyrophilic management. If a walking track is built in this country using timber or other fire-susceptible materials, much of the track infrastructure is likely to be damaged or destroyed when a fire passes through. As a cautionary example, the Parks and Wildlife Service had to replace hundreds of metres of duckboard twice due to fires in the space of a few years in the vicinity of Cracroft Crossing in the Southwest National Park. Apart from the costs associate with removing and replacing damaged infrastructure, tracks may have to be closed for extended periods until infrastructure can be repaired.



**Photo 3.5-1. Rubber tiles installed on the Roper Lookout Track, Australian Alps.
Photo by Track and Trail Management Services.**

For these reasons it is preferable to employ fireproof or at least fire-resistant construction materials in heathland areas as far as possible. On better-drained ground benching or turnpiking with gravel surfacing (see 3.7) will often be the best option providing the overlying peat is not deeper than about 30 cm. Track stability in wet areas can be improved using geotextile where necessary.

In some locations rubber tiling may be suitable, although it will need to be laid on a fairly even surface such as sand, moderately fine gravel or well-drained soil (see Photo 3.5-1). The advantages of tiling include:

- It has low visual impact particularly from a distance due to its dark colouration.
- It is pleasant to walk on, being a more yielding surface than gravel or timber.
- Installed tiles tend to survive light to moderate fires, presumably because they are at ground level.

Where steps are required the use of rock may be an option but it will generally have to be flown in. It is worth considering the use of risers made of galvanised steel mesh, which have been trialled successfully in the Lake Cygnus area of the Western Arthurs (see Photo 3.5-2). They are somewhat unsightly, but the visual impact may be softened if vegetation grows through and around the mesh. Risers would be backfilled with rocks and gravel.



Photo 3.5-2. Steel-mesh step risers near Lake Cygnus, Western Arthur Range.

On very wet ground there may be no alternative to constructing some kind of supported walkway. Traditional double planking or duckboard are options but would have to be considered disposable in the event of fire. FRP is more fire-resistant than timber but is likely to require replacement after a hot fire.

Steel mesh walkway may be an option. It was successfully trialled on short sections of the Port Davey and South Coast Tracks in the 1980s, and has been in use for a similar time span in the Mt Kosciuszko area of NSW (see Photo 3.5-3). It is unsightly but its visual impact can be minimised by restricting the track width and keeping the mesh low to the ground so vegetation can fill the holes in the mesh. For the track to be effectively fireproofed the supporting structures would also need to be made of steel.



Photo 3.5-3. Steel-mesh walkway at Mt Kosciuszko, NSW. Photo by Paul Ma.

Cordwood can be effectively fireproof if it is embedded into wet ground so that the timber becomes and remains waterlogged. However cordwood is unstable on very wet ground and on better-drained ground it can dry out, increasing its susceptibility to rot and fire. Although cordwood can last upwards of 40 years in ideal conditions its more typical lifespan is around 20 years. The unevenness of its walking surface makes cordwood unsuitable for a Class 3 track. For these reasons its use on the Trans-Tarkine Track is not recommended.

A downside of gravel surfacing in heathland areas is that the resulting track can be highly visible when viewed from higher elevations. This is likely to be an issue particularly on the elevated traverses of the Mt Bertha ridge, Pyramid Hill and the Norfolk Range. From the point of view of visual impacts the use of FRP boardwalk would be preferable in these areas, as the material can be tinted and vegetation can grow through the holes in the walking surface. However, in my opinion this advantage does not outweigh the disadvantage associated with the susceptibility of such materials to damage by fire.

3.6 Walking routes on sand and other natural surfaces

In places the proposed walking route will traverse open country such as beaches and dunes that will not require artificial surfacing or the formation of a formal walking corridor. While many such places including most beach traverses will not require track markers, some sections – particularly in the

vicinity of midden sites – will benefit from the judicious installation of track markers to assist navigation and to direct walkers away from sensitive sites. Timber posts are likely to be the most suitable form of marker. Such markers will probably need to be reinstalled and replaced from time to time due to the impacts of shifting sand, storm inundation and other factors.

3.7 Sources of gravel

Gravel suitable for track surfacing may be available locally in some areas and could be extracted from borrow pits or top/side drains. However I saw little evidence of usable gravel over most of the proposed route. Where local gravel is unavailable it will either have to be flown in or manufactured onsite from local rock using a mobile rock crusher. (An example of the latter is the Series 4000 Red Rhino, which can crush rock to a particle size of 10 mm. This is made in the UK but can probably be imported.)

Imported gravel should be sourced as locally as possible (eg from existing roadside quarries) and should be certified free of biological pathogens.

Much of the terrain between the Western Explorer Road and the Norfolk Range is rocky with stones of rubble size (typically upwards of 5 cm diameter). The rubble is too coarse to be suitable for track surfacing, but it will be suitable for a track bed or for crushing to gravel.

3.8 Campsite size and infrastructure

As noted earlier, the track should be planned to accommodate 30 walkers per day. Campsites may have to accommodate more than 30 people in the event that some parties' itineraries are modified by bad weather or other factors. For example, severe weather might persuade some parties at the Rapid River campsite to stay put for a day, during which time an additional 30 walkers may arrive.



Photo 3.8. Tent platforms in the Walls of Jerusalem National Park. Photo by Grant Dixon.

To allow for this contingency I recommend that sufficient infrastructure be installed at each major campsite to accommodate 40 walkers – that is, 20 hardened tent sites together with associated

social tracks, toilets and water supply. Most tent sites and social tracks will require hardening, including in sandy coastal areas. Tent sites should be arranged in dispersed clusters (eg five clusters of four tent sites) to minimise crowding, but located within easy walking distance of toilets and water supply.

Additional tent sites should be identified and if necessary cleared at each campsite to allow for emergency situations in which more than 40 walkers needed to be accommodated. These additional sites should not require hardening as they are likely to receive only sporadic use.

Emergency campsites with cleared tent sites but no other infrastructure should be established at the northern base of the Mt Bertha traverse and on the heathland shelf at the eastern end of the Mt Bolton traverse, to accommodate walkers who decide to delay their traverses due to severe weather. These campsites should initially comprise five or six tent sites.

3.9 Potential effects of climate change



Photo 3.9. Sand-killed trees and bushfire smoke near the mouth of Italian Creek

Climate change could cause weather events and environmental changes in the Tarkine region that could affect the maintenance, usability and even the long-term viability of the proposed track. The principle effects of climate change could include the following:

- More frequent and more intense bushfires, and the associated disruptions due to fire-fighting activities, could threaten fire-susceptible track infrastructure, increase risks to walkers and cause lengthy periods when the entire track or sections of it are unusable or inaccessible.

- Rising sea levels and storm surges could make sections of the coastline between Italian Creek and Pieman Head intermittently or even permanently impassable, particularly at river mouths. This could require relocating some sections of track and associated infrastructure.
- Extreme rainfall could lead to increased flooding including flash flooding, particularly in the western regions of the track where there is little vegetation to moderate its effects. This could pose a risk to walkers, threaten bridges and track infrastructure (including campsites) in the vicinity of rivers, and trigger landslips in susceptible locations.
- Extreme weather events such as heatwaves and storms could become more frequent, delaying walkers and possibly forcing the closure of the track.

The agency that manages the track should seek specialist advice on these risks and take all practical steps to mitigate them. In particular, campsites should be located well above flood levels and bridges should be located and designed to survive all but the most extreme floods.

4 Route options

4.1 Rationale for the overall track alignment



Map 4.1. Overview of the proposed track alignment

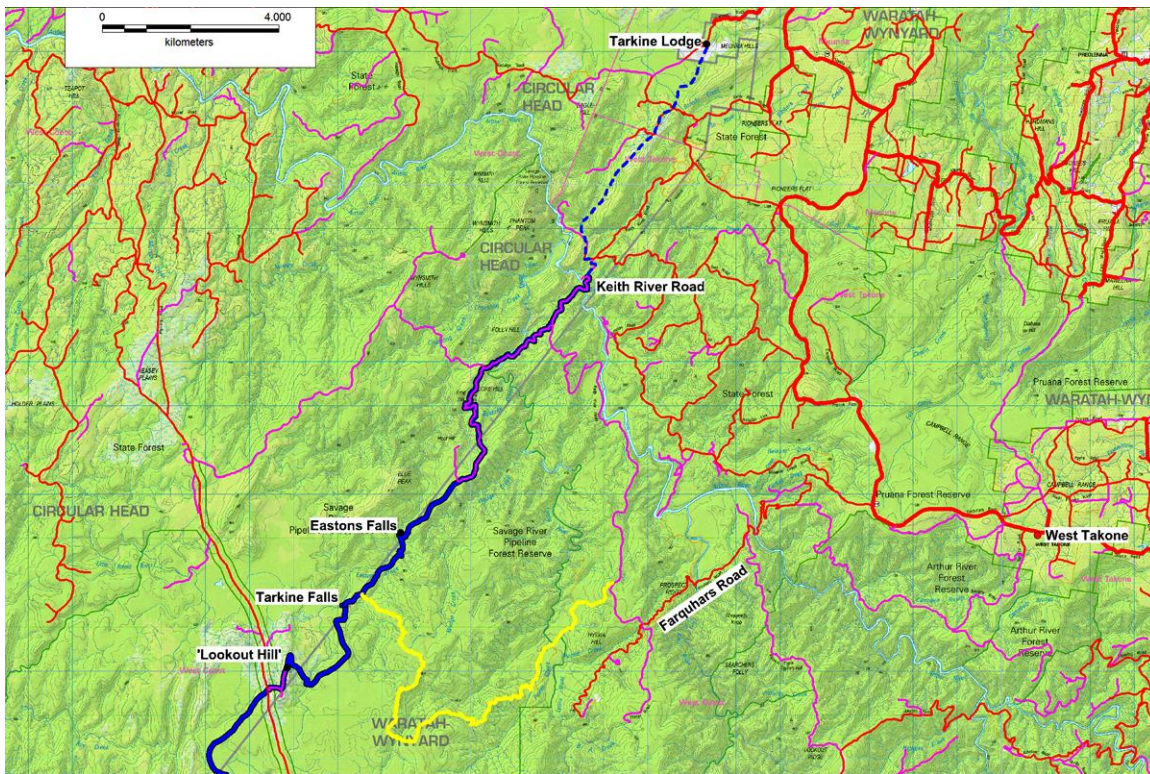
The route of the proposed track had already been decided in broad terms when this study was commissioned. It is worth briefly recapitulating the rationale for its selection. The main factors taken into consideration were as follows:

- The walk should showcase the natural features of the Tarkine, particularly the rainforests and coastal dune systems that are unique to the region.
- The walk should allow walkers to experience a wide variety of environments.
- The greater part of the walk should offer walkers a genuine wilderness experience and should therefore be remote from roads, vehicle tracks and similar disturbances as far as possible.
- The walk should be of sufficient length to rank as one of Australia's major multi-day wilderness walks, yet be short enough to be accessible to a wide range of potential visitors.
- The track should be located outside existing national parks in the region.

Based on these criteria the steering committee decided that the best option was the one investigated in the current study, extending from the Keith River Road to Pieman Head via 'Lookout Hill', Mt Bertha, Pyramid Hill, Mt Bolton, the Norfolk Range and the coast south of Lagoon River (see Map 4.1).

4.2 Location of the eastern trailhead

4.2.1 Trailhead options east of the Pipeline Road



Map 4.2.1-1. Trailhead options east of the Pipeline Road

The overall NE-SW orientation selected for the track locates the north-eastern trailhead somewhere on forestry roads in the Meunna–Takone region. A shortcoming of all potential trailhead locations in this region is that they are fairly inaccessible by road, involving long drives on unsealed roads. However Pruana Road, Bird Road and Farquhars Road east of its junction with Pruana Road are all of a fairly high standard, and road access could if necessary be upgraded if the track development goes ahead.

A natural first choice for the trailhead is one of the existing trailheads of the Tarkine Trails walk, i.e. either the Keith River Road (at the point where it crosses the Arthur River) or Farquhars Road. An advantage of the Farquhars Road access is that it already has a vehicular bridge across the Arthur River. This is currently gated but is accessible to walkers who are prepared to clamber over the chest-high gate. On the down side, the access road to the river on the east side is steep, has tight bends, traverses an active landslip and is probably unsuitable for large vehicles. More importantly, the existing route between this trailhead and Tarkine Falls offers fewer recreational attractions than the Keith River Road access.

There is a strong argument for routing the track via ‘Lookout Hill’, i.e. the unnamed hill that abuts the Pipeline Road at the western extremity of the Tarkine Trails loop. ‘Lookout Hill’ is the first location on the proposed walk that provides extensive views, and will be one of only a handful of such locations on the entire walk (see Photo 4.2.1 and 4.3-1). If the track is to traverse this hill, the

Keith River Road trailhead will provide a more direct access (see continuous blue line on Map 4.2.1-1) than the existing Tarkine Trails loop from Farquhars Road (yellow line).

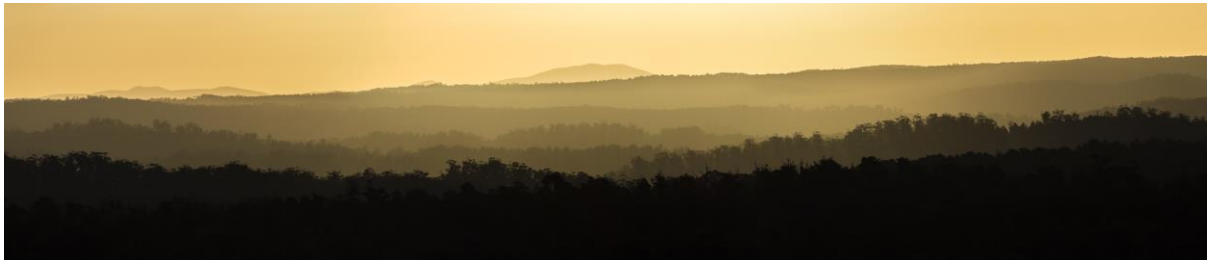
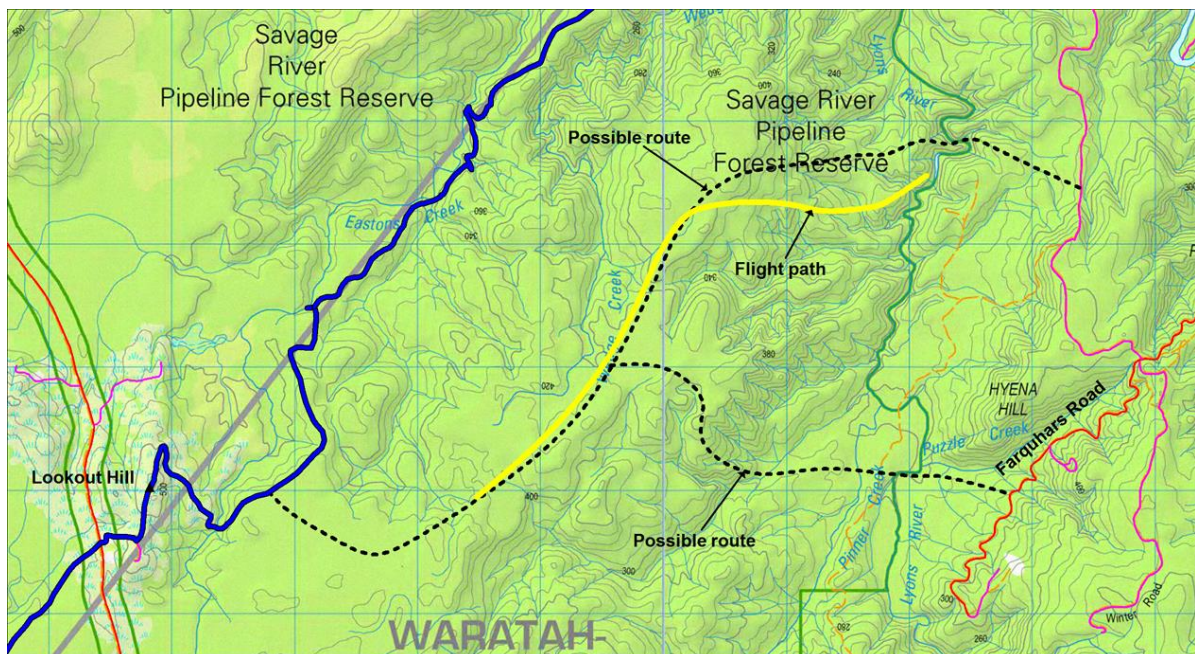


Photo 4.2.1. View west from 'Lookout Hill'

The possibility of establishing a more direct route from Farquhars Road to 'Lookout Hill' was investigated during the aerial survey (see Map 4.2.1-2). The forest covering the intervening country (particularly the plateau bordering Wedge Creek and the eastern flanks of that plateau) appeared fairly scrubby and there were no obvious signs of tall myrtle or eucalypt forest. Moreover a direct route would involve numerous undulations including the gullies associated with the tributaries of upper Eastons Creek.



Map 4.2.1-2. Potential routes linking Farquhars Road to 'Lookout Hill'

In the aerial survey I also inspected the long ridge that runs southwest from the end of Farquhars Road, south of Pinner Creek, and I subsequently inspected this ridge on the ground. The ridge has extensive stands of open rainforest but was of interest as a possible auxiliary track rather than as the main route of the Trans-Tarkine Track, because it would bypass the key attractions of the Eastons Creek waterfalls and 'Lookout Hill'. The auxiliary track option is discussed in 9.2.

I made a ground inspection of the entire Tarkine Trails loop as part of a separate project in 2014, and I re-inspected the northern section as well as several potential local alternative routes as part of the current study in 2015. On the basis of these inspections I recommend starting the proposed track at

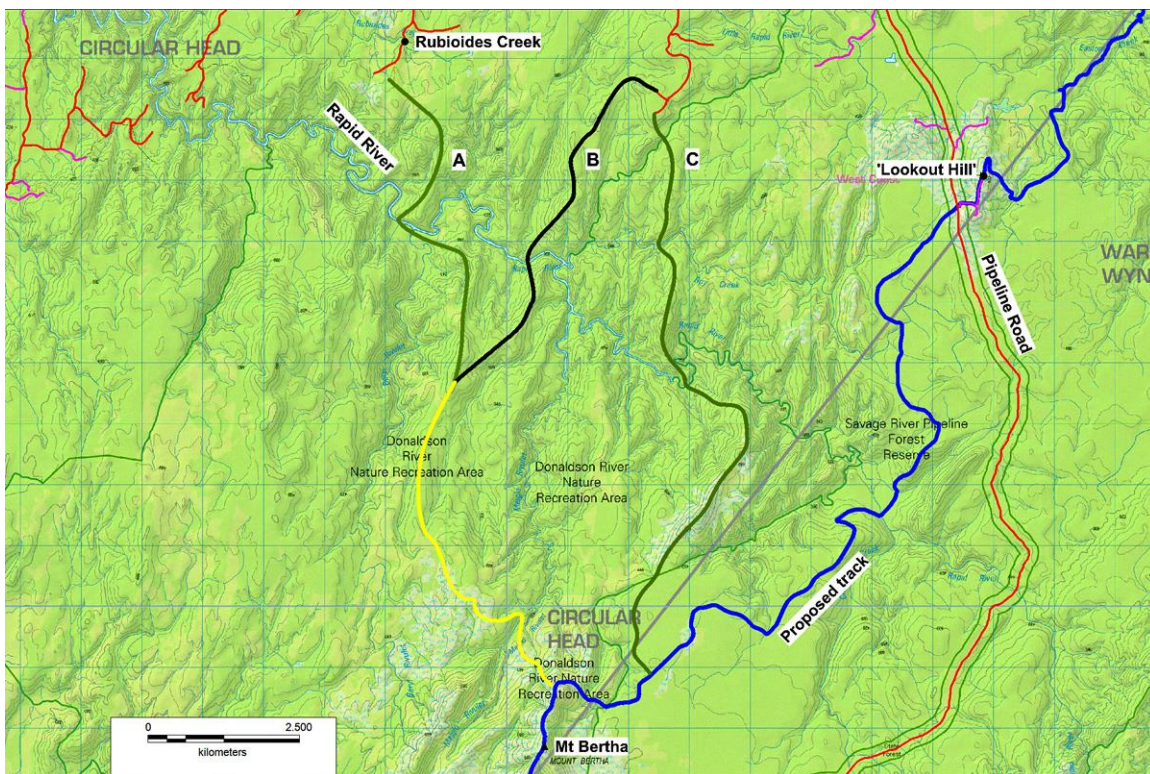
the existing Tarkine Trails trailhead on Keith River Road. This would require installing a pedestrian swing bridge at the location of the former vehicular bridge (known as Hilders Bridge) over the Arthur River.

The Keith River Road trailhead is approximately 39 km by road from the Bass Highway and 80 km by road from either Stanley or Burnie. Approximately 24 km of the road access is currently unsealed.

The option exists of establishing a second trailhead at Tarkine Lodge on the Newhaven Track (see dashed blue line on Map 4.2.1-1). This could be used by lodge clients if the lodge remains in use as accommodation. The section linking Tarkine Lodge to the Arthur River would be approximately seven kilometres long and would therefore add half a day to the duration of the walk. The link track would cross at least two vehicle tracks although these might eventually be closed. A marked route already exists linking the lodge to the river, and this might be suitable (with some realignment) for developing into a higher grade track.

I do not recommend locating the main Trans-Tarkine Track trailhead on private land, as this could pose management problems such as legal issues relating to public access or restrictions on the development of infrastructure such as a trailhead visitor centre.

4.2.2 Trailhead options west of the Pipeline Road



Map 4.2.2. Trailhead options west of the Pipeline Road

Several options exist for locating the Trans-Tarkine Track trailhead west of the Pipeline Road. The main advantage of a west-of-pipeline trailhead is that it would avoid the need for walkers to cross the Pipeline Road, thereby enhancing walkers' sense of remoteness and avoiding possible technical problems associated with crossing the pipeline corridor, which is currently a mining lease. Depending on road conditions a west-of-pipeline trailhead would also be somewhat easier to access than the proposed Keith River Road trailhead, particularly when driving from Smithton.

I have investigated three such options in detail. All three options (see Map 4.2.2) start from forestry spur roads south of Tayatea Road, which is a southerly offshoot of the South Arthur Forest Drive, and traverse ridges north and south of the Rapid River to link with the main proposed route near Mt Bertha.

Route A starts near Rubioides Creek and follows a ridge west of Meiglo Rivulet before crossing the upper rivulet immediately northwest of Mt Bertha. Routes B and C start from a road that runs south from Holder Plains. Route B links with Route A south of the Rapid River while Route C runs in a mainly southerly direction, crossing Roy Creek and the Rapid before traversing an open ridge northeast of Mt Bertha.

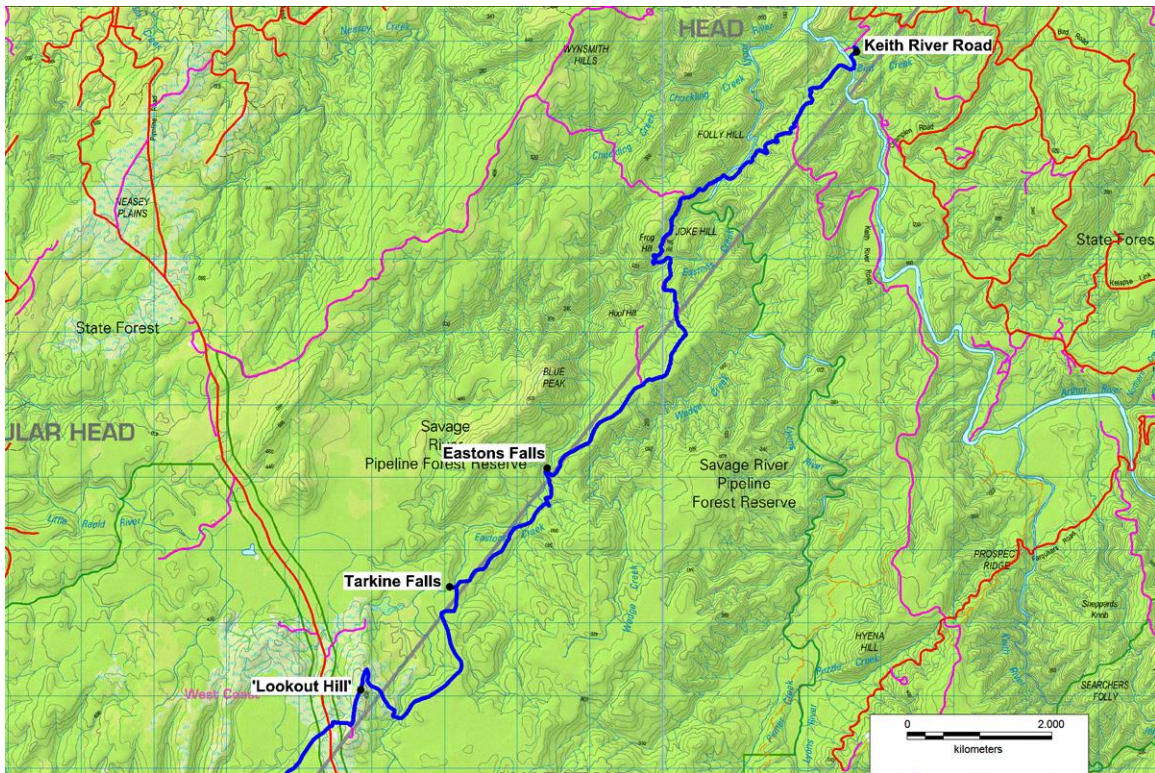
Having plotted potential routes based on topographic data and vegetation maps, I inspected all three routes during the aerial survey. Route A looked the most promising as it involved relatively few undulations and traversed several stands of tall eucalypt forest. However the southern half of this route (yellow line on map) looked less promising as it traversed several kilometres of scrub and scrubby forest.

Route B also traversed some tall eucalypt country, but a greater percentage of the forest on this route looked fairly scrubby compared to route A.

Route C looked feasible, but the need to cross the Roy Creek valley as well as the Rapid River would increase the construction costs and mean more climbing for walkers.

My overall impression is that none of these routes is likely to rival the Keith River Road–Eastons Creek–‘Lookout Hill’ route in terms of scenic and recreational qualities. Apart from avoiding the Pipeline Road the main advantage of these routes in recreational terms relative to the Keith River Road route is that they would traverse stands of tall eucalypt forest. But the Keith River Road route will also traverse some tall eucalypt forest, particularly in the vicinity of the Rapid River where spectacular stands occur.

4.3 Keith River Road to 'Lookout Hill'



Map 4.3-1 Keith River Road to 'Lookout Hill'

This section of the proposed track traverses fairly complex terrain with hills and ridges up to 500m altitude and deeply incised valleys, often with steep slopes (see Photo 4.3-1). The area is blanketed in forest with the exception of 'Lookout Hill' at its western extremity. The obvious first approximation to the route on this section is the Tarkine Trails route, which utilises existing closed vehicle tracks as far as the plateau south of Hoof Hill.



Photo 4.3-1. Blue Peak and the distant Eastons Creek valley, seen from 'Lookout Hill'.

4.3.1 Incorporation of existing vehicle tracks

Sections of existing closed vehicle tracks could be converted to walking track and incorporated into the proposed track providing they remain off-limits to vehicular use, in which case they will continue to revegetate and will eventually be difficult to recognise as former vehicle tracks. The advantage of following such tracks is that they provide a readymade benched surface, which in some cases has already been artificially surfaced with gravel and is therefore stable. An example is the section of Folly Hill Road that traverses the eastern slopes of Frog Hill.

In the short term following vehicle tracks may detract from the wild quality of the walking experience although many of the existing tracks followed by the Tarkine Trails route are already fairly overgrown. Another potential disadvantage is that some sections of vehicle track are steeper than is desirable for a walking track, for example the section of Folly Hill Road that ascends west of the Lyons River (see 5.1.2). As noted in 3.2 it may be necessary to surface steep sections with heavily compacted gravel to reduce the rate of scuffing and surface erosion.

4.3.2 Access to riverine environments

The proposed route east of the Pipeline Road traverses country that encompasses several rivers and major creeks, and hence provides opportunities for walkers to experience riverine environments. Outstanding riverine features of the area include the Arthur and Lyons Rivers, Eastons Creek, Tarkine Falls on upper Eastons Creek, and an unnamed falls on Eastons Creek south of Blue Peak. I will henceforth refer to the latter as Eastons Falls (see Photo 2.1-1). All of these attractions are accessed by the existing Tarkine Trails route between the Keith River Road and 'Lookout Hill', or by short side-routes.

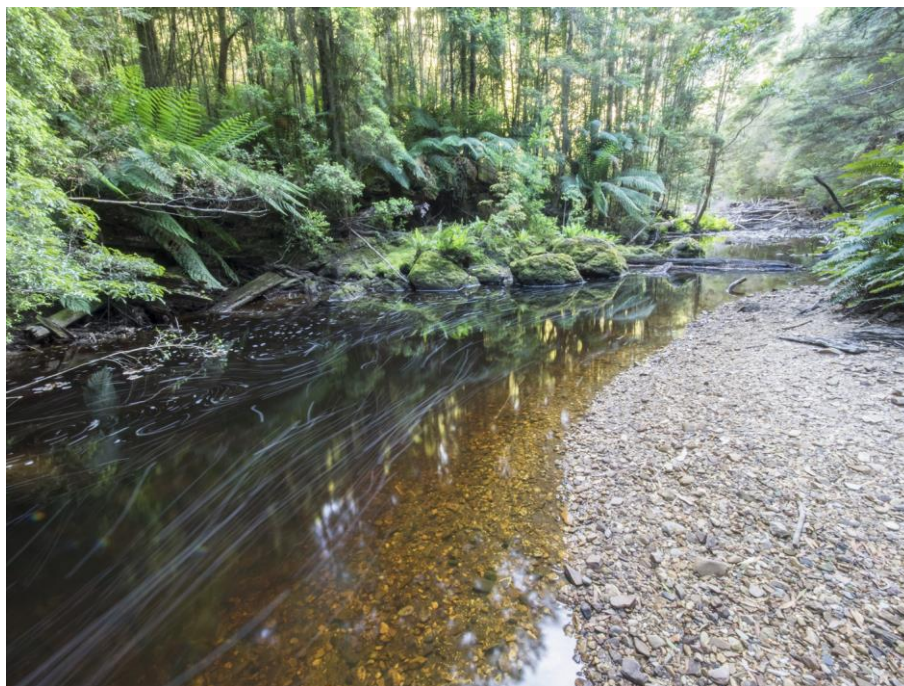


Photo 4.3.2-1. Eastons Creek

I have made preliminary investigations into the feasibility of routing the track along or close to one or more sections of river bank in this area. In many places this is impractical owing to the steepness of the banks. Where banks are less steep it will generally be necessary to locate the track some distance from a river due to the unevenness of the terrain, the density of the vegetation, the presence of flood channels and/or the need for the track to be above the potential flood height. This reduces the visual exposure of the track to the river, hence weakening the rationale for following the river.

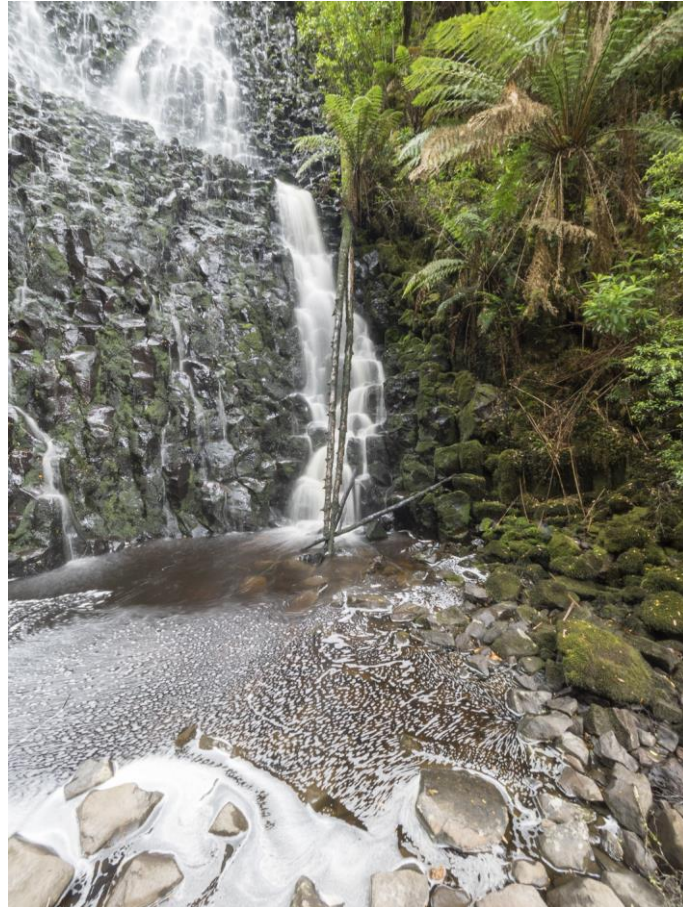
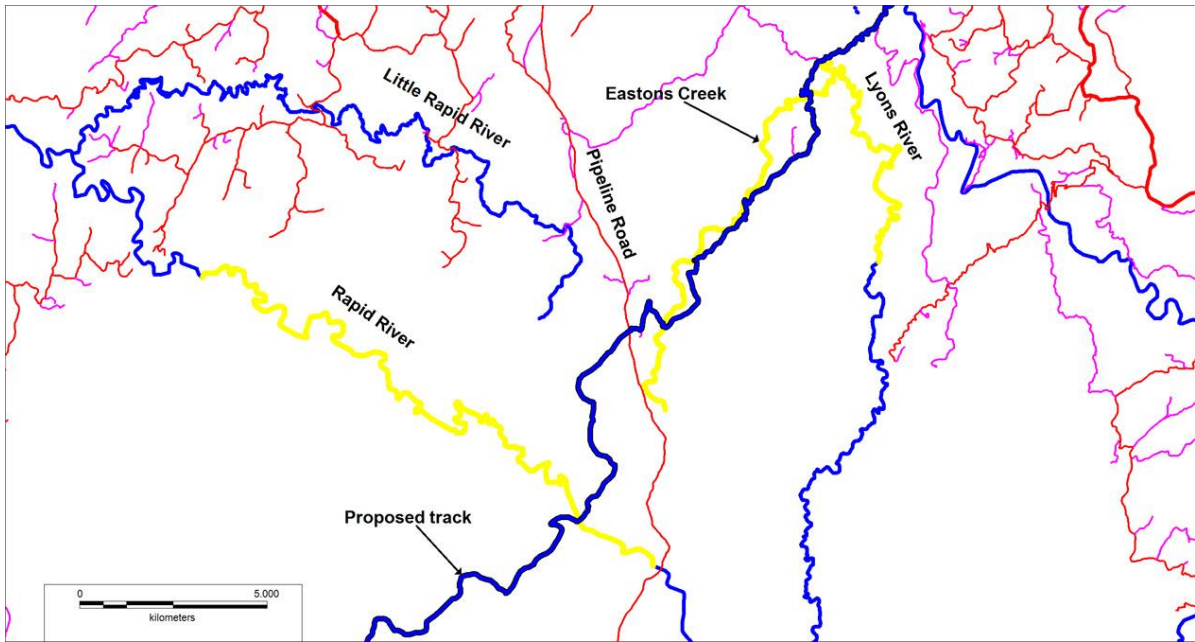


Photo 4.3.2-2. Tarkine Falls

A potential option is to route the track along the west bank of the Lyons River from the current ford over the Lyons to the river-bend north of Joke Hill, thence to the Frog Hill/Joke Hill saddle where it could rejoin the existing Tarkine Trails track. However the slope above the bend is very steep and the cost of track construction would be difficult to justify given that an existing vehicle track already traverses the slope higher up. For this reason I do not recommend this option for the foreseeable future.

In the course of the aerial survey I inspected the entire length of Eastons Creek and an 8 km section of the Lyons River upstream of its junction with Eastons Creek, to look for waterfalls, gorges, cliffs, swimming holes and other scenic features that the proposed track might access (see Map 4.3-2). I did not see any features that would warrant such access other than the ones I already knew about, namely Tarkine Falls and Eastons Falls. However owing to the dense canopy it was not always

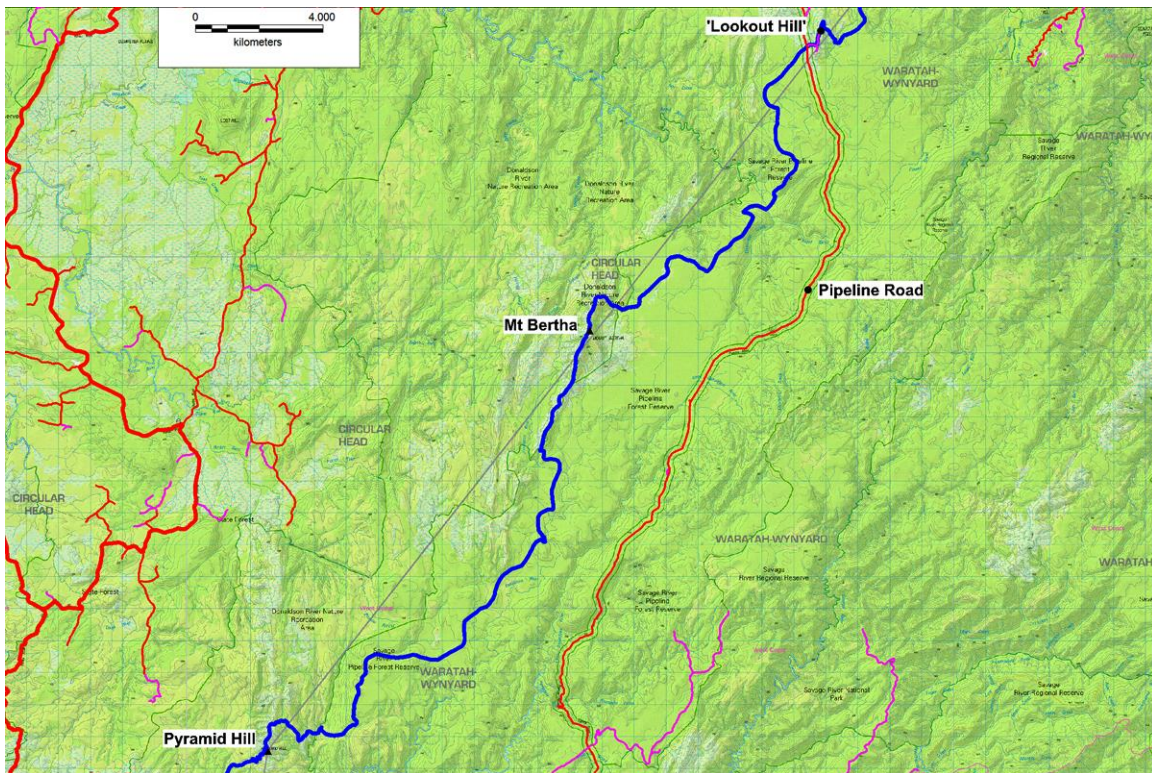
possible to see the rivers in places, so I may have missed features that would warrant at least a sidetrack.



Map 4.3-2. Aerially surveyed sections (yellow lines) of the Rapid River, Eastons Creek and Lyons River

4.4 'Lookout Hill' to Mt Bertha ridge

4.4.1 Mt Bertha as a key attraction



Map 4.4.1. 'Lookout Hill' to Pyramid Hill

Mt Bertha is potentially one of the key attractions of the entire 10-day walk, being one of its highest points (just over 700m) and offering extensive views over the Tarkine hinterland from the Norfolk Range to the Savage River catchment and from the Meredith Range to the state's northern coastline (see Photos 4.4.1 and 4.4.3).



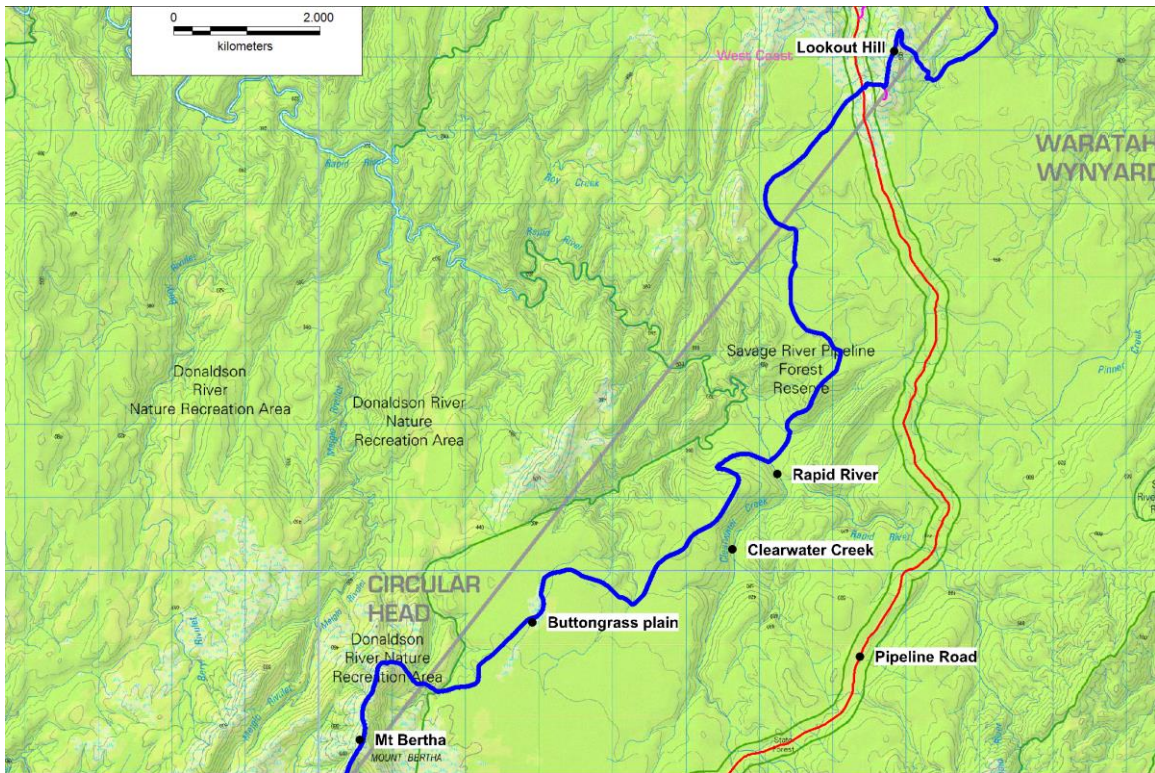
Photo 4.4.1. Meredith Range from Mt Bertha

Although the peak is not high enough to feature true alpine vegetation, its dramatic topography and expanses of windswept heath offer the nearest thing to an alpine experience that walkers will encounter on the walk except on the traverse of the Norfolk Range. I recommend prolonging the 'Mt Bertha experience' by locating the track along most of the length of the Bertha ridgeline before it drops back into the rainforest of the Donaldson valley. This will also allow the track to shed 200m of altitude gradually, with minimal use of steps.

One disadvantage of taking the track over Mt Bertha is that its viewfield includes the Savage River open cut mine, as do the viewfields of 'Lookout Hill', Pyramid Hill and Mt Bolton. Views of the mine are unavoidable unless one avoids all major lookouts, which would deprive walkers of one of region's main recreational attractions as well as a change from the relative confinement of the lowland heathlands and forests. Fortunately the mine occupies only a small part of each of these viewfields, and one can only look forward to the time when the mine is closed and rehabilitated.

Another potential drawback of the Mt Bertha traverse is that it is very exposed and could therefore be challenging and potentially dangerous in bad weather. The potential for challenges of this nature can be seen as one of the attractions of the walk providing walkers are made aware of the risks and are equipped to deal with them (if only by delaying their traverse until the weather improves).

4.4.2 'Lookout Hill' to Mt Bertha



Map 4.4.2. 'Lookout Hill' to Mt Bertha

The summit of 'Lookout Hill' is only half a kilometre east of the Pipeline Road and is accessed by a gravel side road. This side road joins the Pipeline Road at a point where the pipeline is underground, removing one possible source of concern for the pipeline manager about the risks associated with allowing walkers to access and cross the road.

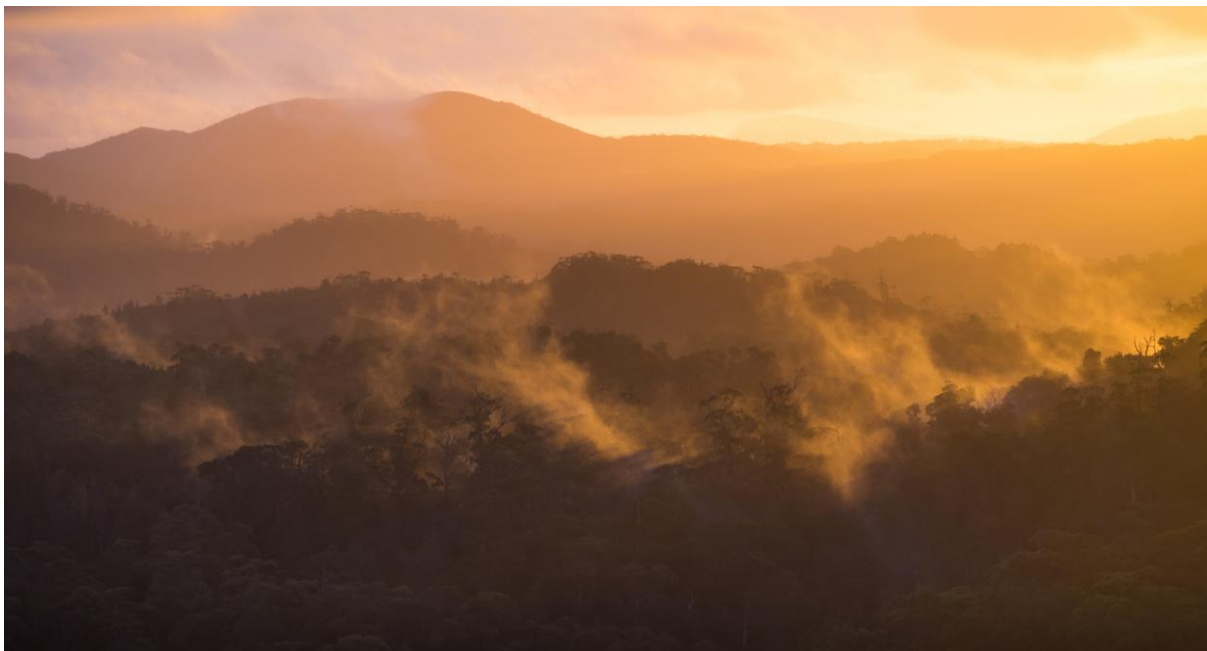


Photo 4.4.2-1. Mt Bertha from 'Lookout Hill' at sunset

On the west side of the road the track should head westwards to maximise its remoteness from the road. However there is no point taking it more than approximately 1.5 km west of the road, as this would take it out of the tall myrtle forest into scrubbier and heavily dissected country.

The spur and plateau northwest of Clearwater Creek offer a natural alignment for the track heading towards Mt Bertha, as well as featuring some of the most spectacular tall forest encountered on the entire walk (see Photo 4.4.2-2). This spur broadly determines the location to cross the Rapid River, which traverses a broad plain for approximately 1.4 km downstream of its junction with Clearwater Creek.

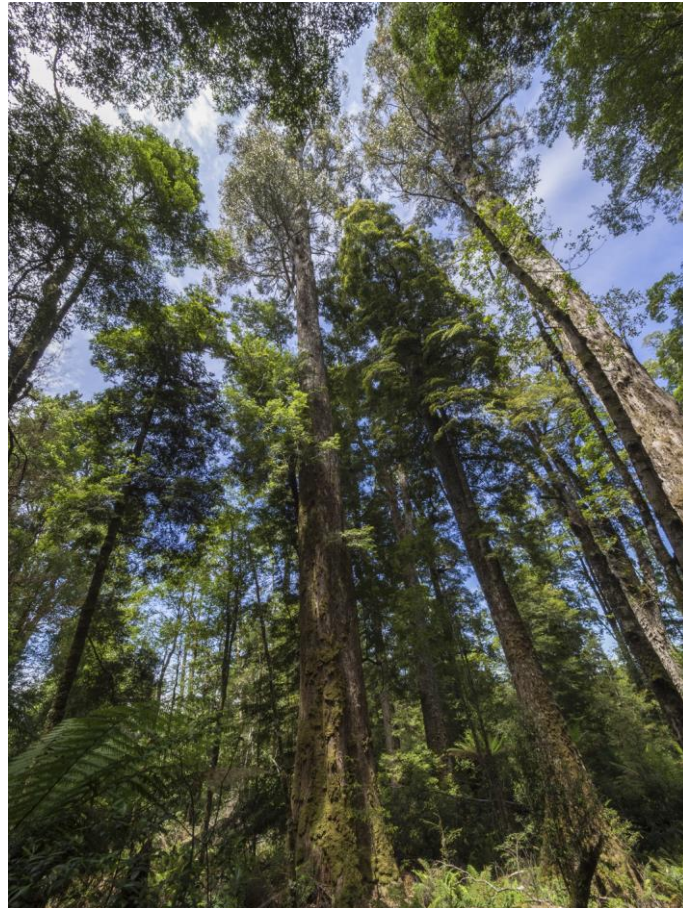


Photo 4.4.2-2. Tall eucalypts on plateau northwest of Clearwater Creek

During the aerial survey I inspected a 20-km stretch of the Rapid River downstream of Clearwater Creek, looking for sections or features that might be worth accessing by either the main track or a sidetrack. I did not observe any locations that were obviously more attractive than the aforementioned broad plain. Rob Blakers, who accompanied me on the aerial survey, confirmed the absence of waterfalls on the river having previously rafted it. In my first fieldtrip to the Rapid River accompanied by Grant Dixon we visited the small gorge downstream of the plain, but we did not feel it was scenic enough to justify modifying the route.

In a subsequent fieldtrip I discovered several small waterfalls on the Rapid River between the Pipeline Road and Clearwater Creek (see Photo 4.4.2-3). In the long term it may be practical to construct a sidetrack up the river the access these falls from the proposed Rapid River campsite.

However it is nearly 3 km from the proposed campsite to the upper falls, and the per-metre cost of track construction would be high owing to the steep – in places nearly vertical – terrain. Hence for the foreseeable future I do not think it is worth pursuing this option.



Photo 4.4.2-3. Falls on Rapid River upstream of Clearwater Creek

On the north side of the Rapid River two prominent spurs climb northeast from the valley floor. The west spur climbs to the height of the plateau west of the Pipeline Road, and features some impressive tall eucalypts and myrtles (see Photo 4.4.2-4). I noticed the east spur during the aerial survey because it appeared to feature a substantially more extensive stand of tall eucalypts. However, a subsequent ground inspection revealed that the eucalypts were *E nitida* and not particularly impressive. Traversing the east spur would bring walkers to within half a kilometre of the Pipeline Road, and would require an additional 80m of climbing relative to the west spur. The east spur offers glimpses of views but these do not justify the climb.

Another natural alignment point for the track is the larger of the two areas of moorland located on the plain northeast of Mt Bertha. This plain was one of the surprises of the survey and will be one of the surprises of the Trans-Tarkine walk, being an area of pure buttongrass in the midst of the forest (see Photo 4.4.2-5). A small creek dissects the moorland in a SW-NE direction. Just south of this creek on the east side of the moorland one can get a view of the Mt Bertha ridge (see Photo 4.4.2-6). The moorland will provide a dramatic contrast to the forests in which walkers will have spent most of the previous two days.



Photo 4.4.2-4. Tall myrtles north of the Rapid River



Photo 4.4.2-5. Buttongrass plain northeast of Mt Bertha



Photo 4.4.2-6. Mt Bertha from buttongrass plain to northeast

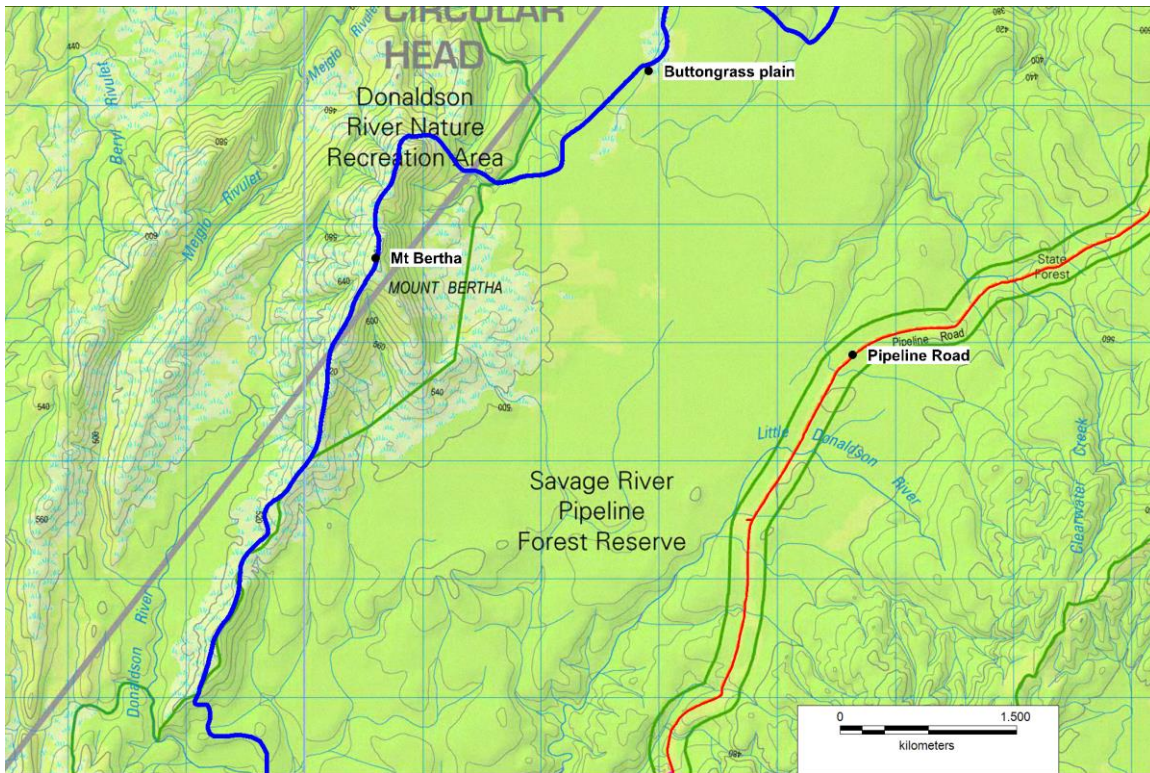
The aerial survey confirmed that the smaller moorland to the southwest is scrubbier and appears less attractive.

At the south-western end of the moorland the track will re-enter the forest (see Photo 4.4.2-7) and continue in a southwest direction for approximately 1.6 km to the base of a foothill of Mt Bertha.



Photo 4.4.2-7. Rainforest northeast of Mt Bertha

4.4.3 Traverse of the Mt Bertha ridge



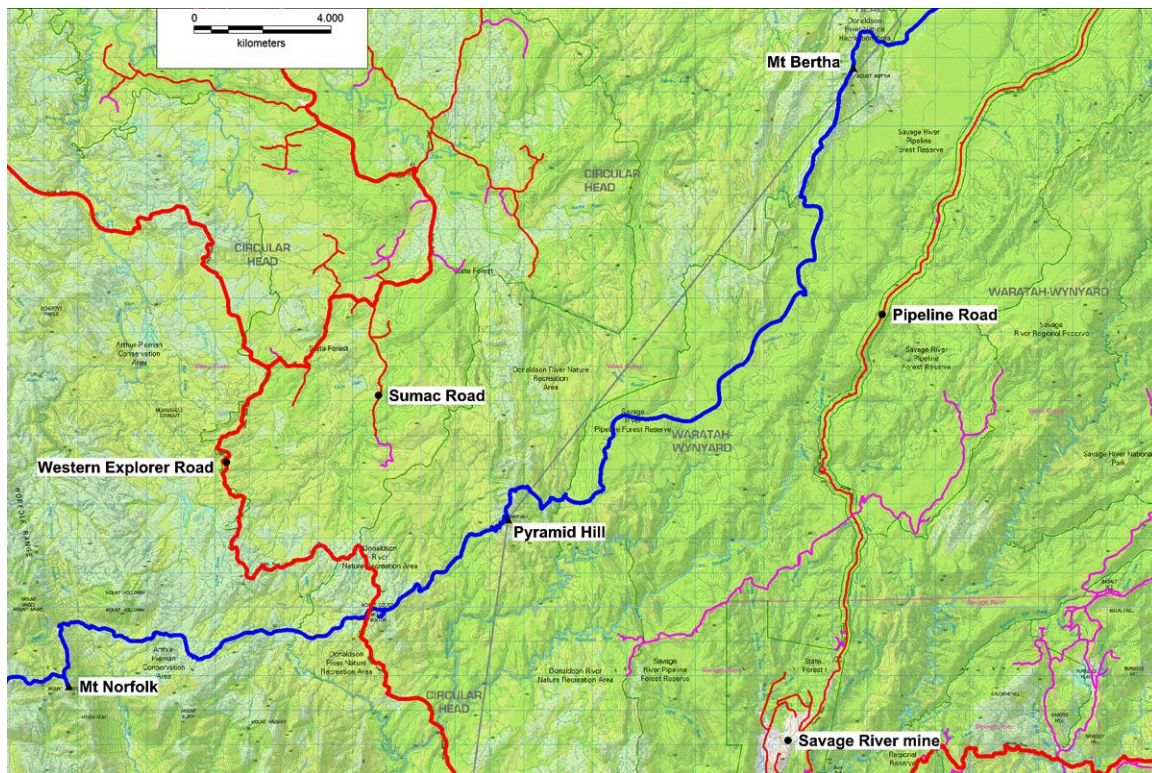
Map 4.4.3. Traverse of Mt Bertha ridge

The proposed route will climb fairly steeply around the northern end of the ridge north of Mt Bertha, then follow the ridgeline over the summit and southwards for approximately five kilometres. The ridgeline traverse offers extensive views and a hint of alpine conditions in the vicinity of the summit (see Photo 4.4.3).



Photo 4.4.3. Norfolk Range from Mt Bertha

4.5 Mt Bertha ridge to the Western Explorer Road



Map 4.5. Mt Bertha ridge to the Western Explorer Road

4.5.1 Pyramid Hill as a key attraction

Pyramid Hill is the natural focal point of the section of the track that will link Mt Bertha to the Western Explorer Road. Although not especially high (532m) the hill and its environs provide widespread views over the surrounding country, and the traverse of the peak will provide a welcome contrast to the forest environments in which walkers will have spent much of the first four days of their trip (see Photos 4.5.1-1 & 2). The view to the south is restricted by trees at the summit but is open from points nearby. In clear weather the viewfield includes Cradle Mountain and Barn Bluff, reminding walkers of the close geographical connection between the Tarkine and the current World Heritage Area (see Photo 4.5.1-3). These peaks are also visible from Mt Bolton, although less so.

Bypassing Pyramid Hill to the north would provide no obvious benefits and would bring the track close to the southern end of the Sumac Road. Bypassing it to the south would confine the track to slopes of scrubby forest, much of which was severely burnt in the 2008 fire.

The proposed traverse of Pyramid Hill and a kilometre section of the ridge to its north is quite exposed, and could therefore be challenging in adverse weather. However as noted earlier the altitude is not great, and once the track is constructed it will be possible to complete the exposed part of the traverse in less than an hour.

One drawback of the proposed Pyramid Hill route is that the summit view includes a substantial amount of the Savage River mine, including at least a kilometre of the open-cut face. The Western Explorer Road can also be glimpsed, although it is easily overlooked. Mitigating this, the vast

majority of the view is wild and walkers will be only a few hours' walk from the road, so they will expect to be approaching signs of human activity.



Photo 4.5.1-1. Mt Bertha from Pyramid Hill



Photo 4.5.1-2. Pyramid Hill from ridge to north; Mt Edith & Mt Holloway in distance

Another drawback is that much of the surrounding forest and other vegetation, particularly between Pyramid Hill and Mt Bolton, was severely damaged by the 2008 fire. The result is scenically shocking although the impact will decline as revegetation occurs. (Full recovery will take many decades.) Fallen timber can be cleared for track construction but its clearance will add to construction and

maintenance costs, and the density of fallen timber in the area will add to the time required for fine-tuning the track alignment.

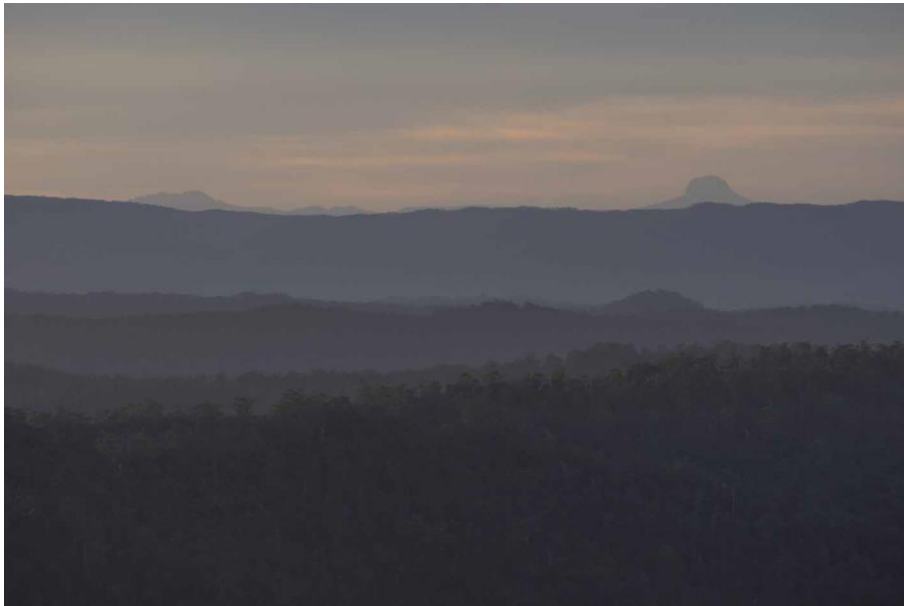
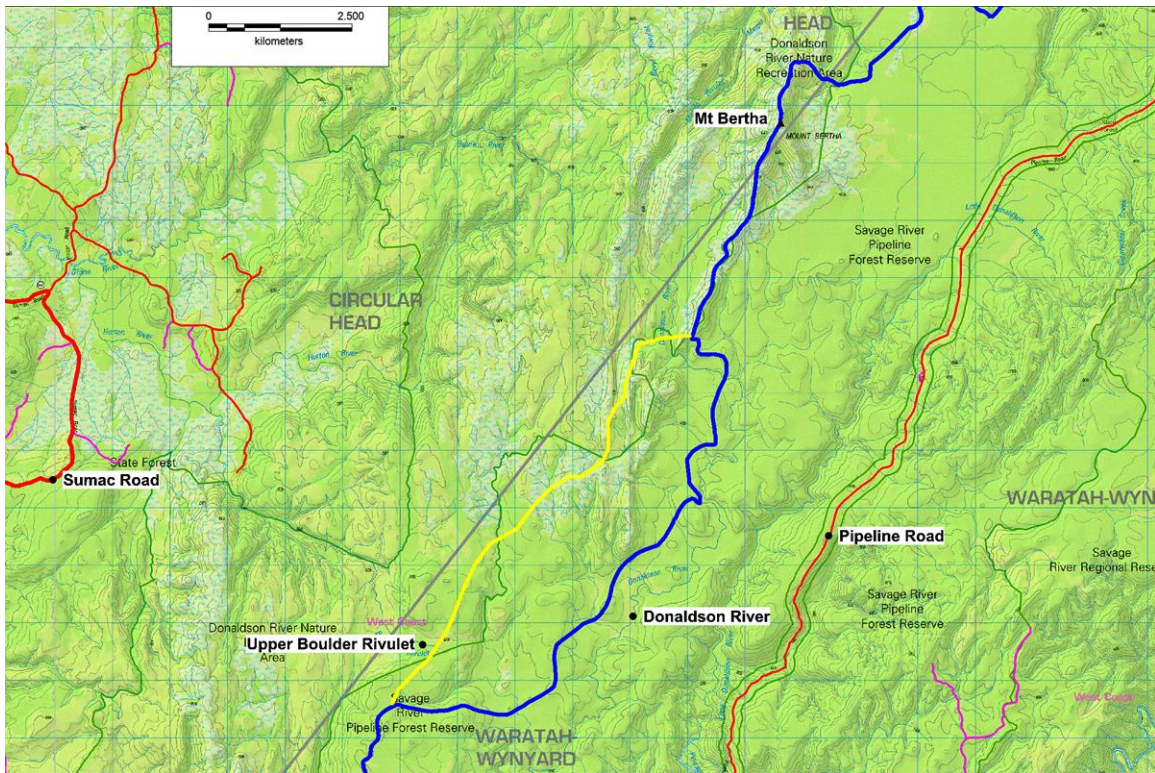


Photo 4.5.1-3. Cradle Mt and Barn Bluff from Pyramid Hill (telephoto)

4.5.2 Mt Bertha ridge to upper Boulder Rivulet



Map 4.5.2. Mt Bertha ridge to upper Boulder Rivulet

There are two main options for routing the track between the southern end of the Mt Bertha ‘tail’ and the upper Boulder Rivulet area. The eastern option (blue line on above map) drops into the west Donaldson Valley, which is blanketed with rainforest (see Photo 4.5.2-1). The western option (yellow line) would traverse a mosaic of forest, heathland and scrub southwest of Mt Bertha. It would be inadvisable to take the track east of the Donaldson River as this would put it too close to the Pipeline Road, which is within 2 km of the Donaldson in places.

The advantage of the western option is that it would traverse a greater variety of environments, in places breaking out from under the rainforest canopy for several kilometres. However, walkers will have already traversed the Mt Bertha ridge and so will have already been exposed for an extended period (a 5 km traverse) to open skies, heathland environments and extensive views. By contrast, the ridges southwest of Mt Bertha will offer only limited views.

I have not walked this route but I have seen the country that it would traverse from a nearby ridge south of Mt Bertha, and I inspected it by helicopter during the aerial survey. These inspections confirmed that the heathland is fairly scrubby, limiting its recreational appeal (see Photo 4.5.2-2). The route would traverse dense scrub in places, particularly in the vicinity of upper Boulder Rivulet, and it would miss out on the exposure to rainforest and river environments that the eastern alternative offers.



Photo 4.5.2-1. Tall myrtle canopy in Donaldson valley

The eastern route will take walkers through another major sector of the greater Tarkine rainforest. Much of the rainforest west of the Donaldson is moderately scrubby (see Photos 4.5.2-3 and 4) but it includes stands of giant myrtles with largely open understorey. These stands tend to be located on ridges, slopes and well-drained plateaus whereas low-lying areas tend to be scrubby, but there are exceptions. Dense scrub occurs in places (see Photo 4.5.2-5).



Photo 4.5.2-2. Scrub/moorland country southwest of Mt Bertha

The terrain is mostly gently undulating although steep slopes occur in places, requiring steps or oblique ascents. Cross-slopes should generally be avoided as far as possible because they tend to be dissected with steep gullies, which will require switchbacks if track gradients are to be kept low. Creeks tend to be wide and shallow, so most of them can be crossed with duckboard rather than requiring elevated bridges. The duckboard may occasionally be submerged after heavy rains, but is unlikely to be damaged by water flow.



Photo 4.5.2-3. Forest in Donaldson valley



Photo 4.5.2-4. Typical scrub understorey in Donaldson valley



Photo 4.5.2-5. Dense scrub on western fringes of Donaldson valley

In the course of the ground survey I visited several points along the bank of the Donaldson, looking for opportunities to site the track along the bank or at least to access it in places. Most of the locations that I visited were unsuitable for track construction due to steep banks, dense scrub, flood channels or other factors. However one location was near-idyllic, with an open grove of tree ferns bordering a bank of small boulders beside the river (see Photo 4.5.2-6). It would be worth bringing the track to the riverbank at this point, although this will require descending the steep slope to the west.

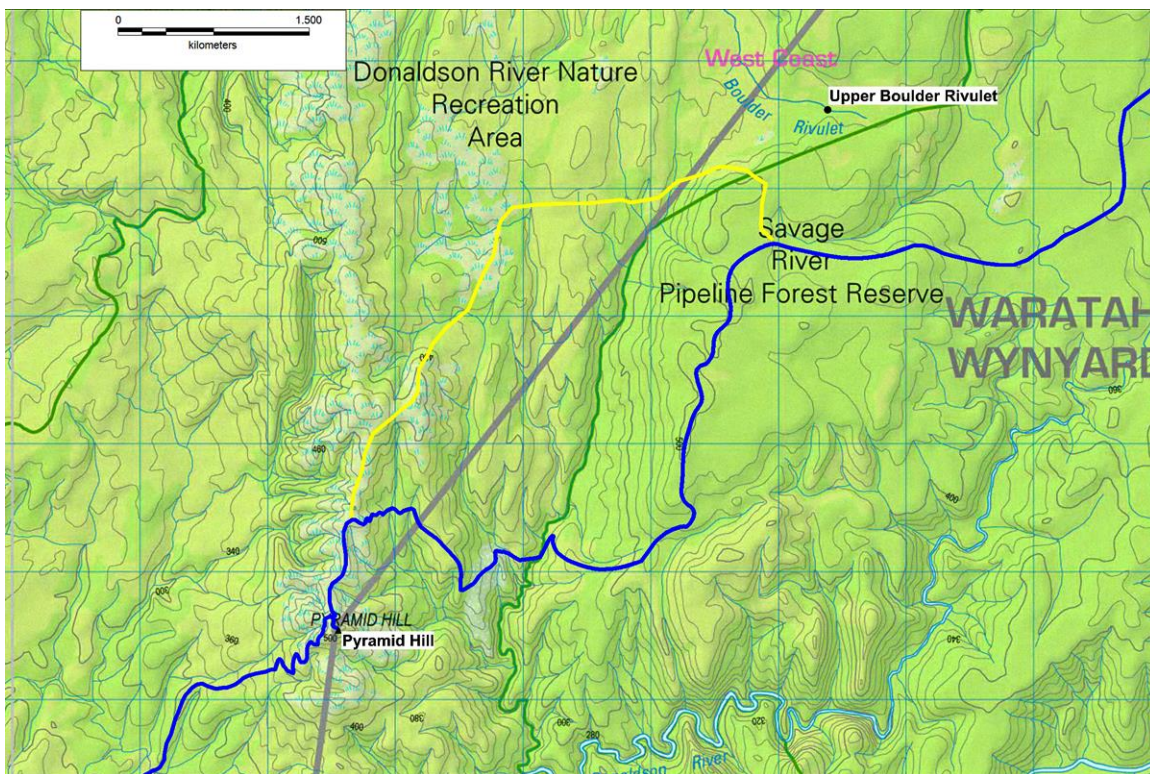


Photo 4.5.2-6. Proposed point where track will access Donaldson River

On the ridge immediately west of this location there is an extensive clearing in the forest, which I guess was caused by a lightning strike and subsequent local fire that killed most of the trees. This clearing affords inspiring views over the adjacent valley and surrounding forest canopy, and would make an attractive feature of the walk. However the presence of regrowth indicates that the views are likely to be lost as the vegetation recovers in the next few decades. There are signs that part of this clearing may have been used as a helipad in the past, possibly more than 20 years ago.

Before the track route is finalised in this area it would be advisable to explore the forest thoroughly to maximise the track's scenic values and in particular its exposure to tall, open forest. It would also be advisable to explore the entire length of the Donaldson River between the southern end of the Mt Bertha 'tail' and Pineapple Creek, as there may be other locations and even extended sections of river bank that are suitable for siting the track. I flew along the river between Mt Bertha and Pyramid Hill during the aerial survey, but I could not always see the river owing to the density of the forest canopy particularly along its upper reaches.

4.5.3 Upper Boulder Rivulet to Pyramid Hill



Map 4.5.3. Upper Boulder Rivulet to Pyramid Hill

The route that I initially inspected between upper Boulder Rivulet and Pyramid Hill (yellow line on above map) drops northward off the forested plateau south of upper Boulder Rivulet, traverses west then southwest across the valley, climbs an open spur NNE of Pyramid Hill, and traverses approximately 1.5 km of open ridgeline southwards to Pyramid Hill. The vicinity of upper Boulder Rivulet is blanketed with extremely thick bauera scrub, but the scrub moderates as one proceeds westward. The main attraction of this route is the Pyramid ridgeline traverse, which provides extensive views and the semblance of an alpine experience. Notwithstanding the scrub, the lowland traverse also has its attractions including pockets of rainforest, moderately open woodland and heath.

The proposed route (blue line) follows the plateau south of upper Boulder Rivulet for approximately 2.5 km before crossing the valley, climbing a spur northeast of Pyramid Hill and traversing the open ridgeline for approximately 1 km to the peak. A fieldtrip that I undertook in April 2016 revealed that the plateau south of upper Boulder Rivulet is covered with an extensive stand of mostly open rainforest with many giant myrtles (see Photos 4.5.3-1 & 2). If the track follows the proposed route, this will be the most spectacular stand of rainforest south of Mt Bertha and will offer walkers a grand finale from the Tarkine rainforests before they enter the more open country to the west.

I have not inspected the section of route between this plateau and the ridgeline north of Pyramid Hill, but I do not foresee any difficulties with taking the track across this section.

In the course of the aerial survey I inspected the Donaldson River southeast and east of Pyramid Hill, where it flows through a steep-sided valley and includes several hairpin bends. The valley looked

sufficiently scenic to warrant an on-ground inspection, which I undertook in April 2016. From an on-ground perspective the valley is steep but not particularly spectacular (see Photo 4.5.3-3). The most striking feature is a narrow ridge that extends southwards across the main alignment of the river for approximately 300m; however views from this ridge are limited because of the density of the forest vegetation. The east side of this ridge includes sections of cliff up to 25m high and in one place slightly overhanging.

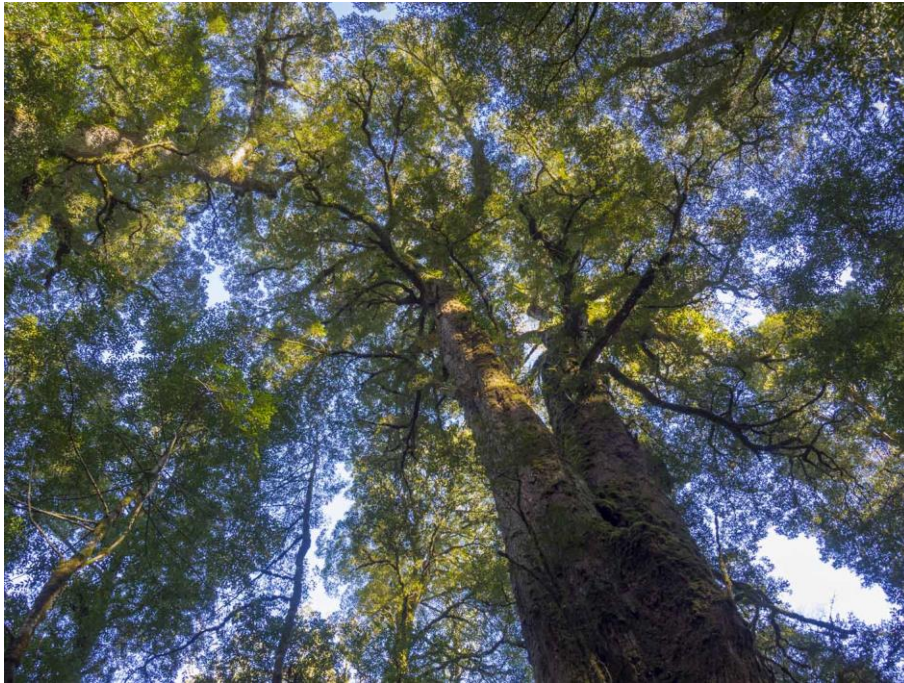


Photo 4.5.3-1. Giant myrtle on plateau northeast of Pyramid Hill



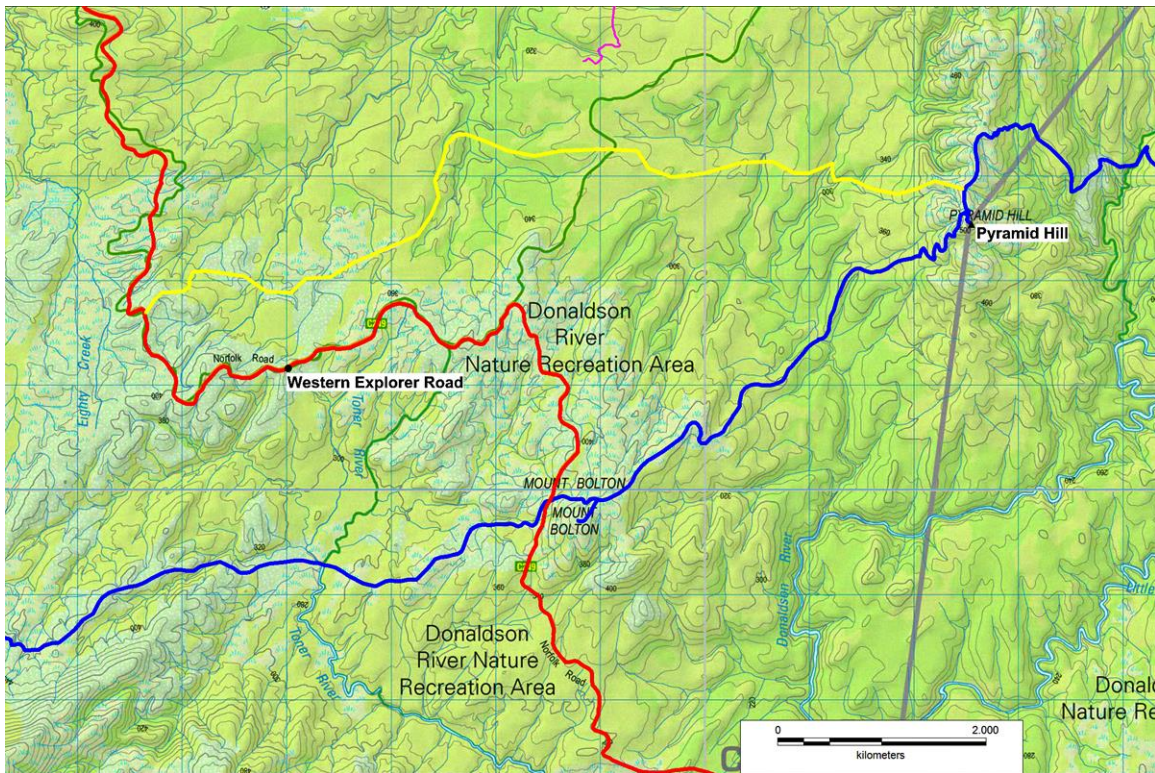
Photo 4.5.3-2. Open rainforest on plateau northeast of Pyramid Hill



Photo 4.5.3-3. Donaldson valley east of Pyramid Hill

I my opinion these features and the valley generally are not sufficiently spectacular to warrant constructing a track to access them, which would require traversing extended sections of precipitous country at extremely high per-metre track construction costs.

4.5.4 Pyramid Hill to Western Explorer Road



Map 4.5.4. Pyramid Hill to Western Explorer Road

The proposed route (blue line on above map) traverses Mt Bolton, which together with 'Lookout Hill', Mt Bertha, Pyramid Hill and Mt Norfolk will be one of the high points of the walk offering extensive views (see Photo 4.5.4-1). The proposed Night 5 campsite will be located in a small valley to the northeast of Mt Bolton, allowing walkers who camp there easy access to the summit for evening and morning views. Mt Bolton is also the best starting-point for a track westwards towards Mt Norfolk (see 4.6).



Photo 4.5.4-1. Panorama west from Mt Bolton

The proposed route between Pyramid Hill and Mt Bolton would be fairly direct, descending spurs and slopes to the creek that separates the peaks. Much of this country was badly burnt in 2008, but pockets of rainforest remain unburnt (see Photos 4.5.4-2 and 3).



Photo 4.5.4-2. Woodland west of Pyramid Hill

An alternative route from Pyramid Hill to the Western Explorer Road (yellow line on Map 4.5.4) runs approximately westward from Pyramid Hill to upper Eighty Creek. The last two kilometres of this section would run roughly parallel to the 'dogleg' section of the Western Explorer Road, a bit less than a kilometre from the road. The track would have to follow this route if it were to link to the Mt Mabel route (see 4.6.2). A trailhead at Eighty Creek could also link to the upper Lagoon River route (see 4.6.4).



Photo 4.5.4-3. Fire-killed trees reflected in creek between Pyramid Hill and Mt Bolton

The main disadvantage of the 'yellow line' route is that it traverses extended sections of scrubby woodland and scrub, a fact confirmed during the aerial survey. It also traverses areas of forest that were so badly damaged in the 2008 fire that little revegetation has yet occurred. It would therefore have little scenic appeal, and it would miss out on the extensive views that are gained by traversing Mt Bolton. Given that the Mt Mabel route has little to recommend it, the same applies to the Pyramid Hill to upper Eighty Creek option.

4.6 Western Explorer Road to Norfolk Range

4.6.1 The Norfolk Range as a potential highlight of the walk

The walk from the Western Explorer Road to the Norfolk Range would be Day 6 of the overall walk and Day 1 of the second five-day walk. The Norfolk Range is an obvious drawcard of the walk as it offers the challenge of a climb to the highest point on the 10-day walk, a hint of alpine environments, and extensive views including walkers' first views of the coastline (see Photos 4.6.1-1 & 2). It would be hard to route the track to avoid the range since bypassing it to the north or south would require a major deviation from the overall northeast-southwest alignment that is dictated by the location of existing roads and logging areas (but see 4.6.6).



Photo 4.6.1-1. View north from near summit of Mt Norfolk. Aerial photo by Rob Blakers.

The following points should be considered when weighing up route options for accessing and crossing the Norfolk Range:

- Mt Norfolk is the obvious main destination on the range, being the highest point and close to the proposed track's most direct alignment.
- It is preferable to avoid steep, unrelieved climbs as this would detract from the track's recreational appeal. For example it would be undesirable to climb Mt Norfolk directly from the Lagoon River as this would involve an altitude gain of 350m in a map distance of less than 1 km.
- It is preferable to minimise the visual impact of the track particularly on the slopes of the range.
- Lowland access routes between the Western Explorer Road and the Norfolk Range should offer opportunities for good recreational experiences and stable track construction.

- A traverse along part of the range would potentially extend the ‘alpine’ dimension of the walk. However the range is not high enough to offer truly alpine environments, and the benefits of a traverse would be largely cancelled if the track was mostly in high scrub or forest (as is the case on much of the Mt Mabel traverse, for example; see 4.6.2).

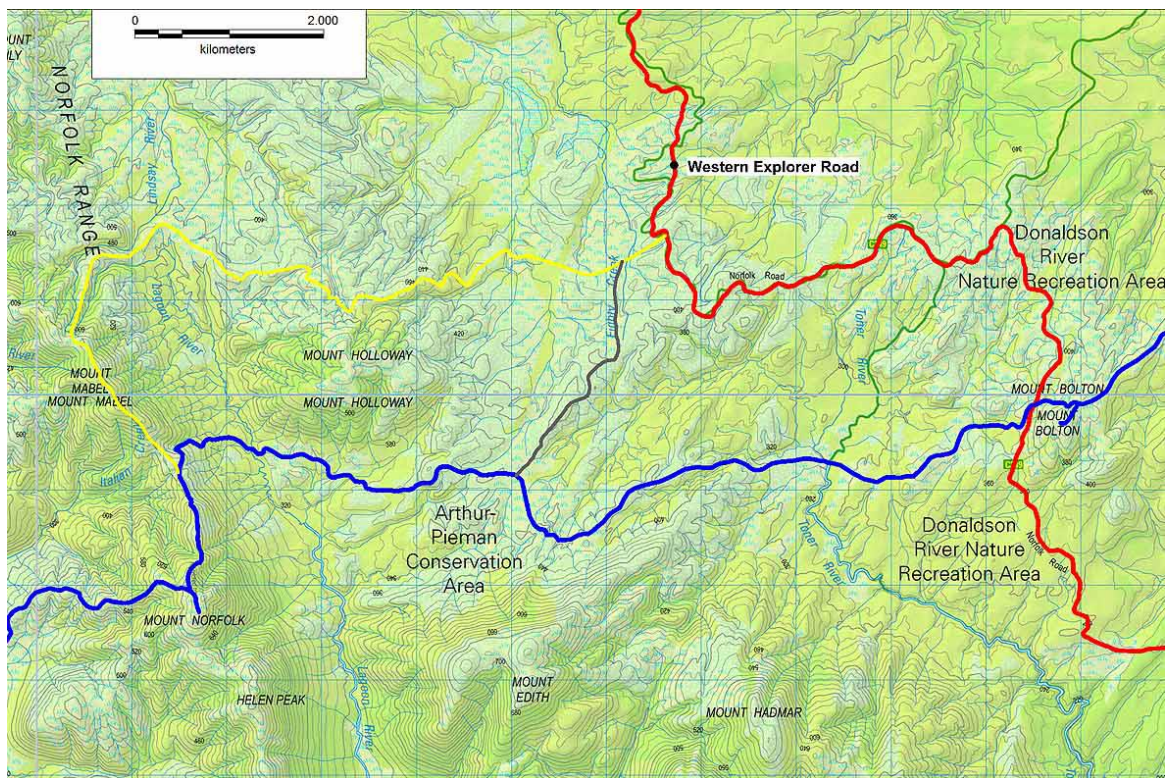
Some people have argued that track development on the Norfolk Range should be avoided because the range is currently entirely undeveloped. This argument is not valid as there is an existing cut track across Mt Mabel to the summit of Mt Norfolk. The track is quite distinct (sections through scrub can be seen on Google Earth) and probably accesses the range via West Bluff. Judging by the condition of cut timber the track has been in existence for at least five years.



Photo 4.6.1-2. Coast from slopes north of Mt Norfolk

Two route options, and a link track between them, were ground-inspected between the Western Explorer Road and Mt Norfolk. These are described below, as is the final ascent of Mt Norfolk.

4.6.2 Mt Mabel route



Map 4.6.2. Routes between Western Explorer Road and Mt Norfolk

This route (yellow line on Map 4.6.2) starts in the vicinity of upper Eighty Creek, traverses the lower northern slopes of Mt Holloway and the watershed of the Lagoon River, climbs a partly wooded spur north of Mt Mabel, traverses Mt Mabel, and climbs Mt Norfolk from the north. If this route was adopted the likely Night-6 campsite would be on the Norfolk Range immediately north of Mt Mabel, with camping platforms distributed in semi-open subalpine forest. The campsite would be approximately 8 km from the road, which given the 200 m climb at the end would make it a suitable walking distance for the first day of the second half of the walk.

The main advantages of this route are:

- There are no major river crossings (saving the cost of bridges).
- It would offer a fairly gradual ascent of the range, partly through subalpine rainforest that is moderately open in places. (This may have been partly burnt in January 2016.)
- The upper part of the ascent is visually shielded by forest canopy. (Ditto.)

The main disadvantages are:

- Much of the lowland section traverses poorly drained ground, probably requiring planking or duckboard.
- The lack of river crossings reduces the scenic variety.
- Views of the Norfolk Range on the lowlands traverse are restricted by Mt Holloway.

- The traverse of Mt Mabel is almost entirely through dense, high scrub or forest, preventing views and largely cancelling the benefits of a high-country traverse.
- The trailhead near Eighty Creek is nondescript.
- The proposed campsite near Mt Mabel has no natural water supply.



Photo 4.6.2. View west from near Eighty Creek

4.6.3 Upper Lagoon River route

This route (blue line on Map 4.6.2) starts at Mt Bolton, traverses the lowlands between Mt Edith and Mt Holloway, crosses the Lagoon River about 2.5 km downstream from its headwaters, ascends steeply 180m in altitude to the Mt Mabel–Mt Norfolk saddle, and climbs Mt Norfolk from the north. As there are no suitable campsites on this part of the range, the recommended site is near the Lagoon River at the base of the climb. This site is approximately 10 km from the trailhead.



Photo 4.6.3. Mt Holloway (centre) from Mt Bolton

The main advantages of this route are:

- The proposed trailhead on the slopes of Mt Bolton is scenic, commanding a wide view of the Norfolk Range and the country that walkers are about to traverse.
- The lowland traverse is also quite scenic.
- Much of the terrain traversed is moderately well drained, allowing the track to be constructed with benching and gravel.

The main disadvantages are:

- Swing bridges will be required over the Toner and Lagoon Rivers. (This will add to the track cost, but in recreational terms could be seen as a plus.)
- The main ascent of the range will be steep, requiring numerous steps.
- The Mt Bolton area is within earshot of machinery noise from the Savage River mine, parts of which can be seen from the summit.

- If there is a possibility of closing the Western Explorer Road south of the Trans-Tarkine Track trailheads, it would be preferable to close it as far north as possible. On that basis it would be preferable for the track to intersect the road at Eighty Creek.

4.6.4 Link route

This route (grey line on Map 4.6.2) starts near the Eighty Creek trailhead of the Mt Mabel route and joins the upper Lagoon River route southeast of Mt Holloway. It follows a low-altitude watershed, about 60 per cent of which is sufficiently well-drained to allow benching or turnpiking. The remainder will require planking.

The route allows the possibility of starting the track at Eighty Creek and linking to the upper Lagoon River route.

The main advantages of this route are:

- It would allow the track to meet the Western Explorer Road further north, while avoiding most of the disadvantages associated with the Eighty Creek route.
- It would avoid the need for a bridge over the Toner River.

The main disadvantages of this route are:

- The link section is fairly uninspiring scenically.
- The trailhead would be just over 6 km from the Lagoon River. The campsite would therefore have to be either on the Norfolk Range, where there are no good site options south of Mt Mabel, or on the plains west of the range, which would make the first day of the Western Explorer Road–Pieman Head walk excessively long (11 km plus a 440m ascent and descent).
- As noted earlier, the Pyramid Hill to Eighty Creek route has little to recommend it and misses the advantages associated with traversing Mt Bolton.

4.6.5 Ascent to Mt Norfolk from Mabel-Norfolk saddle

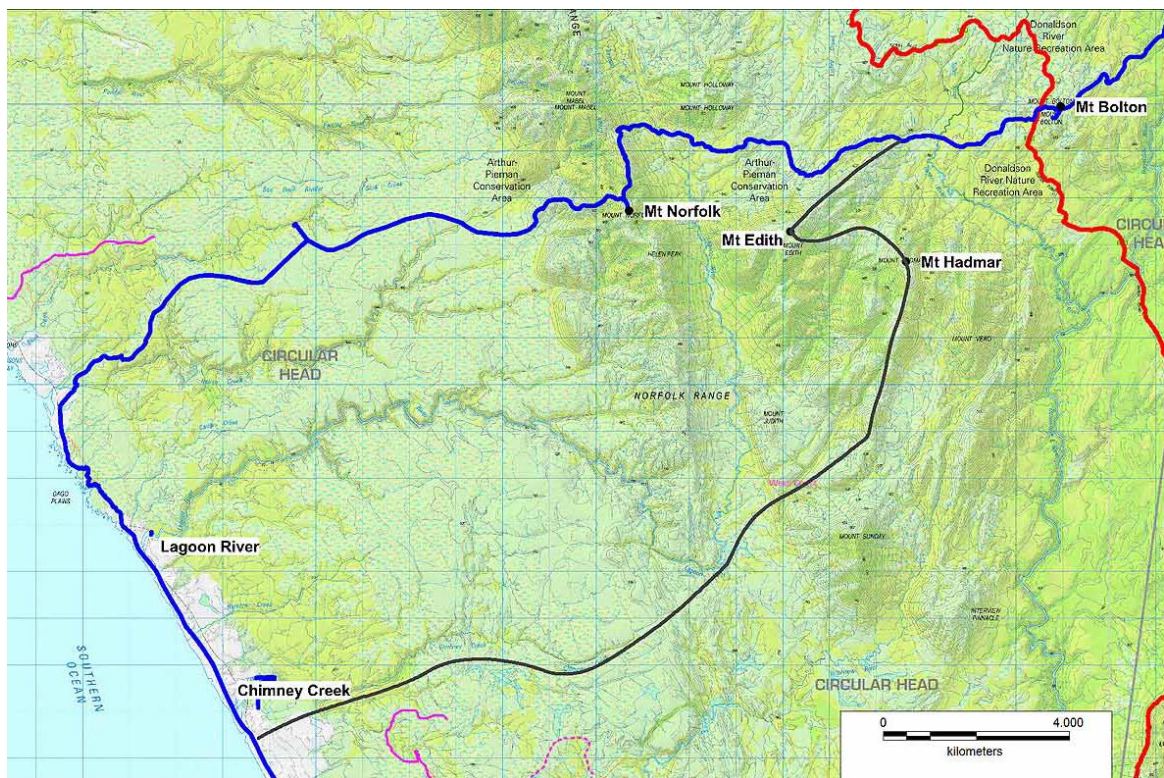


Photo 4.6.5. Mt Mabel (on left) from the south

The Mabel–Norfolk saddle and the spur immediate to the south have low moorland, giving the area a more alpine feel than other nearby parts of the range (including most of the final ascent to Mt Norfolk). This section also provides the first views of the coast, although it looks remote (13 km) and the view to the south is restricted by Mt Norfolk. The area is too exposed to be a suitable campsite location.

The final ascent to Mt Norfolk (650m map distance, 140m altitude gain) is mostly through high scrub and dense forest, affording no views. The immediate vicinity (1-200m) of the summit is clearer, but even here the scrub is waist-high and the flatness of the summit restricts views. The provision of a viewing platform approximately two metres high, with access steps and safety rails, is recommended.

4.6.6 Mt Edith / Mt Hadmar alternative



Map 4.6.6. Mt Edith / Mt Hadmar route (dark grey line)

As an alternative to traversing the Norfolk Range, Bob Brown has suggested a route from Mt Bolton via either Mt Edith or Mt Hadmar or both. I inspected this option by helicopter as part of the aerial survey. A prominent clear spur accesses Mt Edith from the northeast, where it intersects the proposed track near its crossing point on the Toner River. From Mt Edith the track could either descend steeply and directly to the Lagoon River and follow the river southwards to the southern end of the Norfolk Range, or traverse eastwards to Mt Hadmar and then descend south/southwest to the Lagoon River. West of the Norfolk Range the track would head west/southwest to the coast south of Chimney Creek.

The dark grey line on Map 4.6.6 shows the route option that includes Mt Hadmar.

The aerial inspection confirmed that the route over the mountains is mostly open and that track construction would be feasible, although the slopes are steep in places. Mt Edith and Mt Hadmar offer good views including some views of the coast, although the coast is even more remote from here than it is from Mt Norfolk (15 km vs 13 km) and the view is restricted by the Norfolk Range.

It would not be advisable to route the track over both Edith/Hadmar and the Norfolk Range, as this would greatly increase the amount of climbing required and would substantially increase the cost of track construction for no great gain in recreational value. Traversing between Mt Edith and Mt Hadmar would involve a 300m descent and subsequent 280m ascent on top of the 460m northeast ascent of Mt Edith. Descending directly from Mt Edith would involve extended traverses of slopes with terrain gradients of around 30°.

The upper Lagoon valley downstream of Mt Edith is mostly fairly open and moderately scenic, although views to the west are blocked by the Norfolk Range. As the route would meet the coast south of Chimney Creek, it would eliminate the need for bridging Italian Creek and Chimney Creek, and for installing boats over Lagoon River.

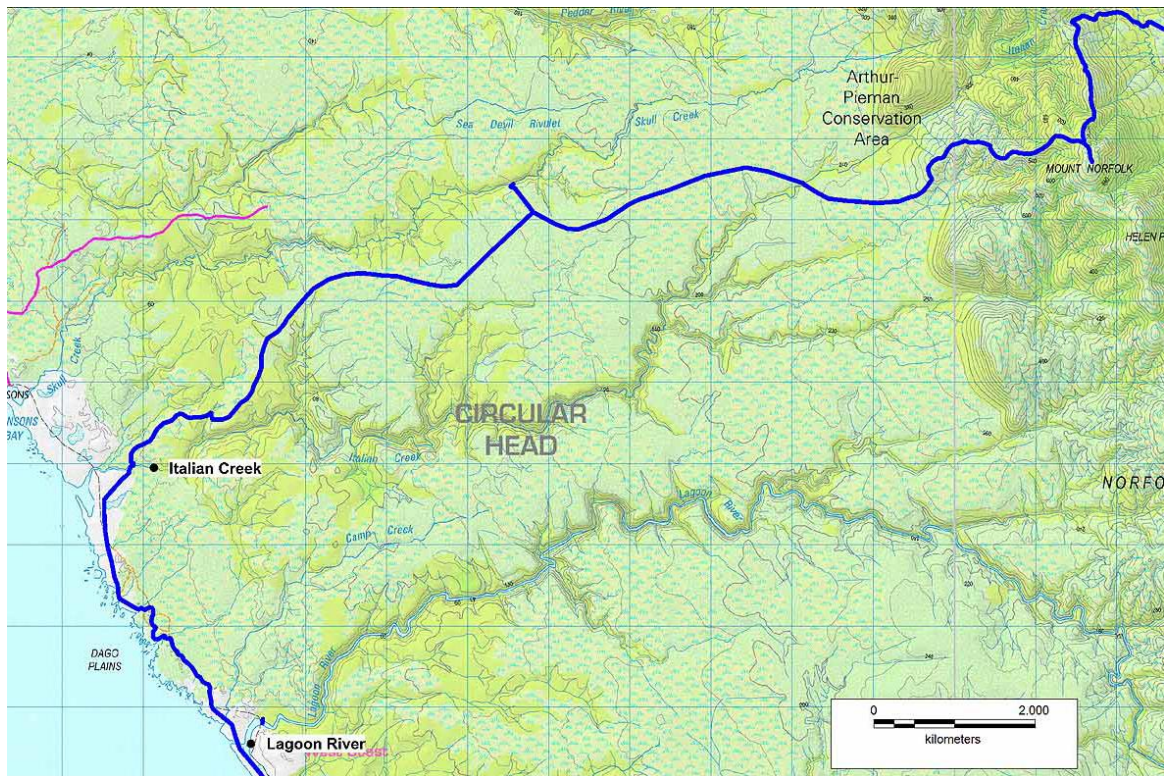
The main disadvantage of the route is that it would reduce the length of the coastal traverse by between half a day and a day, thereby excluding some of the most dramatic and memorable scenery on the entire walk. Indeed, relative to the Italian Creek route (blue line on Map 4.6.6) it would halve the length of beach and dune country that the walk would traverse (from 11.6 km to 5.5 km). This could be offset by routing the track in a north-westerly direction from the Lagoon River bend to the coast, but doing so would create an obviously contrived dogleg in the track.

An Edith-Hadmar route (minus the Norfolk Range) might also leave some walkers feeling short-changed, as the Norfolk Range is the most prominent range in the Tarkine region north of the Waratah Road and dominates the skyline of the coastal region.

In view of these disadvantages I recommend against proceeding with this option.

4.7 Mt Norfolk to coast

4.7.1 Mt Norfolk to western base of range



Map 4.7. Mt Norfolk to Lagoon River

I was unable to inspect this section on the ground owing to the bushfire risk but I have inspected it on maps and Google Earth, and by air during the aerial survey.

Three spurs descend from Mt Norfolk to the plains west of the range. The northern spur appears the most promising for track construction because it has mostly moderate gradients and will offer good views. Although numerous steps will be required on the descent, it should be possible to install minor switchbacks in places to reduce gradients and incorporate step-free sections of track.

The middle spur is steep and very narrow, largely precluding the installation of switchbacks, and the southern spur is prohibitively steep at its lower end.

I considered other route options for the western descent from the range, but none look more promising than the northern spur described above.

4.7.2 Norfolk Range to mouth of Italian Creek

The proposed route (see Map 4.7) will cross the upper Italian Creek and run roughly southwest, traversing mostly open heathy plains before re-crossing Italian Creek slightly inland from its mouth and emerging onto the coastal dune zone.



Photo 4.7.2-1. Norfolk Range from plains to west

I inspected the western half of this route on the ground. I was unable to ground-inspect the eastern half owing to the bushfire risk, but I inspected it by helicopter during the aerial survey. I also aerially inspected the entire lengths of Italian Creek and Lagoon River, looking for scenic features such as cliffs and waterfalls (see 4.7.3).



Photo 4.7.2-2. The coast from plains inland of mouth of Italian Creek

It is desirable for the proposed walk to incorporate a substantial amount of the Tarkine coastal dune country, as this ranks as one of the most spectacular features of the region. Indeed the coastal traverse will be one of the most memorable parts of the walk, particularly as walkers will encounter it at the end of their walk (see Photos 4.7.2-3 and 4.7.2-4). The coastal dune country is also rich in

Aboriginal heritage, which can be a feature of the walk subject to the approval of the Aboriginal community.



Photo 4.7.2-3. Beach near mouth of Italian Creek

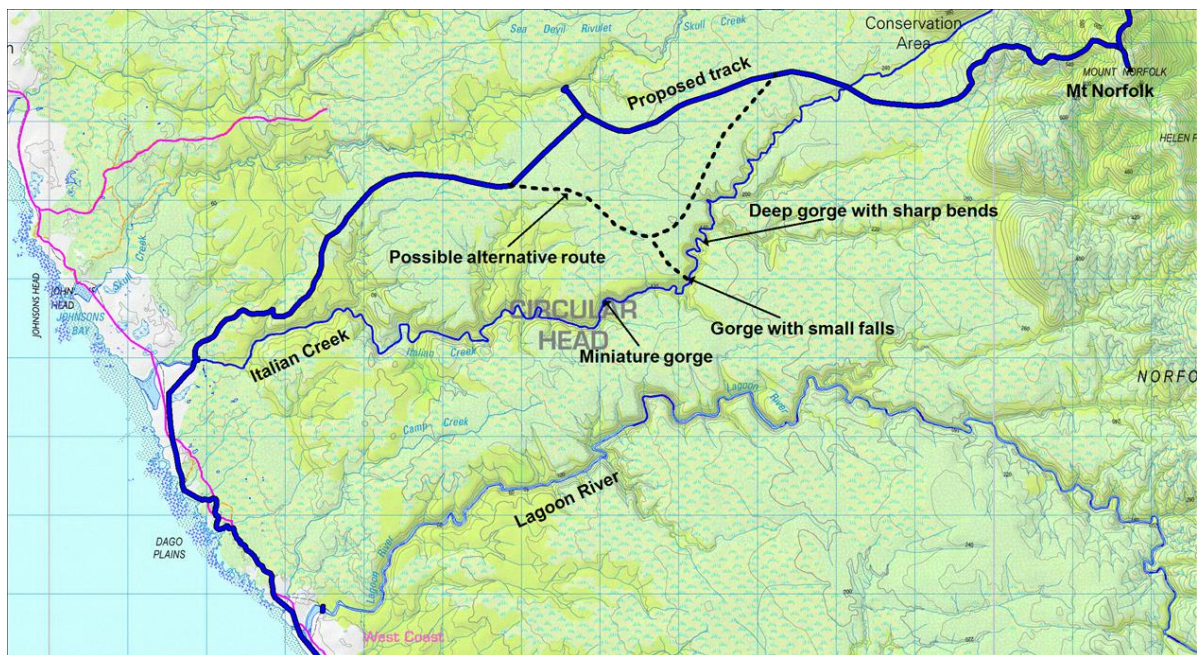
The route should be kept south of Sandy Cape because the cape area is likely to remain accessible to off-road vehicles for the foreseeable future, and encounters with ORVs would generally detract from walkers' wilderness experience. If the Trans-Tarkine Track is developed it is to be hoped that ORV access can be effectively prohibited between Sandy Cape and Pieman Head.



Photo 4.7.2-4. Dunes near mouth of Italian Creek

If the proposed track met the coast substantially north of Italian Creek (say at Sea Devil Rivulet), this would make it difficult for walkers to complete the western half of the Trans-Tarkine Track in five days and to reach Pieman Head in time to catch the ferry at a reasonable hour on the fifth day. A track linking Mt Norfolk to Italian Creek therefore represents a good compromise, as well as providing access to the spectacular coastal scenery in the vicinity of the river mouth.

4.7.3 Scenic attractions on Italian Creek



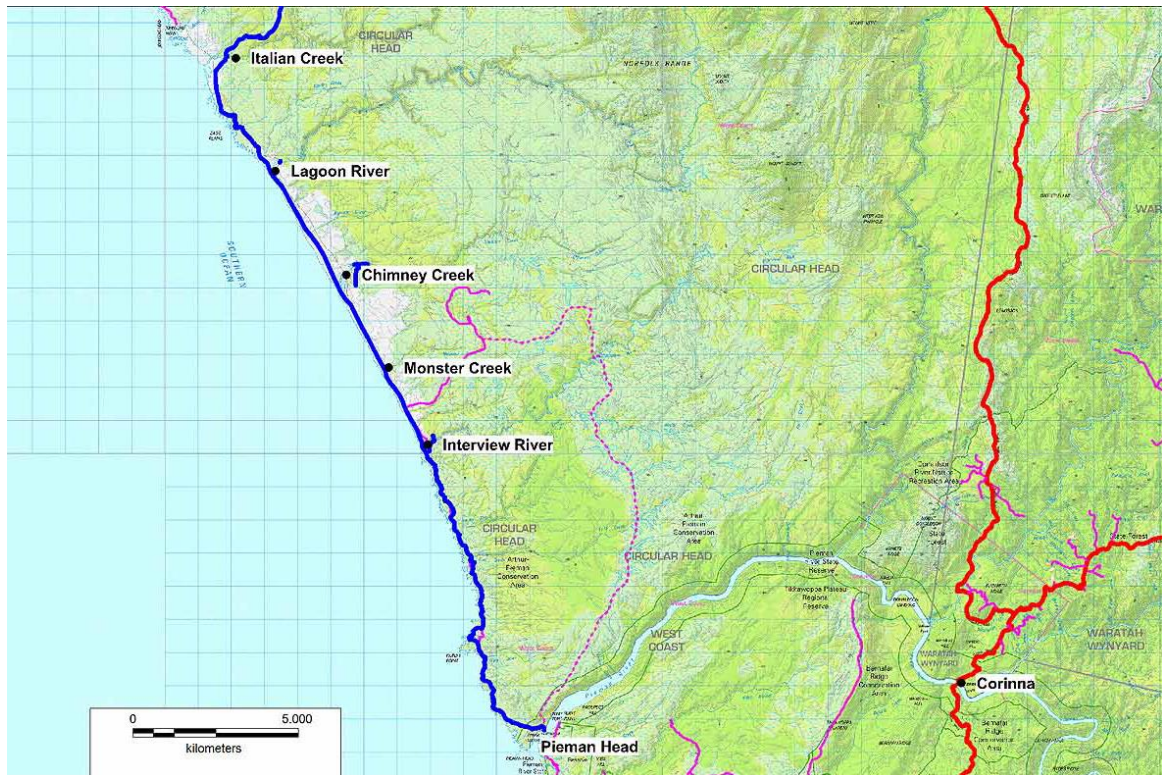
Map 4.7.3. Italian Creek and Lagoon River

As noted earlier, I inspected the entire lengths of Italian Creek and Lagoon River during the aerial survey.

Much of Italian Creek flows through a continuous gorge, one stretch of which (approximately 6-7 km inland from the coast) is particularly spectacular and includes a small waterfall (see Map 4.7.3). During the next stage of the project it is worth investigating the option of aligning the main track closer to this gorge and installing a sidetrack (or several sidetracks) either down to the creek or to vantage points overlooking the gorge.

Much of the Lagoon River west of the Norfolk Range also runs in a gorge, but I observed no outstanding features and the vegetation along much of the gorge is either heathland or recently burnt scrub.

4.8 Mouth of Italian Creek to Pieman Head



Map 4.8. Italian Creek to Pieman Head

4.8.1 Values of the coastal traverse

As noted earlier, the walk between Italian Creek and Pieman Head will offer some of the most spectacular and memorable experiences of the entire Trans-Tarkine Track including vast beaches and dune systems, dramatic rocky shorelines, wild river mouths, coastal lagoons, the endlessly restless Southern Ocean, and abundant evidence of thousands of years of Aboriginal occupation (see Photos 4.8.1-1 to 4). To cap it all, walkers will finish their walk with a cruise on the beautiful Pieman River.



Photo 4.8.1-1. Vista south of Chimney Creek



Photo 4.8.1-2. Lagoon River



Photo 4.8.1-3. Beach south of Monster Creek



Photo 4.8.1-4. Coastline near Lagoon River. Aerial photo by Rob Blakers.

4.8.2 Key issues on coastal section

The traverse of the coastal section between Italian Creek and Pieman Head presents several issues that are not relevant to other parts of the proposed walk. These are as follows.

The need to protect midden sites

As noted in 3.3, existing vehicle tracks and vehicular routes traverse midden sites in places. The proposed walking track and marked routes should avoid middens as far as possible. If middens cannot be avoided they should be physically protected to prevent damage by trampling.

Large seasonal variation in water table

Unlike inland areas of the Tarkine the coastal zone is subject to large seasonal variations in the water table. This results in the complete inundation in winter of many areas that are dry in summer. (See for example Photos 4.8.2-1 and 4.8.2-2, taken in January and October respectively near the Pedder River north of Sandy Cape.) If the proposed track is to be used for most of the year, it must be located on ground above high-water levels and surfaced with duckboard where this is not feasible. I undertook the recent survey during an exceptionally dry period. Before more detailed track planning is undertaken in this region it is essential that the proposed route be surveyed when the water table is at or close to its anticipated maximum annual level.



Photo 4.8.2-1. Vehicle tracks near Pedder River in midsummer 2012



Photo 4.8.2-2. The same location in October 2012

Beaches may sometimes be impassable

The coastal walk will include traverses of several beaches with a combined length of several kilometres. Although these beaches are mostly very wide they may at times be impassable due to inundation by waves or high tides. Parks and Wildlife Service literature also warns that beaches can occasionally be inundated by deep foam, which has been known to suffocate cattle and horses. At

such times the coastline will remain passable to walkers who are prepared to walk inland, but this will be considerably more difficult and time consuming than the normal coastal traverse.

Rivers cannot be bridged at or close to their mouths

Several of the larger creeks and rivers between Italian Creek and Pieman Head are subject to flooding that can prohibit safe fording, but cannot be bridged at or close to their mouths because they traverse beaches and dune systems. Even if it were practical to construct the foundations of bridges on bedrock underlying the sand, the impacts of shifting sand and occasional high seas would almost certainly compromise the safety and usability of such structures.

All creeks and rivers can be bridged on (currently) sand-free terrain if one goes sufficiently far inland. However this would require walkers to make long deviations, in some cases over steep, high dunes; it would require substantial additional track construction; and the bridges themselves will often be costly. At times of extreme flood even quite small creeks may become impassable, whereas for much of the year most creeks can be forded easily and in a dry summer even the largest rivers are reduced to trickles that can be stepped over. Given the track's proposed Class 3 classification, a balance needs to be struck that will allow walkers to cross most rivers and creeks without wading under most conditions, but will avoid bridging every creek for conditions that may only occur a few times each year. Specific recommendations are detailed in 5.13.



Photo 4.8.2-3. Masked Lapwing nest in the Tarkine coastal zone

Disturbance to birds

The use of beaches by walkers poses a risk of disturbance to birds, particularly beach-nesting birds, some of which are rare and declining in numbers. Examples include Pied Oystercatchers, Hooded Plovers and Fairy Terns. As the breeding season coincides with the walking high season, walkers should be encouraged to stay below the high tide line. The temptation to venture inland (for

example to climb dunes) may tend to defeat this objective, and walker behaviour and its impacts need to be monitored.

The open environment will invite off-track walking

Unlike most of the remainder of the walk, the open coastal environment will invite off-track walking. This is particularly true in the vicinity of designated campsites, where walkers are likely to explore local bays and headlands.

Off-track walking could lead to undesirable environmental impacts including damage to vegetation, soil loss, accelerated dune erosion, disturbance to fauna and damage to midden sites. The extent and severity of these impacts will need to be monitored and remedial action may be required in some areas. The latter may include discouraging walkers from accessing some areas and delineating the perimeters of some midden sites.

Exposed, informal campsites may be more attractive in still weather

Designated campsites should be reasonably sheltered, because exposed sites would be unsuitable if not completely unusable in high winds, which are frequent on the coast. In calm conditions however some walkers may be tempted to use more exposed sites that have better tent-door views and are closer to beaches and water supplies. A good example is the site north of Camp Creek, which is 300m north of Lagoon River. The best location for a designated campsite is on the upper part of a grassy area approximately 500m northwest of Camp Creek, but there are more exposed sites closer to and overlooking the beach. The ongoing use of such sites may cause unacceptable environmental impacts, including problems associated with their distance from constructed toilets. If such impacts occur the use of such campsites may have to be discouraged or prohibited.

Availability of drinking water

Drinking water can be scarce on the coast in high summer because rivers and creeks can be brackish, particularly in lagoons, due to low flow. Conversely, in winter and at times of rough weather fresh water may be difficult to obtain because sea water has been driven into river mouths. This is likely to be an issue principally in the vicinity of campsites, for obvious reasons. The likely availability of drinkable water has been one of the major factors that I have taken into account when recommending locations for campsites in the coastal zone (see 6.2).

The coastal region could be used for shorter walks

The coastal region is likely to remain attractive to walkers undertaking return walks from Pieman Head or through-walks to or from Sandy Cape, and is likely to become more attractive once tracks have been upgraded and bridges have been installed over major rivers and creeks. This issue is addressed in section 9.

4.8.3 Ferry from Pieman Head to Corinna

Walkers will end their walk by catching a ferry from Pieman Head to Corinna. This will provide a relaxing end to the walk that will be scenic and memorable in its own right.

The possibility of constructing a walking track from Pieman Head to Corinna was considered but rejected by the Trans-Tarkine Track steering committee, mainly because the track would be largely redundant given the existence of the river cruise. A walking track would also have to bridge the Donaldson and Savage Rivers – a span of up to 100m in the case of the Donaldson (see Photo 2.1-4).



Photo 4.8.3. On board the Pieman cruise

The ferry trips are likely to be undertaken by a private operator – most likely the existing operators at Corinna, although there are other possibilities. It would be possible to use the *Arcadia*, as this completes its usual cruise by 3 pm and so could return to Pieman Head by 4 pm. However an earlier departure time may be desirable as explained in 4.8.4.

At present there is no jetty on the north bank of the Pieman at Pieman Head. Walkers are dropped off and picked up by dinghy and ferried to the *Arcadia*, which moors at a jetty on the south bank. If the Trans-Tarkine Track is constructed it would be desirable to construct a jetty on the north bank. The current pickup location can be subject to rough water and high winds at times, so there may be times when a ferry cannot moor there. To cover this possibility it might be necessary to establish an alternative rough-weather jetty several kilometres upstream, say at Lenna Creek, and an emergency access track utilising part of the old mine track.

It will be necessary to consult local experts and government agencies, particularly MAST, before a decision is made about constructing new jetties.

4.8.4 Timing of arrival at Corinna

The river trip from Pieman Head to Corinna takes approximately 90 minutes, and travel by road from Corinna to the nearest major population centres such as Strahan and Burnie takes around two hours. Allowing half an hour for boarding and disembarking, this means that travel from Pieman Head to the nearest population centre will take at least four hours. The alternative would be for walkers to

stay at Corinna, which would benefit the local economy although it would probably require the construction of additional camping and accommodation facilities at Corinna.

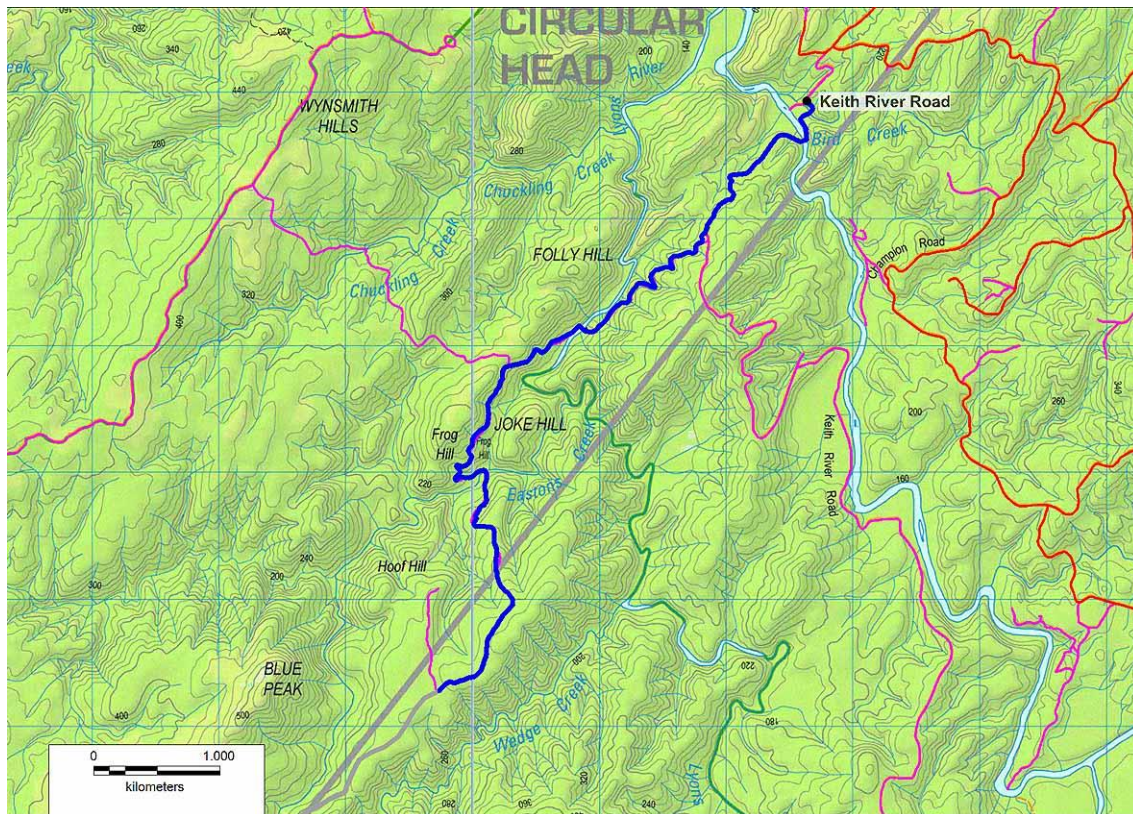
For six months of the year, even a 4 pm departure from Pieman Head would allow walkers to reach population centres in daylight if they wished. In midwinter the ferry would have to leave Pieman Head by 3:15 pm to reach Corinna by sunset.

I recommend that the Day 9 campsite be located at the Interview River (see 6.2), which is approximately 11 km from Pieman Head. Even with a latish 9 am start, and allowing for breaks, walkers should be able to reach Pieman Head comfortably by 3 pm, so a 3:15 pm ferry departure time from Pieman Head is probably realistic.

As noted earlier I also recommend establishing a campsite at Pieman Head, which could be used by walkers who arrived too late in the day to catch the ferry.

5 Route details and works requirements

5.1 Works section 1: Keith River Road to plateau south of Hoof Hill



Map 5.1. Keith River Road to plateau south of Hoof Hill

5.1.1 Arthur River to Lyons River

This section will follow the Keith River Road and Folly Hill Road assuming these are closed to vehicular access. Gradients are low and the walking surface can be surfaced with gravel. An active landslip on the slope above the Lyons River, approximately 250 m northeast of the crossing point, may pose engineering problems and require specialised stabilisation. The Arthur River and Lyons River will require swing bridges, the exact locations of which will require engineering assessments and may require a partial realignment of the proposed track away from the existing vehicle tracks.

5.1.2 Lyons River to Eastons Creek crossing

This section will follow Folly Hill Road. It involves a gain and subsequent loss of around 80 m in altitude, which is necessary to clear the steep slopes above the Lyons River. In the long term it may be practical to relocate the track along the west bank of the Lyons River and up to the Frog Hill/Joke Hill saddle, but this is not justified in the short term given that well-formed tracks (i.e. the vehicle tracks) already exist.

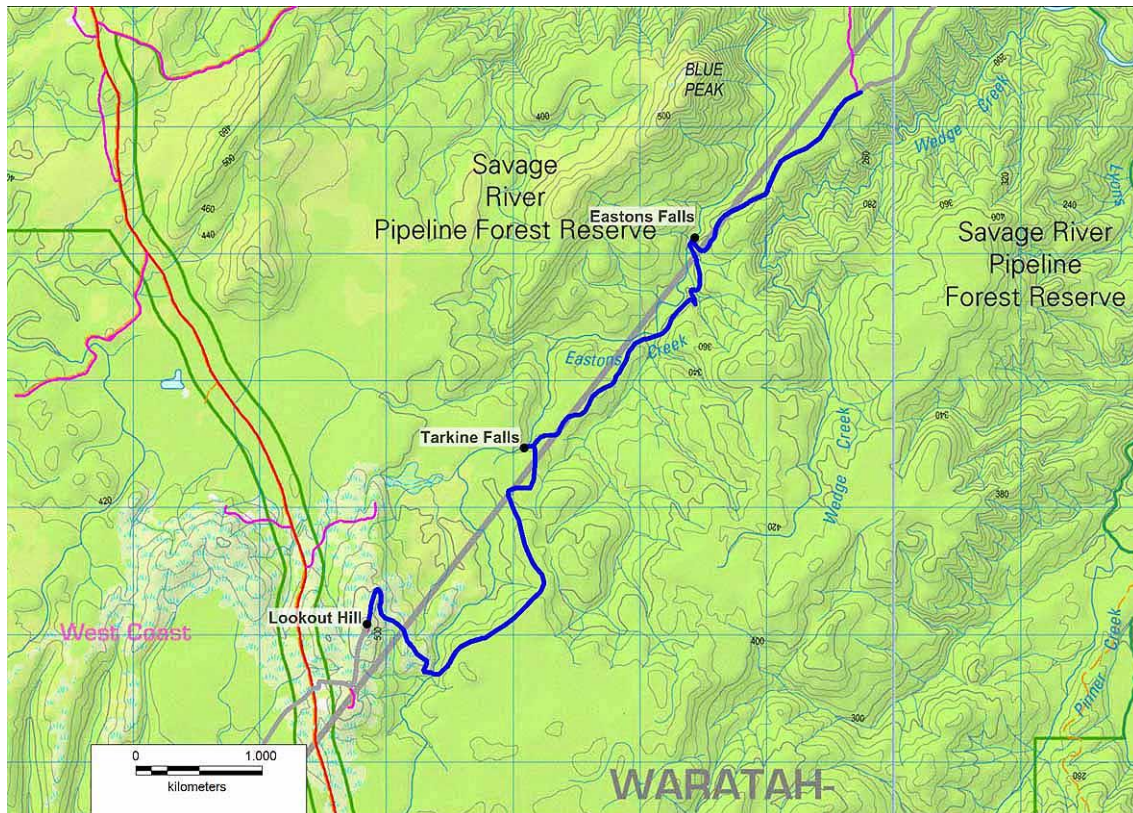
An extended section of Folly Hill Road ascending west of the Lyons River has a surface of bare, loose gravel and a track gradient over 10°. It will be necessary to install additional drainage (probably rollovers) on this section and surface it with hard-packed gravel or some other abrasion-resistant

surfacing. Most of the remainder of the section is well benched with moderate gradients. Some sections may require no additional surfacing in the short term, while others may require surfacing with gravel. Eastons Creek will require bridging, possibly with a swing bridge.

5.1.3 Eastons Creek crossing to plateau south of Hoof Hill

The terrain south of Joke Hill presents a major barrier than can only be practically traversed by climbing. (The only alternative would be to follow up Eastons Creek, but extended sections of terrain adjoining the creek are prohibitively steep.) The proposed route follows Folly Hill Road to the plateau south of Hoof Hill, which is the western limit of vehicle tracks in this area. This involves an ascent of just over 200m, which will be one of the more challenging tasks of the first five days particularly since it will confront walkers on their first day. The vehicle track is mostly well sited although it is steeper than desirable on some sections.

5.2 Works section 2: Plateau south of Hoof Hill to 'Lookout Hill'



Map 5.2. Plateau south of Hoof Hill to 'Lookout Hill'

5.2.1 Plateau south of Hoof Hill to Eastons Falls

The Tarkine Trails route runs just below their 'Heaven' campsite before obliquely descending the slope to the bank of Eastons Creek roughly due south of Blue Peak. A short taped side-route leads to the waterfalls (Eastons Falls) just downstream of the crossing point. The falls consist of a small upper cascade and a larger fall that drops into a small but spectacular gorge. They are sufficiently scenic to warrant inclusion as one of the primary attractions of the proposed track. The vicinity of Eastons Falls is also recommended as the location of the first campsite of the walk, probably on the east bank of the creek.

The Tarkine Trails route on this section climbs and falls somewhat erratically in places and is duplicated near its upper (northern) end. Additional investigation will be required to identify the optimum route for the proposed track.

5.2.2 Eastons Falls to upper Eastons Creek crossing

The Tarkine Trails route crosses Eastons Creek not far above the falls, then climbs steeply, gaining 80m of altitude before descending again to the creek and re-crossing it. The double crossing and fairly demanding climb cannot be justified in recreational terms, the only benefits being access to a delightful but fairly confined campsite on the west bank of the creek, and exposure to moderately attractive rainforest. There is also a swimming hole adjacent to the campsite.

I recommend that the proposed track run upstream from Eastons Falls to the swimming hole, remain on the east bank, cut uphill to avoid swampy areas and flood channels, and rejoin the Tarkine Trails route close to the second crossing. At normal water levels walkers will be able to access the aforementioned campsite if they wish. Note that if the track follows this route, the middle and upper Eastons Creek crossings on the existing Tarkine Trails route will be eliminated.

5.2.3 Upper Eastons Creek crossing to Tarkine Falls

This section runs in a roughly NE-SW direction across fairly level terrain. The Tarkine Trails route is reasonable but meanders unnecessarily in places and is unacceptably steep in places. Minor realignment will be required to rectify this. It will be necessary to construct a formal track from the Tarkine Trails campsite to the base of the falls.

5.2.4 Tarkine Falls to plateau east of 'Lookout Hill'

This section ascends the spur south of Tarkine Falls and traverses the edge of the plateau east of upper Eastons Creek. As with the previous section, the Tarkine Trails route is reasonable but meanders unnecessarily in places and is unacceptably steep in places. Further survey work will be required to fine-tune the route.

There are at least two other possible routes between Tarkine Falls and 'Lookout Hill'. One runs southwest from the falls, crosses Eastons Creek approximately 700 m upstream from the falls, and ascends the spur on the west side of the creek. The other runs westwards from the falls and climbs 'Lookout Hill' via the spur on its northern side. The disadvantage of both routes is that only a small proportion of them is located in tall myrtle forest, in contrast to the proposed route which is almost entirely in tall (and quite scenic) myrtle forest. The northern-spur route also has the disadvantage of crossing a vehicle track and running close to a small quarry. For these reasons a route similar to the Tarkine Trails route is recommended. As with the previous sections, local realignment will be required to avoid unnecessary meanderings and undulations.

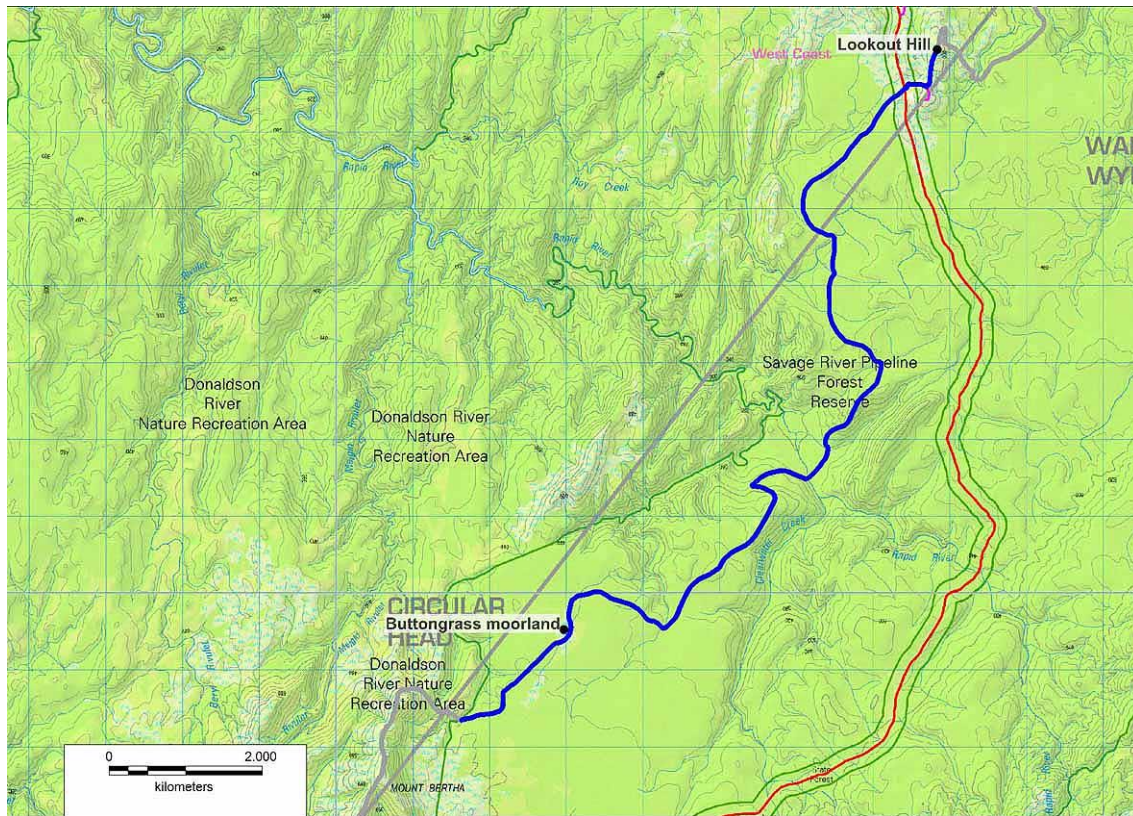
5.2.5 Eastern ascent of 'Lookout Hill'

The Tarkine Trails route runs directly east-west across the upper Eastons Creek valley. Several parts of this section are steep to very steep, on or close to the fall line and actively eroding. The proposed route crosses the valley further upstream and ascends the spur that runs southeast from the hill. It will have lower grades although it may require some steps on the lower slopes of the Eastons Creek valley. On the upper part of the ascent the track will probably incorporate a long switchback to avoid steps. This would also give walkers more extensive views before they reach the top of the hill.

5.2.6 Summit of 'Lookout Hill'

The summit area of the hill provides extensive views that encompass the Eastons Creek catchment, Blue Peak, the Savage River catchment, Mt Bertha, the Meredith Range, Mt Cleveland and the Norfolk Range from Mt Norfolk northwards. In clear weather the views extend as far as the Nut at Stanley, Mt Cameron West, Mt Dundas, Mt Murchison and Mt Heemskirk. Scrub fringing the cleared area on the summit prevents getting a 360° view from any one point, so I recommend that an elevated platform be constructed on or near the site of the trig point (which can probably be removed). I have included the cost of this in my estimates of track construction costs.

5.3 Works section 3: 'Lookout Hill' to base of ascent to Mt Bertha



Map 5.3. 'Lookout Hill' to base of ascent to Mt Bertha

5.3.1 'Lookout Hill' to Pipeline Road

A substantial gravel road runs to the top of 'Lookout Hill' from the Pipeline Road. While this is unsightly and unpleasant to walk on, it would be pointless to construct a walking track to duplicate it. Rather it should form part of the proposed walking track, and hopefully can be closed and eventually revegetated to walking track width. The pipeline itself is buried on this section of the Pipeline Road, so pedestrian traffic does not pose any risk to the pipeline.

5.3.2 Pipeline Road to top of descent to Rapid River

The recommended route has been chosen to optimise exposure to tall myrtle forest while maximising the remoteness from the Pipeline Road. The forest traversed includes extended scrubby sections but also some areas of relatively open tall rainforest.

5.3.3 Northern descent to Rapid River

The proposed route descends a spur that is blanketed mostly with open tall-eucalypt forest. Some of this forest is quite spectacular, particular on the upper parts of the spur. The descent involves a 140m loss of altitude so it will probably be necessary to install numerous steps. Options should be explored for installing local switchbacks to reduce the number of steps and intersperse them with step-free sections.

5.3.4 Traverse of Rapid River valley

The Rapid River valley is forested but the understorey is mostly fairly open – a feature unusual for valleys in the region. The precise location of the track will be determined by a number of factors, principally the optimum site for a campsite and for a swing bridge over the Rapid. The small gorge approximately a kilometre downstream of the tentatively proposed bridge site was inspected but not considered spectacular enough to warrant a sidetrack or a deviation in the track. Potential campsites should ideally be close to the river and elevated above all but the highest potential flood heights. One such site has already been located slightly downstream of the mapped track route.

5.3.5 Southern ascent from Rapid River

This ascent involves a climb of 120m. The slope is steep in places but the forest is mostly open. It should be possible to align the track so as to gain the altitude gradually with few if any steps. The precise route will require more detailed investigation.

5.3.6 Top of ascent from Rapid River to moorland NE of Mt Bertha

The plateau west of Clearwater Creek contains extensive tracts of tall, open myrtle forest, including some of the most impressive stands found in the course of this project. One particularly spectacular stand is located close to the eastern edge of the plateau and offers glimpses of views over the Clearwater valley. The section of the route that runs westward towards the moorland is less open.

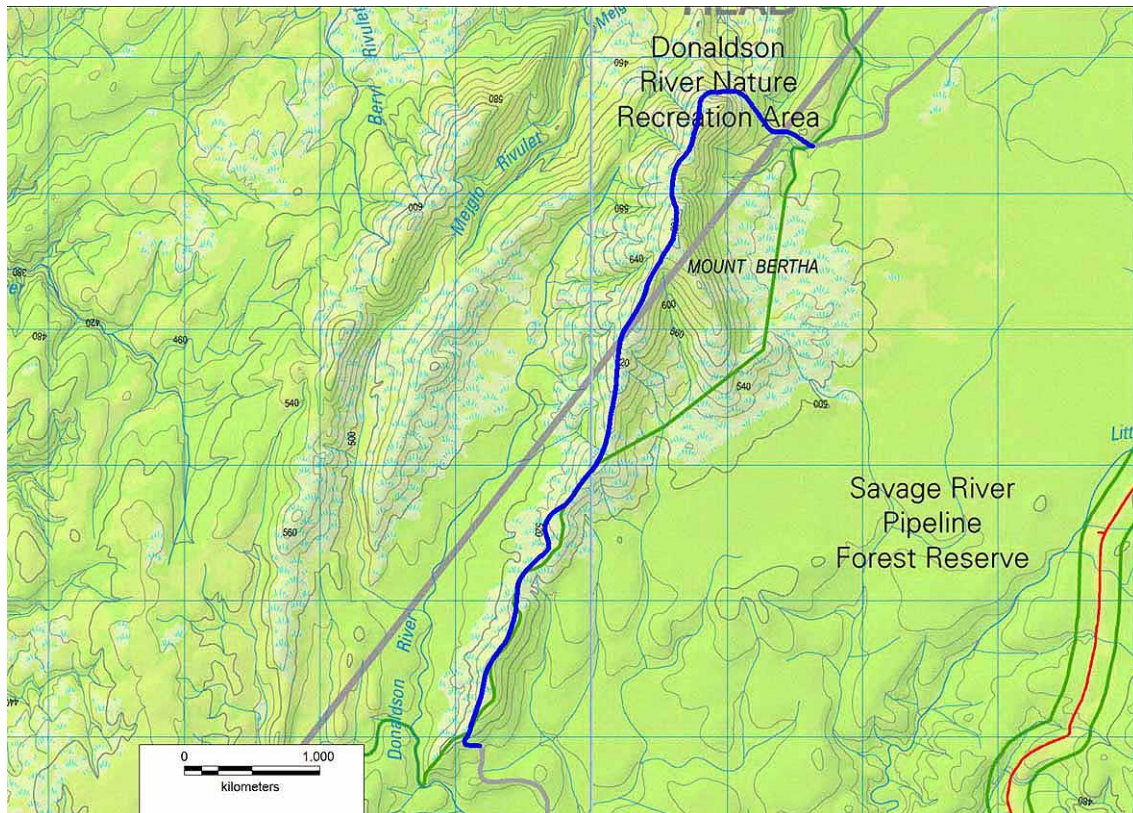
5.3.7 Traverse of moorland NE of Mt Bertha

As noted in 4.4.2, this buttongrass moorland is one of the surprises of the early part of the walk. All track on the moorland will have to be hardened with elevated walkway, and it may be necessary to discourage walkers from walking off the track in this area.

5.3.8 Moorland NE of Mt Bertha to base of ascent to Mt Bertha

The proposed route traverses southwest through fairly open rainforest to the base of a small outlying knoll.

5.4 Works section 4: Ascent and traverse of Mt Bertha ridge



Map 5.4. Ascent and traverse of Mt Bertha ridge

5.4.1 Ascent to northern end of Mt Bertha ridge

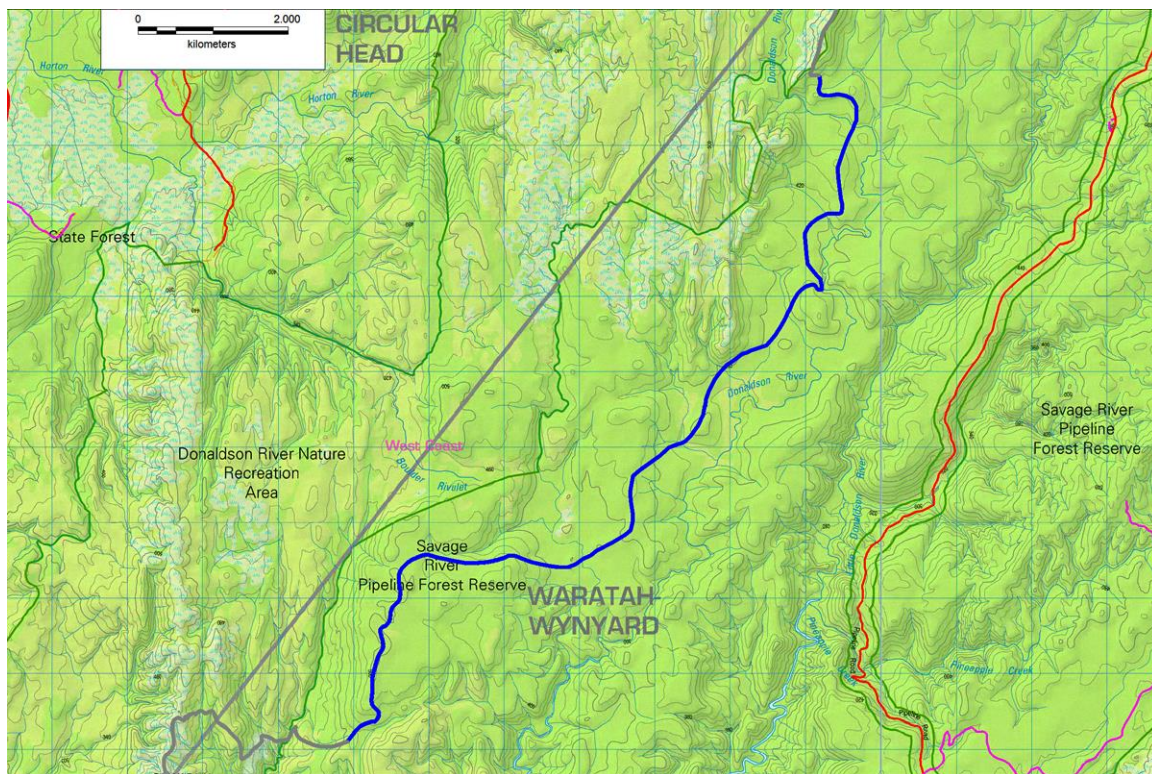
From the outlying knoll the track will cut west to the base of the main slope, then climb steeply and traverse the steep slope at the northern end of the ridge before gaining its crest. The section will require numerous steps, but can also incorporate step-free sections.

5.4.2 Traverse of Mt Bertha Ridge

This section will traverse close to the crest of the main Mt Bertha ridge, including the summit of Mt Bertha and running down its southern 'tail' to a point approximately 4 km southwest of the peak before dropping off eastwards into the forest. The higher parts of the traverse provide extensive views that include the entire Norfolk Range. Unfortunately the Savage River mine is also visible, although it is not prominent from that distance (about 25 km).

Most of the traverse can be stabilised with benching and gravel, although this will have an undesirable visual impact in places. The option should be investigated of surfacing the track with rubber tiling, as this would reduce the visual impact (although the tiling would be prone to damage in the event of hot fires).

5.5 Works section 5: Mt Bertha ridge to plateau northeast of Pyramid Hill

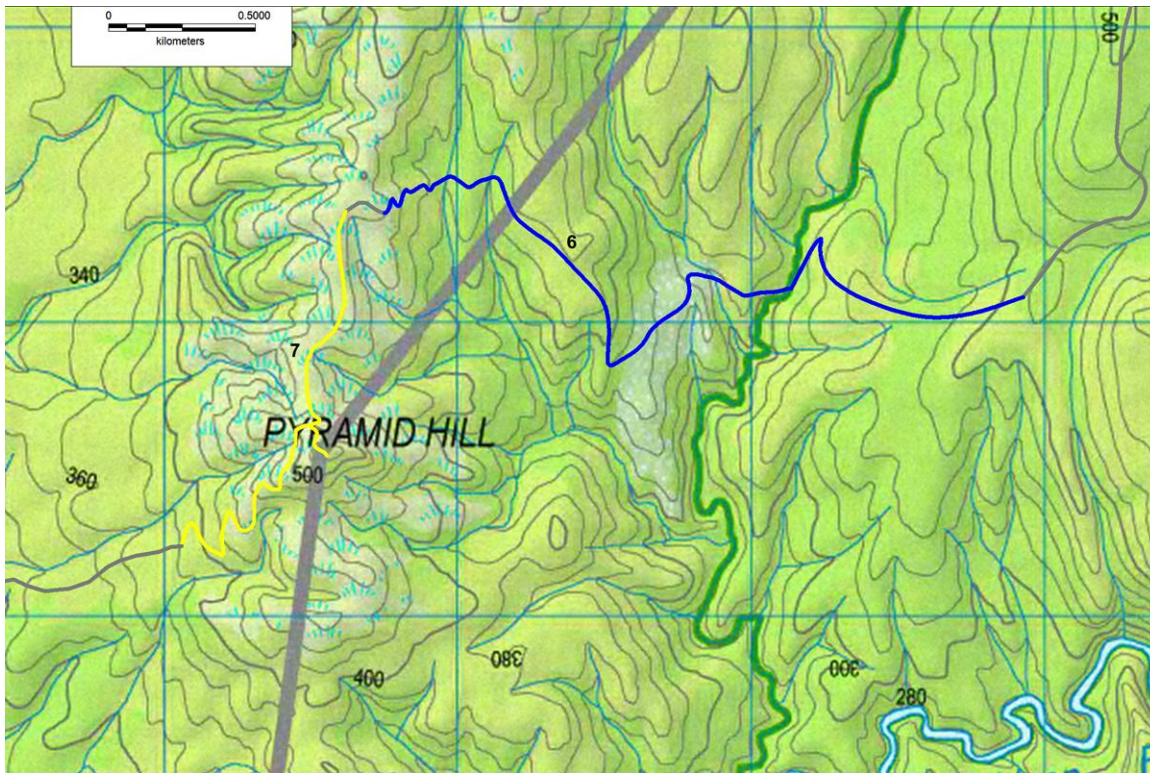


Map 5.5. Mt Bertha ridge to plateau northeast of Pyramid Hill

As noted earlier, this section traverses the densely forested tracts of the west Donaldson valley. The route has been chosen to traverse elevated plateaus with tall myrtle canopy as far as possible, as slopes tend to be scrubber and dissected by deep gullies. Much of the forest is moderately scrubby but there are areas of stately open forest in places. Apart from crossing the Donaldson just south of the Bertha ridge, there is at least one location where the river and its immediate environs are sufficiently scenic to warrant routing the track right to the river bank. South of Boulder Rivulet the track will turn south and follow the plateau northeast of Pyramid Hill.

Most of this section can be hardened with benching and gravel, although duckboard will be required on poorly drained sections.

5.6 Works section 6: Traverse of valley east of Pyramid Hill



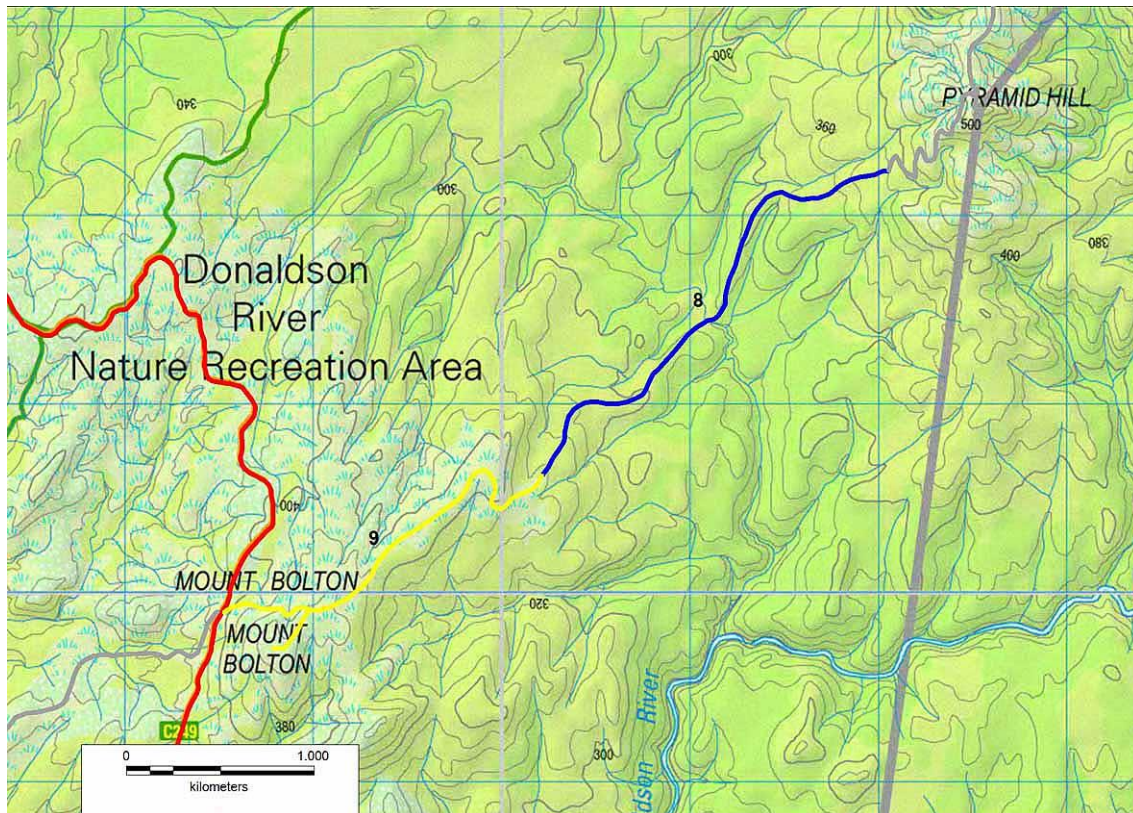
Map 5.6. Work sections 6 and 7: Traverse of Pyramid Hill and valley to east

Works section 6 traverses the fairly dissected country between Pyramid Hill and the plateau to the northeast (see blue line on Map 5.6). Much of the section is likely to be fairly scrubby, with rainforest in the gullies. Track construction on this section is likely to require planking, although it may be possible to stabilise some segments using benching with gravel surfacing. Several small bridges will be required, with a more substantial bridge over the main creek. If the track is suitably aligned it is likely to require few if any steps. Vegetation clearance will require intensive work in places, and bauera will need to be regularly cut back once the track is opened.

5.7 Works section 7: Pyramid Hill summit traverse

Most of this section traverses open buttongrass (see yellow line on Map 5.6). The ascent and descent from the range can probably be achieved mainly with benched switchbacks, although steps will be required in places particularly on the western descent from Pyramid Hill. Level traverses can be hardened with benching. All sections will require surfacing with gravel that is either imported or crushed onsite from local rocks.

5.8 Works section 8: Pyramid Hill descent to Mt Bolton ascent



Map 5.8. Work sections 8 and 9: Pyramid Hill descent to Western Explorer Road

Works section 8 (see blue line on Map 5.8) involves 150m of altitude loss and gain but gradients are mostly moderate. As noted earlier, much of the section traverses badly burnt forest although there are small areas of unburnt rainforest. In the course of fine-tuning the track alignment, efforts should be made to increase the exposure to unburnt forest if practical. The track crosses a substantial creek in the valley, which will require a bridge. Parts of the northern ascent of Mt Bolton could probably be constructed with benching. (Local gravel may be available in places, but the soil through much of this section appears to be fairly clayey.) Most of the rest of the section will require planking.

5.9 Works section 9: Traverse of Mt Bolton

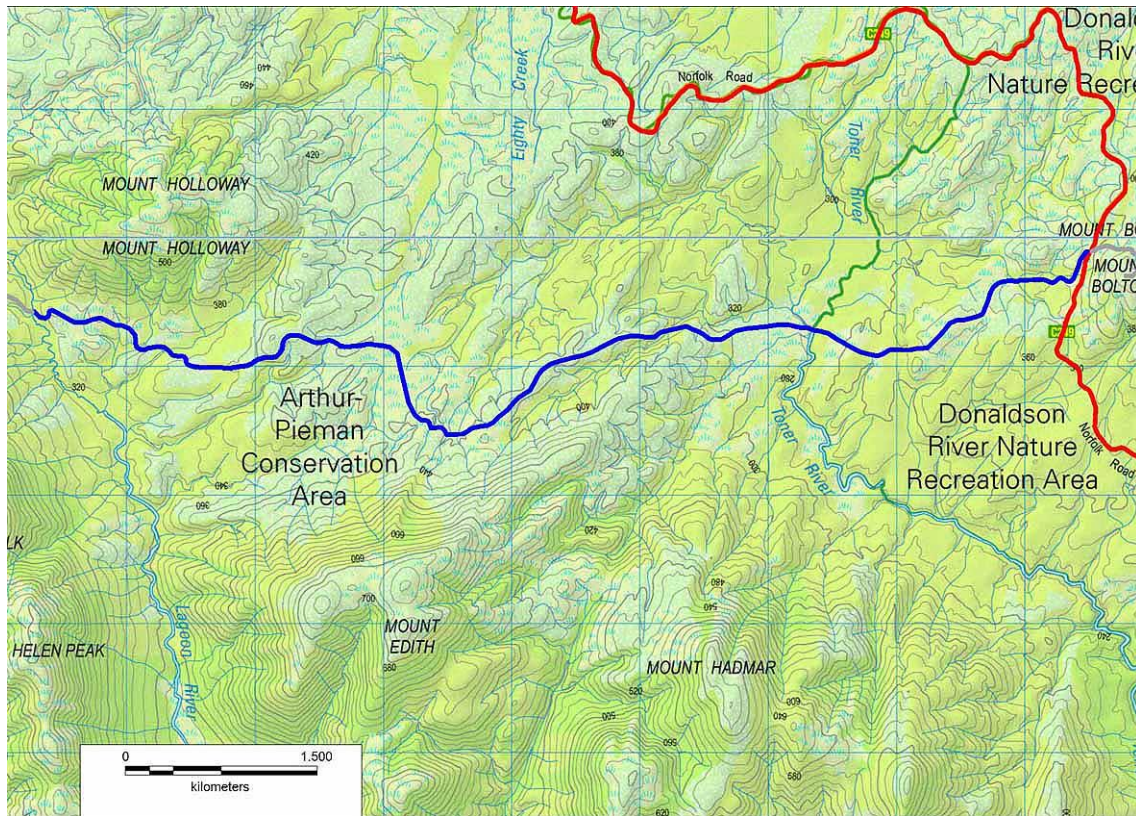
Mt Bolton and the ridge that extends to the northeast is an area of open buttongrass moorland. The proposed track (see yellow line on Map 5.8) would climb to the plateau north of the summit, then descend gradually to the road via the northern slopes of the peak. A sidetrack would lead to the peak, which has extensive views. Track construction on this section would be either benching with imported or locally crushed gravel, or planking.

For walkers intending to continue immediately onto the second stage of the walk, a campsite can be established slightly below and to the north of the summit, near the junction of the summit sidetrack. This would allow walkers easy access to the summit to enjoy the views in good weather. The campsite would be fairly exposed, but the altitude is not great (around 440 m) and the site could be nestled in the small valley north of the peak.

It would be expedient to provide a shelter near the trailhead on the Western Explorer Road for use by walkers who are ending their walk there and awaiting transport. A shelter similar to the one at the Dove Lake car park might be appropriate although it would not need to be as large. A toilet should also be provided. These have been included in the overall cost estimates.

Provision will need to be made for car parking and vehicle turning at the Mt Bolton trailhead. It may be possible to accommodate this by installing a car park and turning area on the spur just north of the proposed trailhead location, on the west side of the road.

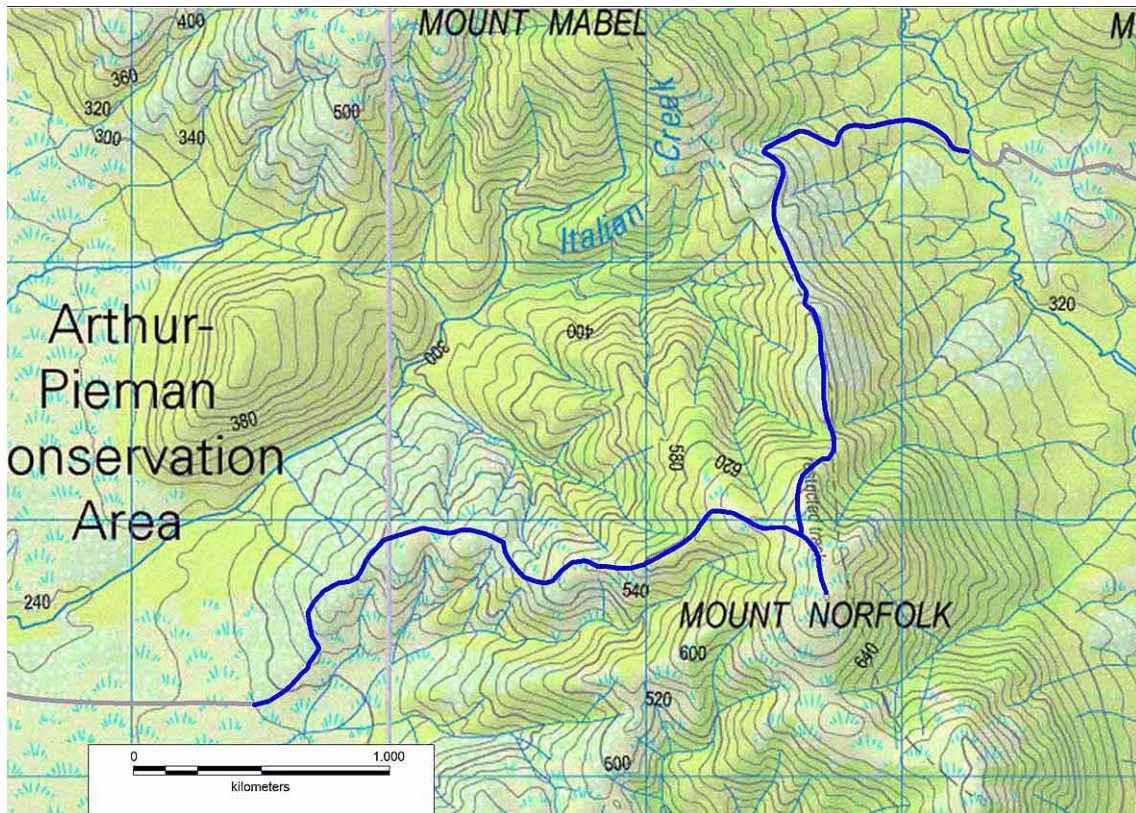
5.10 Works section 10: Western Explorer Road to upper Lagoon River



Map 5.10. Western Explorer Road to upper Lagoon River

This section traverses gently undulating moorland bordered by hills that rise steeply to around 700m. Much of the section can be stabilised by benching and surfacing with gravel, although wet sections will require planking. Small swing bridges will be required over the Toner and Lagoon Rivers, which are flood prone.

5.11 Works section 11: Traverse of Mt Norfolk



Map 5.11. Traverse of Mt Norfolk

5.11.1 Eastern ascent

The eastern slopes of the Norfolk Range in this vicinity are steep and have little forest cover. The proposed route climbs a fairly broad spur that should allow for installing some switchbacks, although finetuning the route could be arduous due to the dense scrub. At approximately the 430m contour the track will briefly enter rainforest before emerging onto moorland on the upper slopes of the range. The ascent will almost certainly require sections of steps.

5.11.2 Traverse to Mt Norfolk

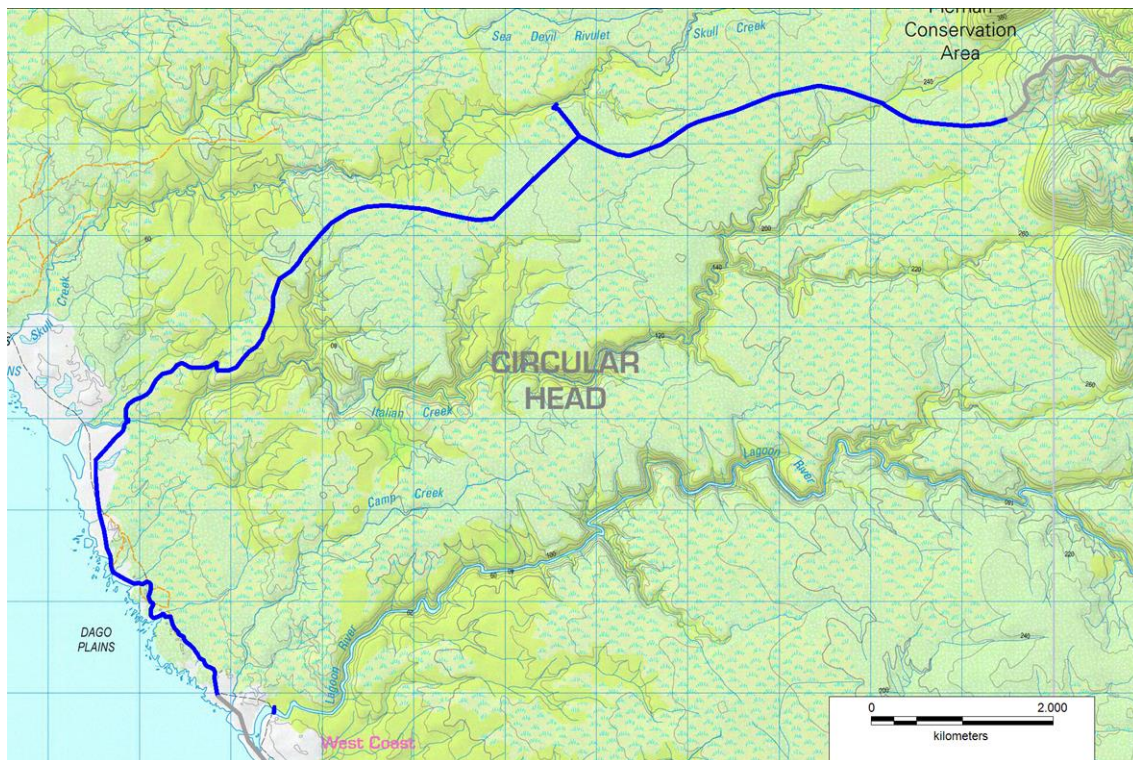
The traverse comprises some fairly level sections and some steep ascents, much of which will require steps. The final 250m to the summit will be a sidetrack from the main track.

As noted in 4.6.5, views from the summit are restricted at ground level and the provision of an elevated viewing platform is recommended. Provision for this has been included in the cost estimates.

5.11.3 Western descent

The proposed route follows a prominent spur northwest of Mt Norfolk. The spur is largely free of scrub apart from a 380m long section near the top of the range. Being steep and open the spur offers extensive views over the country ahead and the distant coastline. Some parts of the spur are wide enough to allow the construction of switchbacks, but the descent will nevertheless require over 1000 steps.

5.12 Works section 12: Base of Mt Norfolk to Lagoon River



Map 5.12. Base of Mt Norfolk to Lagoon River

5.12.1 Base of Mt Norfolk to lower Italian Creek

I inspected the western half of this section on the ground, and the entire section by helicopter. The section appeared mostly dry and well drained despite being mostly flat. This is presumably because of the presence of sandy soils. Although much of the section is identified on the 'Tas Vegetation' layer as buttongrass moorland, buttongrass is actually fairly scarce; the cover is mostly drier heath.

It will be essential to inspect this section in wet conditions before a final decision is made on track construction techniques. On the basis of the inspection so far I am reasonably confident that much of the section can be stabilised using (mostly light) benching and rubber tiling. Geotextile and gravel might be suitable on wetter sections. Few if any sections appear boggy enough to warrant planking or duckboard.

It is advisable to bridge lower Italian Creek because it is clearly subject to flooding. I found what appears to be a suitable bridge site approximately 775 m inland, at a point well inland from the nearest mobile dunes (see Photo 5.12.1).

See 4.7.3 for comments regarding a possible variation of this route to take in one or more lookout points overlooking the gorge on middle Italian Creek.



Photo 5.12.1. Looking upstream from proposed bridge site on Italian Creek

5.12.2 Italian Creek to Dago Plains

It is possible to follow beach and dunes for approximately 1.8 km south of the mouth of Italian Creek before joining the vehicle track. The dunes on the southern half of this section include numerous large middens (see Photo 5.12.2), so it will be necessary to survey and mark a route that avoids these as far as possible, with advice from representatives of the Aboriginal community.



Photo 5.12.2. Middens north of Lagoon River

5.12.3 Lagoon River crossing

The Lagoon River crossing has been included in Works section 12 because no other construction will be required between Camp Creek and Chimney Creek.

There are no practical bridge sites across the Lagoon River below the lower gorge, which is approximately 1.2 km inland and rendered fairly inaccessible by the massive dunes flanking the lagoon particularly on its southern side (see Photo 5.12.3-1). In view of this I recommend installing boats on either shore of the lagoon just above its first bend, which is approximately 480m inland (see Photo 5.12.3-2). The crossing is approximately 50m and the location is easily accessible from the beach on either side of the lagoon. If the contours of the lagoon and adjacent dunes shift over time, the boat moorings can be moved to accommodate this.



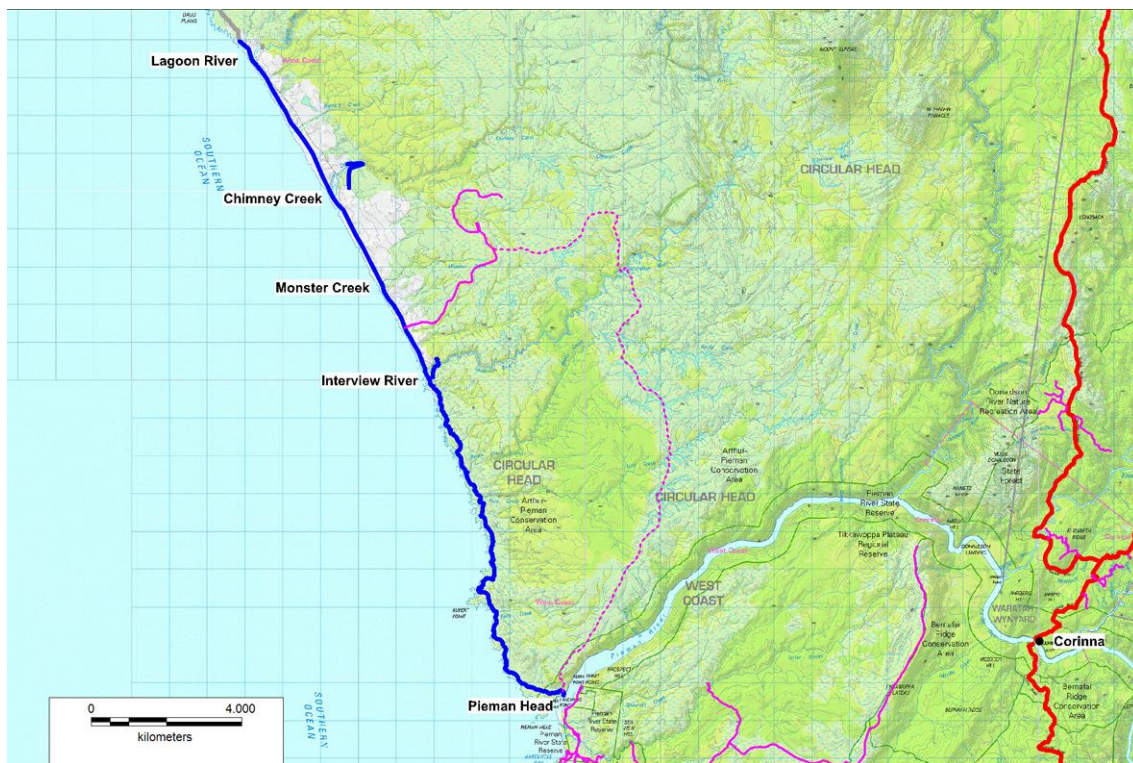
Photo 5.12.3-1. Upper section of lagoon on Lagoon River



Photo 5.12.3-2. Potential site of boat crossing on Lagoon River

It is possible that the proposed boat crossing will be impractical or dangerous at times of high flood, or during exceptionally high tides and storms. The site should be inspected under such conditions before installing boats. Note that under such conditions other sections of the coast may also be impassable, in which case the entire coastal section of the track should be closed.

5.13 Works section 13: Lagoon River to Pieman Head



Map 5.13. Lagoon River to Pieman Head

Most of this section will follow either beaches or existing vehicle tracks. When I inspected them the beaches were easy to walk on with reasonably firm sand.

5.13.1 Chimney Creek

Chimney Creek has a fairly small catchment but may be unfordable at times. The lowest site on the creek where a bridge could be installed on sand-free bedrock is located 1.2 km inland (see Photos 5.13.1-1 and 5.13.1-2). I recommend installing a bridge at this point together with an access track on either side. The access track should be marked, cleared and benched but can remain unsurfaced because it will receive only sporadic use.



Photo 5.13.1-1. Chimney Creek over 500m upstream from its mouth



Photo 5.13.1-2. Proposed bridge site on Chimney Creek, looking upstream

A possible alternative bridge site exists approximately 500m inland, where a 50m swing bridge would be required. The site is in dunes but there are rock outcrops nearby, suggesting that rock foundations could be found for a bridge. However the site would be subject to dune shift and could be inundated in times of high tide and storms, so it is probably unsuitable.

5.13.2 Monster Creek

Like Chimney Creek, Monster Creek has a small catchment but may be unfordable at times. The prospects for bridging the creek inland are poor as the lower part of the creek runs through steep and obviously mobile sand dunes. The best option appears to be to install a pair of bridges with a combined length of around 10m at a point where two braids of the creek run between outcrops less than 100m from the shoreline (see Photo 5.13.2), together with short sections of duckboard joining and accessing the bridges. This location may occasionally be inundated by the sea, but at such times other parts of the coastal track would probably also be impassable and the track would be closed. The site could also be covered by sand at some stage, but the infrastructure would be fairly cheap to replace.



Photo 5.13.2. Potential bridge site on Monster Creek

5.13.3 Interview River

The Interview River can be bridged at a point approximately 470m inland, near the lower end of a rocky gorge (see Photo 5.13.3). The approaches to the bridge on both sides of the gorge will require steps. An access track from the north should be constructed from the base of the large dune northwest of the proposed bridge site. On the south side the access track will run along a lightly vegetated shelf that runs in a SSW direction towards the campsite. This track should be surfaced, as walkers are likely to use it to access drinkable water at the bridge site. The track on the north side should also be surfaced as it may receive fairly frequent use.



Photo 5.13.3. Interview River. Potential bridge site is near furthest visible point on river.

5.13.4 Vehicle track south of Interview River

The proposed track should generally follow the existing vehicle track between Interview River and Pieman Head, although numerous local realignments will be required to improve gradients and drainage. For comments on track stabilisation techniques see 3.3. Rocky Creek, Ford Creek and several smaller creeks are likely to be unfordable at times, and should all be bridged.

5.13.5 Rupert Point

The existing vehicle track divides at Rupert Point, one track continuing in a fairly direct north-south line and the other deviating around the point, following the coastline north of the point. While it is more direct, the inland route is poorly sited as it involves two extended steep sections. As substantial numbers of walkers will want to access the coast at Rupert Point, I recommend closing the inland section and taking the walking track along the coastal route.

6 Trip itinerary and campsite locations

6.1 Factors determining the location of campsites

As far as possible campsites should be located in sheltered, attractive locations at intervals consistent with the projected difficulty of the walk. It is assumed that all campsites will be hardened using tent platforms and interconnecting 'social tracks'.

Campsites should have access to natural sources of drinkable water. If they do not, water will have to be provided either from local collection systems or by flying it in to storage tanks. Campsites will require suitable locations for composting toilets.

Given the proposed track classification and walk difficulty, I recommend that campsites be located between 10 and 15 kilometres apart. For comparison, the longest standard day on the Overland Track (excluding the Lakeside Track) is the section between Lake Windermere and Pelion Hut, which is just under 17 km. This section is mostly fairly level apart from the gradual 120m climb to Pelion. The longest day on the Three Capes Track is also 17 km and involves minimal climbing.

The first and last days of the two halves of the walk should ideally be somewhat shorter than the trip average, to allow for travelling times to and from the trailheads.

A key factor determining the location of campsites on the first half of the walk (i.e. the section from the Keith River Road to the Western Explorer Road) is the presence of the Mt Bertha ridge, which the proposed walking track will traverse. While the crest and flanks of this ridge offer spectacular views they are unsuitable for a campsite because they are too exposed as well as lacking a reliable water supply. Campsites should therefore be located in the lowlands northeast and southeast of the ridge. This has a major bearing on the location of other campsites between the Keith River Road and the Western Explorer Road.

6.2 Proposed itinerary

6.2.1 Day 1: Keith River Road to Eastons Falls (10 km)

This would be the shortest day of the first half of the walk, offering a fairly gentle start to the trip and allowing time for travel to the trailhead from population centres such as Burnie or Smithton. The day's walk would be mostly on former vehicle tracks and would involve crossing the Arthur and Lyons Rivers, sidling/ascending Frog Hill, crossing Eastons Creek, climbing to the plateau south of Hoof Hill (a substantial climb) and descending again to Eastons Creek. The walk's main recreational attractions will be mixed forests, riverine environments and Eastons Falls. The proposed campsite is adjacent to Eastons Creek and close to the falls and a swimming hole.

6.2.2 Day 2: Eastons Falls to Rapid River (14 km)

The day's walk will start with a traverse up the Eastons Creek valley and a gradual climb to Tarkine Falls on the upper reaches of the creek. A short sidetrack will provide access to the falls. Walkers will then traverse 'Lookout Hill', cross the Pipeline Road and traverse the forested plateau west of the road before descending to the Rapid River. Although the day's walk is moderately long it does not involve any significant climbing apart from the fairly gradual 100m ascent of 'Lookout Hill'. The day's

attractions will include Tarkine Falls, extensive views from 'Lookout Hill', and spectacular tall forests particularly on the approach and descent to the Rapid River. The campsite will be on an elevated (i.e. not flood-prone) area close to the river.

6.2.3 Day 3: Rapid River to upper Donaldson River (15 km)

This will be one of the most challenging days of the 10-day walk, involving a 200m climb of Mt Bertha and an extended traverse of moderately high (maximum 700m) exposed country. After climbing out of the Rapid River valley walkers will traverse spectacular tall forest to the scenic buttongrass plain northeast of Mt Bertha, then climb the range via the ridge north of the peak before traversing the summit and gradually descending the 4 km 'tail' to its south. The proposed campsite will be close to the point where the track crosses the upper Donaldson. An emergency campsite (cleared but with no infrastructure) should be established near the base of the northern ascent of Mt Bertha, to allow walkers to wait out bad weather before attempting the traverse.



Photo 6.2.3. Bennetts wallaby. Photo by Jenny Archer.

6.2.4 Day 4: Upper Donaldson River to plateau northeast of Pyramid Hill (13 km)

The day's walk will traverse the west side of the middle Donaldson valley before climbing and then traversing (southwards) the plateau northeast of Pyramid Hill. The walk will be almost entirely in tall myrtle forests, including spectacular stands of open forest on the ascent and traverse of the plateau. The track will also access at least one scenic point on the Donaldson River. The proposed campsite will be in open rainforest above a creek at the southern end of the plateau northeast of Pyramid Hill. The day's walk will be moderately long but will involve little climbing overall.

6.2.5 Day 5: Plateau northeast of Pyramid Hill to Mt Bolton (11 km)

This walk will be fairly short in terms of kilometres but will involve two moderate climbs, namely the 200m ascent of Pyramid Hill and the (gradual) 140m ascent of Mt Bolton from the east. Both high

traverses will offer extensive views in good weather. The proposed campsite location is in a small valley just north of Mt Bolton, which is moderately sheltered but within 10 minutes' walk of the summit (offering potential evening and early morning views). As many walkers will terminate or break their walk at the Western Explorer Road, the Mt Bolton campsite can be smaller than others on the walk. An emergency campsite should be established on the heathland shelf at the eastern end of the Mt Bolton traverse, to accommodate walkers who choose to delay the traverse in severe weather.

6.2.6 Day 6: Mt Bolton to upper Lagoon River (10 km)

This will be a fairly short and easy walk across open, gently undulating country flanked by the massifs of Mt Edith, Mt Holloway and the Norfolk Range. The campsite will be close to the foot of the Norfolk Range near the upper Lagoon River (above flood level). In the event of adverse weather parties can wait at this campsite before attempting the traverse of Mt Norfolk.

6.2.7 Day 7: Upper Lagoon River to upper Skull Creek (10 km)

Walkers today will cross the Norfolk Range, which will involve a fairly steep 400m climb and a traverse of exposed country particularly on the western descent. The track will pass close to the summit of Mt Norfolk, with a short sidetrack offering the option of climbing the peak. Open sections of the traverse will offer dramatic views including extensive albeit distant views of the coast.

The campsite will be in a sheltered location close to upper Skull Creek. This is approximately 5 km from the base of the range, allowing walkers to cover a significant proportion of the walk to the coast before they camp (hence sparing them from nearly a full day crossing the relatively featureless coastal plain). A sidetrack near the campsite will access viewpoints overlooking the Italian Creek gorge.



Photo 6.2.8. Proposed campsite north of Camp Creek

6.2.8 Day 8: Upper Skull Creek to Lagoon River (12 km)

Walkers will spend the morning continuing to the coast, which will become increasingly visible in the last few kilometres. By early afternoon they will cross lower Italian Creek and emerge onto the dunes country south of the creek. After traversing beaches and low dunes for two kilometres they will rejoin the formed walking track and follow it for a further 1.5 km to the campsite.

The proposed campsite (see Photo 6.2.8) is on the upper part of a large grassy area situated approximately 400m northwest of Camp Creek, from which drinkable water is normally available. The grassy area does not command views but is close to vantage points overlooking the coast, and it may be expedient to construct short sidetracks to these vantage points. The lower part of the grassy area floods in winter, but there is ample room on the upper part for 20 camping platforms.

6.2.9 Day 9: Lagoon River to Interview River (10 km)

The day's walk will consist entirely of beach walking. The main attractions of the walk will be the vast beaches and dune systems that dominate this section of the coastline, and the lagoon mouths of Lagoon River, Chimney Creek and the Interview River. As noted in 4.8.2, bridges (or boats in the case of Lagoon River) will be provided over major creeks and rivers to allow passage in all but the most extreme conditions. Around the halfway mark walkers will be able to replenish their drinking water supplies at Chimney Creek.



Photo 6.2.9. Part of potential campsite south of Interview River

The campsite can be established on a group of grassy areas situated approximately 440m south of the Interview River (see Photo 6.2.9).

6.2.10 Day 10: Interview River to Pieman Head (11 km)

This section of the walk traverses the rocky slopes between the Interview River and Pieman Head, with frequent views of small bays and rocky headlands. The walk will terminate at Hardwicke Point near Pieman Head, where walkers will be picked up by ferry and taken to Corinna. Highlights of the day will include Rupert Point (see cover photo) and the ferry trip (see Photo 6.2.10). A campsite will be provided somewhere in the vicinity of Pieman Head, probably near the coast.



Photo 6.2.10. Walkers awaiting cruise at Pieman Head

6.2.11 Informal campsites

In addition to the sites identified above there will be other locations on the track that will be suitable for camping and may be used by walkers from time to time. There will generally be no need to restrict use of such sites or to install any infrastructure, as usage is likely to be low and sporadic except on the coast. Another exception may be high-altitude sites particularly on Mt Bertha and the Norfolk Range, where walkers may camp to await photographs or just morning and evening views. Such sites will be susceptible to trampling damage, loss of vegetation etc, and hence may require closure or hardening if significant usage occurs.

For discussion of additional campsites in the coastal region, see 9.5.

7 Detailed survey

As noted previously, further extensive on-ground survey work will be required to optimise and fine-tune the proposed route before track construction can commence. The efficiency of such a survey could be substantially improved by the availability of detailed topographic information, particularly elevation maps with contours at intervals as low as 1 metre. This information could be obtained using aerial-survey technologies such as LIDAR.

The efficiency of the route-optimisation process in forested areas, particularly between Hoof Hill and Pyramid Hill, could be substantially enhanced if better information were available on the type, density and distribution of forest understorey. Technologies may already be available or could be adapted to provide this information. In the absence of such technologies the best approach may be to obtain and analyse high-resolution aerial photographs of the vicinity of the proposed track, possibly obtained using drones.

8 Track and campsite construction costs

I have estimated the costs of constructing the proposed track and associated campsites based on generic estimates of lay rates for the relevant construction techniques. I have also estimated the costs of vegetation clearance ahead of track construction, and of undertaking a detailed survey to determine the exact route of the track on a metre-by-metre basis.

My estimates are detailed in the Excel spreadsheet 'Trans-Tarkine Track Construction Cost Estimates'. The estimates include the costs of:

- track installation including materials, transport and labour
- tent platforms and associated infrastructure such as local ('social') tracks
- toilets
- trailhead registration booths
- a walkers' shelter at Mt Bolton
- signposts

The estimates exclude the costs of:

- infrastructure associated with vehicular access such as road upgrades and car parks
- clearing and trimming vegetation at campsites
- additional aerial survey or digital interpretation

In the spreadsheet, segment lengths in forested areas have been adjusted by a correction factor to allow for the fact that the lengths of constructed track segments are likely to exceed initial map-based estimates owing to local deviations to accommodate obstacles such as gullies.

Cost estimates of this nature are heavily dependent on assumptions particularly with regard to lay rates. The lay rates that I have used are based on information obtained from a wide range of track-development projects in Tasmanian wild areas, but must be regarded as a rough guide only.

The following table summarises the estimated costs by works section.

Table 2: Estimated costs of track construction, vegetation clearance and detailed survey

Section no	Section	Construction	Veg clearance	Survey	Campsites	Total	Detailed survey (person-days)
Keith River Road to Western Explorer Road							
1	Keith River Road to plateau south of Hoof Hill	\$510,786	\$11,448	\$0	\$0	\$522,233	0
2	Plateau south of Hoof Hill to 'Lookout Hill'	\$1,750,094	\$38,556	\$26,400	\$191,000	\$2,006,050	30
3	'Lookout Hill' to base of ascent to Mt Bertha	\$2,868,702	\$59,079	\$43,120	\$191,000	\$3,161,901	49
4	Ascent and traverse of Mt Bertha ridge	\$1,057,884	\$17,580	\$21,120	\$0	\$1,096,583	24
5	Mt Bertha ridge to plateau NE of Pyramid Hill	\$2,662,386	\$65,481	\$51,040	\$191,000	\$2,969,907	58
6	Traverse of valley east of Pyramid Hill	\$709,790	\$32,490	\$14,080	\$191,000	\$947,360	16
7	Pyramid Hill summit traverse	\$381,850	\$5,807	\$6,160	\$0	\$393,817	7
8	Pyramid Hill descent to Mt Bolton ascent	\$501,673	\$27,591	\$13,200	\$0	\$542,464	15
9	Traverse of Mt Bolton	\$388,619	\$5,725	\$7,920	\$114,600	\$516,864	9
	Walkers' shelter & toilet at Western Explorer Rd	\$115,000	\$0	\$0	\$0	\$115,000	
	Total	\$10,946,785	\$263,755	\$183,040	\$878,600	\$12,272,180	208
Western Explorer Road to Pieman Head							
10	Western Explorer Road to upper Lagoon River	\$1,536,956	\$20,603	\$33,440	\$191,000	\$1,781,999	38
11	Traverse of Mt Norfolk	\$1,477,959	\$15,839	\$22,000	\$0	\$1,515,798	25
12	Base of Mt Norfolk to mouth of Italian Creek	\$1,768,899	\$64,690	\$23,760	\$191,000	\$2,048,350	27
13	Mouth of Italian Creek to Pieman Head	\$1,584,202	\$35,147	\$9,680	\$573,000	\$2,202,029	11
	Total	\$6,368,017	\$136,279	\$88,880	\$955,000	\$7,548,176	101
Overall totals		\$17,314,802	\$400,034	\$271,920	\$1,833,600	\$19,820,356	309

9 Auxiliary tracks and trip options

Construction of the proposed track and the promotion of its attractions will create and invite recreational opportunities in the Tarkine region over and above the use of the track for 5-day and 10-day trips. For example, significant numbers of walkers may elect to visit Eastons Falls as a 2-day return trip from the Keith River Road trailhead. In this respect the track will be comparable to the Overland Track, which is used not only for the Cradle-to-Lake St Clair trek but by walkers accessing Barn Bluff, the Pelion Range and other destinations, in some cases via sidetracks such as the Arm River Track. The possibility and likelihood of such developments need to be taken into consideration when planning the Trans-Tarkine Track, both to maximise its recreational potential and to anticipate potential issues such as campsite crowding. The following sections identify several potential developments.

9.1 Return walks from the Keith River Road trailhead

As mentioned above, some walkers may undertake return trips from the Keith River Road trailhead to Eastons Falls, Tarkine Falls, 'Lookout Hill' and more remote locations such as Mt Bertha. To accommodate such walkers it will be necessary to provide additional camping space either at TTT campsites or separate sites. Potential alternative campsite locations include the lower Eastons Creek crossing, the existing Tarkine Trails campsite (or the vicinity thereof) near Tarkine Falls, and the base of the north-eastern slopes of Mt Bertha.

See also my comments on the possibility of a trailhead at Tarkine Lodge in 4.2.1.

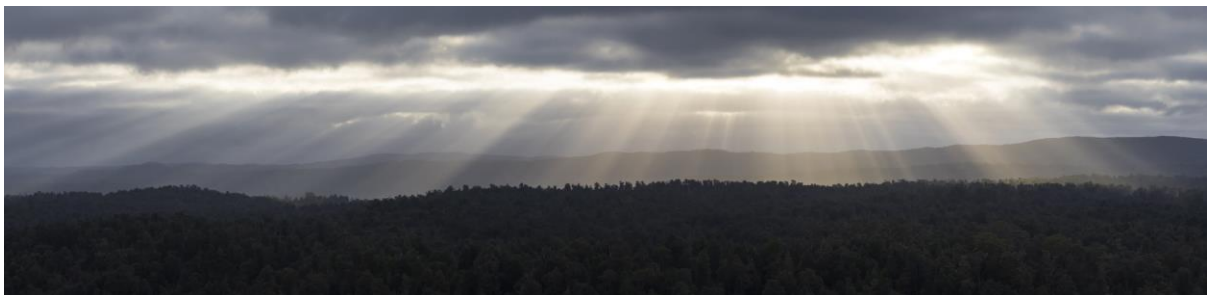
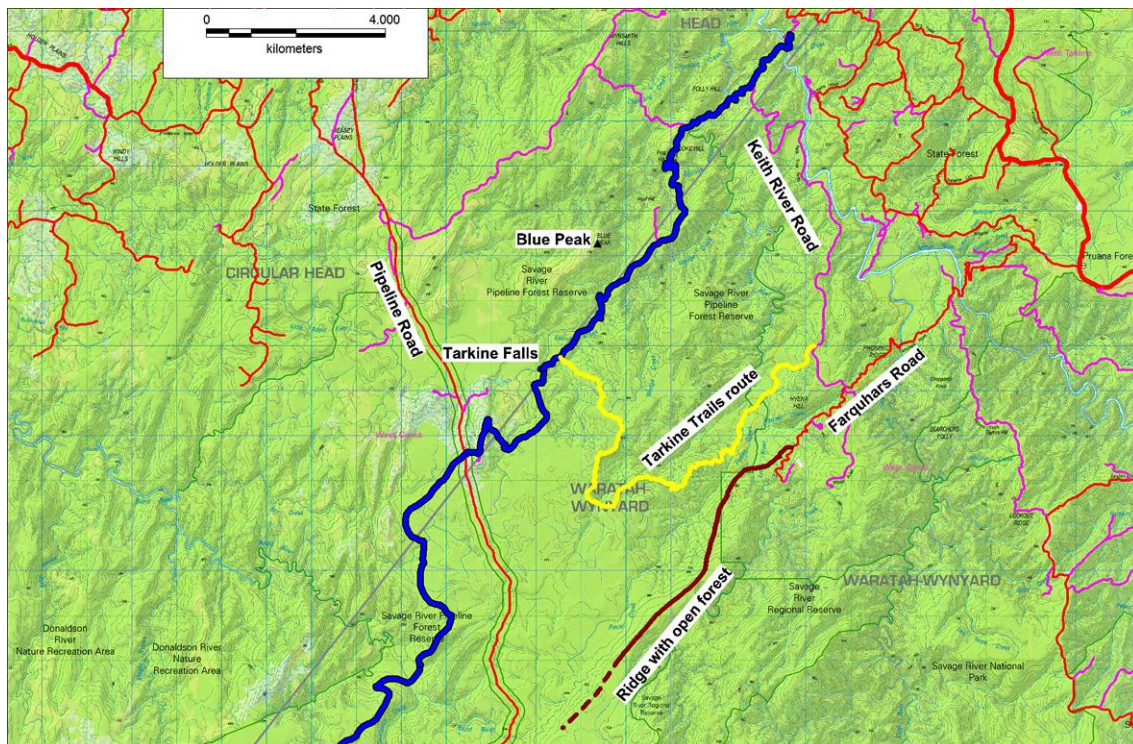


Photo 9.1. View east from 'Lookout Hill'

9.2 Tarkine Trails loop and similar loops



Map 9.2. Potential loop walks east of Mt Bertha

The existing Tarkine Trails walk consists of a partial loop that links the Keith River Road trailhead to Farquhars Road (see Map 9.2). It remains to be negotiated whether Tarkine Trails will continue to operate this walk once the Trans-Tarkine Track is constructed. The walk could be turned into a complete loop by directing walkers along the Keith River Road west of the Arthur River. The appeal of such a walk would depend in part on whether continued vehicular access is permitted on the Keith River Road and Farquhars Road.

The southern part of the Tarkine Trails walk, i.e. the section linking Farquhars Road to Tarkine Falls, is 14 km long not including Farquhars Road and a short section of the Keith River Road. Use of this section could continue at low levels without causing significant environmental damage. However if usage increased it would be necessary to harden a substantial proportion of the track, as well as realigning it in places to improve gradients and gradients. It is questionable whether the recreational attractions of this section would justify the cost of this, which would run to several million dollars.

Another option that I have considered is to construct a loop track from Farquhars Road along the long ridge that runs NE-SW south of Pinner Creek, linking from there to the Trans-Tarkine Track either east or west of the Pipeline Road (again see Map 9.2). I noticed this ridge on the aerial survey owing to its extensive stands of open-understory rainforest, and I subsequently inspected it on the ground. The forest is indeed mostly open and it contains some stands of large myrtles (see Photos 9.2-1 and 2), but overall I do not feel it is sufficiently scenic to warrant pursuing this option. Additional drawbacks are that the north-eastern end of the ridge has been subject to historical logging, and none of the options for linking the southwest end of the ridge through to the Trans-Tarkine Track has much merit in terms of recreational appeal.



Photo 9.2-1. Open forest on ridge south of Pinner Creek



Photo 9.2-2. Tall myrtle on ridge south of Pinner Creek

9.3 Return walks east from Western Explorer Road

Mt Bolton is likely to prove a popular short walk from the Western Explorer Road, particularly for people who are driving the road for other reasons. Longer walks east from the road are less likely to prove attractive owing to the lack of obvious destinations. The most popular longer walk is likely to be to Pyramid Hill, which will be reachable in a day return trip once the track is completed.

9.4 Return walks west from Western Explorer Road

Completion of the Trans-Tarkine Track is likely to attract substantial visitation to the Norfolk Range and particularly to Mt Norfolk. Some increased visitation may also occur to Mt Mabel, walkers leaving the TTT near the Norfolk-Mabel saddle. As a track already exists to Mt Mabel, this is unlikely to cause significant environmental problems for the foreseeable future. It may be necessary to provide additional or alternative camping space, probably near upper Lagoon River, for overnight walkers who do not intend to continue to the coast.

9.5 Coastal walks

As mentioned in 4.8.2, significant numbers of walkers already undertake walks along the coast north of Pieman Head, and the number is likely to increase once the Trans-Tarkine Track is constructed and promoted. The walks most likely to be popular are return trips from Pieman Head to Rupert Point, the Interview River and more distant destinations, and the through walk to Pieman Head from Sandy Cape (where walkers can be dropped off by vehicle).



Photo 9.5. View south from near Camp Creek

Additional campsite infrastructure will be required for non-TTT walkers, and it would be best for this to be separate from the designated TTT campsites. Potential campsite locations include Rupert Point, the moorland shelf on the south side of the Interview River lagoon, moorlands north of the proposed Lagoon River campsite, and the area immediately south of the proposed bridge over lower Italian Creek.

10 Conclusions

The Trans-Tarkine Track is achievable, and when completed it will rank alongside the world's great multi-day wilderness journeys. The track will traverse the heartland of the Tarkine and showcase the values that make the region unique. Starting in the midst of Australia's most extensive temperate rainforest the walk will traverse heathlands, valleys, mountain ranges, beaches, and dune landscapes rich in Aboriginal heritage. It will end with a relaxing and spectacular river cruise from Pieman Head to Corinna.

Walkers will have the option of completing the walk as a continuous ten-day trip or as two five-day trips, breaking at the Western Explorer Road. Camping will be at designated sites provided with tent platforms, toilets and easy access to drinking water.

The walk will generally be less challenging than the Overland Track but it will include some challenging sections, particularly the traverses of Mt Bertha and Mt Norfolk. Each day of the trip will involve walking between 10 and 15 km, and most days will involve some uphill sections. The track will be constructed to Class 3 standard and will generally have a dry walking surface. All rivers and major creeks will be bridged.

I recommend that the track (specifically the campsites) be designed to accommodate an initial intake of 30 walkers per day, although this could increase if there is sufficient demand.

Construction of the track will cost around \$20 million, including campsite infrastructure but not including road upgrades and trailhead infrastructure.

A more detailed on-ground survey, backed up with additional aerial survey (with LIDAR if available) will be required to optimise and fine-tune the proposed route before track construction can commence. The impacts of the proposed track on the ecological, human heritage and wilderness values of the region should also be rigorously assessed.



Photo 10. Mist rising from the forest canopy, seen at sunset from 'Lookout Hill'.



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DRAFT

Demand for the Trans-Tarkine Track

Prepared for the Bob Brown foundation

February '18

Document information

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Date

February 2018

Reference #

J2602

1

Background, objectives & approach

Background

- The Bob Brown Foundation commissioned a study in 2016 to prepare a proposed outline and basic scope for the Trans-Tarkine walk.
- The resultant track would be of Class 3 Standard, comparable to the Overland Track. It will be suitable for use by walkers of moderate fitness and limited overnight walking experience. Walkers will overnight at campsites provided with elevated tent platforms and toilets, close to sources of potable water.

The key findings of the investigation were:

- It will be possible to undertake the walk as a continuous 10-day trip or as two separate 5-day trips, broken at the Western Explorer Road. Roughly three days will be spent in the region's rainforests, two days on highland traverses, two and a half days on the coast, and two and a half days in lowland heath or scrub country.
- The ten-day walk has the potential to rank as one of the world's great wilderness journeys.
- Each half of the walk has the potential to rank as a world-class multi-day wilderness journey.
- The walk will terminate with a ferry trip from Pieman Head to Corinna.
- Each day of the trip will involve walking between 10 and 15 km.
- The proposed track and its associated infrastructure can be constructed using straightforward and well-established track construction techniques. Several large bridges will be required and large numbers of steps (which are expensive relative to level track) will be required on some sections.

Background (cont.)



- There were suitable locations for ten campsites along the track. Of these, five will be inland beside major creeks and rivers, one will be high on Mt Bolton, one will be in rainforest, two will be on the coast near river mouths, and one will be near the track terminus at Pieman Head.
- The carrying capacity of the track will be determined by the capacity of its campsites. The report recommended that the campsites be designed to accommodate an initial intake of 30 walkers per day. Campsite infrastructure can be expanded to accommodate higher numbers if there is sufficient demand.
- A detailed on-ground survey, backed up with additional aerial survey (ideally using LIDAR if available) will be required to optimise and fine-tune the proposed route before track construction can commence.
- The overall cost of the proposed development, as proposed, would be just under \$20 million. Of this roughly \$17 million will be for track construction, \$2 million will be for campsite platforms and associated infrastructure, \$400,000 will be for vegetation clearance, and \$275,000 will be for the detailed ground survey.
- This study did not assess the costs of car parks, trailhead infrastructure, road upgrades, marketing, the set-up of a walker registration (booking) system, or additional aerial survey.

Objectives



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Research Purpose

An analysis of the consumer response to the Tarkine walk in the context of similar competitive walks, including overall appeal, specific elements of appeal and intention to take the walk in various guises

Research Objectives

An understanding of the Unprompted awareness of the Tarkine, Tasmanian Aboriginal culture: and the prompted awareness of Tarkine, Tasmanian Aboriginal culture

Analysis of the consumer response to the Trans-Tarkine walk in the context of similar competitive walks, including overall appeal, specific elements of appeal and intention to engage

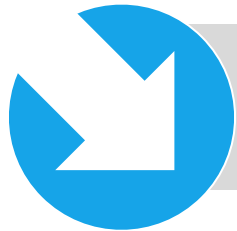
Knowledge and ideas held about Tarkine (perceptions, and attitudes) and extent of Aboriginal culture in Tasmania (perceptions and attitudes) and the **Value** attached to these to aspects as well as **Consideration** of a walk in the Tarkine

Preparedness to recommend; Values or associations made with the Tarkine, Tasmanian Aboriginal culture: and **Evaluation/consideration of the Tarkine walking concept (Choice model)**

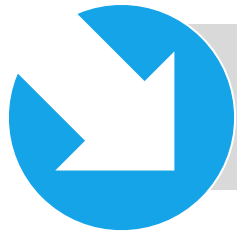
In addition, an understanding of the key tourism trends relevant to the Tarkine walk and the base outlook of tourism demand. Quantified estimates of consideration potential for the Tarkine Walk expressed as visitor numbers

Methodology

The study involved an online survey with a representative sample of 1516 Australians aged 18 years and older. The sample was stratified by age, gender and State/Territory to ensure there was a sample that could be weighted to reflect the Australian adult population aged over 18 years. The study represents 17 million people.



The survey lasted just under 11 minutes and was conducted online and included standard survey questions and a marketing experiment using discrete choice modelling to test a range of hypothetical Trans-Tarkine Track designs.



The sample was collected using sample from SSI, Australia's largest actively managed online sample.



The study was conducted between 7th and 21st February 2018. This report analyses (1) total sample (2) walkers (those who have said ANY YES for: done a full day or overnight walk either last three years or next three years) and (3) the remainder of the sample – non walkers

Sample profile

Australian representative sample



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Gender	N=	%
Total Sample	1,516	100
Male	570	38
Female	946	62

Occupation and position	N=	%
Total Sample	1,516	100
Manager	121	8
Professional	182	12
Technical or tradesperson	46	3
Community and personal service worker	79	5
Clerical and administrative workers	216	14
Sales workers	65	4
Machine operator/driver	23	2
Labourer/storeperson/unskilled	53	3
Unemployed	128	8
Home duties/student	230	15
Small business owner/partner	52	3
Retired	207	14
Prefer not to say	85	6
Other	29	2

Age	N=	%
Total Sample	1,516	100
18-34	297	20
35-54	676	45
Over 55	543	36

Residence state	N=	%
Total Sample	1,516	100
New South Wales	301	20
Victoria	306	20
Queensland	308	20
South Australia	150	10
Western Australia	151	10
Tasmania	115	8
Northern Territory	115	8
ACT	70	5

Sample profile

Australian representative sample

Household structure	N=	%	Income	N=	%
Total Sample	1,516	100	Total Sample	1,516	100
Single/living alone	321	21	Under \$15,600 a year (Under \$300 a week)	44	3
Share accommodation with non-related person (s)	74	5	\$15,600 - \$25,999 a year (\$300 - \$499 a week)	122	8
Couple without children	377	25	\$26,000 - \$36,399 a year (\$500 - \$699 a week)	110	7
Family with young children (oldest child is under 13 years)	240	16	\$36,400 - \$51,999 a year (\$700 - \$999 a week)	175	12
Family with older children (oldest child aged 14+)	343	23	\$52,000 - \$77,999 a year (\$1,000 - \$1,499 a week)	228	15
Other	124	8	\$78,000 - \$103,999 a year (\$1,500 - 1,999 a week)	228	15
Prefer not to say	37	2	\$104,000 - \$129,999 a year (\$2,000 - \$2,499 a week)	134	9
			\$130,000 - \$149,999 a year (\$2,500 - \$2,884 a week)	111	7
			\$150,000 - \$174,999 a year (\$2,885 - \$3,364 a week)	45	3
			\$175,000 - \$199,999 a year (\$3,365 - \$3,845 a week)	36	2
			\$200,000 or more a year (\$3,846 or more a week)	54	4
			Prefer not to say	228	15



2

Executive summary

Key Summary

Australians aspire to walk more than they actually do – they are looking for great walking experiences

Tasmania is the destination of choice for overnight walking & most visitor to Tasmania will want to walk

The Trans-Tarkine Track is seen by 75% Australians as an important walking experience for Tasmania to offer

However only 4% of Australians feel well informed about Tasmania's walking experiences

51% of Australians, are interested in incorporating the Trans-Tarkine Track experience into a holiday they have in Tasmania (after having the walk explained).

Measuring consideration of the Trans-Tarkine Track

With no competition



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When consumers are asked what they would like or what's important to them about a new product the answer is usually predictable. They want all the best features at the lowest cost. The reason we use discrete choice modelling is to force future consumers to trade off two desired features and find out which feature they want more.

The study measured consideration for three alternative Trans-Tarkine Tracks: the 10 day Trans-Tarkine Track; a 5 day rainforest walk or a five day coastal walk.

At a similar per day night price as the Three Capes Track (around \$150 per night) consideration for the 10 day Trans-Tarkine track with minimal features is 8% of the Australian market and for walkers it is only 7.3%.

When considering the TTT alone...(ie not comparing TTT to other Tasmanian offers) the main way to increase consideration is to reduce the cost pp, provide basic huts for 4 people at each camp site, provide all amenities and develop a rainforest experience.

Consideration for the Trans-Tarkine Track, in its three forms, is high with 37.5% of the Australian community prepared to consider one of them with minimal features apart from the track itself.



	10 Day Trans-Tarkine Track	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	None of these
Total	8.0%	16.8%	12.8%	62.4%
Walkers	7.3%	25.8%	22.3%	44.6%
Non-Walkers	8.6%	9.7%	5.3%	76.4%

Measuring consideration for the Trans-Tarkine Track (2)

With no competition

Given price is the main lever to increase consideration the following chart outlines how consideration increases with the lowering of price.

	10 Day Trans-Tarkine Track		5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine
\$300	16.2%	\$300	19.3%	18.1%
\$400	15.7%	\$400	19.3%	17.0%
\$500	14.9%	\$500	19.2%	17.3%
\$1500	5.47%	\$800	22.3%	17.2%

The Trans-Tarkine track in its two short forms is appealing at a daily cost of \$160 per person per day to 39.5% of the population. A further 5.47% would consider the 10 day TTT at \$1500.

The results show that there is strong consideration for the Trans-Tarkine track as it was envisaged with all three versions having widespread appeal – with few features.



Measuring consideration for the Trans-Tarkine Track (3)

With competition; the situation changes

The Trans-Tarkine Track is, prima facie, of interest to Australians, but the high levels of consideration are markedly reduced when a walker compares the Trans-Tarkine Track offer to other walks in Tasmania at the current prices being charged.

Consideration of the Trans-Tarkine track diminishes markedly when the walk is compared to other more value for money propositions; but still capturing 8.7% of the market. The Three Capes Track is seen to offer a much better value for money proposition.



	10 Day Trans-Tarkine (\$1500)	5 Day Rainforest Trans-Tarkine (\$800)	5 Day Coastal Trans-Tarkine (\$800)	Overland (\$500)	Three Capes (\$495)	None of these
Total	1.5%	3.3%	3.9%	13.4%	38.8%	39.1%
Walkers	2.2%	5.5%	7.0%	19.7%	43.7%	21.9%
Non-Walkers	1.0%	1.5%	1.5%	8.5%	35.0%	52.5%

The key ways to improve consideration for the 10 day Trans-Tarkine Track offer is to reduce the cost pp, provide boutique eco huts for 8 and provide all amenities at each hut. Consideration of the Trans-Tarkine Track can be enhanced by added features which require a careful cost-benefit analysis to determine which one adds greater consideration for the cost required.

3

Walking experiences and preferences of Australians

Demand for walking opportunities is high

Walking for exercise is the most popular physical recreational activity in Australia with the ABS reporting that 19% of people aged 15 years and over walking for exercise at least once in the last 12 months. Females were more likely to walk for exercise than males (25% and 14% respectively).

Full day walks: These results show that 34% of Australians claim to have taken a full day walk in the last three years; 39% intend to do so in the next three years. Full day walks are more aspirational than actual indicating latent demand. 17% claim to have done many full day walks in the last three years.

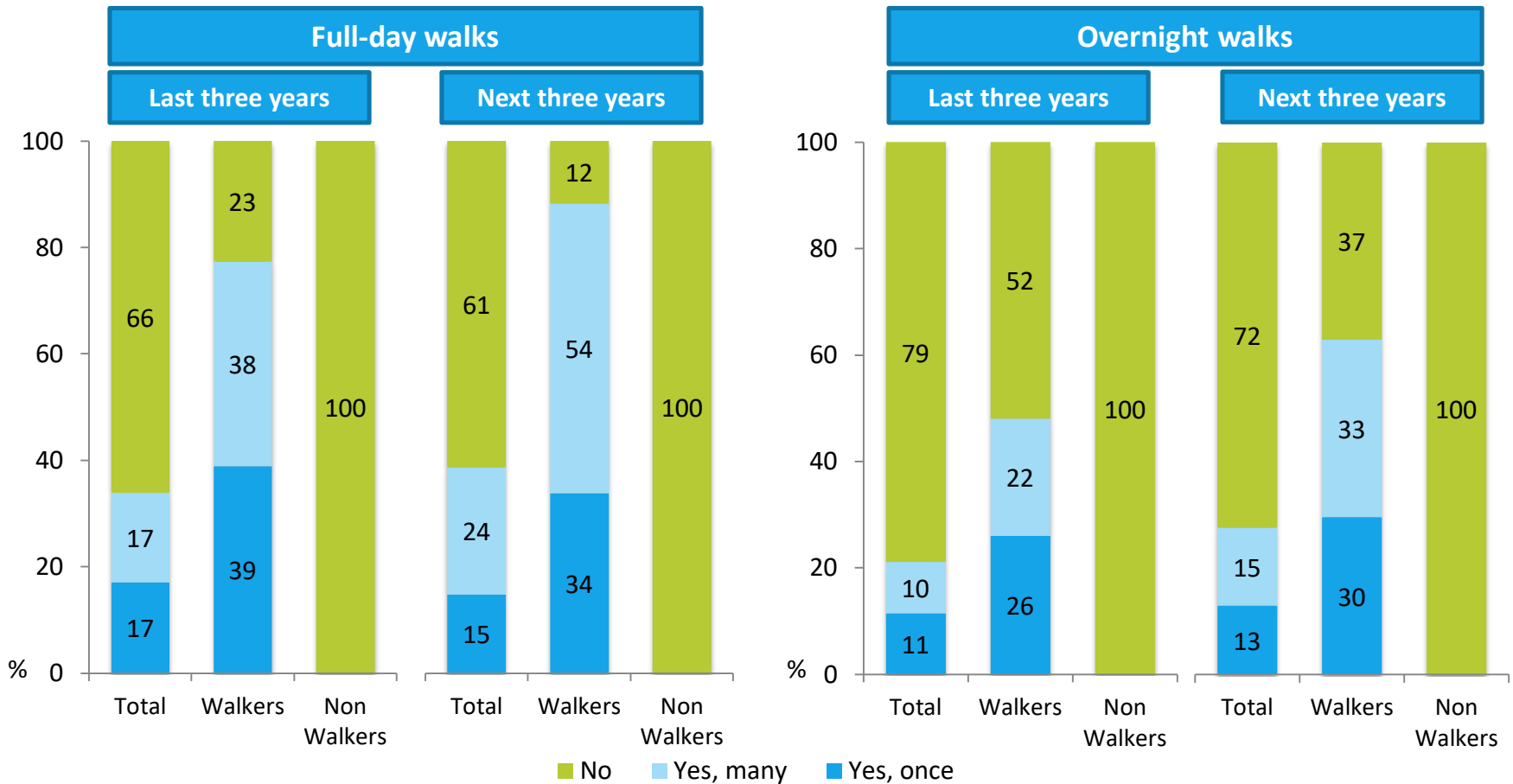
Overnight walks: These results show that 21% of Australians have taken walks with overnight stays in the last three years, and 28% intend to in the next three years. Again more people intend to take overnight walks than actually do.

Building the right walking product is key to maximising demand for overnight walks. Shorter walks are preferred with 15% of Australians prefer an overnight walk but only 3% of Australians prefer a 6 day; 5 night walk.



Australian walking preferences

Full-day and overnight walk participation



B1a. Have you undertaken a full day walk in the last three years, or do you intend to in the next three years?

B1b. Have you undertaken a walk with overnight stays in the last three years, or do you intend to in the next three years?

Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

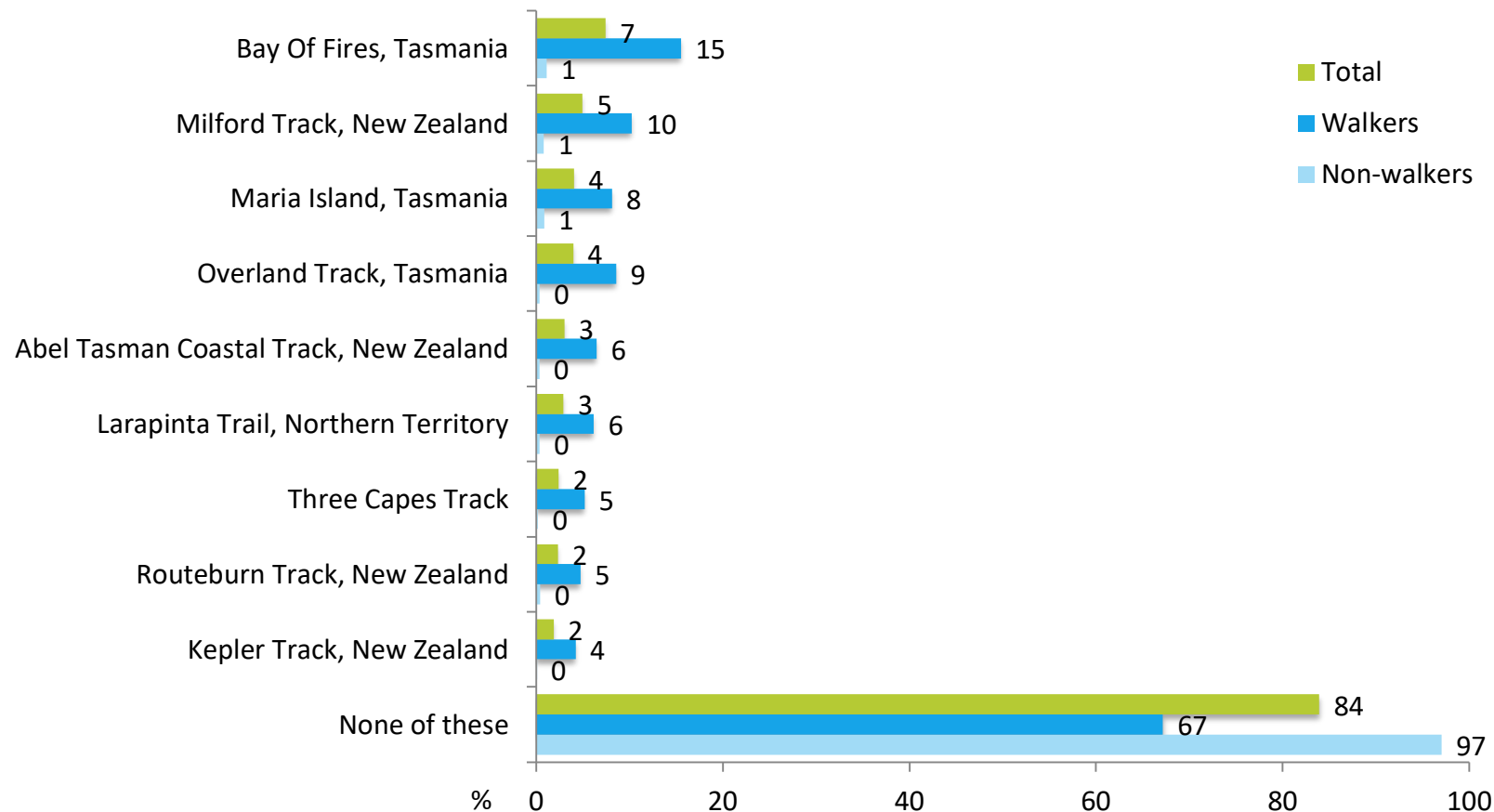
What tracks are being walked at present?



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- 1** Bay of Fires is the most popular walk in Australia
This is a 3 or 4 day walk – either guided or non guided but the region also provides the opportunity for many day walks which is part of the reason for its high usage figures. The highly picturesque, easily accessible and widely promoted region has been walked by 7% of the Australian population.
- 2** Milford Track; NZ
The Milford track in New Zealand is 53km in length and is a 4 day walk. It has been walked by 5% of Australians.
- 3** Maria Island walk
The Maria Island walk is 4 days and has been walked by 4% of Australians. Again the island provides access for plenty of day walks which has increased the usage figures.
- 4** The Overland track
The Overland walk (Cradle mountain to Lake St Clair) is a 65km walk lasting 5-7 days and has been walked by 4% of Australians.

Tracks previously walked by Australians



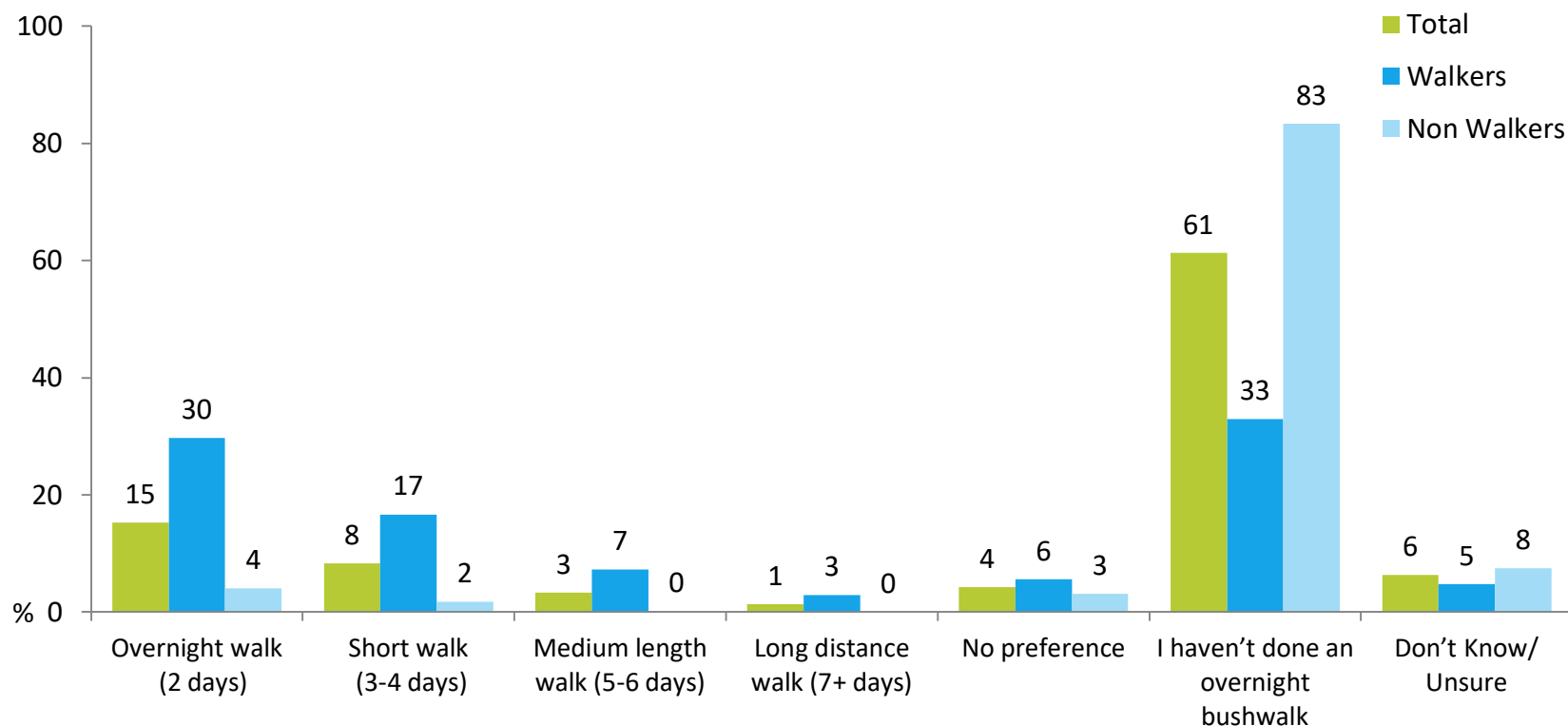
B2. Have you walked any of the following tracks....?

Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

Preferred length of overnight bushwalk

By total sample

The actual behavioural results from this study show that the most popular walks are 3-4 days. The Overland track which has existed for over 60 years has only had the same number of walkers as Maria Island which has operated for a much shorter time. The demand for extended walks is much smaller than that for the 3-4 day walks. In fact 15% of Australian prefer an overnight walk while only 3% prefer a 6 day; 5 night walk.



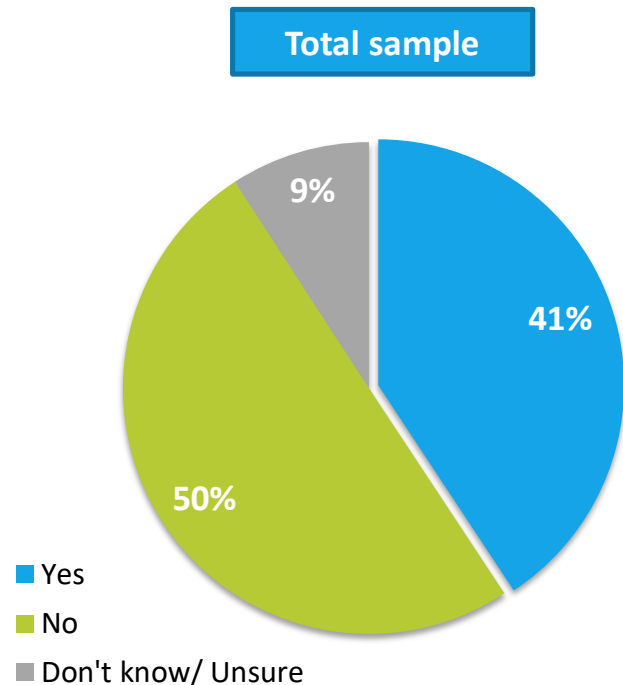
B3. What is your preferred length of overnight bushwalk?

Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

Previous experience with commercial walking operators

Overnight bushwalks (last five years)

Of those who are taking overnight walks; 41% of actual walkers have chosen a guided walk with a commercial operator. It is clear that commercial operators are a significant influence on actual overnight walking behaviour. Australian consumers are looking for assistance when accessing Australia's natural wonders on foot.



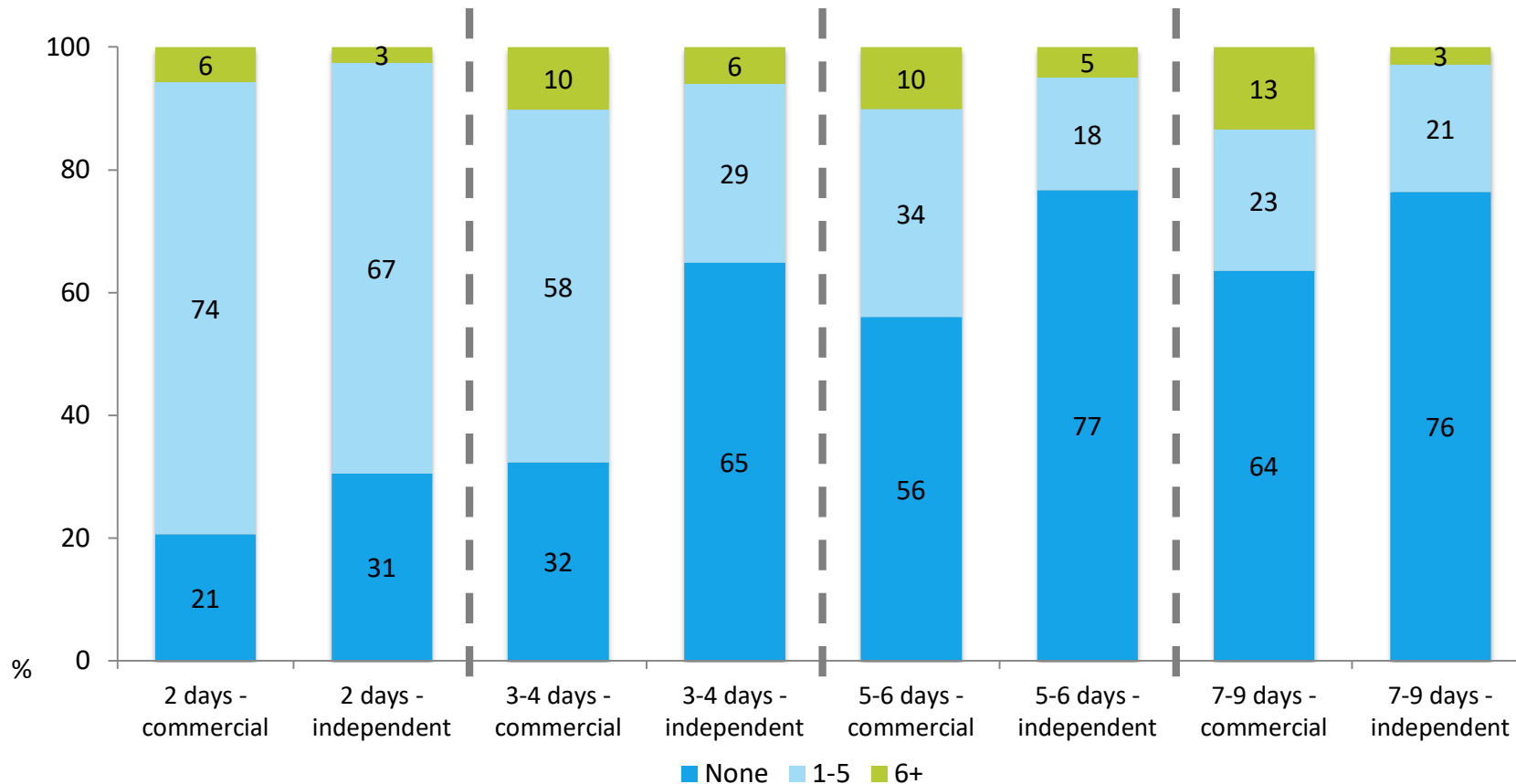
B4. Thinking about any overnight bushwalks (of one night or longer) you have done over the last five years, have you undertaken ANY of those walks with a commercial operator?

Base: Those who have undertaken an overnight bushwalk (last three years). Total sample (n=268).

Past walking behaviours

Full-day and overnight walking participation

For those who have actually walked on overnight walks the majority of walks have been 2 days in length.



B5a. How many commercially guided overnight bushwalks have you done in the last three years?

Base: Those who have undertaken a commercially operated overnight walk in the last five years. Total sample (n=84).

B5b. How many independent overnight bushwalks have you done in the last three years?

Base: Those who have undertaken an overnight bushwalk (last three years). Total sample (n=268).

4

Does walking fit into a Tasmanian holiday?

Demand for walking opportunities is high

As is demand for Aboriginal cultural insight

29% of Australians, if they were talking a holiday in Tasmania, would incorporate some form of independent bushwalk or trek into that holiday.

25% of Australians, if they were talking a holiday in Tasmania, say they would incorporate some form of guided bushwalk or trek into that holiday.

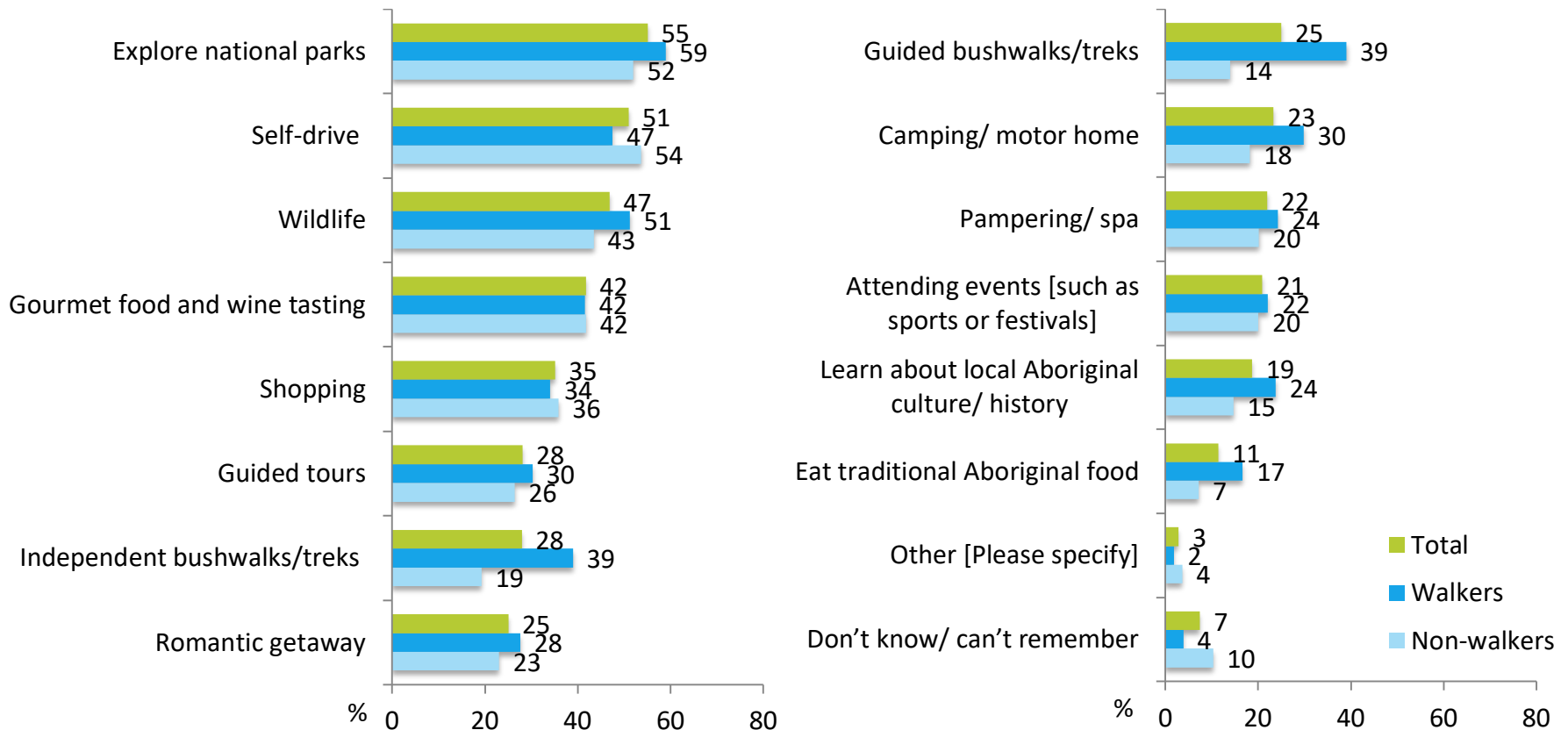
19% of Australians, if they were talking a holiday in Tasmania, say they would want to learn about Aboriginal culture and history as part of that holiday.

11% of Australians, if they were talking a holiday in Tasmania, say they would want to eat traditional Aboriginal food.



Preferred holiday activities

When on holiday in Tasmania



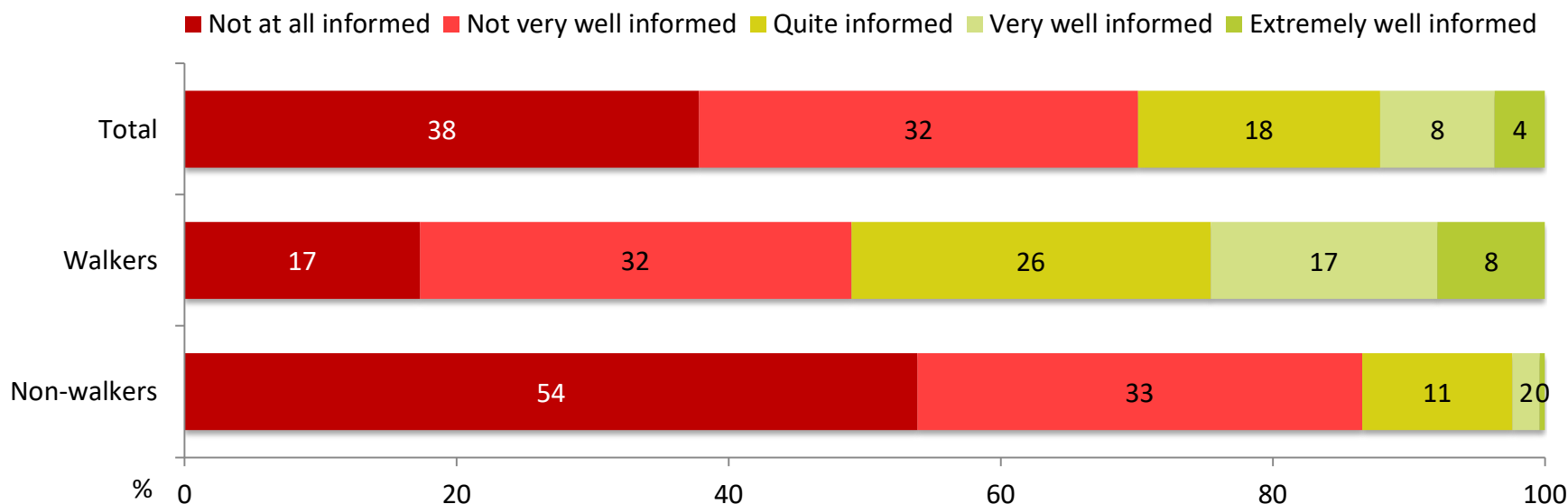
C2. If you were taking a holiday to Tasmania, which of the following would you prefer/be likely to do?

Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

Awareness of Tasmanian walks

How informed are Australians?

Many Australians, even those who walk regularly, do not feel well informed about walking in Tasmania. Non-walkers are very poorly informed about the walks on offer. Only 4% feel well informed.



C3. Thinking about walking in Tasmania, how well informed would you say you are?

Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

Awareness of Tasmanian walks

Non-walkers – top 100 words used

There are many beautiful tracks and areas to explore.

I know that the scenery is beautiful and they have some lovely walks you can do

That there are lots of world class walks to do. Good quality trails with huts to stay overnight.



There are lots of specific walking trails that range from distances and difficulty

I only know that there are some beautiful forests, mountains and scenery

Almost nothing - I have a friend who has done the overland track.

C4. What do you know about walking in Tasmania?

Base: Non-walkers (n=910).

5

Interest in Tasmanian walking opportunities

Demand for walking opportunities is high

50% of Australians are interested in an overnight walking experience in Tasmania. Much higher than the actual walking participation rate as identified by the ABS and even more than the aspirational rate. Tasmania itself adds to the appeal of walking.

Tasmania rates number one as the place Australians would consider as an overnight walking experience (43%). NSW and Victoria are equal second with 39% considering their state.

19% of Australians, if they were taking a holiday in Tasmania, say they would want to learn about Aboriginal culture and history as part of that. While 11% of Australians, if they were taking a holiday in Tasmania, say they would want to eat traditional Aboriginal food. holiday.

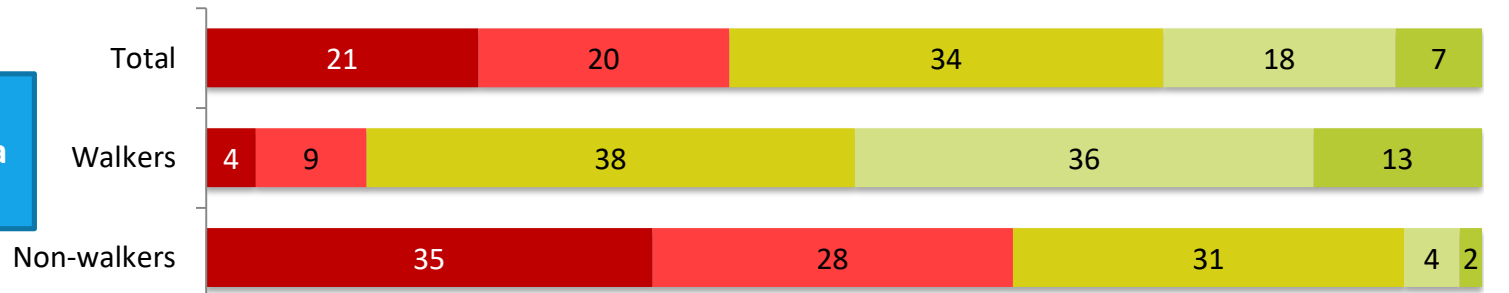
When asked about the activities that walkers would want to incorporate in a walking experience, the number one activity is to connect with an Aboriginal guide (41%), learn about Aboriginal culture and history (39%) and participate in a hands on cultural activity (32%). 29% of Australians want to take an overnight walk with an Aboriginal guide and 16% a three day / two night walk.



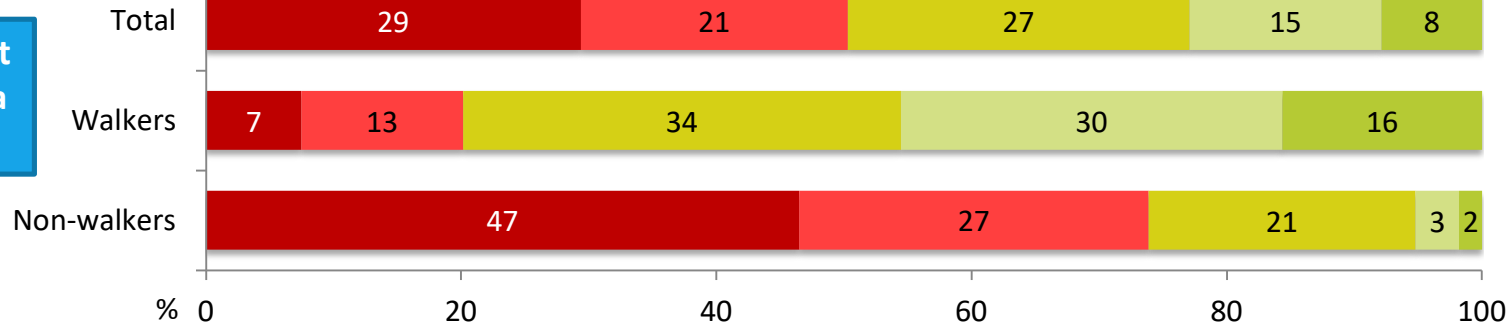
Level of interest in Tasmanian walking activities

■ Not interested at all ■ Not very interested ■ Somewhat interested ■ Very interested ■ Extremely interested

All
Tasmania
walks



Overnight
Tasmania
walks



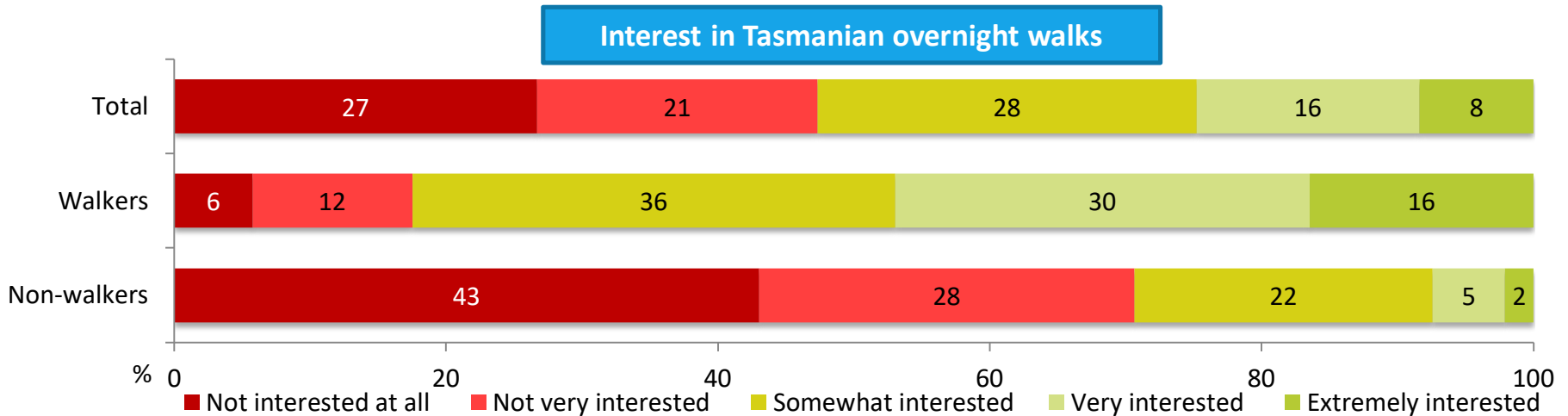
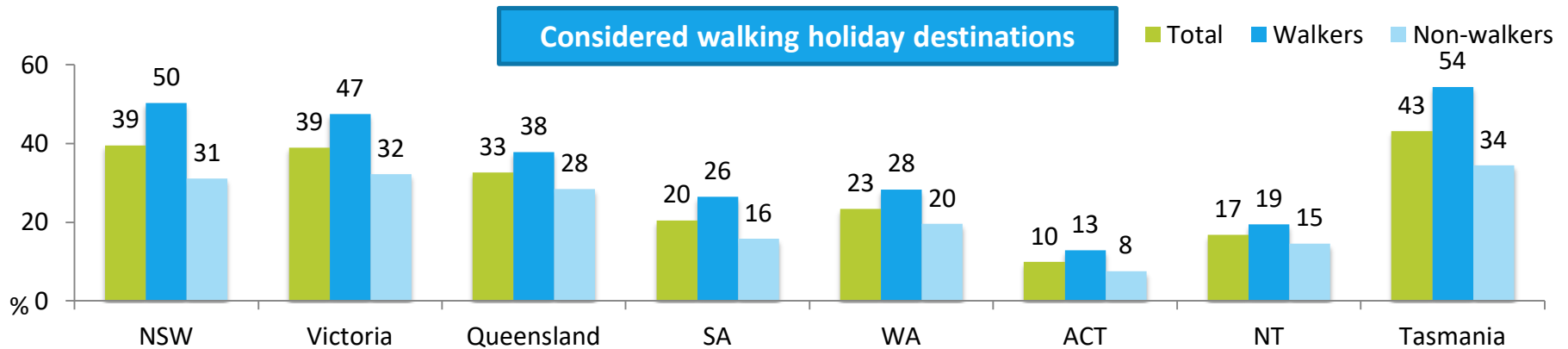
D1a. How interested, if at all, are you in walking in Tasmania?

D1b. How interested, if at all, are you in undertaking a walking trip in Tasmania that involves overnight stays?

Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

Where is the best place for overnight walking?

In Australia



D1c. Which of the following destinations would you consider for a walking trip that involves overnight stays?

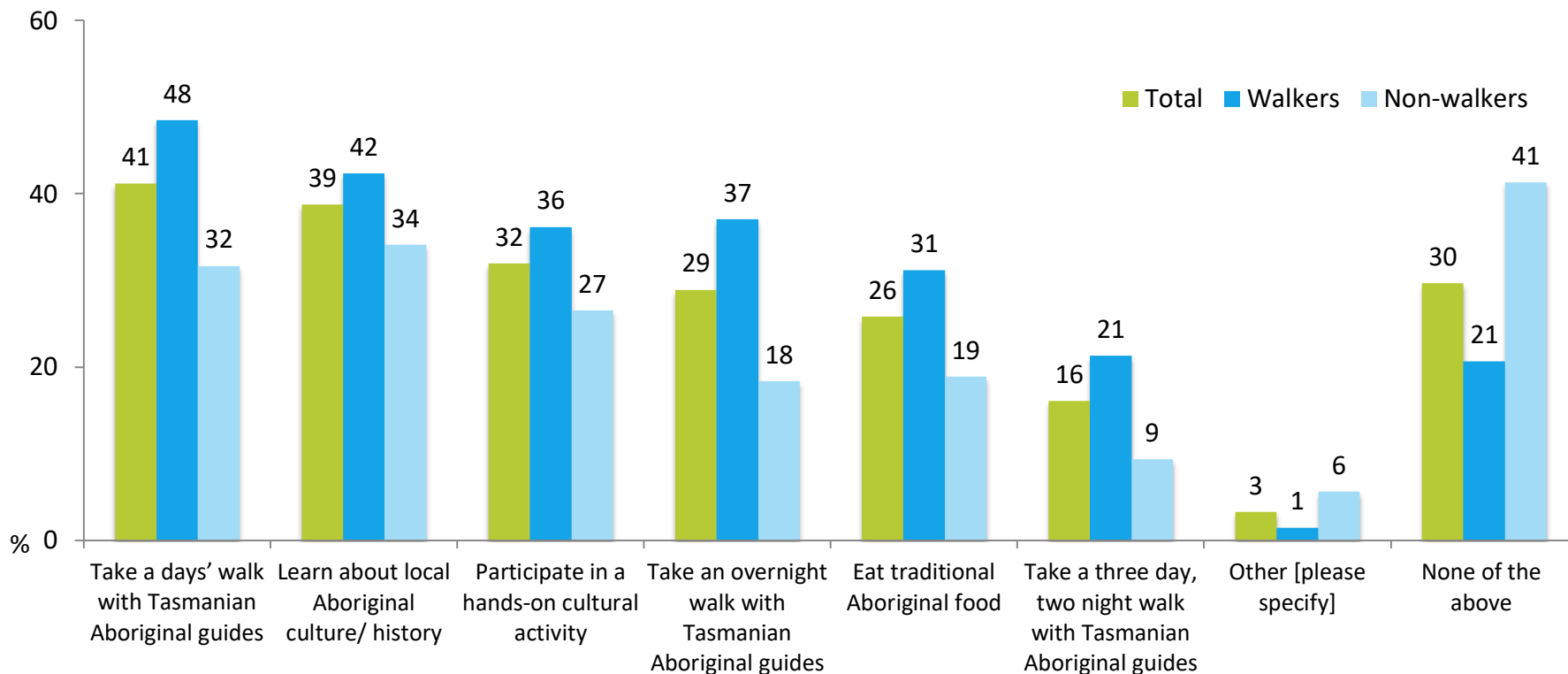
D2. If you were to take a holiday in Tasmania, how interested would you be in incorporating an overnight walking experience in that trip?

Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

Interest in activities on overnight walks in Tasmania

Intending and actual walkers

When asked about the activities that walkers would want in an overnight walking experience in Tasmania, the number one activity is to connect with an Aboriginal guide (41%), learn about Aboriginal culture and history (39%) and participate in a hands on cultural activity (32%). 29% of Australians want to take an overnight walk with an Aboriginal guide and 16% a three day / two night walk.



D3. What activities would you want to do/incorporate in an overnight walking experience in Tasmania?

Base: Those who did not state zero interest in an overnight walk in Tasmania. Total sample (n=1,072), Walkers (n=559), Non-walkers (n=513).

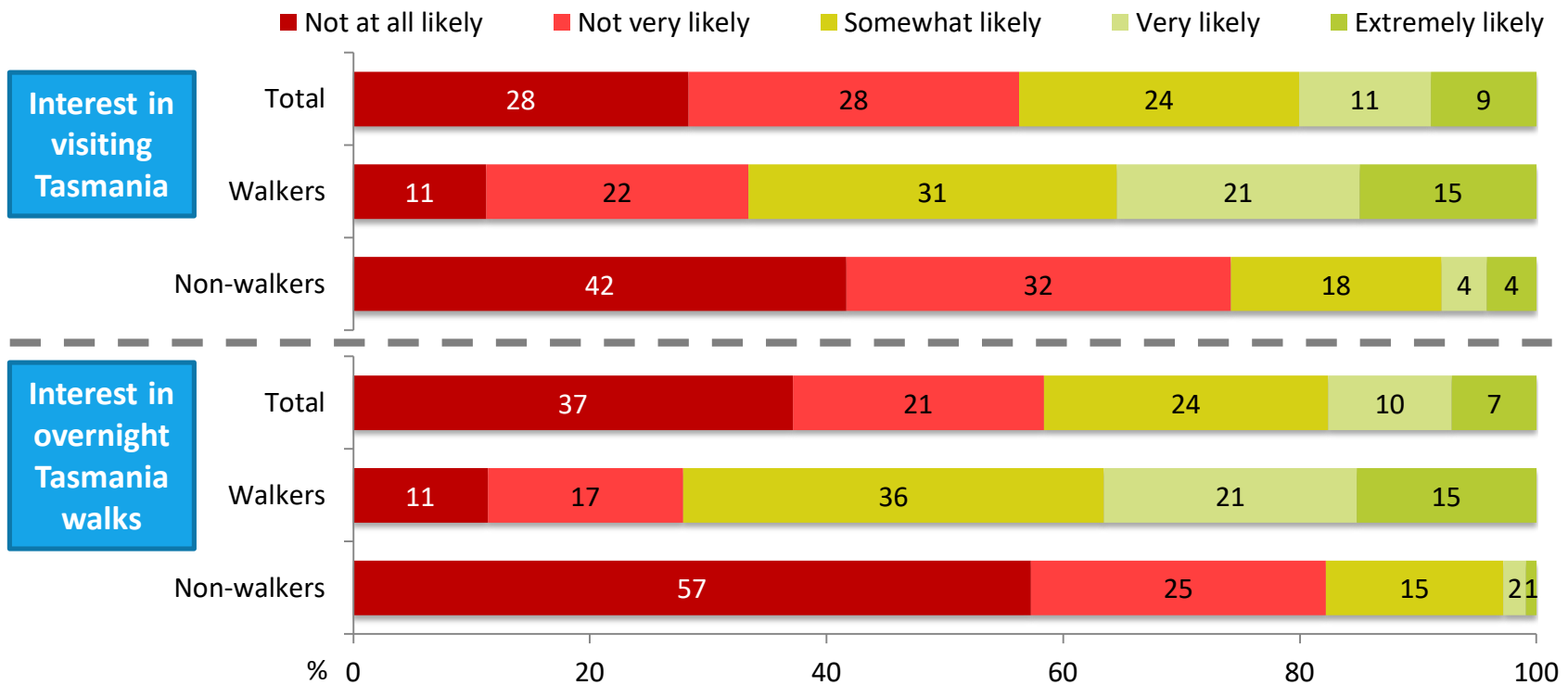
Do travellers intend to take a trip to Tasmania?

In the next 12 months



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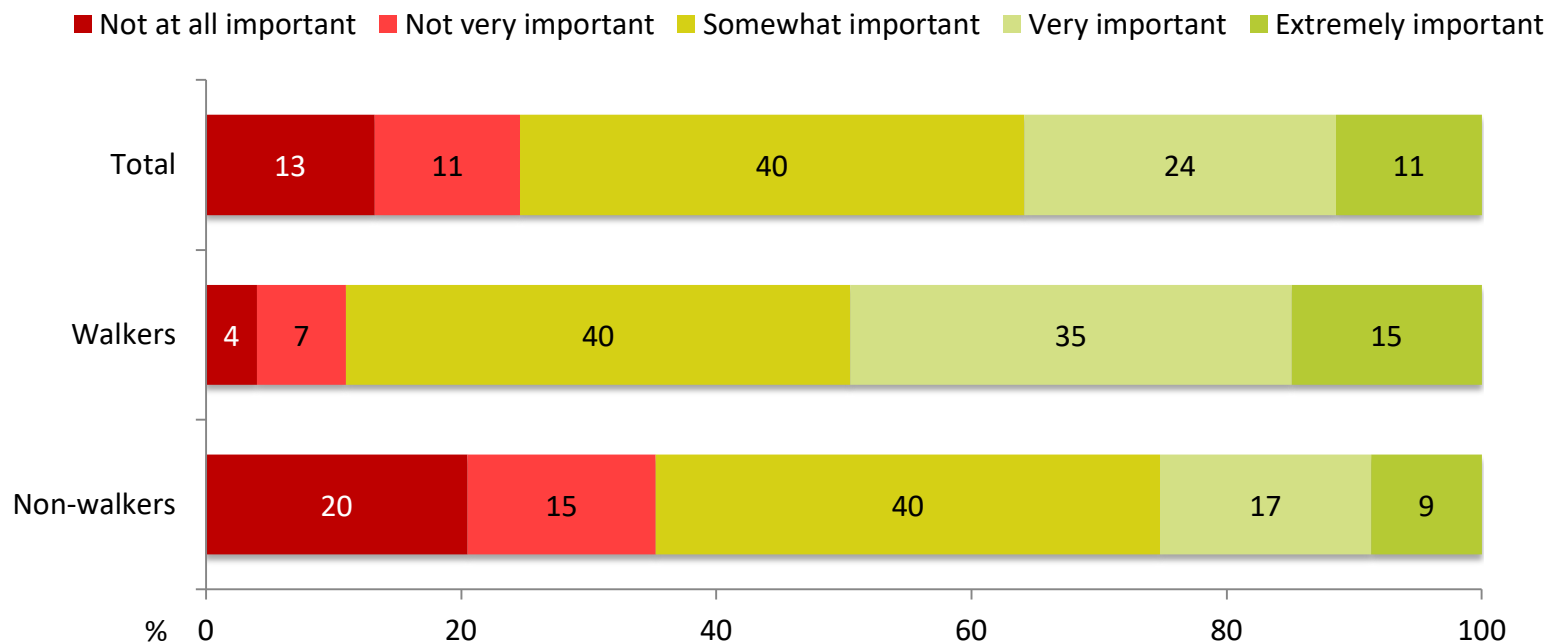
Tasmania is high in the radar for many Australians. 44% are somewhat, very and extremely likely to take a Tasmanian trip in the next 12 months. 41% (almost all) claim to be likely to include an overnight walking experience in that Tasmanian trip.



D4a. And how likely is it that you would take a trip to Tasmania in the next 12 months?
D4b. And how likely is it that you would incorporate an overnight walking experience while on a holiday in Tasmania?
Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

Importance of Tarkine tourism experience to Tasmania visitors

Three quarters of adult Australians think that it's important that Tasmania offers a Tarkine walking experience to visitors. It's 89% for walkers.



D5. How important do you think it is that Tasmania offers a Tarkine walking experience to visitors?

Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

6

Consideration of a Trans-Tarkine Track walk

The Trans-Tarkine Track proposal put to Australians

Background to the Trans-Tarkine Track (116km walk; or two 58km walks)

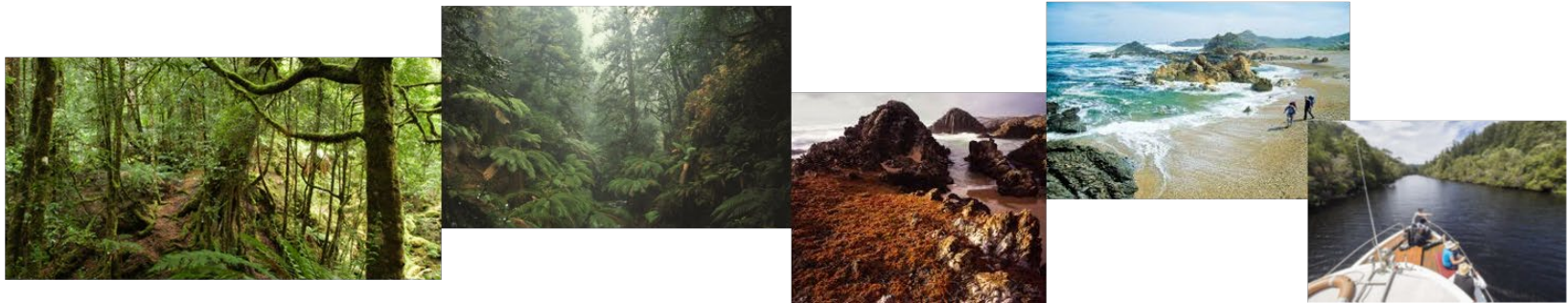


This survey will help us design the Trans-Tarkine Track. What we do know for sure is that the walk will be in North-West Tasmania in area called the Tarkine. It is a short drive from Burnie, Devonport or Launceston. These three ports have airports with regular flights and a regular ferry service from Melbourne to Devonport.

The Trans-Tarkine Track, in its entirety, is a 10 day walk of about 130 km. The walking track will traverse the heartland of Tasmania's Tarkine wilderness. It starts in the hinterland in the largest tract of temperate rainforest left in Australia and ends on the coast. It will be suitable for use by walkers of moderate fitness and limited overnight walking experience.

Walkers will stay overnight at campsites provided close to sources of potable water. It will be possible to undertake the walk as a continuous 10-day trip or as two separate 5-day trips, broken at the Western Explorer Road. Roughly three days will be spent in the region's rainforests, two days on highland traverses, two and a half days on the coast, and two and a half days in lowland heath or scrub country.

- The ten-day walk has the potential to rank as one of the world's great wilderness journeys.
- Each half of the walk has the potential to rank as a world-class multi-day wilderness journey.
- The walk will terminate with a ferry trip from Pieman Heads to Corinna.
- Each day of the trip will involve walking between 10 and 15 km. Most days will involve some uphill sections.
- There will be ten campsites along the track. Of these, five will be inland beside major creeks and rivers, one will be high on Mt Bolton, one will be in rainforest, two will be on the coast near river mouths.



Consideration of the proposed Trans-Tarkine Track



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51% of Australians, claim to be interested in incorporating the Trans-Tarkine Track walking experience into a holiday they had in Tasmania.

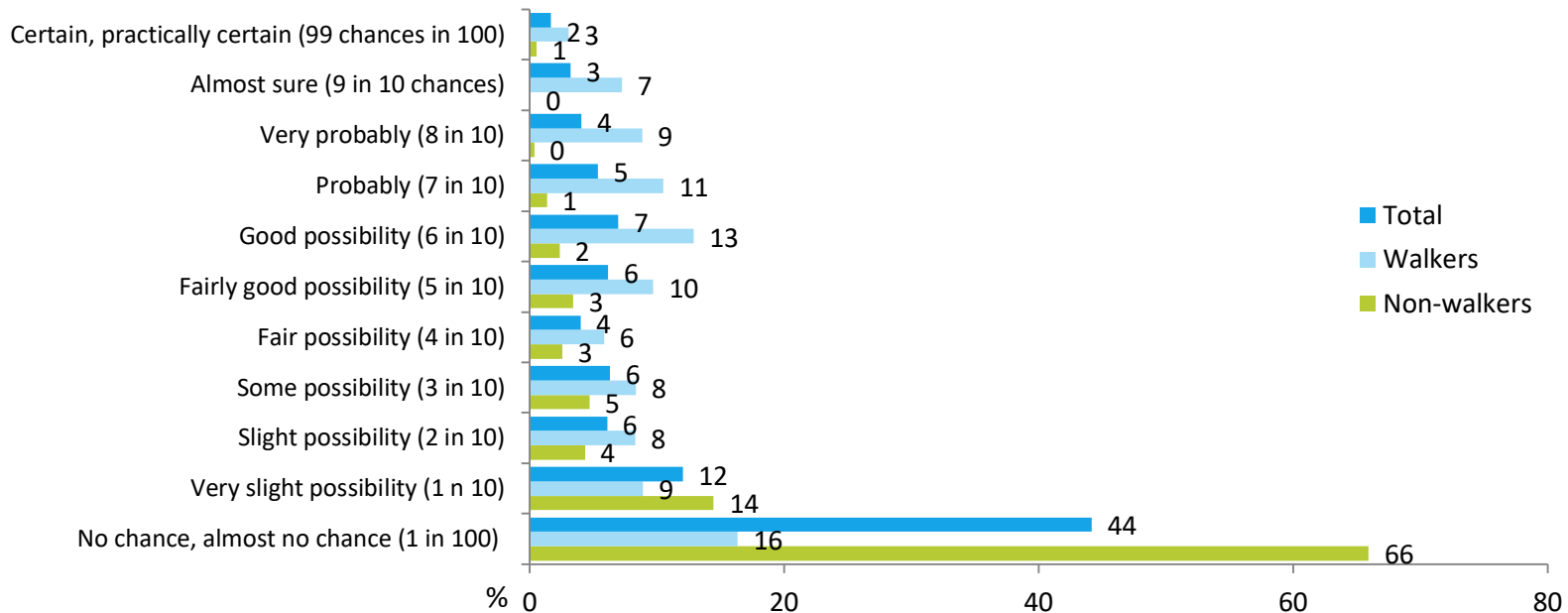
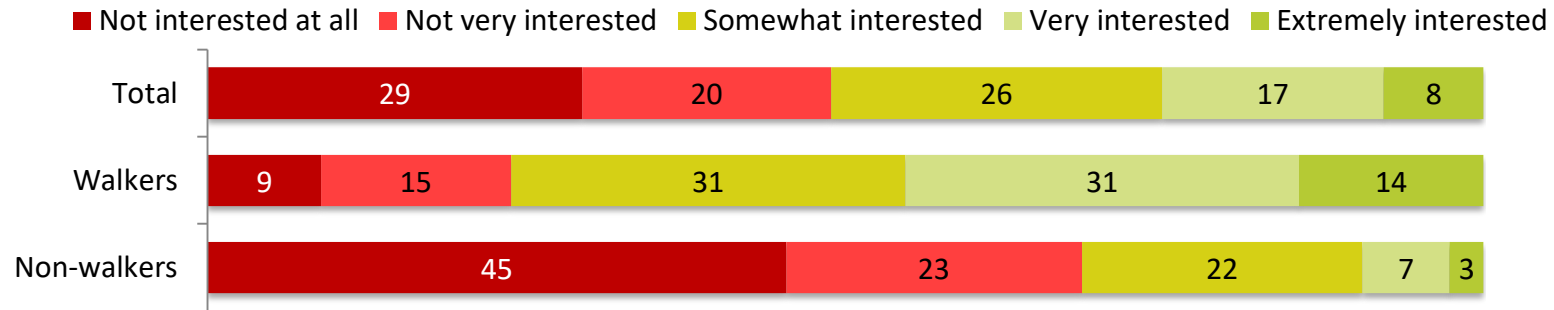
Using the Juster probability scale a more accurate read on actual purchase is possible: 19% of walkers are actually likely to take this walk. It's about 9% of the Australian adult population.

Factors that will determine whether the walk is actually taken include the price (important to 67%), weight of the pack (63%), distance walked (62%), number of days (62%) and level of difficulty (61%). This was followed the provision of equipment (58%) and style of accommodation (57%).



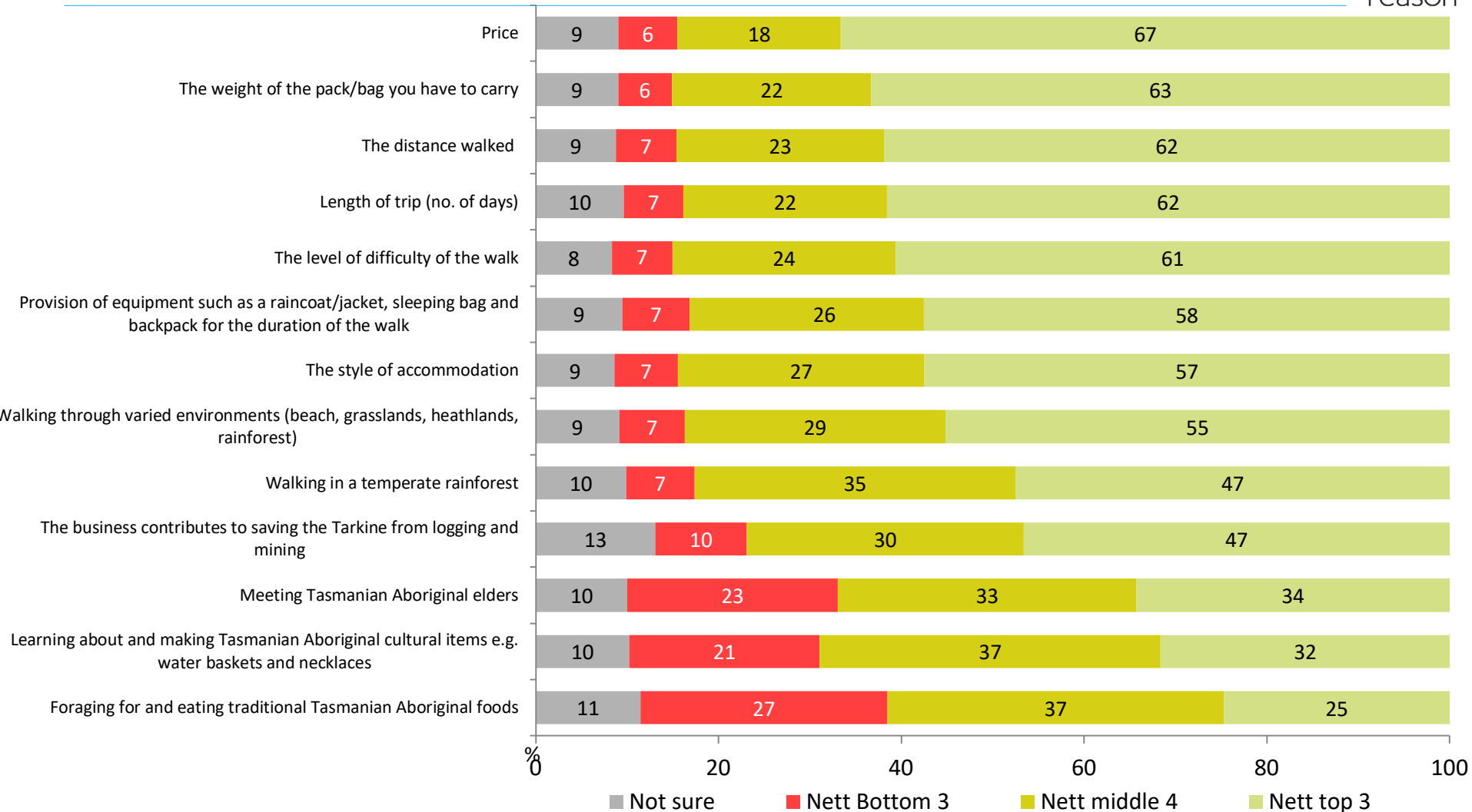
Interest in the Tarkine Track experience

Next twelve months by total sample



E1. If you were to take a holiday in Tasmania, how interested would you be in incorporating this Tarkine walk into your trip?
E2. If it became available, how likely is it that you would take this Tarkine walk in the next 12 months?
Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

Factors that will impact demand for the Trans-Tarkine Track



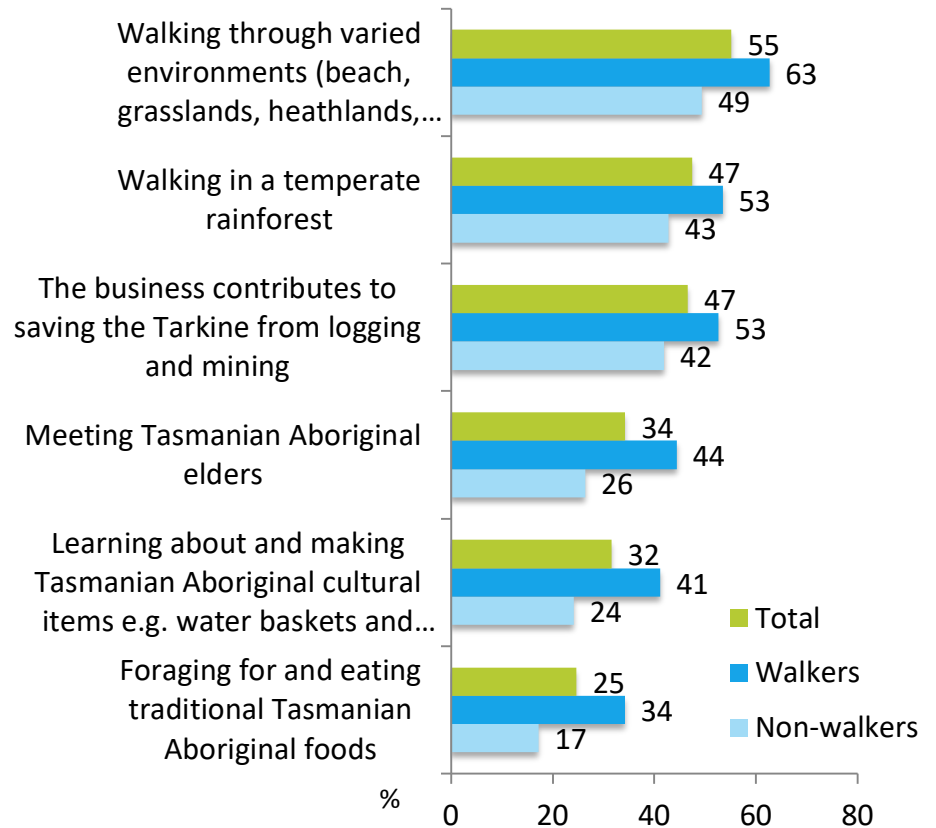
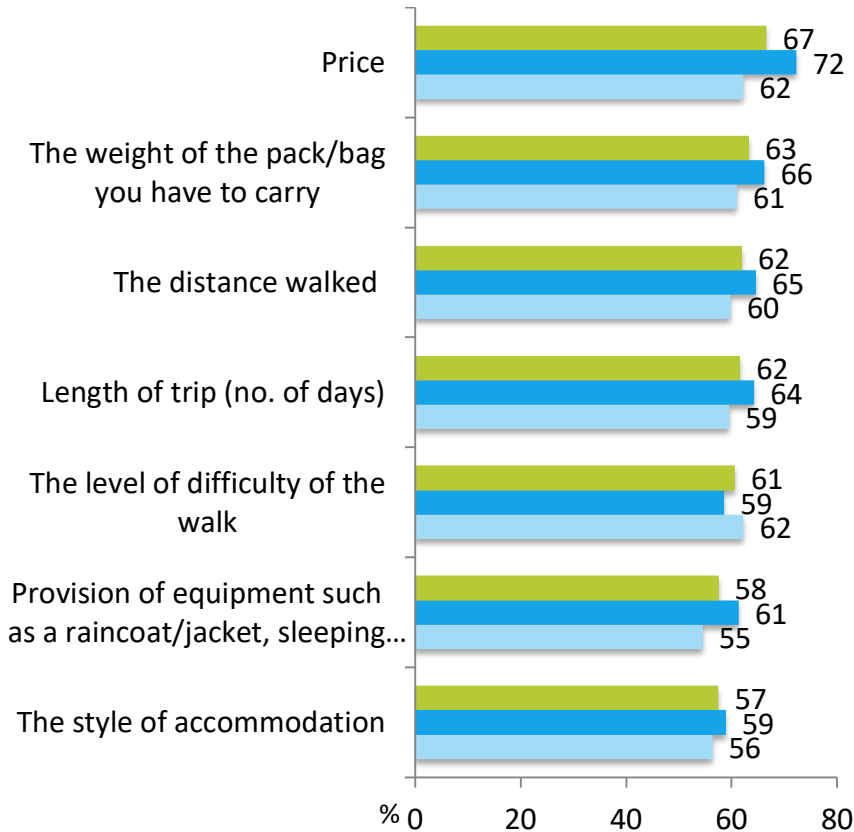
E5. How important are the following elements to you when deciding to undertake the Trans-Tarkine Track in Tasmania?

Base: Total sample (n=1,516).

Factors that will impact demand for the Trans-Tarkine Track - (rate 8-10 out of 10)



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E5. How important are the following elements to you when deciding to undertake the Trans-Tarkine Track in Tasmania?

Base: Total sample (n=1,516), Walkers (n=606), Non-walkers (n=910).

Factors that will impact demand for the Trans-Tarkine Track from walkers intent on going

Walking through varied environments (77%)

Price (76%)

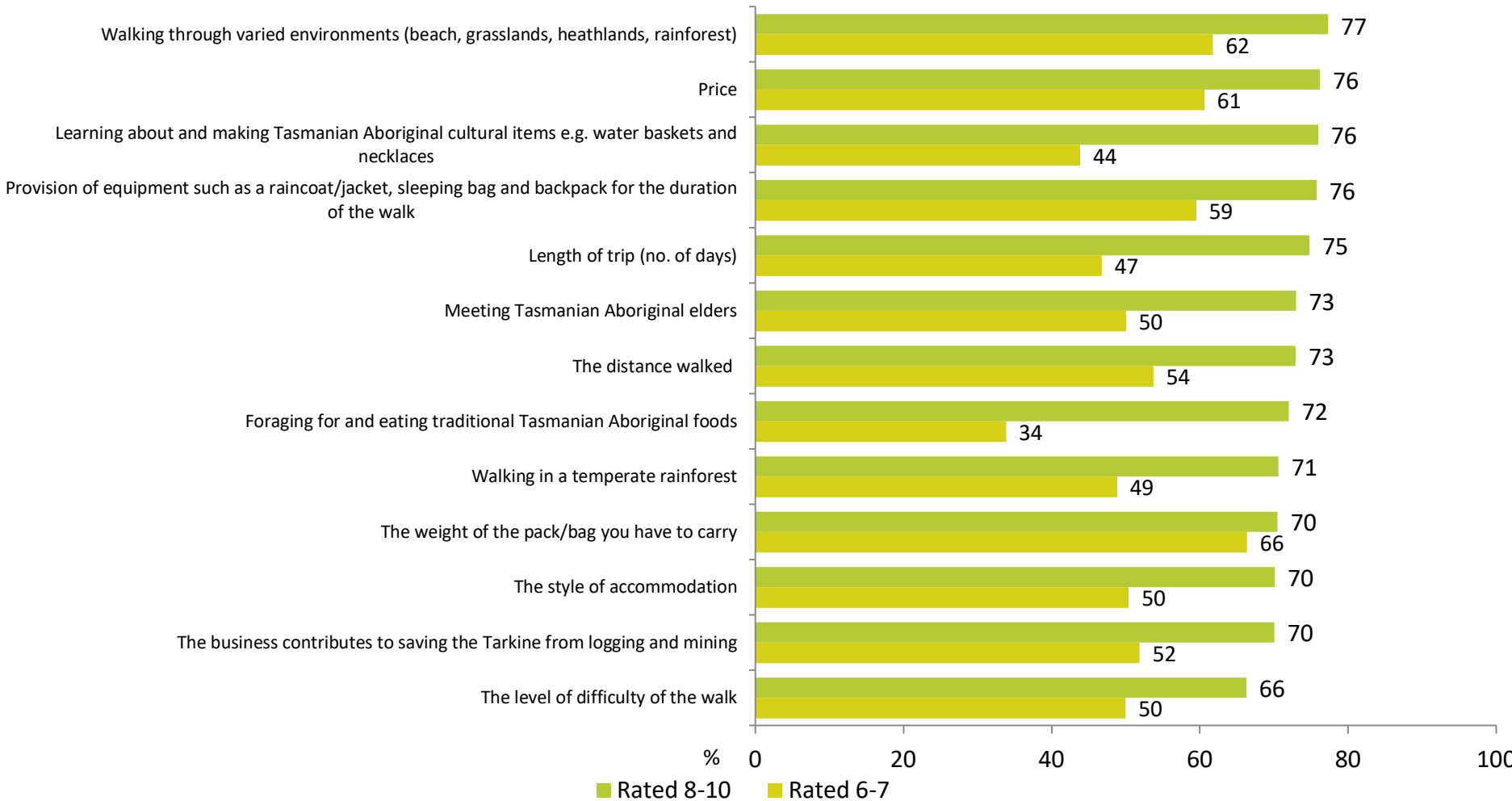
Learning about and making Tasmanian Aboriginal cultural items e.g. water baskets and necklaces (76%)

Provision of equipment such as a raincoat/jacket, sleeping bag and backpack for the duration of the walk (76%)

Length of trip (no. of days) (75%)

Meeting Tasmanian Aboriginal elders (73%)

Factors that will impact demand for the Trans-Tarkine Track - from walkers intent on going



E5. How important are the following elements to you when deciding to undertake the Trans-Tarkine Track in Tasmania?
Base: Walkers who rated their likelihood of taking the Tarkine Walk 8-10 out of 10 (E2) (n=101).
 Walkers who rated their likelihood of taking the Tarkine Walk 6-7 out of 10 (E2) (n=129).



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e: enquiries@instinctandreason.com



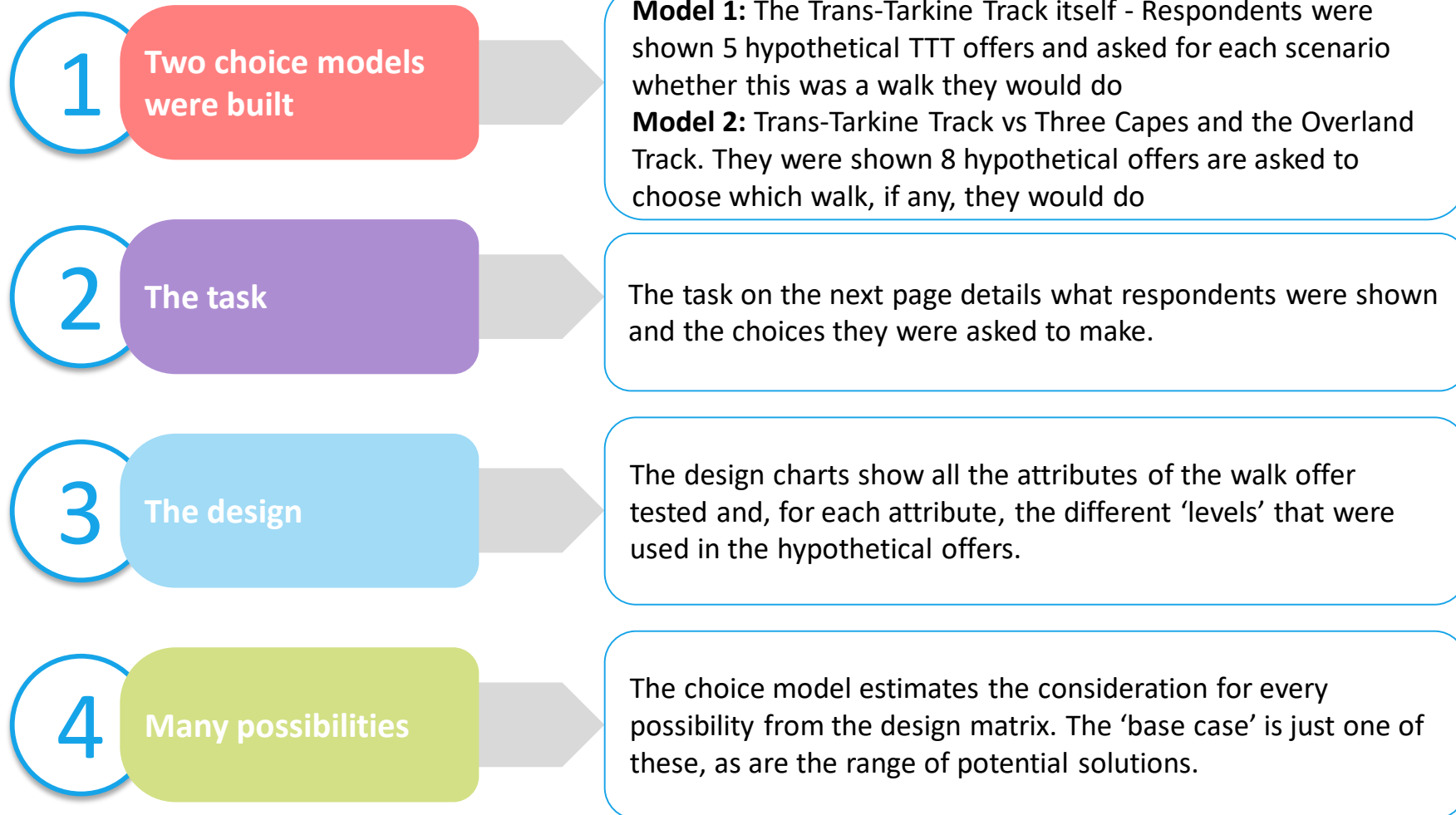
Appendix



A

Level of consideration for the Trans-Tarkine Track - choice model

Background and context



The task

As shown to survey respondents

We have another, very important part of the study.

In this section of the research, we will show you [eight] different scenarios for a walking experience you could have in a North-West Tasmania in a place called the Tarkine.

We want to know what you would do, if anything, if it ever became available. We would like you to let us know if any of these scenarios would make you want to undertake this Trans-Tarkine Track walking experience, or not. It is that simple.

Each 'Card' may look alike, but each is different. All you need to do, for each card, is to indicate which experience you would take, or not. Then tell us your choice by ticking one of the boxes at the bottom of the page. Base each decision on what you are shown on THAT page.

You may see some terms used that you are not familiar with. To help you, we have provided some definitions.





Please take a few minutes to read through the Definitions before starting the cards.

Definitions provided to all respondents

Features of the walking experience	Description
1. Accommodation	Styles of accommodation that range from camping grounds to boutique eco cabins. For the camping option there will be pavilion accommodation on night 5 and night 9. When you are considering an option that gives you camping accommodation remember there will be a pavilion with amenities for sleeping, showers and cooking facilities for two nights.
2. Amenities	Varying levels of amenities provided such as toilets, cooking facilities, showers, well marked walking trails etc
3. Number of people in the various accommodation styles	We test a variety of room sizes in the accommodation options
4. Campsite hosting	This looks at whether you would want a ranger onsite or not each evening
5. Total Cost Per Person (excludes the cost of getting there)	The cost refers to the cost of the experience per person for the accommodation, national park entry and track walking fees
6. Length of walk per day	We test a range of lengths of walking distance to be undertaken each day
7. What you carry	We test a range of pack weights that you might carry on the walk
8. Rainforest experiences	We test a range of rainforest experiences that could be bundled in with the walk itself.
9. Aboriginal cultural interpretation and experiences	We test a range of Aboriginal cultural interpretations and experiences that could be bundled in with the walk itself.
10. Aboriginal guided	We test whether Aboriginal guided experiences would be valuable to walkers.
11. Key messages about the Trans Tarkine Track	We test the key messages that promote the Tarkine Wilderness
12. End of walk experience	A range of options for the final boat trip at the walks end

Design: Key walk features and levels

Q: Would you take this walking experience in the Tarkine Wilderness, or not?

Attributes	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
1. Accommodation	Boutique eco designed huts 	Basic hut 	Pods 	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5 th night. 		
2. Amenities	All amenities, mattresses, cooking, heating, toilets, showers, etc.	Some amenities (e.g. cooking/BBQ, showers and toilets)	Basic amenities provided (e.g. toilets and BBQ area)	Very minimal amenities (e.g. toilets only)	No amenities provided	
3. Number of people in the various accommodation styles	1-2 person/s	4 persons	6 persons	8 persons	12 persons	
4. Campsite hosting	Ranger is on site	Ranger is on site and provides evening briefing on the area	No ranger on site			
5. Total Cost Per Person (excludes the cost of getting there)	\$225	\$425	\$625	\$825	\$1025	\$1500
6. Length of walk per day	8-10 km	11- 12km	13-15km	16-18km	19km plus	
7. What you carry	Day pack < 7 kg	7-10 kg	11-15kg	15 to 20kg	More than 20kg	
8. Rainforest experiences	Ranger walk to find native animals (Quolls, Devils, Bandicoots and Eagles)	Ranger walk to identify rainforest trees and plants and how the ecology of a rainforest works	Tree tops climb and interpretive experience	Tree tops climb you can do yourself	None	
9. Aboriginal cultural interpretation and experiences	Booklet detailing Aboriginal cultural history of the places you walk through	Spend time with an Aboriginal elder who tells you stories of the land	Get an app that tells you the stories of relevant places	Signage is provided along the way that tells the Aboriginal story	None	
10. Aboriginal guided	Aboriginal person accompanies you on the walk	No Aboriginal person is present				
11. Key messages about the Trans-Tarkine Track	You've walked through the largest temperate rainforest in Australia	You've experienced one of the last great wilderness regions in Australia	One of Australia's richest Aboriginal cultural landscapes	A walk that has minimal impact on the natural values of the area	No key message	
12. End of walk experience	90 minute boat ride on an historical vessel and a night accommodation in a cabin with a meal prepared	90 minute boat ride on an historical vessel and a night accommodation in a cabin	90 minute boat ride on an historical vessel			

Measuring consideration of the Trans-Tarkine Track

With no competition

When consumers are asked what they would like or what's important to them about a new product the answer is usually predictable. They want all the best features at the lowest cost. The reason we use discrete choice modelling is to force future consumers to trade off two desired features and find out which feature they want more.

The study measured consideration for three alternative Trans-Tarkine Tracks: the 10 day Trans-Tarkine Track; a 5 day rainforest walk or a five day coastal walk.

At a similar per day night price as the Three Capes Track (around \$150 per night) consideration for the 10 day Trans-Tarkine track with minimal features is 8% of the Australian market and for walkers it is only 7.3%.

When considering the TTT alone...(ie not comparing TTT to other Tasmanian offers) the main way to increase consideration is to reduce the cost pp, provide basic huts for 4 people at each camp site, provide all amenities and develop a rainforest experience.

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Measuring consideration for the Trans-Tarkine Track (2)

With no competition

Given price is the main lever to increase consideration the following chart outlines how consideration increases with the lowering of price.

	10 Day Trans-Tarkine Track		5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine
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\$500	14.9%	\$500	19.2%	17.3%
\$1500	5.47%	\$800	22.3%	17.2%

The Trans-Tarkine track in its two short forms is appealing at a daily cost of \$160 per person per day to 39.5% of the population. A further 5.47% would consider the 10 day TTT at \$1500.

The results show that there is strong consideration for the Trans-Tarkine track as it was envisaged it current plan with all three versions having widespread appeal – with few features.



Measuring consideration for the Trans-Tarkine Track (3)

With competition; the situation changes

The Trans-Tarkine Track is, prima facie, of interest to Australians, but the high levels of consideration are markedly reduced when a walker compares the Trans-Tarkine Track offer to other walks in Tasmania at the current prices being charged.

Consideration of the Trans-Tarkine track diminishes markedly when the walk is compared to other more value for money propositions; capturing only 10.7% of the market. The Three Capes Track is seen to offer a much better value for money proposition.



	10 Day Trans-Tarkine	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	Overland	Three Capes
\$750	2.0%	4.3%	4.9%	12.6%	37.5%
\$800	1.9%	4.1%	4.7%	12.8%	37.7%

The key ways to improve consideration for the 10 day Trans-Tarkine Track offer is to reduce the cost pp, provide boutique eco huts for 8 and provide all amenities at each hut. Consideration of the Trans-Tarkine Track can be enhanced by added features which require a careful cost-benefit analysis to determine which one adds greater consideration for the cost required.

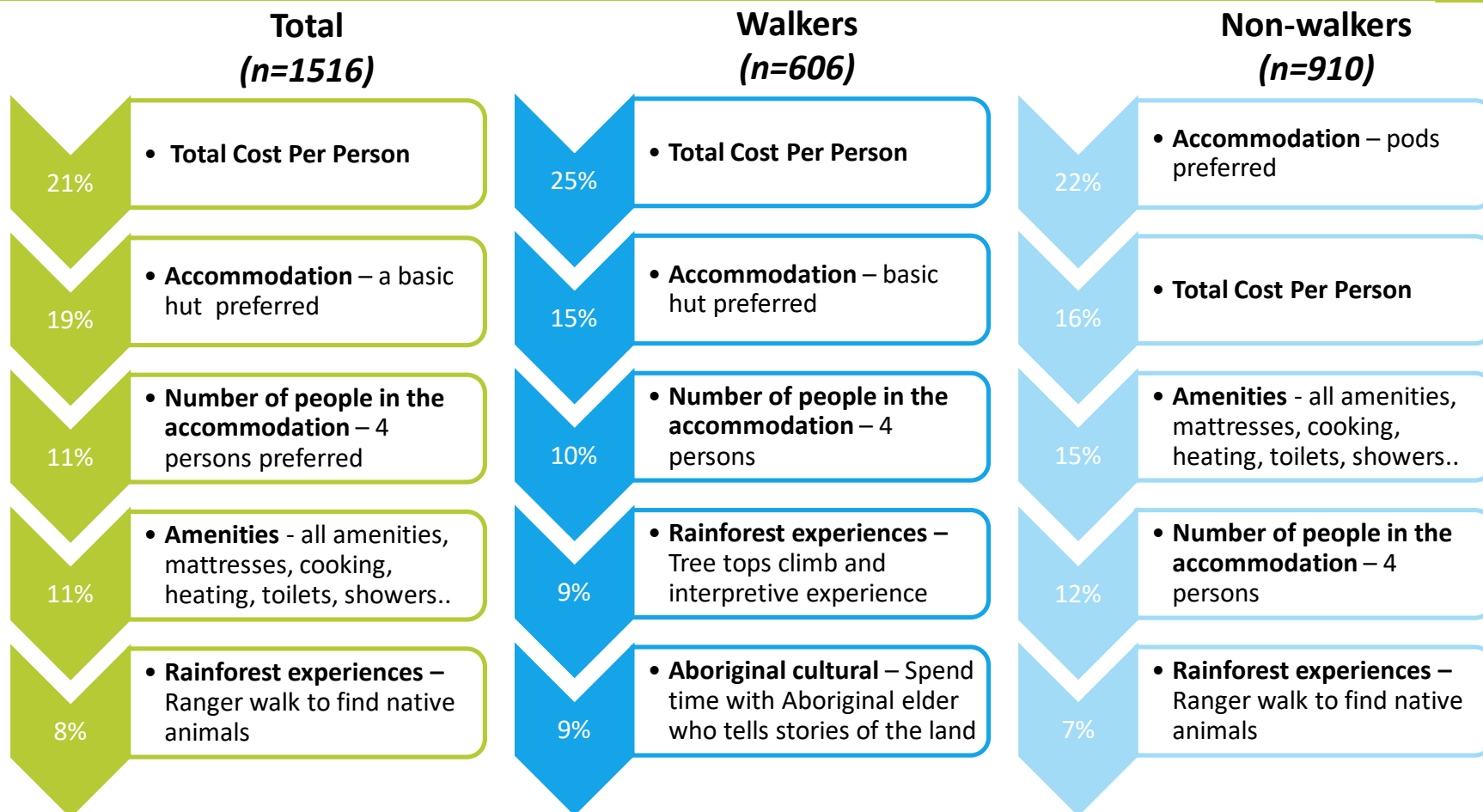
A.1

Design 1: What is the level of consideration and how can it be impacted by the design of the Trans-Tarkine Track experience

Key drivers of choice when considering the TTT itself

Top 5 drivers for the 10 day Trans-Tarkine Track

When considering TTT alone (ie not comparing TTT to other Tasmanian offers) the main way to increase consideration is to reduce the cost pp, provide basic huts for 4 people, provide all amenities and develop a rainforest experience.

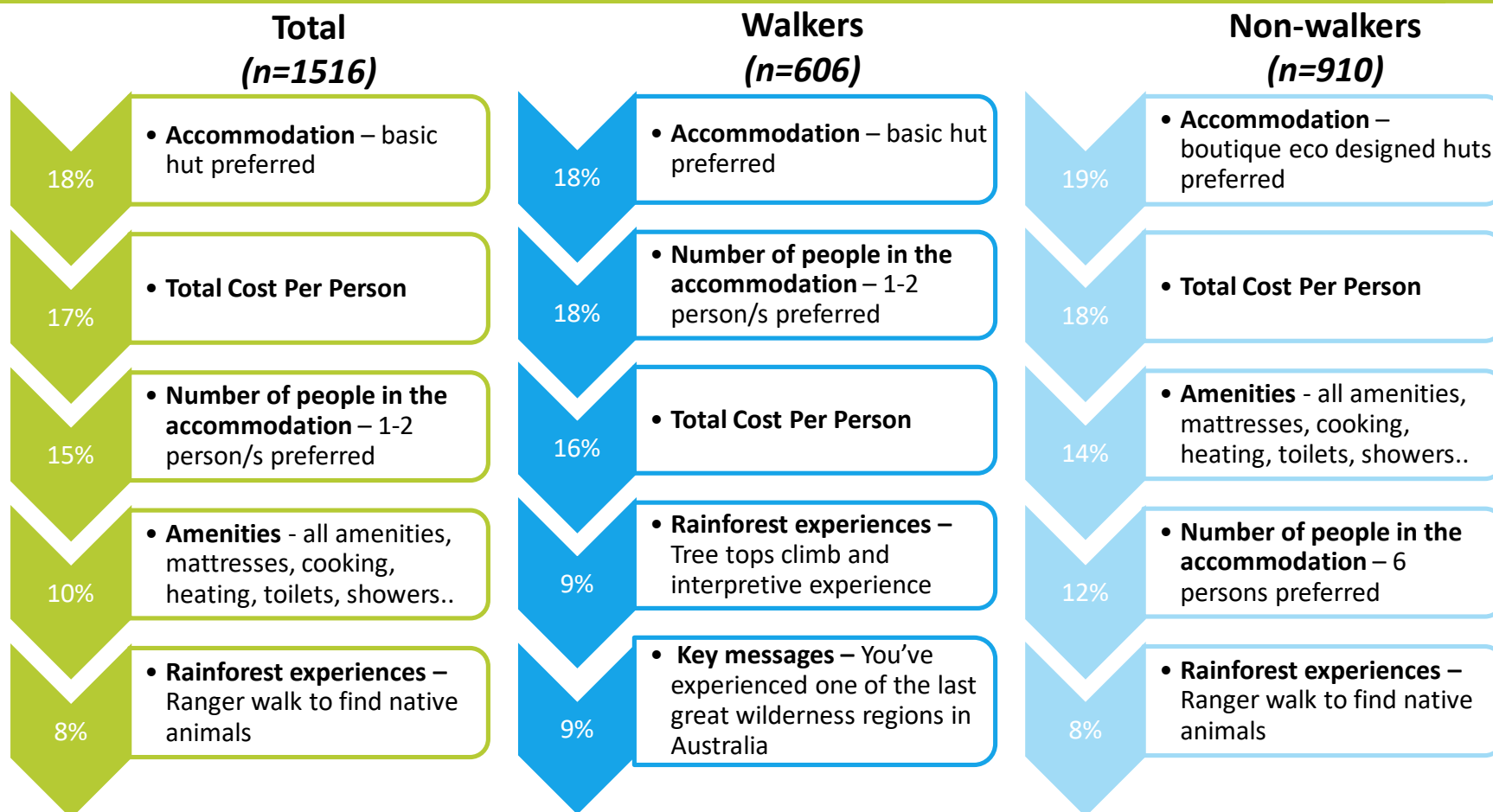


Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

Key drivers of choice when considering the TTT

Top 5 drivers for 5 day rainforest Trans-Tarkine Track

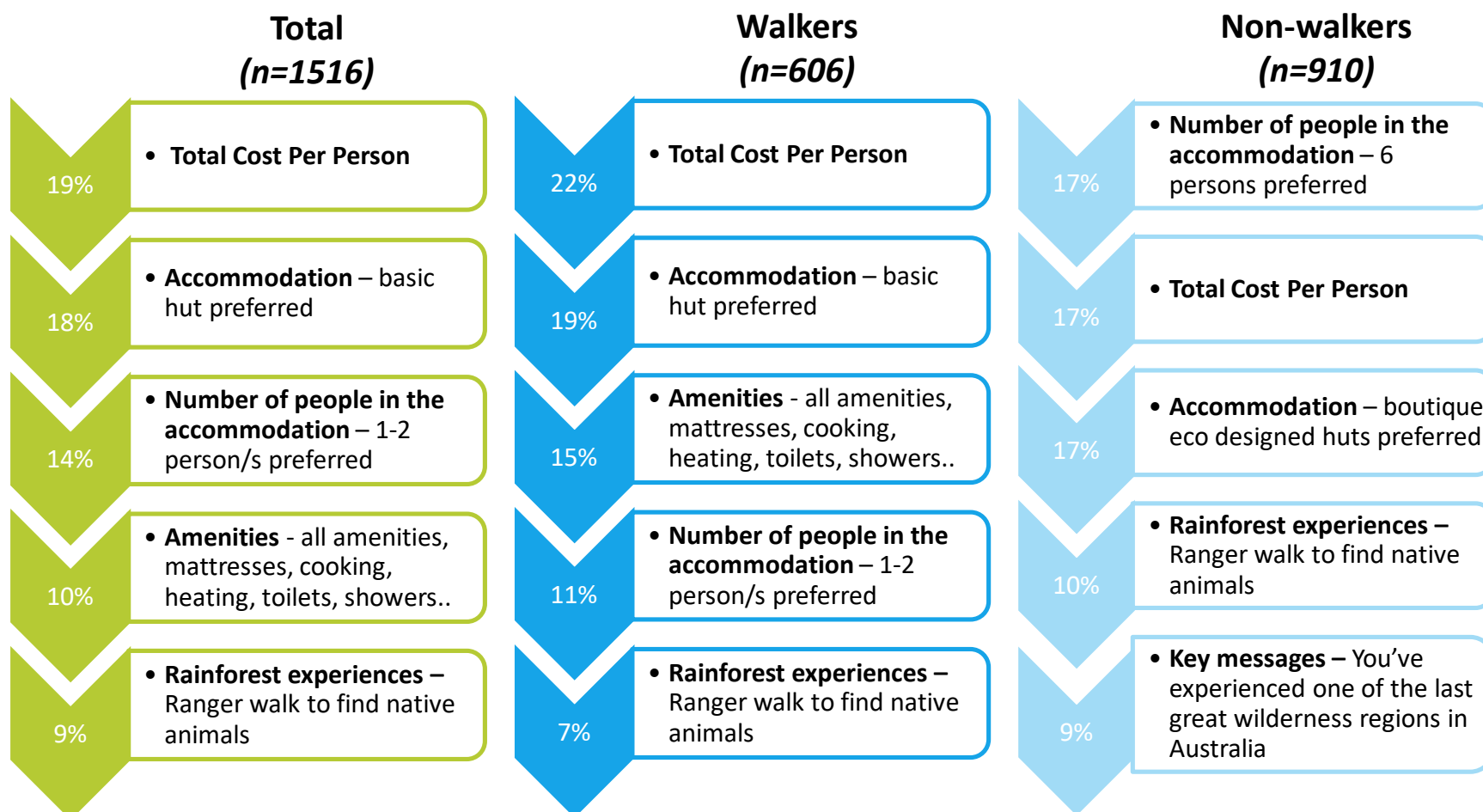
When considering the rainforest element of the TTT alone...(ie not comparing) the main way to increase consideration is to provide basic huts for 2 people, reduce the cost pp, provide all amenities and develop a rainforest experience.



Key drivers of choice when considering the TTT

Top 5 drivers for 5 day coastal Trans-Tarkine Track

When considering the coastal element of the TTT alone...(ie not comparing) the main way to increase consideration is to reduce the cost pp, provide basic huts for 2 people, provide all amenities and develop a rainforest experience.



Base case scenario

\$1,500 total cost

Key aspects of the offer	Trans-Tarkine Track
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.
2. Amenities	No amenities provided
3. Number of people in the various accommodation styles	1-2 person/s
4. Campsite hosting	No ranger on site
5. Total Cost Per Person (excludes the cost of getting there)	\$1,500
6. Length of walk per day	11- 12km
7. What you carry	More than 20kg
8. Rainforest experiences	None
9. Aboriginal cultural interpretation and experiences	None
10. Aboriginal guided	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message
12. End of walk experience	90 minute boat ride on an historical vessel

	10 Day Trans-Tarkine	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	None of these
Total	8.0%	16.8%	12.8%	62.4%
Walkers	7.3%	25.8%	22.3%	44.6%
Non-Walkers	8.6%	9.7%	5.3%	76.4%

Base case scenario with different price points

Total Sample

Key aspects of the offer	Trans-Tarkine Track
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.
2. Amenities	No amenities provided
3. Number of people in the various accommodation styles	1-2 person/s
4. Campsite hosting	No ranger on site
5. Total Cost Per Person (excludes the cost of getting there)	\$300/\$400/\$500
6. Length of walk per day	11- 12km
7. What you carry	More than 20kg
8. Rainforest experiences	None
9. Aboriginal cultural interpretation and experiences	None
10. Aboriginal guided	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message
12. End of walk experience	90 minute boat ride on an historical vessel

	10 Day Trans-Tarkine Track	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	None of these
\$300	16.2%	19.3%	18.1%	46.4%
\$400	15.7%	19.3%	17.0%	48.0%
\$500	14.9%	19.2%	17.3%	48.6%

Base case scenario with different price points

Walkers

Key aspects of the offer	Trans-Tarkine Track
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.
2. Amenities	No amenities provided
3. Number of people in the various accommodation styles	1-2 person/s
4. Campsite hosting	No ranger on site
5. Total Cost Per Person (excludes the cost of getting there)	\$300/\$400/\$500
6. Length of walk per day	11- 12km
7. What you carry	More than 20kg
8. Rainforest experiences	None
9. Aboriginal cultural interpretation and experiences	None
10. Aboriginal guided	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message
12. End of walk experience	90 minute boat ride on an historical vessel

	10 Day Trans-Tarkine Track	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	None of these
\$300	21.6%	27.7%	25.2%	25.5%
\$400	20.1%	28.2%	25.0%	26.7%
\$500	18.1%	28.8%	24.7%	28.4%

Base case scenario with different price points

Non-walkers

Key aspects of the offer	Trans-Tarkine Track
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.
2. Amenities	No amenities provided
3. Number of people in the various accommodation styles	1-2 person/s
4. Campsite hosting	No ranger on site
5. Total Cost Per Person (excludes the cost of getting there)	\$300/\$400/\$500
6. Length of walk per day	11- 12km
7. What you carry	More than 20kg
8. Rainforest experiences	None
9. Aboriginal cultural interpretation and experiences	None
10. Aboriginal guided	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message
12. End of walk experience	90 minute boat ride on an historical vessel

	10 Day Trans-Tarkine Track	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	None of these
\$300	12.0%	12.8%	12.6%	62.6%
\$400	12.2%	12.3%	12.1%	63.4%
\$500	12.4%	11.7%	11.4%	64.5%

Realistic price scenario with different price points (2)

Total Sample

Key aspects of the offer	Trans-Tarkine Track
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.
2. Amenities	No amenities provided
3. Number of people in the various accommodation styles	1-2 person/s
4. Campsite hosting	No ranger on site
5. Total Cost Per Person (excludes the cost of getting there)	\$750/\$800
6. Length of walk per day	11- 12km
7. What you carry	More than 20kg
8. Rainforest experiences	None
9. Aboriginal cultural interpretation and experiences	None
10. Aboriginal guided	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message
12. End of walk experience	90 minute boat ride on an historical vessel

	10 Day Trans-Tarkine Track	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	None of these
\$750	11.9%	19.3%	15.8%	53.1%
\$800	11.3%	19.2%	15.5%	54.1%

Realistic price scenario with different price points (2)

Walkers

Key aspects of the offer	Trans-Tarkine Track
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.
2. Amenities	No amenities provided
3. Number of people in the various accommodation styles	1-2 person/s
4. Campsite hosting	No ranger on site
5. Total Cost Per Person (excludes the cost of getting there)	\$750/\$800
6. Length of walk per day	11- 12km
7. What you carry	More than 20kg
8. Rainforest experiences	None
9. Aboriginal cultural interpretation and experiences	None
10. Aboriginal guided	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message
12. End of walk experience	90 minute boat ride on an historical vessel

	10 Day Trans-Tarkine Track	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	None of these
\$750	11.6%	30.2%	24.5%	33.7%
\$800	10.5%	30.2%	24.5%	34.9%

Realistic price scenario with different price points (2)

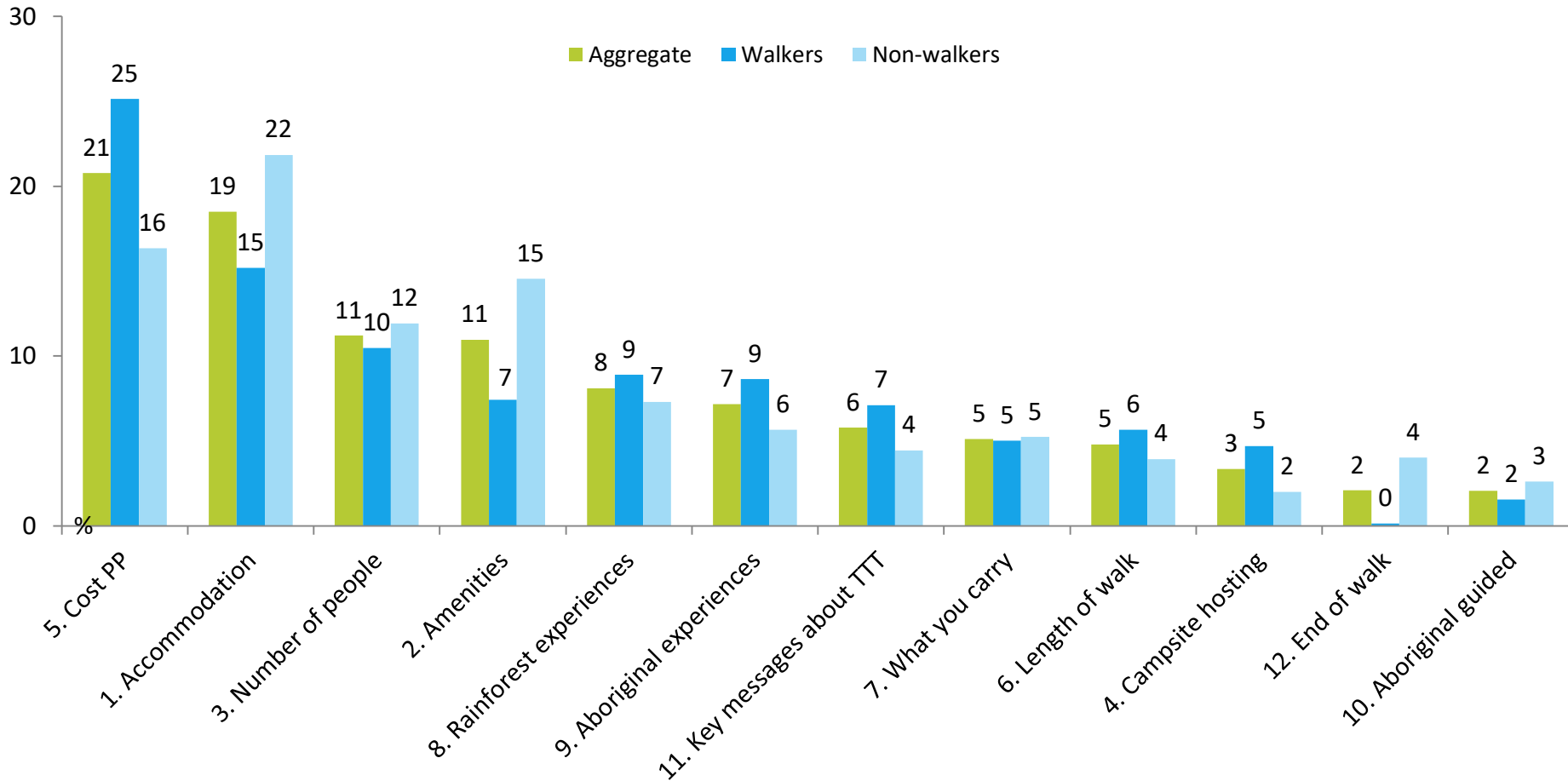
Non-walkers

Key aspects of the offer	Trans-Tarkine Track
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.
2. Amenities	No amenities provided
3. Number of people in the various accommodation styles	1-2 person/s
4. Campsite hosting	No ranger on site
5. Total Cost Per Person (excludes the cost of getting there)	\$750/\$800
6. Length of walk per day	11- 12km
7. What you carry	More than 20kg
8. Rainforest experiences	None
9. Aboriginal cultural interpretation and experiences	None
10. Aboriginal guided	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message
12. End of walk experience	90 minute boat ride on an historical vessel

	10 Day Trans-Tarkine Track	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	None of these
\$750	12.1%	10.7%	8.9%	68.3%
\$800	11.9%	10.6%	8.4%	69.0%

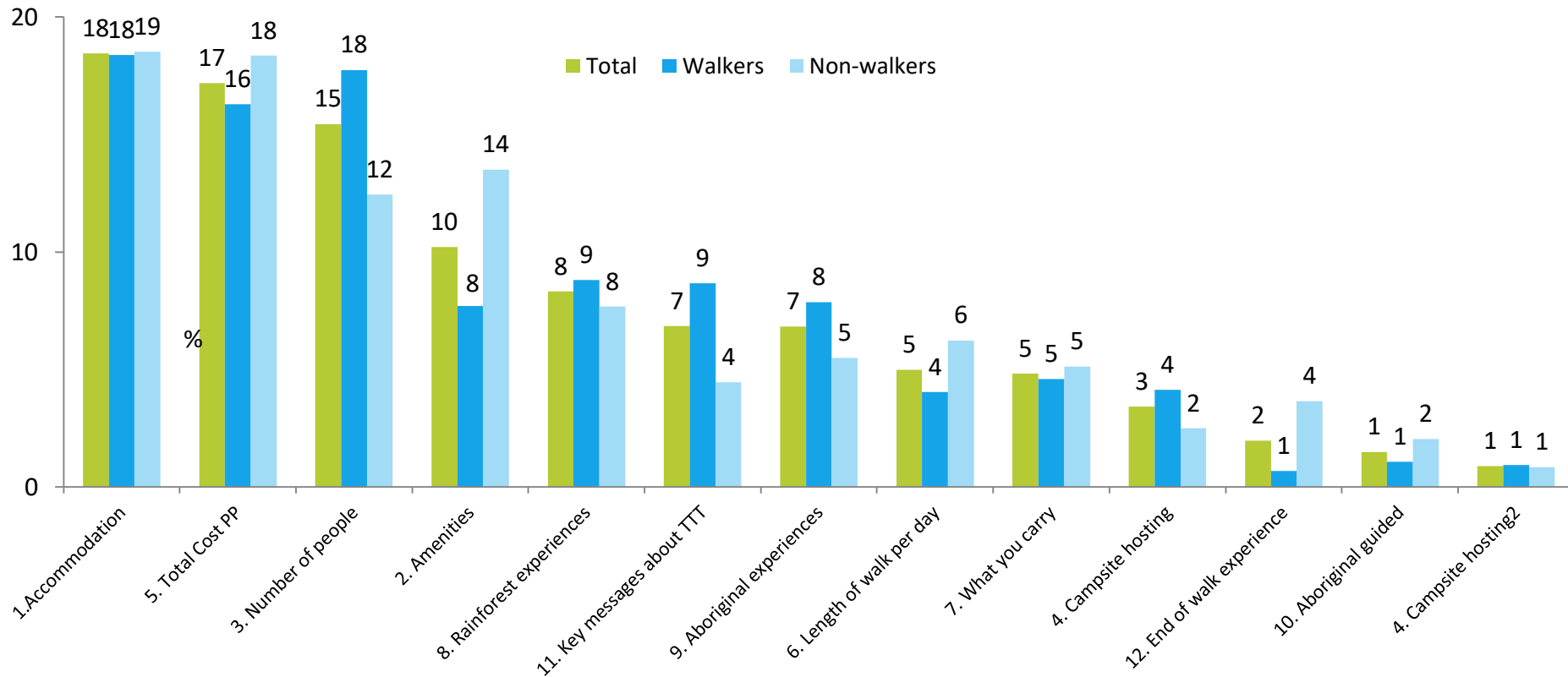
ALL drivers of choice when considering the TTT

10 day Trans-Tarkine Track



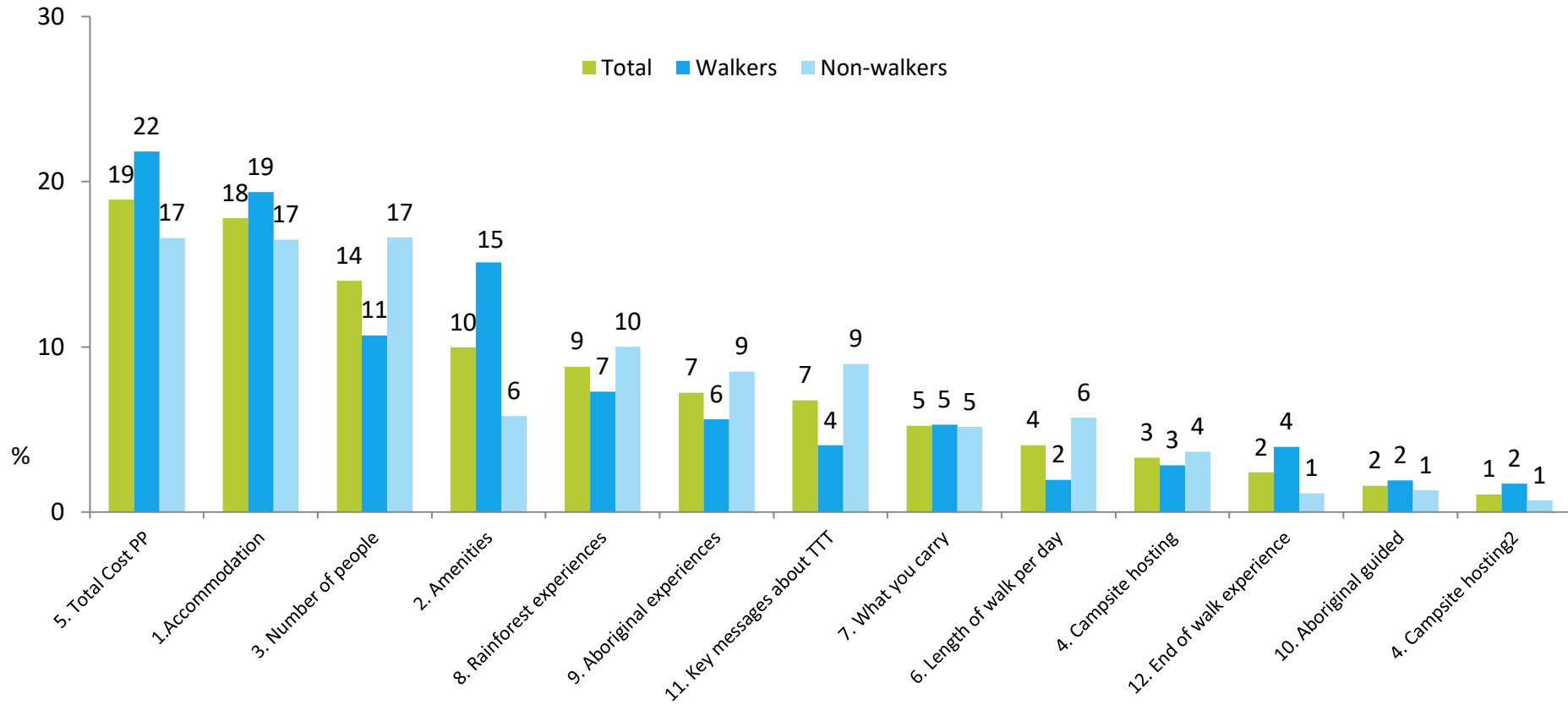
ALL drivers of choice when considering the TTT

5 day rainforest Trans-Tarkine Track

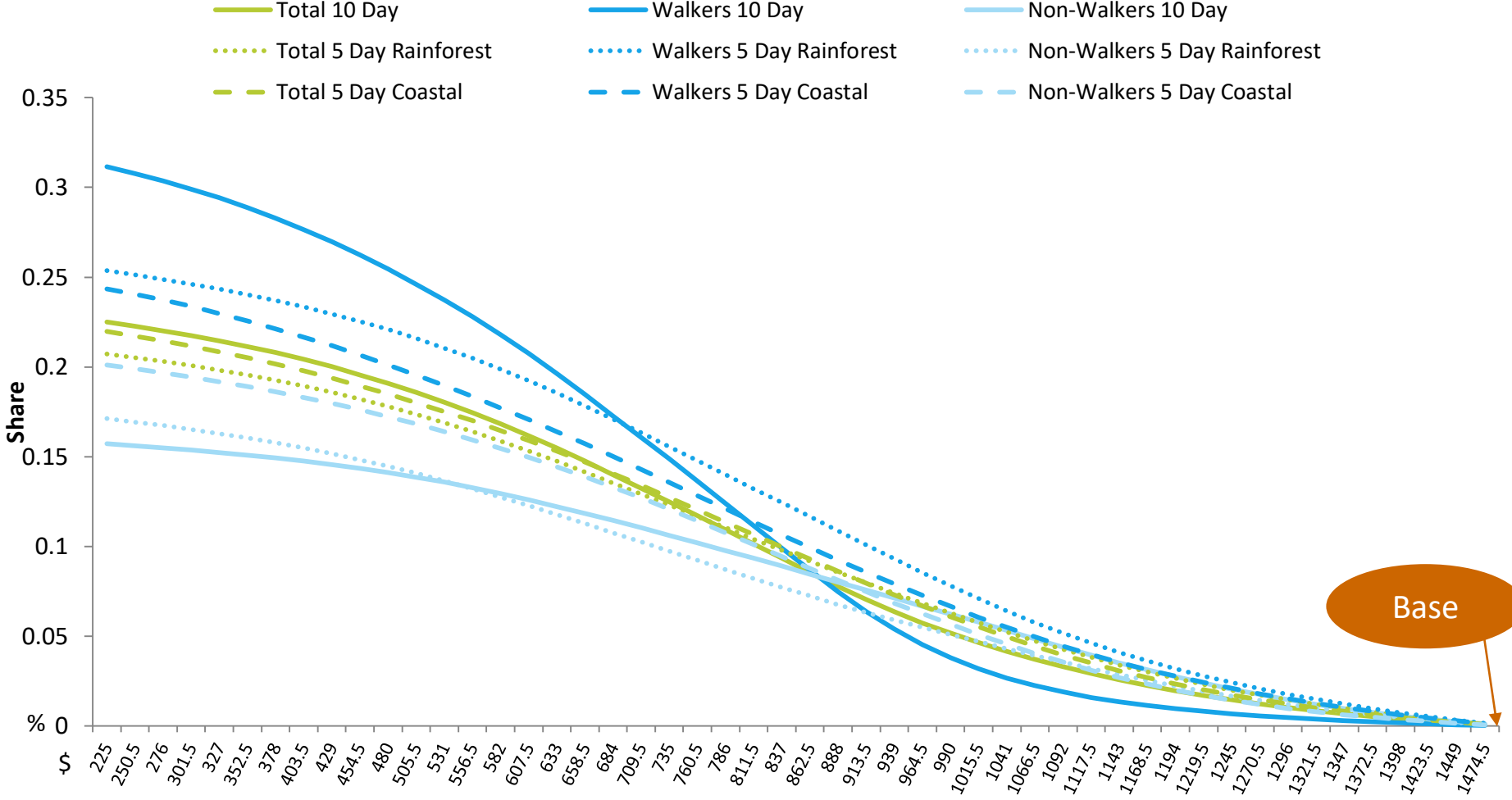


ALL drivers of choice when considering the TTT

5 day coastal Trans-Tarkine Track



How does total cost affect choice?



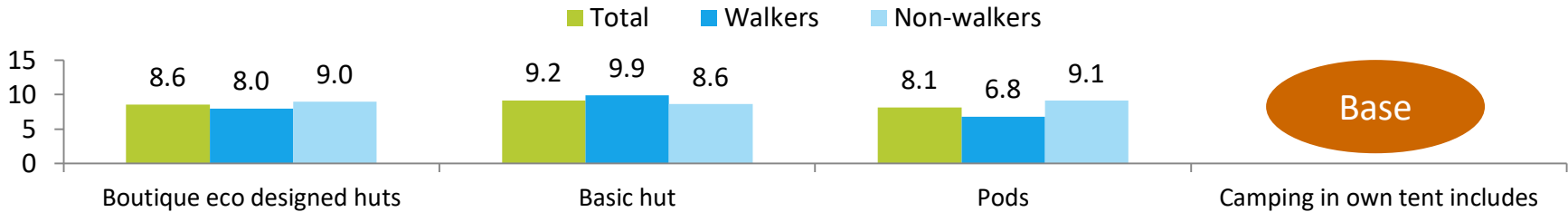
Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How does accommodation affect choice?



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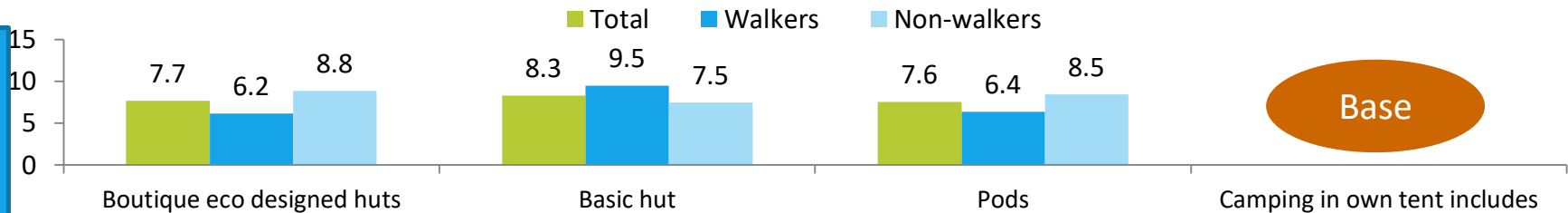
10 day walk



Base

Camping in own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.

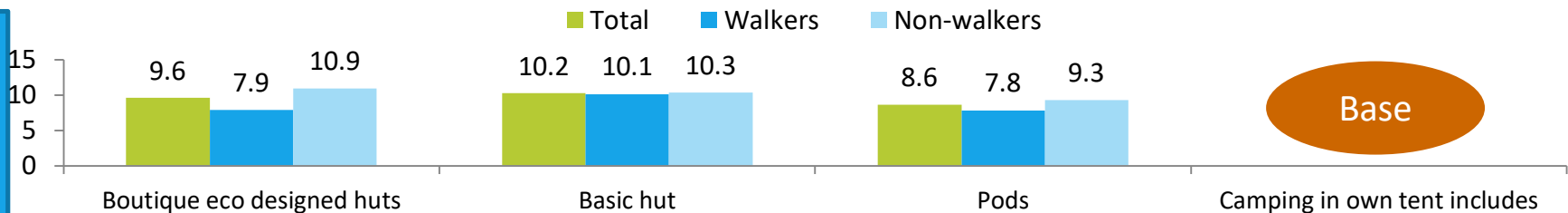
5 day rainforest walk



Base

Camping in own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.

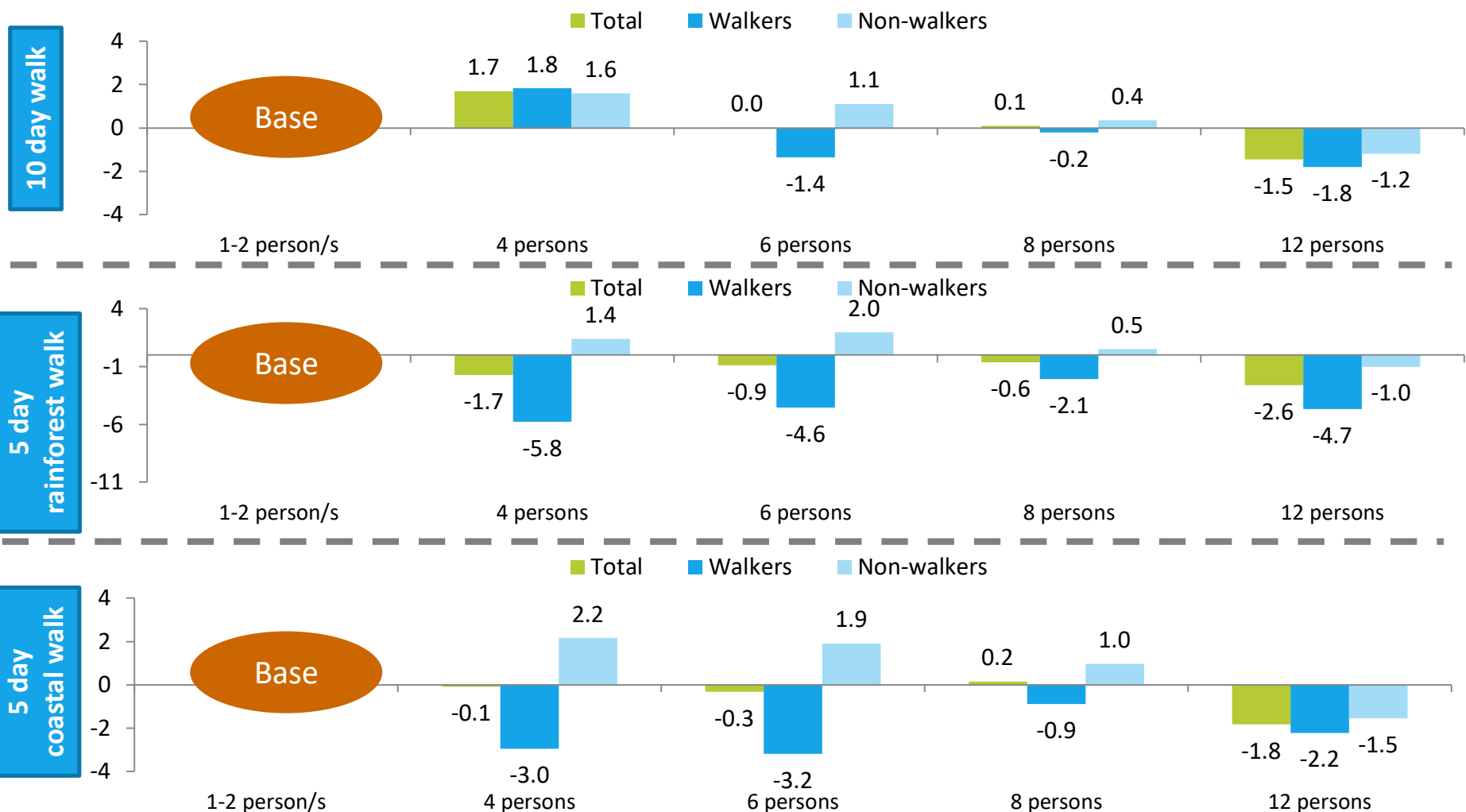
5 day coastal walk



Base

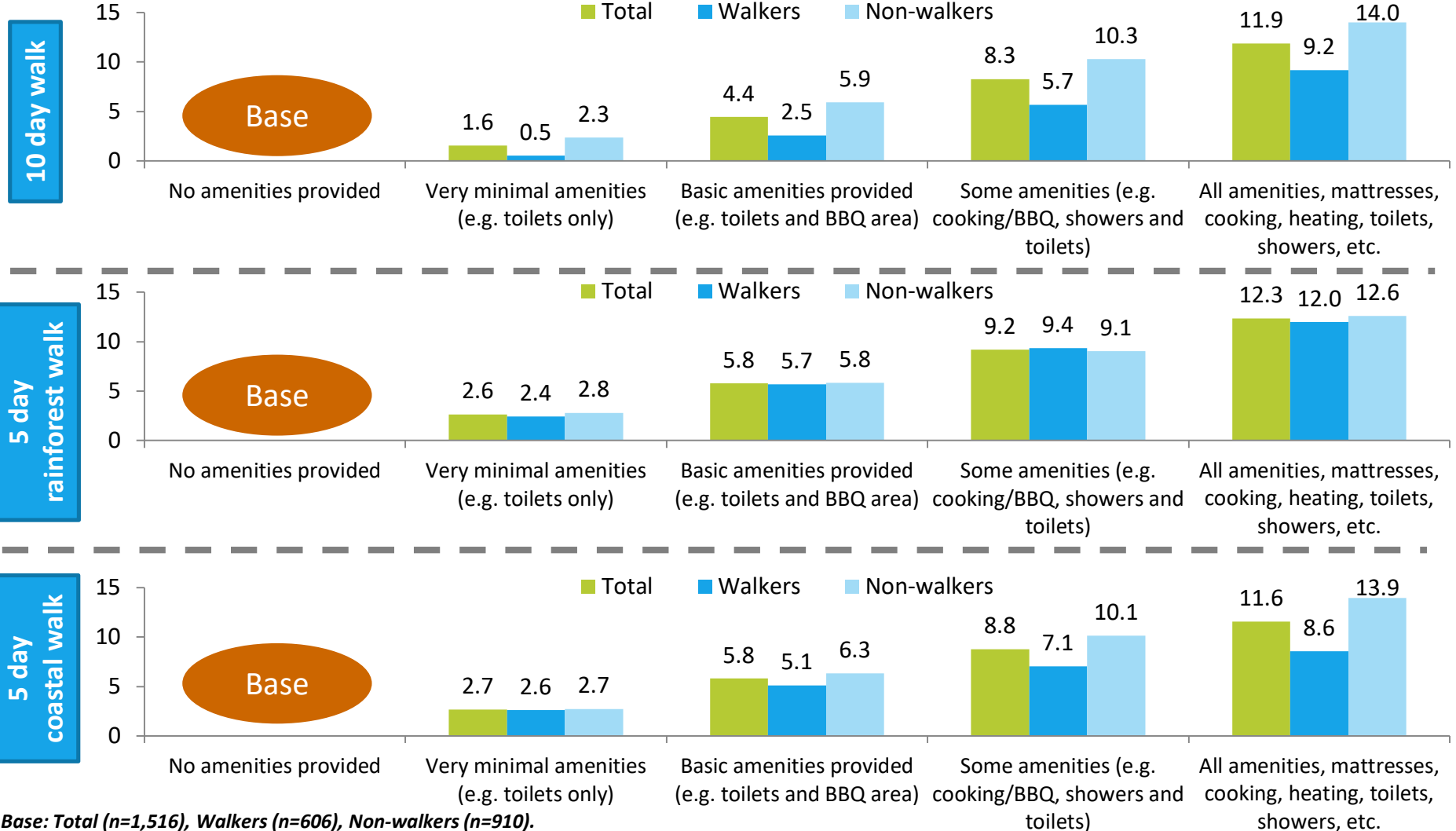
Camping in own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.

How does the number of people in accommodation affect choice?



Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How do the amenities affect choice?

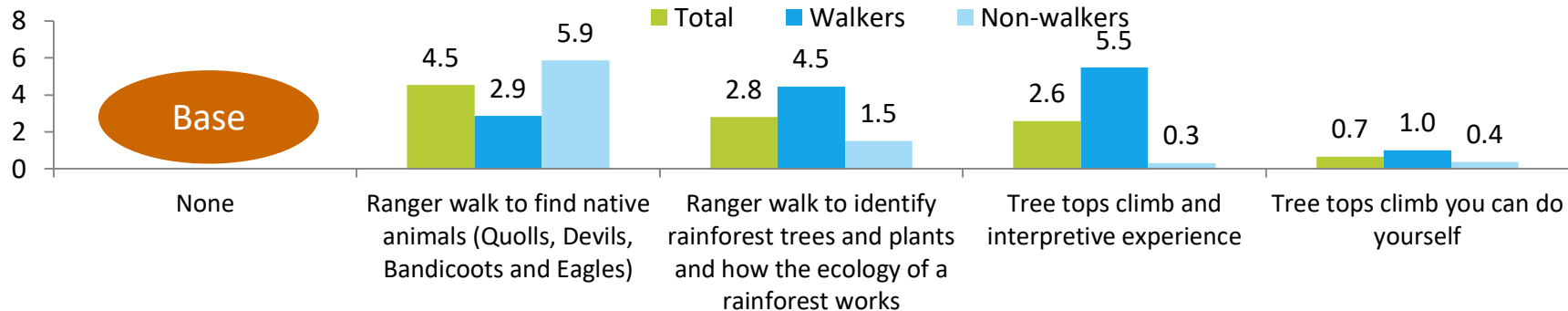


How does the inclusion of a rainforest experiences affect choice?

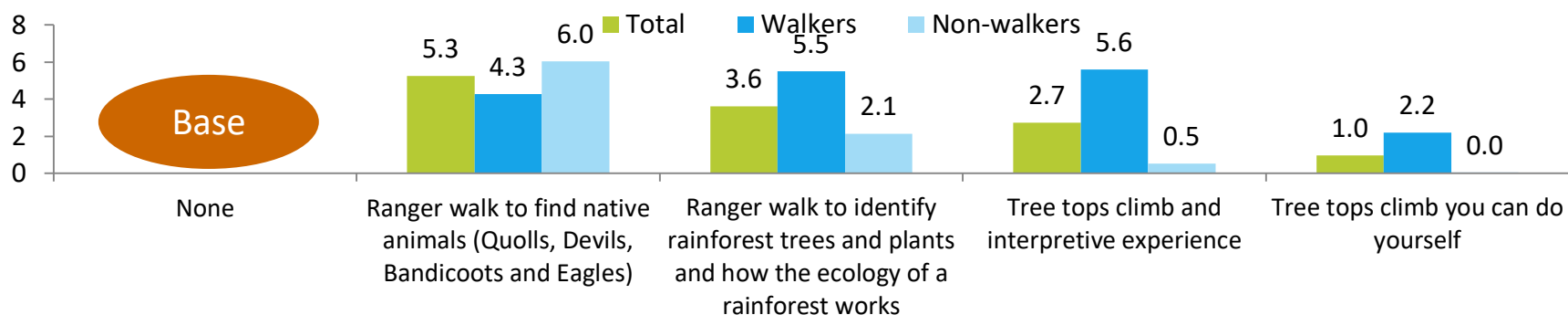


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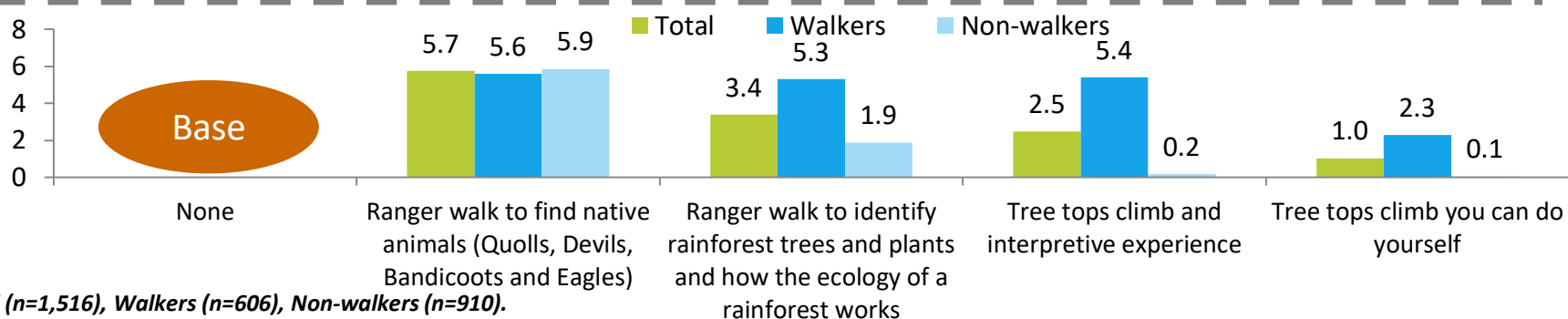
10 day walk



5 day rainforest walk



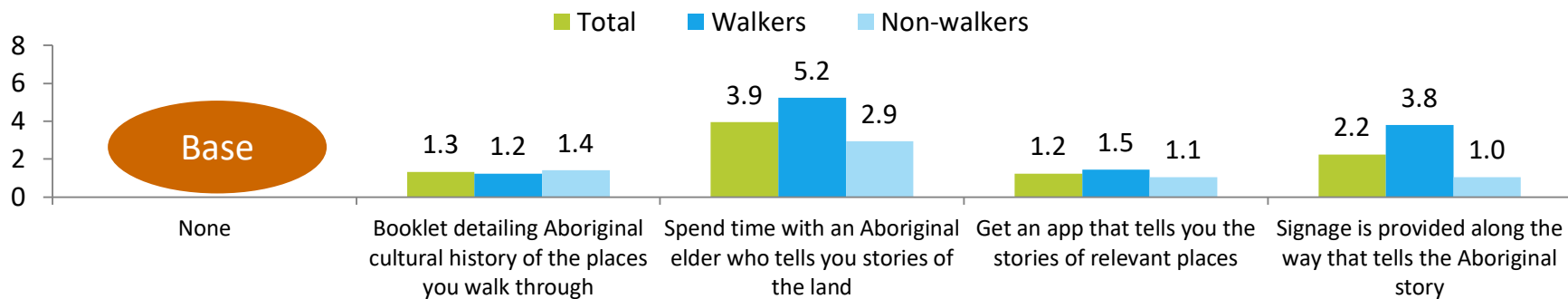
5 day coastal walk



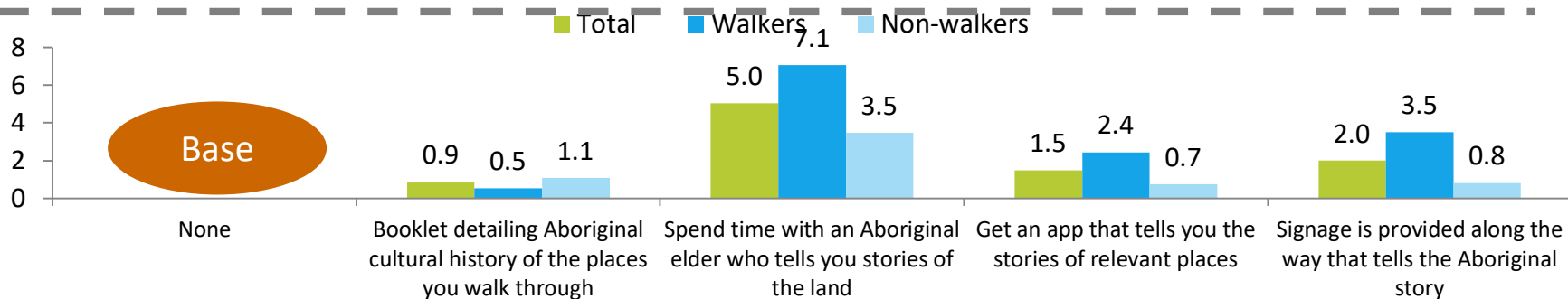
Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How does the inclusion of an Aboriginal cultural experience affect choice?

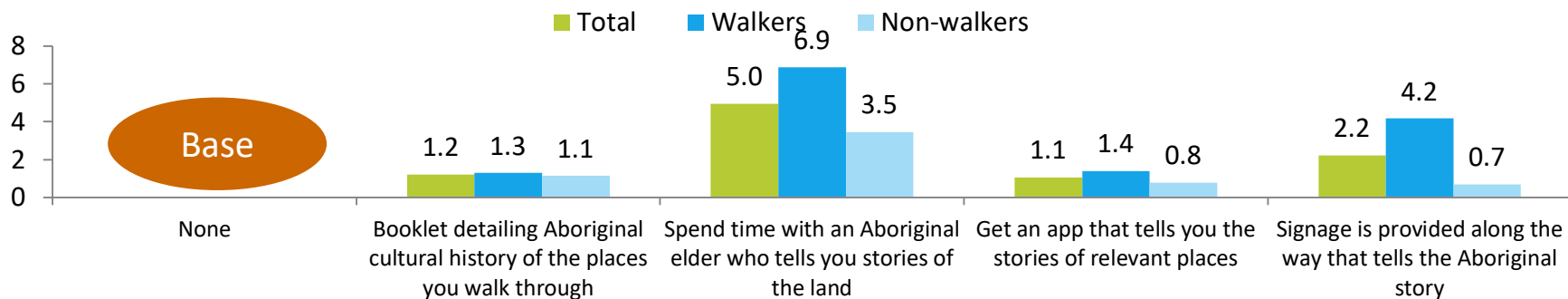
10 day walk



5 day rainforest walk

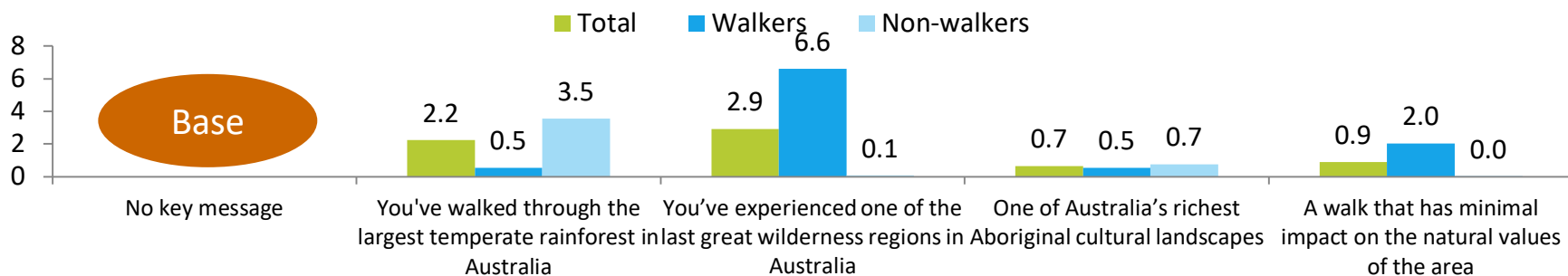


5 day coastal walk

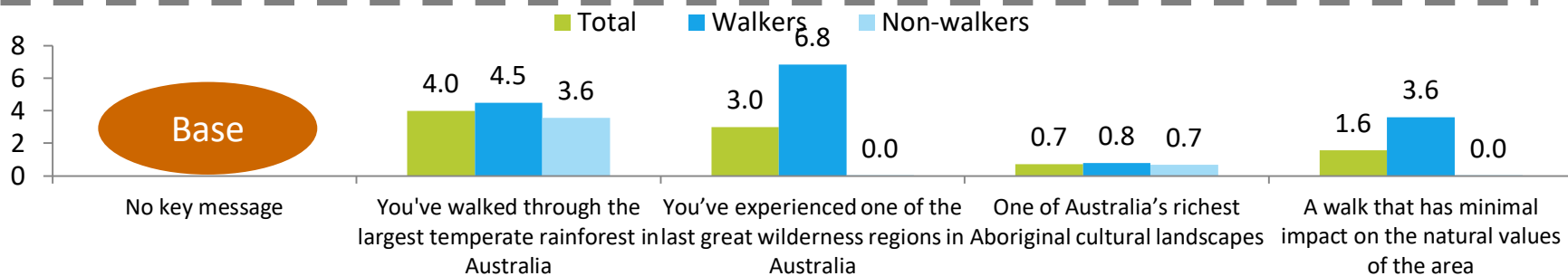


How do various key selling points/messages affect choice?

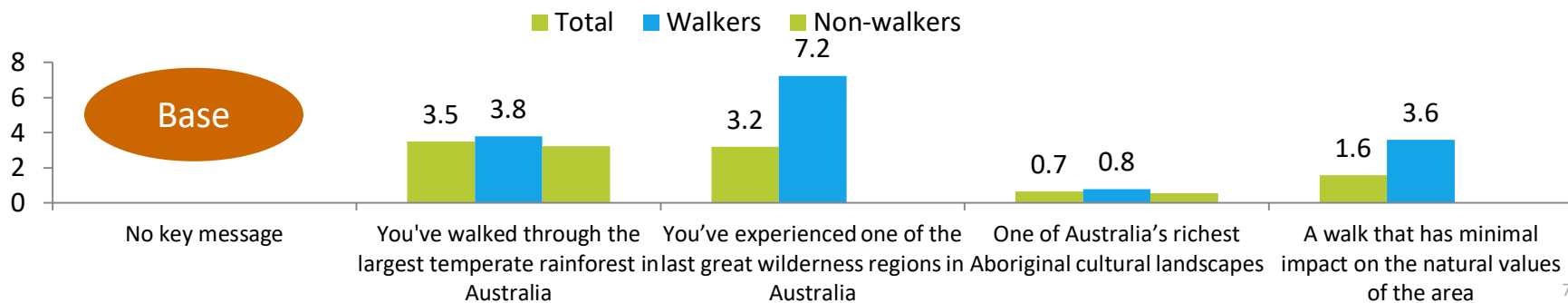
10 day walk



5 day rainforest walk

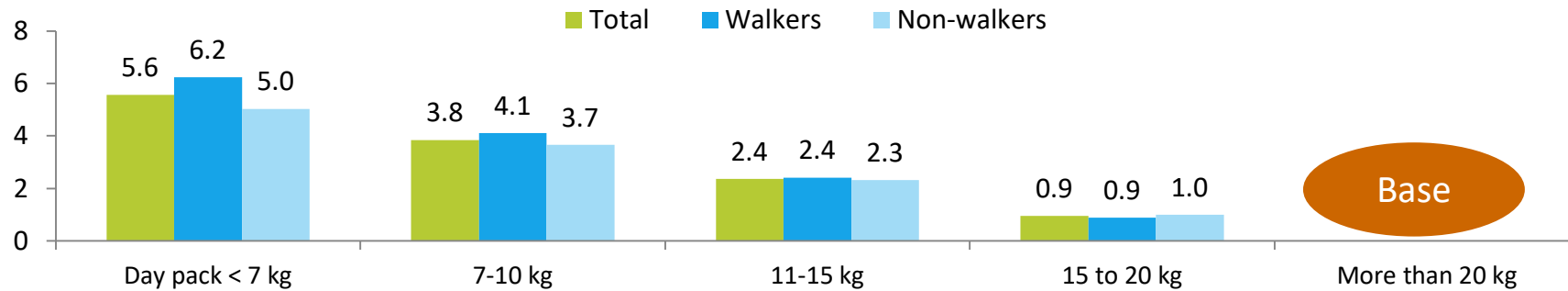


5 day coastal walk

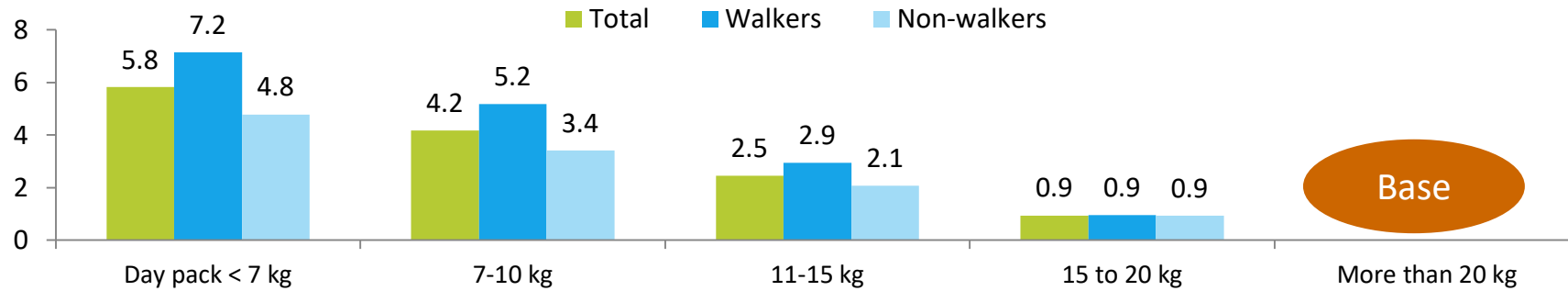


How does the weight you need to carry affect choice?

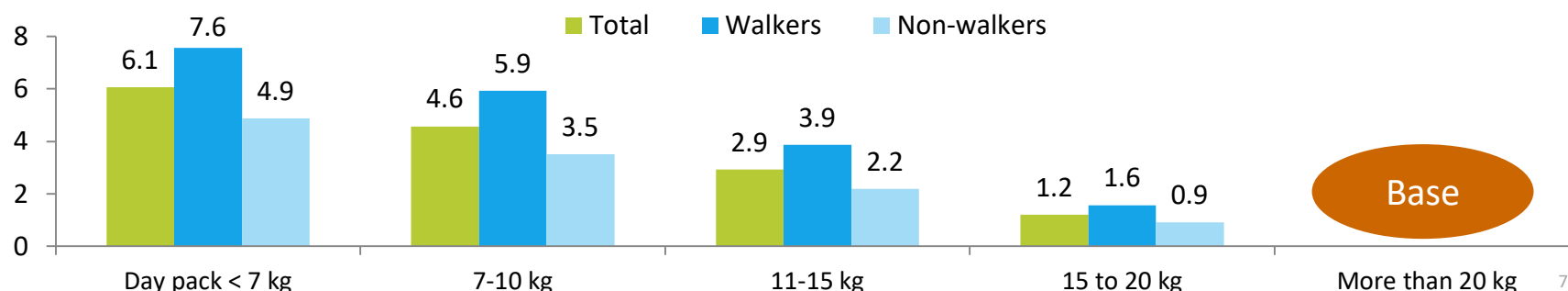
10 day walk



5 day rainforest walk



5 day coastal walk

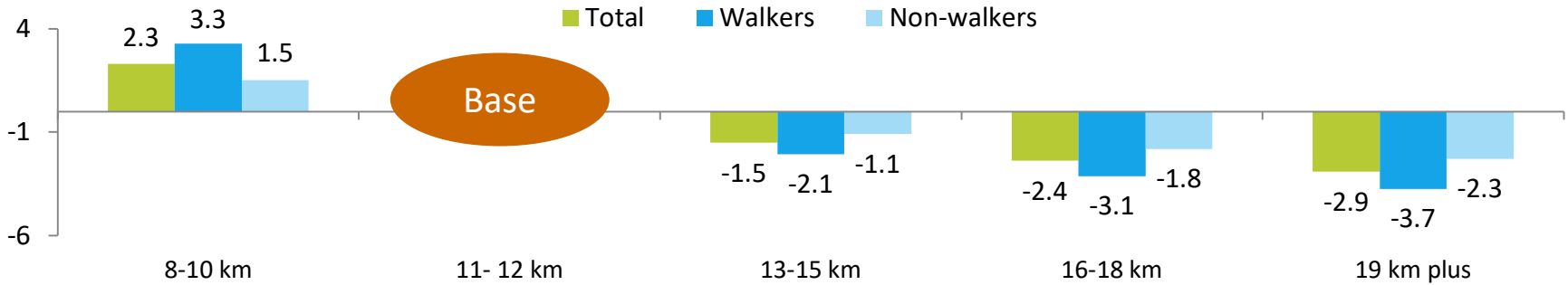


How does the length of walk per day affect choice?

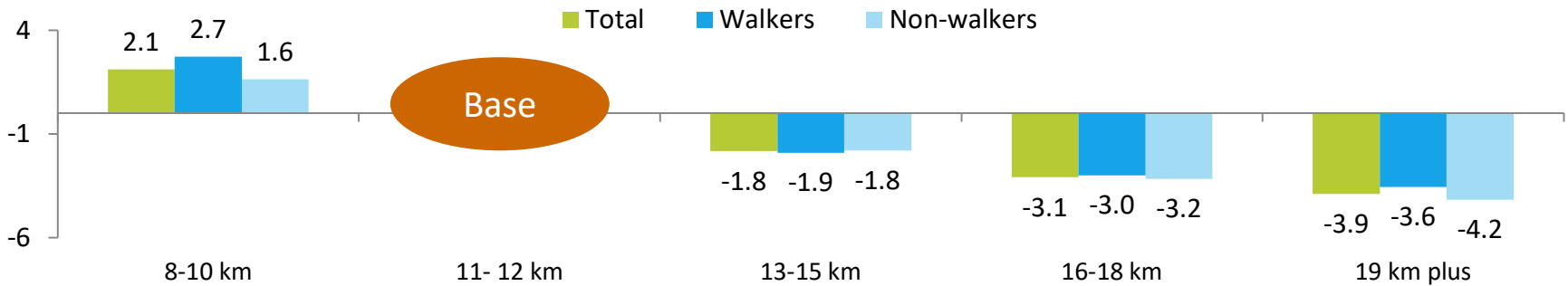


instinct and reason

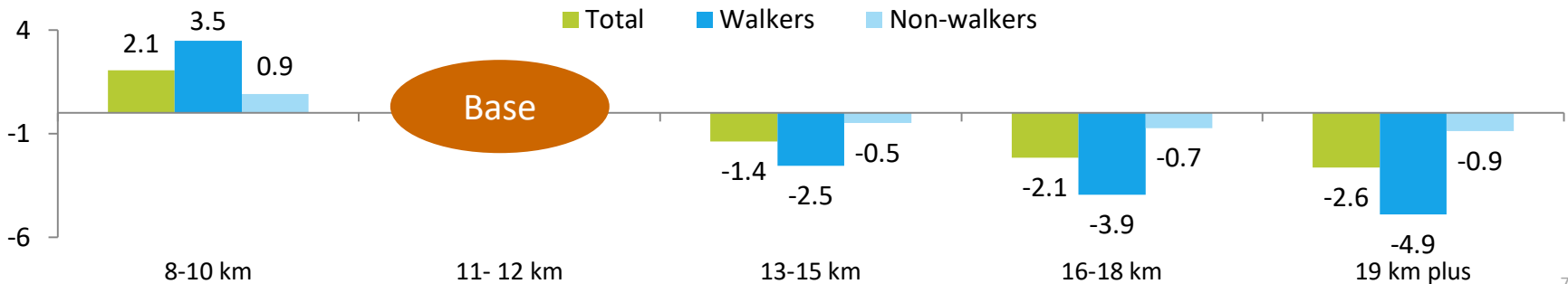
10 day walk



5 day rainforest walk

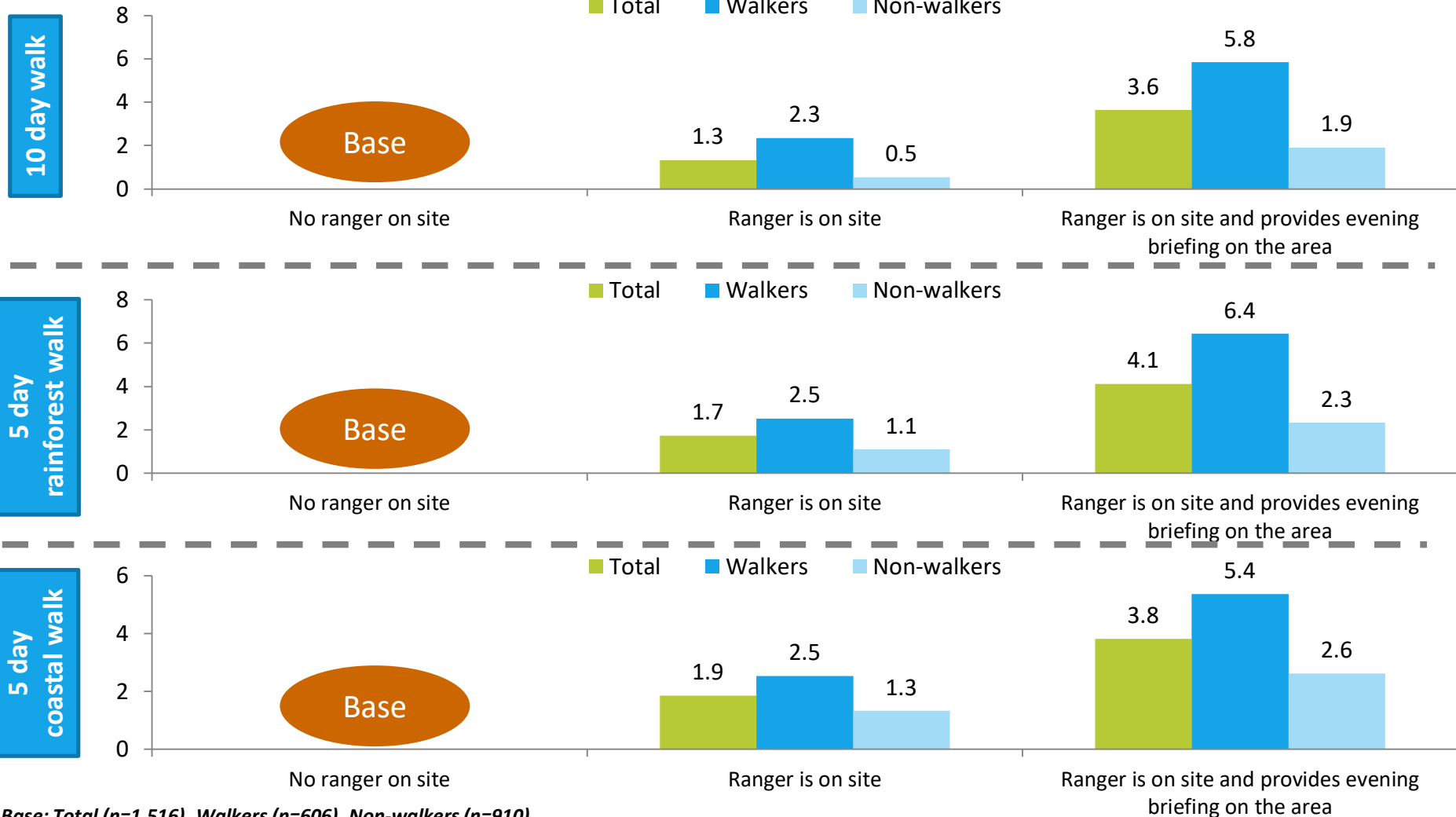


5 day coastal walk



Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How does the offer of campsite hosting affect choice?

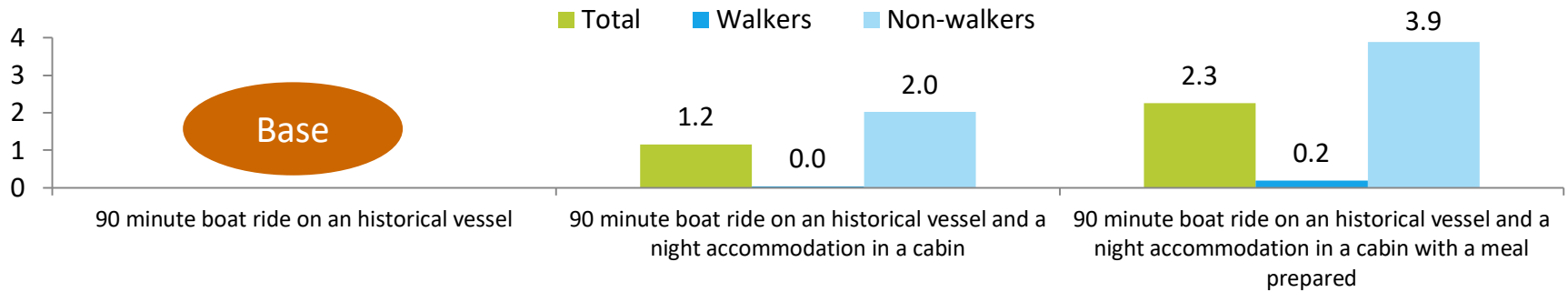


How does the end of walk experience affect choice?

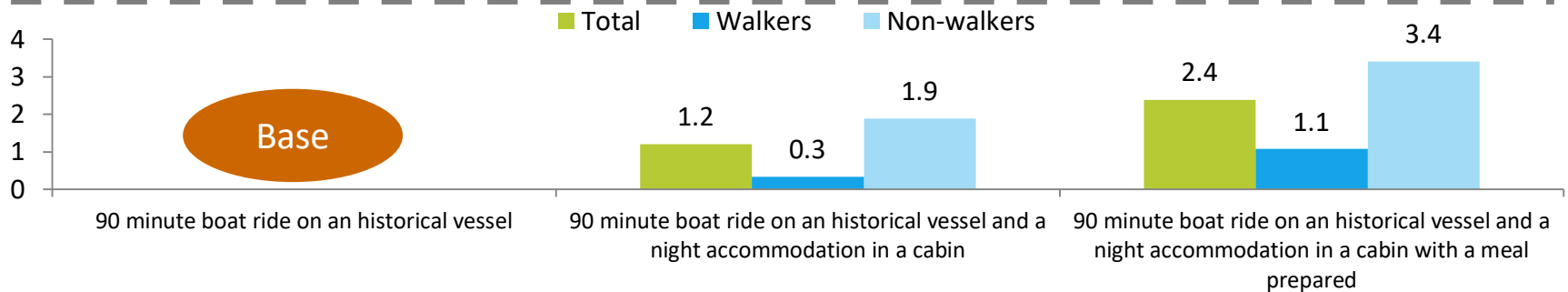


instinct^{and}reason

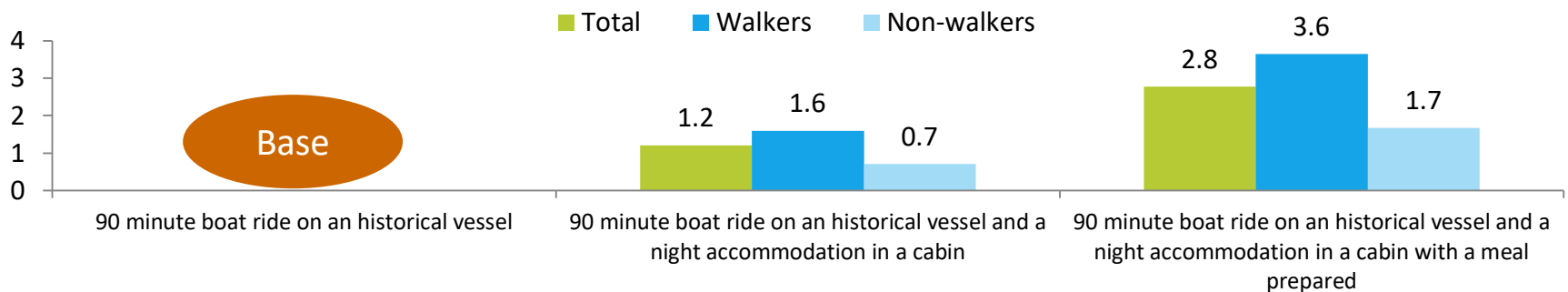
10 day walk



5 day rainforest walk



5 day coastal walk

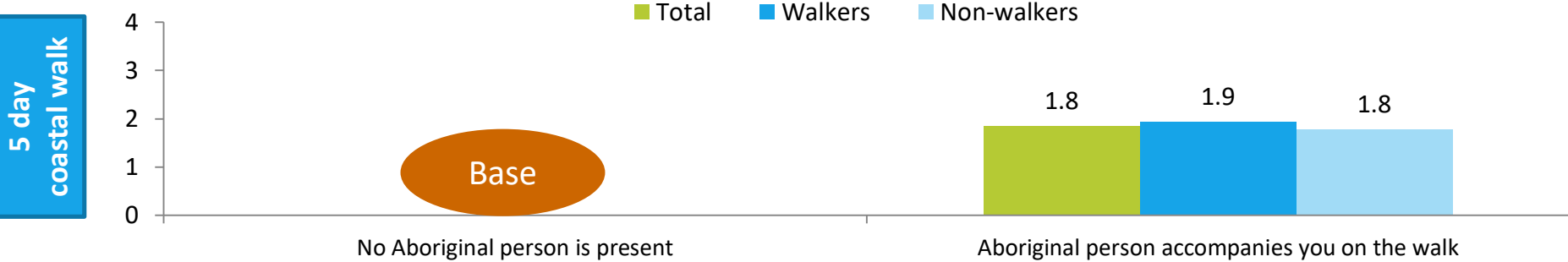
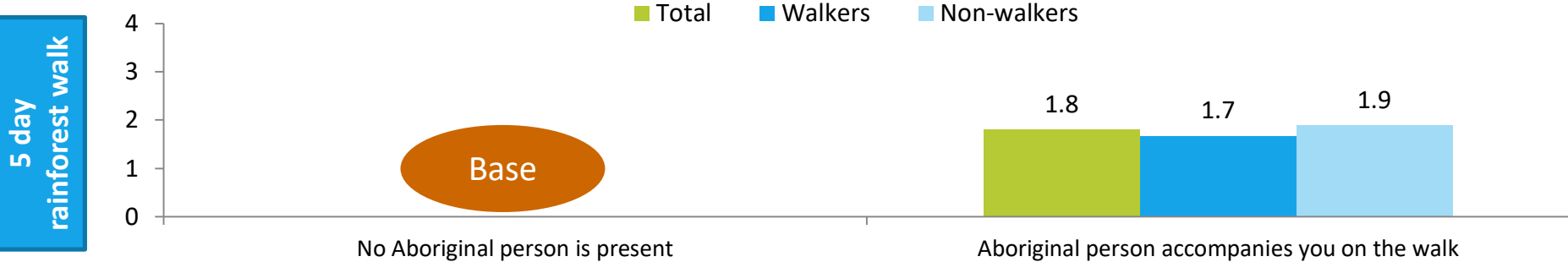
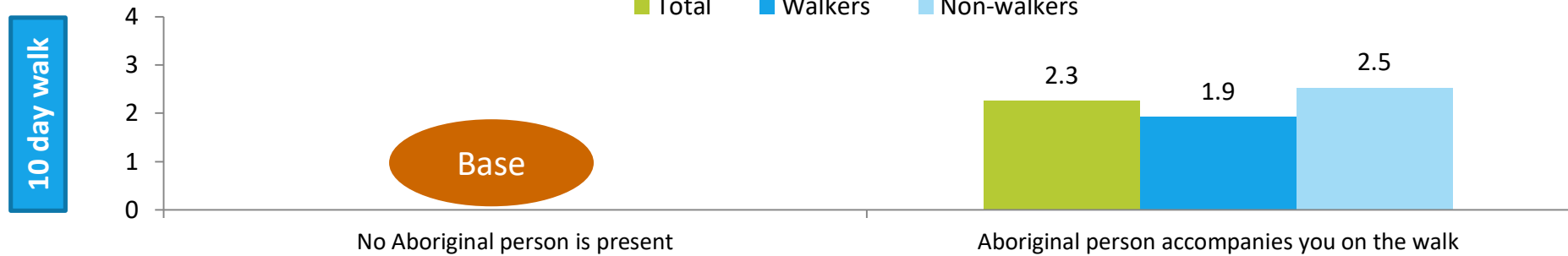


Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How does having an Aboriginal guide affect choice?



instinct^{and}reason



Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

A.2

Design 2: How is consideration impacted by competitor offers– Identifying the Trans-Tarkine Track 's USP

Introduction

We have another, very important part of the study.

We will now show you another eight different options or scenarios for a number of different walking experiences you could have in Tasmania.

We want to know how you would choose between the different Tasmanian walks available in Tasmania.

We would like you to let us know which one you would choose under different circumstances.

Each 'Card' may look alike, but each is different. All you need to do, for each card, is to indicate which Tasmanian walk you would take, or not.

Then tell us your choice by ticking one of the boxes at the bottom of the page.
Base each decision on what you are shown on THAT page.

Please do this for each card (or page) that you are shown in this section.

You may see some terms used that you are not familiar with. To help you, we have provided **some** definitions.

Please take a few minutes to read through the **Definitions** before starting the cards.





Definitions

Features of the walk experience	Description
1. Accommodation	Styles of accommodation that range from camping grounds to boutique eco cabins. For the camping option there will be pavilion accommodation on night 5 and night 9. When you are considering an option that gives you camping accommodation remember there will be a pavilion with amenities for sleeping, showers and cooking facilities for two nights.
2. Amenities	Varying levels of amenities provided such as toilets, cooking facilities, showers, well marked walking trails etc
3. Number of people in the various accommodation styles	We test a variety of room sizes in the accommodations options
4. Campsite hosting	This looks at whether you would want a ranger onsite or not each evening
5. Total Cost Per Person (excludes the cost of getting there)	The cost refers to the cost of the experience per person for the accommodation, national park entry and track walking fees
6. Length of walk per day	We test a range of lengths of walking distance to be undertaken each day
7. What you carry	We test a range of pack weights that you might carry on the walk
8. Rainforest experiences	We test a range of rainforest experiences that could be bundled in with the walk itself.
9. Aboriginal cultural interpretation and experiences	We test a range of Aboriginal cultural interpretations and experiences that could be bundled in with the walk itself.
10. Aboriginal guided	We test whether Aboriginal guided experience would be valuable to walkers.
11. Key messages about the walk	We test the key messages that promote the walk
12. End of walk experience	A range of options for the completion of the walk
13 Getting to the start and home	The way you would get to the start and finish of the walk

Design: Key walk features and levels

Q: Which, if any, of these Tasmanian walking experiences would you do?



Attributes	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
Accommodation	Boutique eco designed huts 	Basic hut 	Pods 	Camping in own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5 th night. 			
2. Amenities	All amenities, mattresses, cooking, heating, toilets, showers, etc.	Some amenities (e.g. cooking/BBQ, showers and toilets)	Basic amenities provided (e.g. toilets and BBQ area)	Very minimal amenities (e.g. toilets only)	No amenities provided		
3. Number of people in the various accommodation styles	1-2 person/s	4 persons	6 persons	8 persons	12 persons		
4. Campsite hosting	Ranger is on site	Ranger is on site and provides evening briefing on the area	No ranger on site				
5. Total Cost Per Person (excludes the cost of getting there)	\$225	\$425	\$625	\$825	\$1025	\$1500	
6. Length of walk per day	8-10 km	11- 12km	13-15km	16-18km	19km plus		
7. What you carry	Day pack < 7 kg	7-10 kg	11-15kg	15 to 20kg	More than 20kg		
8. Rainforest experiences	Ranger walk to find native animals (Quolls, Devils, Bandicoots and Eagles)	Ranger walk to identify rainforest trees and plants and how the ecology of a rainforest works	Tree tops climb and interpretive experience	Tree tops climb you can do yourself	None		
9. Aboriginal cultural interpretation and experiences	Booklet detailing Aboriginal cultural history of the places you walk through	Spend time with an Aboriginal elder who tells you stories of the land	Get an app that tells you the stories of relevant places	Signage is provided along the way that tells the Aboriginal story	None		
10. Aboriginal guided	Aboriginal person accompanies you on the walk	No Aboriginal person is present					
11. Key messages about the walk	You've walked through the largest temperate rainforest in the world	You've experienced one of the last great wilderness regions in Australia	Australia's premier bushwalk	Breathtakingly beautiful	One of Australia's richest Aboriginal cultural landscapes	A walk that has minimal impact on the natural values of the area	No key message
12. End of walk experience	90 minute boat ride on an historical vessel and a night accommodation in a cabin with a meal prepared	90 minute boat ride on an historical vessel and a night accommodation in a cabin	90 minute boat ride on an historical vessel	Bus back to the start of the walk	None		
13 Getting to the start and home	Drive from and back to Launceston	Drive from and back to Burnie	Drive from and back to Devonport	Drive from Hobart			

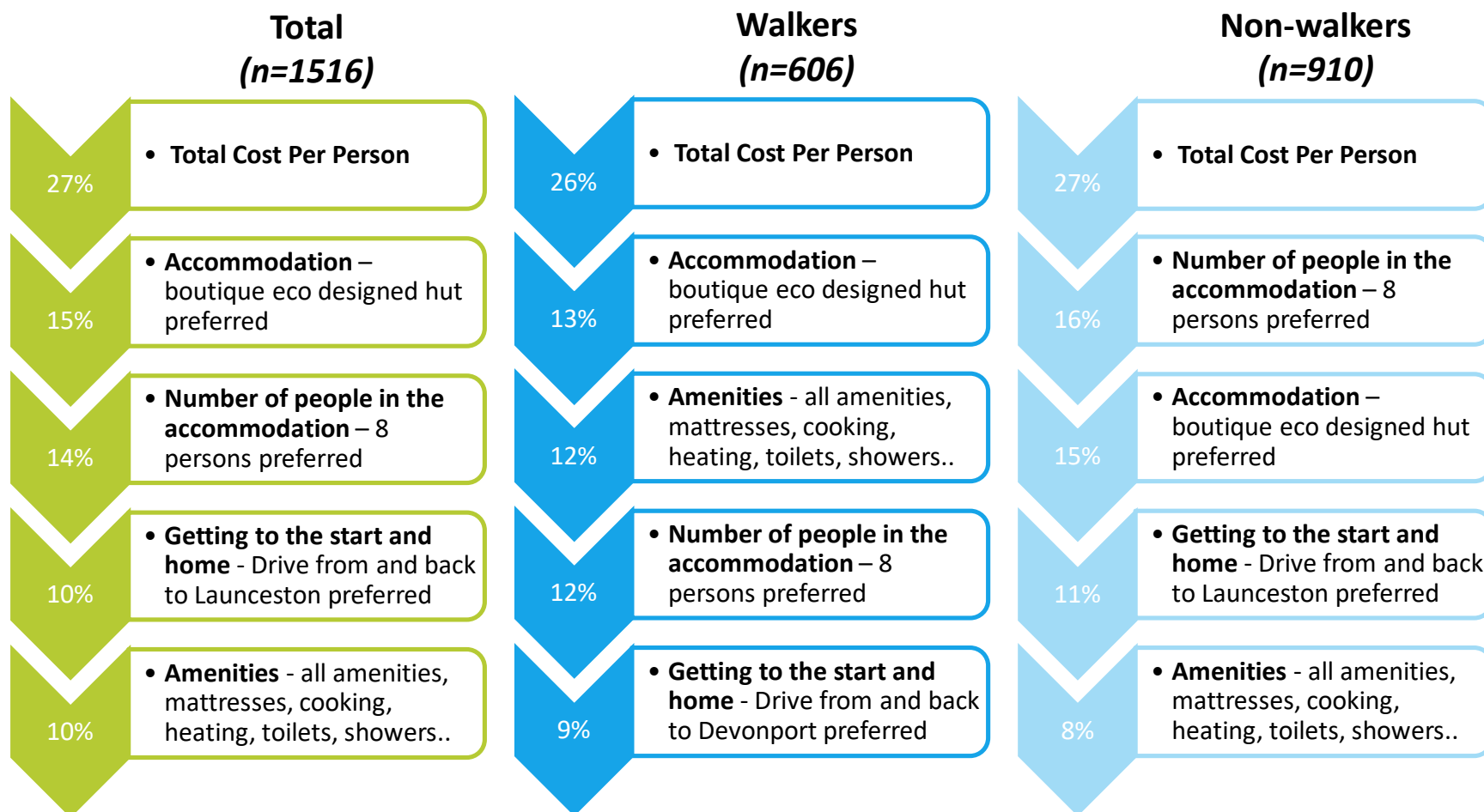
Key drivers of choice when considering TTT vs others



instinct^{and}reason

Top 5 drivers for 10 day Trans-Tarkine Track

The key ways to improved consideration for the 10 day Trans-Tarkine Track offer is to reduce the cost pp, provide boutique eco huts for 8 and provide all amenities at each hut.

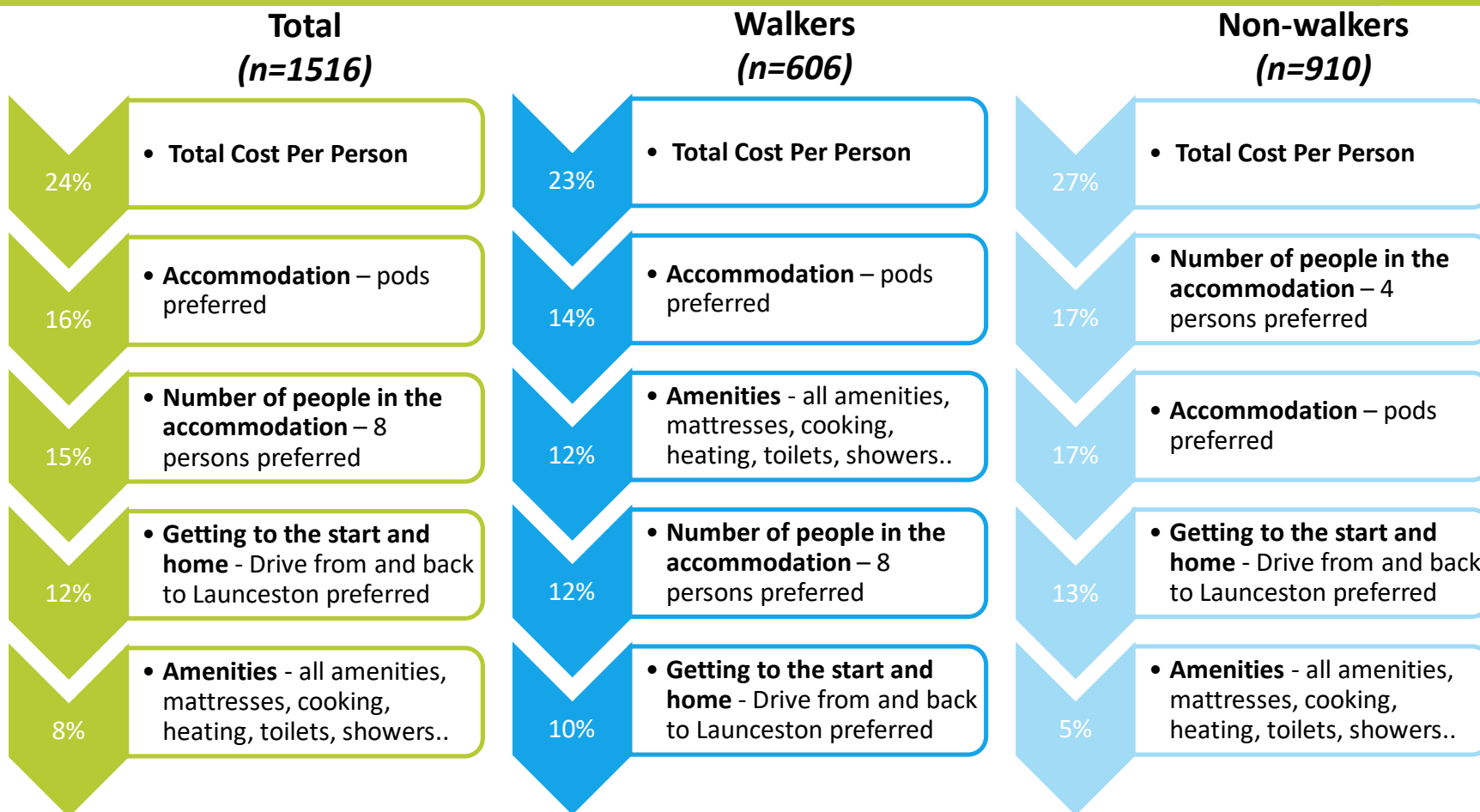


Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

Key drivers of choice when considering TTT vs others

Top 5 drivers for 5 day rainforest Trans-Tarkine Track

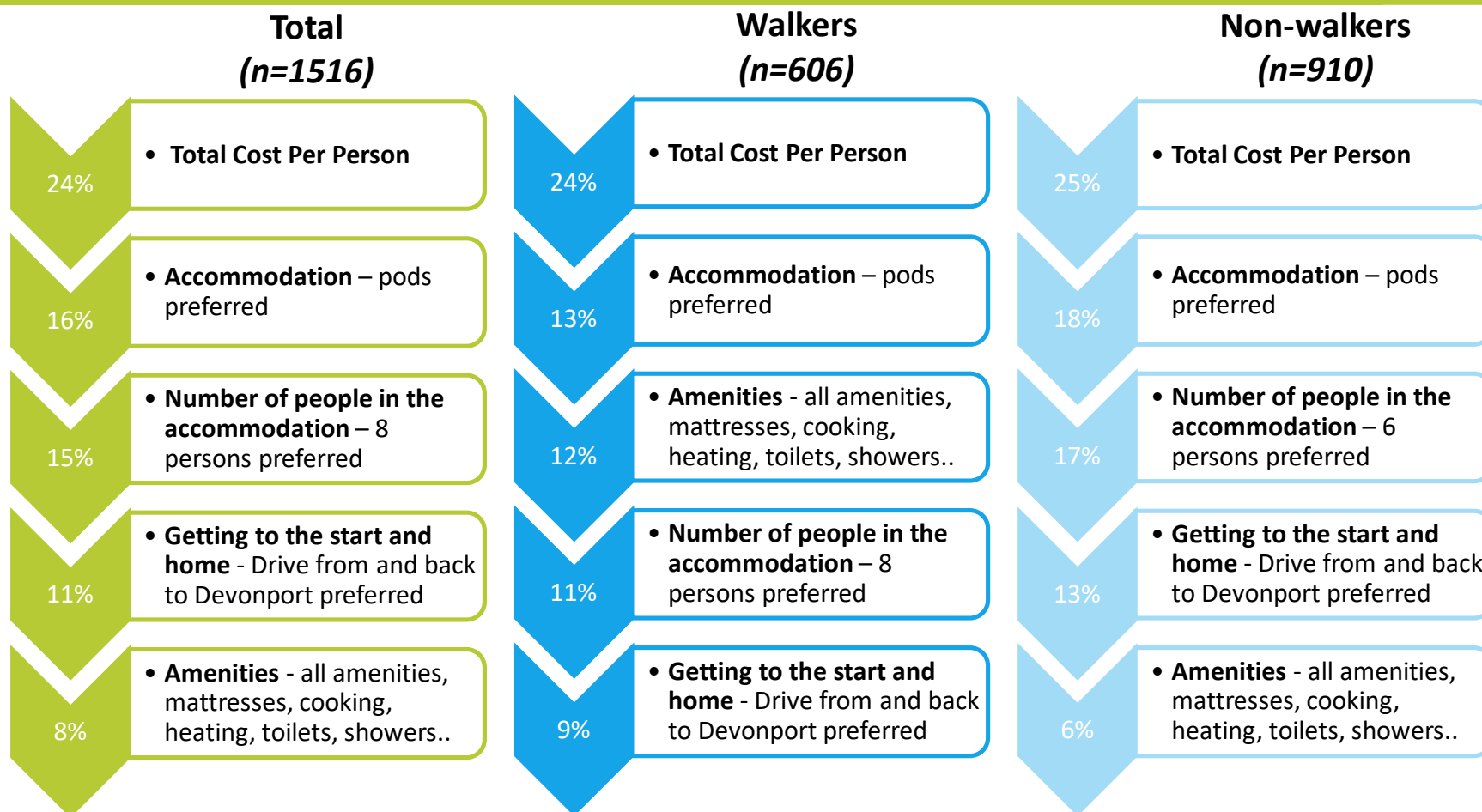
The key ways to improve consideration for the 5 day rainforest element of the Trans-Tarkine Track offer is to reduce the cost pp, provide pods for 8 and provide all amenities at each hut.



Key drivers of choice when considering TTT vs others

Top 5 drivers for 5 day coastal Trans-Tarkine Track

The key ways to improve consideration for the coastal element of the Trans-Tarkine Track offer is to reduce the cost pp, pod accommodation for 8 and provide all amenities at each hut.



Base case scenario

\$1,500 total cost



Key aspects of the offer	Trans-Tarkine	Overland	Three Capes
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.	Basic hut	Boutique eco designed huts
2. Amenities	No amenities provided	Basic amenities provided (e.g. toilets and BBQ area)	All amenities, mattresses, cooking, heating, toilets, showers, etc.
3. Number of people in the various accommodation styles	1-2 person/s	4 persons	1-2 person/s
4. Campsite hosting	No ranger on site	No ranger on site	Ranger is on site and provides evening briefing on the area
5. Total Cost Per Person (excludes the cost of getting there)	\$1,500	\$500	\$495
6. Length of walk per day	11- 12 km	16-18 km	13-15 km
7. What you carry	More than 20 kg	More than 20 kg	7-10 kg
8. Rainforest experiences	None	None	None
9. Aboriginal cultural interpretation and experiences	None	None	None
10. Aboriginal guided	No Aboriginal person is present	No Aboriginal person is present	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message	Australia's premier bushwalk	Breathtakingly beautiful
12. End of walk experience	None	None	Bus back to the start of the walk
13. Getting to the start and home	Drive from Hobart	Drive from and back to Devonport	Drive from Hobart

	10 Day Trans-Tarkine	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	Overland	Three Capes	None of these
Total	1.5%	3.3%	3.9%	13.4%	38.8%	39.1%
Walkers	2.2%	5.5%	7.0%	19.7%	43.7%	21.9%
Non-Walkers	1.0%	1.5%	1.5%	8.5%	35.0%	52.5%

Base case scenario with different price points



Total Sample

Key aspects of the offer	Trans-Tarkine	Overland	Three Capes
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.	Basic hut	Boutique eco designed huts
2. Amenities	No amenities provided	Basic amenities provided (e.g. toilets and BBQ area)	All amenities, mattresses, cooking, heating, toilets, showers, etc.
3. Number of people in the various accommodation styles	1-2 person/s	4 persons	1-2 person/s
4. Campsite hosting	No ranger on site	No ranger on site	Ranger is on site and provides evening briefing on the area
5. Total Cost Per Person (excludes the cost of getting there)	\$300/\$400/\$500	\$500	\$495
6. Length of walk per day	11- 12 km	16-18 km	13-15 km
7. What you carry	More than 20 kg	More than 20 kg	7-10 kg
8. Rainforest experiences	None	None	None
9. Aboriginal cultural interpretation and experiences	None	None	None
10. Aboriginal guided	No Aboriginal person is present	No Aboriginal person is present	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message	Australia's premier bushwalk	Breathtakingly beautiful
12. End of walk experience	None	None	Bus back to the start of the walk
13. Getting to the start and home	Drive from Hobart	Drive from and back to Devonport	Drive from Hobart

	10 Day Trans-Tarkine Track	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	Overland	Three Capes Track	None of these
\$300	3.8%	7.1%	8.5%	10.1%	33.7%	37.1%
\$400	3.4%	6.4%	7.6%	10.7%	34.2%	37.6%
\$500	3.0%	5.8%	6.7%	11.3%	35.3%	38.0%

Base case scenario with different price points



Walkers

Key aspects of the offer	Trans-Tarkine	Overland	Three Capes
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.	Basic hut	Boutique eco designed huts
2. Amenities	No amenities provided	Basic amenities provided (e.g. toilets and BBQ area)	All amenities, mattresses, cooking, heating, toilets, showers, etc.
3. Number of people in the various accommodation styles	1-2 person/s	4 persons	1-2 person/s
4. Campsite hosting	No ranger on site	No ranger on site	Ranger is on site and provides evening briefing on the area
5. Total Cost Per Person (excludes the cost of getting there)	\$300/\$400/\$500	\$500	\$495
6. Length of walk per day	11- 12 km	16-18 km	13-15 km
7. What you carry	More than 20 kg	More than 20 kg	7-10 kg
8. Rainforest experiences	None	None	None
9. Aboriginal cultural interpretation and experiences	None	None	None
10. Aboriginal guided	No Aboriginal person is present	No Aboriginal person is present	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message	Australia's premier bushwalk	Breathtakingly beautiful
12. End of walk experience	None	None	Bus back to the start of the walk
13. Getting to the start and home	Drive from Hobart	Drive from and back to Devonport	Drive from Hobart

	10 Day Trans-Tarkine	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	Overland	Three Capes	None of these
\$300	4.3%	11.5%	13.7%	14.9%	35.8%	19.7%
\$400	4.0%	10.6%	12.5%	15.7%	37.1%	20.2%
\$500	3.6%	9.5%	11.0%	16.6%	38.6%	20.7%

Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

Base case scenario with different price points



Non-walkers

Key aspects of the offer	Trans-Tarkine	Overland	Three Capes
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.	Basic hut	Boutique eco designed huts
2. Amenities	No amenities provided	Basic amenities provided (e.g. toilets and BBQ area)	All amenities, mattresses, cooking, heating, toilets, showers, etc.
3. Number of people in the various accommodation styles	1-2 person/s	4 persons	1-2 person/s
4. Campsite hosting	No ranger on site	No ranger on site	Ranger is on site and provides evening briefing on the area
5. Total Cost Per Person (excludes the cost of getting there)	\$300/\$400/\$500	\$500	\$495
6. Length of walk per day	11- 12 km	16-18 km	13-15 km
7. What you carry	More than 20 kg	More than 20 kg	7-10 kg
8. Rainforest experiences	None	None	None
9. Aboriginal cultural interpretation and experiences	None	None	None
10. Aboriginal guided	No Aboriginal person is present	No Aboriginal person is present	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message	Australia's premier bushwalk	Breathtakingly beautiful
12. End of walk experience	None	None	Bus back to the start of the walk
13. Getting to the start and home	Drive from Hobart	Drive from and back to Devonport	Drive from Hobart

	10 Day Trans-Tarkine	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	Overland	Three Capes	None of these
\$300	3.4%	3.7%	4.4%	6.5%	31.2%	50.7%
\$400	3.0%	3.3%	3.8%	6.7%	32.0%	51.1%
\$500	2.6%	2.8%	3.3%	7.1%	32.7%	51.5%

Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

Realistic price scenario

Total Sample



Key aspects of the offer	Trans-Tarkine	Overland	Three Capes
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.	Basic hut	Boutique eco designed huts
2. Amenities	No amenities provided	Basic amenities provided (e.g. toilets and BBQ area)	All amenities, mattresses, cooking, heating, toilets, showers, etc.
3. Number of people in the various accommodation styles	1-2 person/s	4 persons	1-2 person/s
4. Campsite hosting	No ranger on site	No ranger on site	Ranger is on site and provides evening briefing on the area
5. Total Cost Per Person (excludes the cost of getting there)	\$750/\$800	\$500	\$495
6. Length of walk per day	11- 12 km	16-18 km	13-15 km
7. What you carry	More than 20 kg	More than 20 kg	7-10 kg
8. Rainforest experiences	None	None	None
9. Aboriginal cultural interpretation and experiences	None	None	None
10. Aboriginal guided	No Aboriginal person is present	No Aboriginal person is present	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message	Australia's premier bushwalk	Breathtakingly beautiful
12. End of walk experience	None	None	Bus back to the start of the walk
13. Getting to the start and home	Drive from Hobart	Drive from and back to Devonport	Drive from Hobart

	10 Day Trans-Tarkine	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	Overland	Three Capes	None of these
\$750	2.0%	4.3%	4.9%	12.6%	37.5%	38.7%
\$800	1.9%	4.1%	4.7%	12.8%	37.7%	38.8%

Realistic price scenario

Walkers



Key aspects of the offer	Trans-Tarkine	Overland	Three Capes
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.	Basic hut	Boutique eco designed huts
2. Amenities	No amenities provided	Basic amenities provided (e.g. toilets and BBQ area)	All amenities, mattresses, cooking, heating, toilets, showers, etc.
3. Number of people in the various accommodation styles	1-2 person/s	4 persons	1-2 person/s
4. Campsite hosting	No ranger on site	No ranger on site	Ranger is on site and provides evening briefing on the area
5. Total Cost Per Person (excludes the cost of getting there)	\$750/\$800	\$500	\$495
6. Length of walk per day	11- 12 km	16-18 km	13-15 km
7. What you carry	More than 20 kg	More than 20 kg	7-10 kg
8. Rainforest experiences	None	None	None
9. Aboriginal cultural interpretation and experiences	None	None	None
10. Aboriginal guided	No Aboriginal person is present	No Aboriginal person is present	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message	Australia's premier bushwalk	Breathtakingly beautiful
12. End of walk experience	None	None	Bus back to the start of the walk
13. Getting to the start and home	Drive from Hobart	Drive from and back to Devonport	Drive from Hobart

	10 Day Trans-Tarkine	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	Overland	Three Capes	None of these
\$750	2.6%	7.3%	8.6%	18.4%	41.7%	21.5%
\$800	2.5%	7.0%	8.2%	18.7%	42.0%	21.6%

Realistic price scenario

Non-walkers

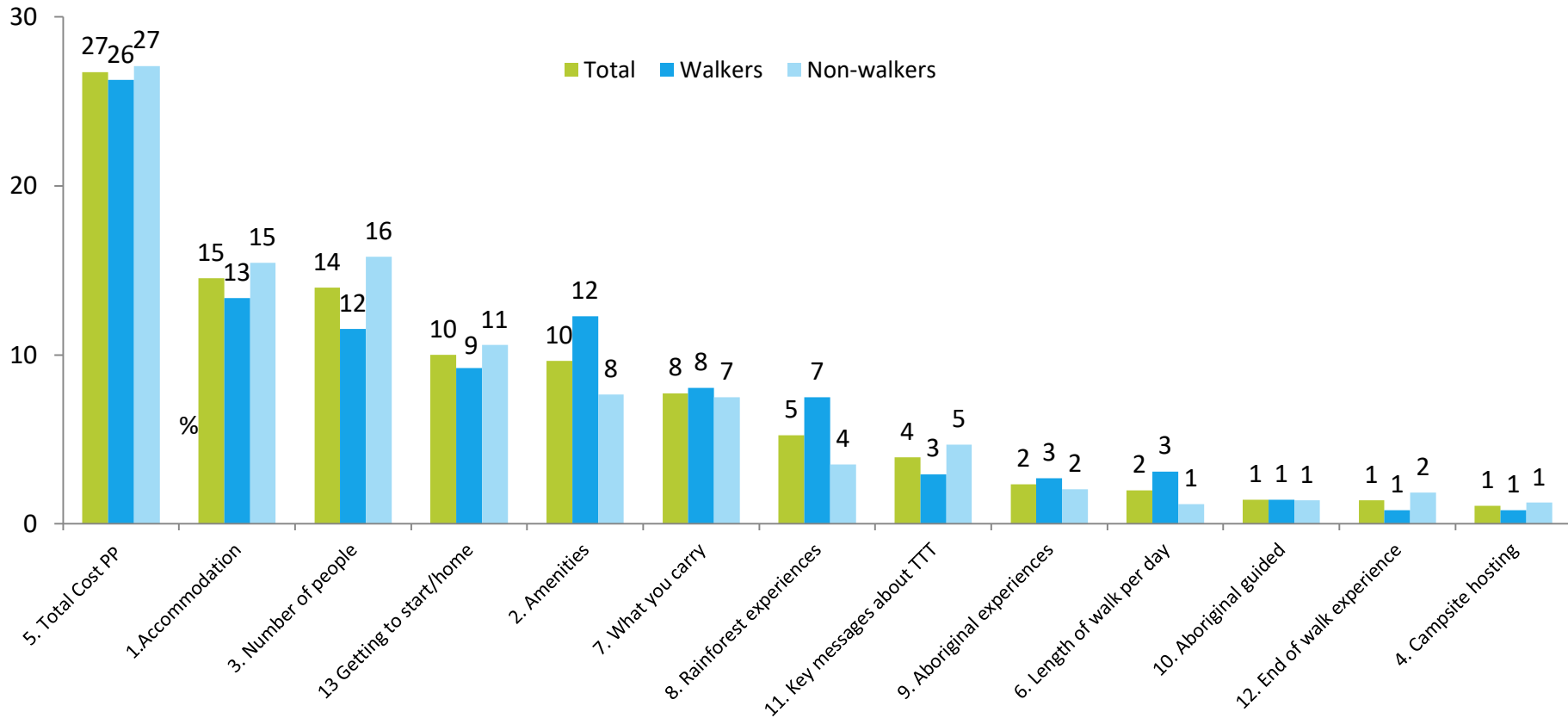


Key aspects of the offer	Trans-Tarkine	Overland	Three Capes
1. Accommodation	Camping In own tent includes pavilion with amenities for sleeping, showers, cooking facilities every 5th night.	Basic hut	Boutique eco designed huts
2. Amenities	No amenities provided	Basic amenities provided (e.g. toilets and BBQ area)	All amenities, mattresses, cooking, heating, toilets, showers, etc.
3. Number of people in the various accommodation styles	1-2 person/s	4 persons	1-2 person/s
4. Campsite hosting	No ranger on site	No ranger on site	Ranger is on site and provides evening briefing on the area
5. Total Cost Per Person (excludes the cost of getting there)	\$750/\$800	\$500	\$495
6. Length of walk per day	11- 12 km	16-18 km	13-15 km
7. What you carry	More than 20 kg	More than 20 kg	7-10 kg
8. Rainforest experiences	None	None	None
9. Aboriginal cultural interpretation and experiences	None	None	None
10. Aboriginal guided	No Aboriginal person is present	No Aboriginal person is present	No Aboriginal person is present
11. Key messages about the Trans-Tarkine Track	No key message	Australia's premier bushwalk	Breathtakingly beautiful
12. End of walk experience	None	None	Bus back to the start of the walk
13. Getting to the start and home	Drive from Hobart	Drive from and back to Devonport	Drive from Hobart

	10 Day Trans-Tarkine	5 Day Rainforest Trans-Tarkine	5 Day Coastal Trans-Tarkine	Overland	Three Capes	None of these
\$750	1.5%	2.0%	2.1%	8.0%	34.2%	52.2%
\$800	1.4%	1.9%	1.9%	8.1%	34.4%	52.3%

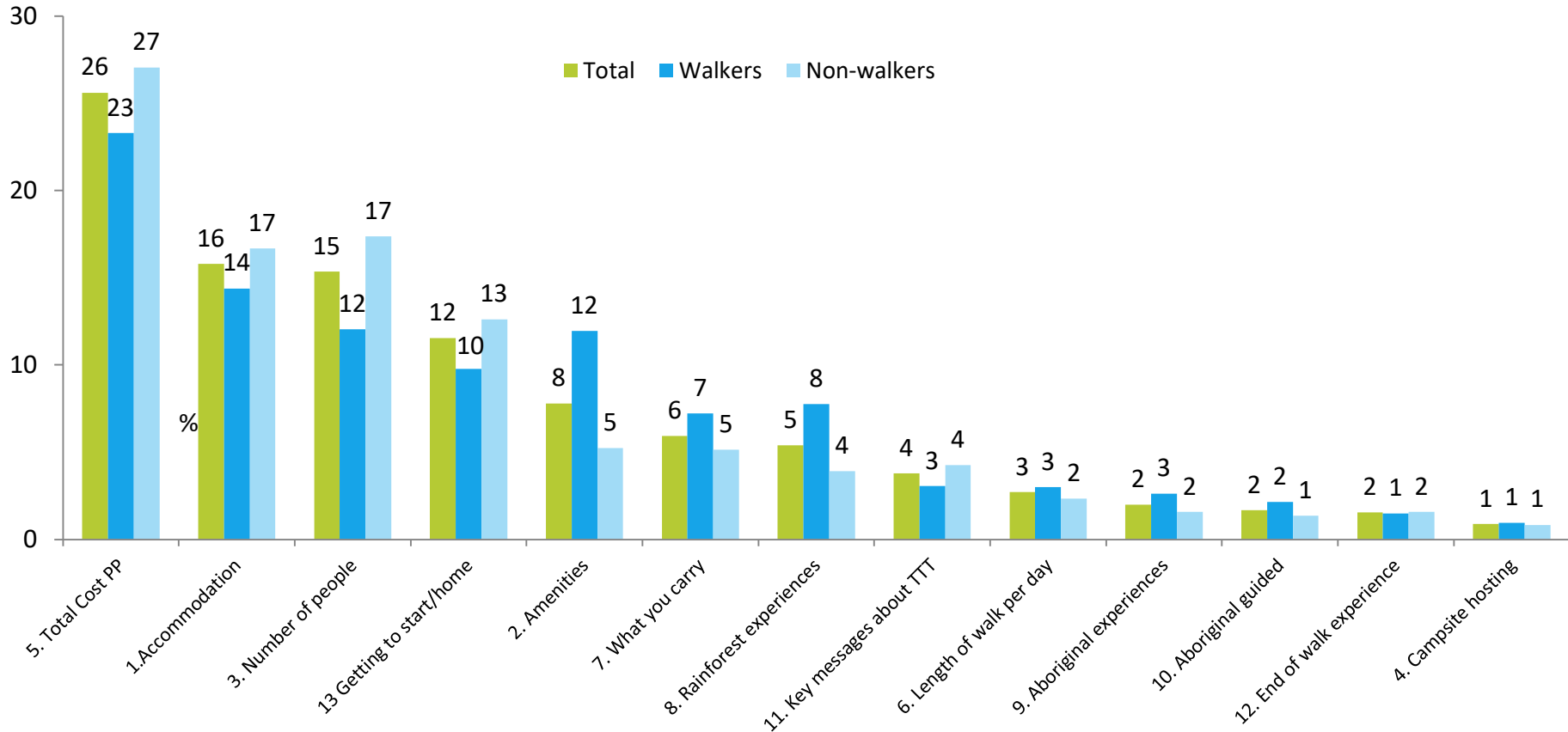
ALL drivers of choice when considering the TTT

10 day Trans-Tarkine Track



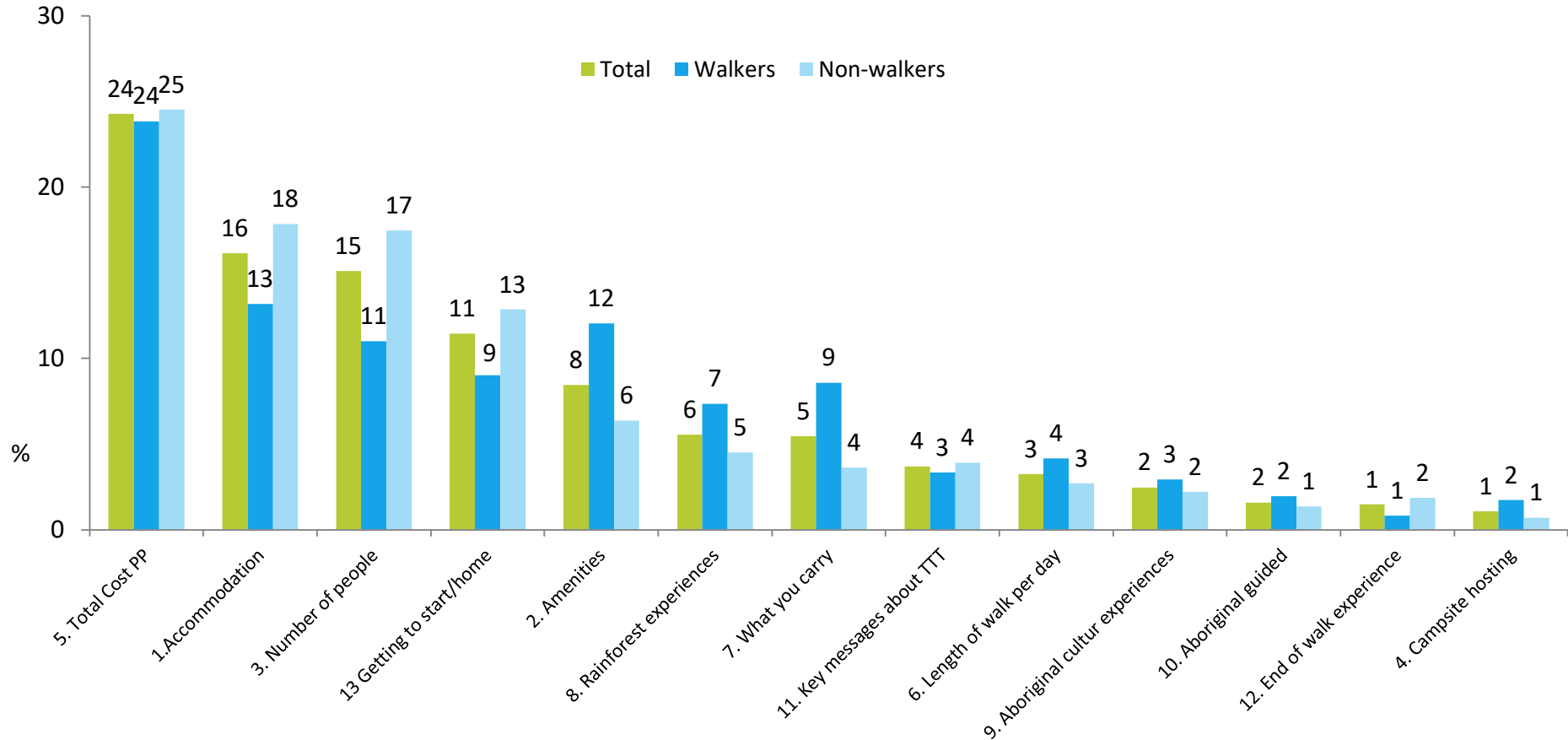
ALL drivers of choice when considering the TTT

5 day rainforest Trans-Tarkine Track

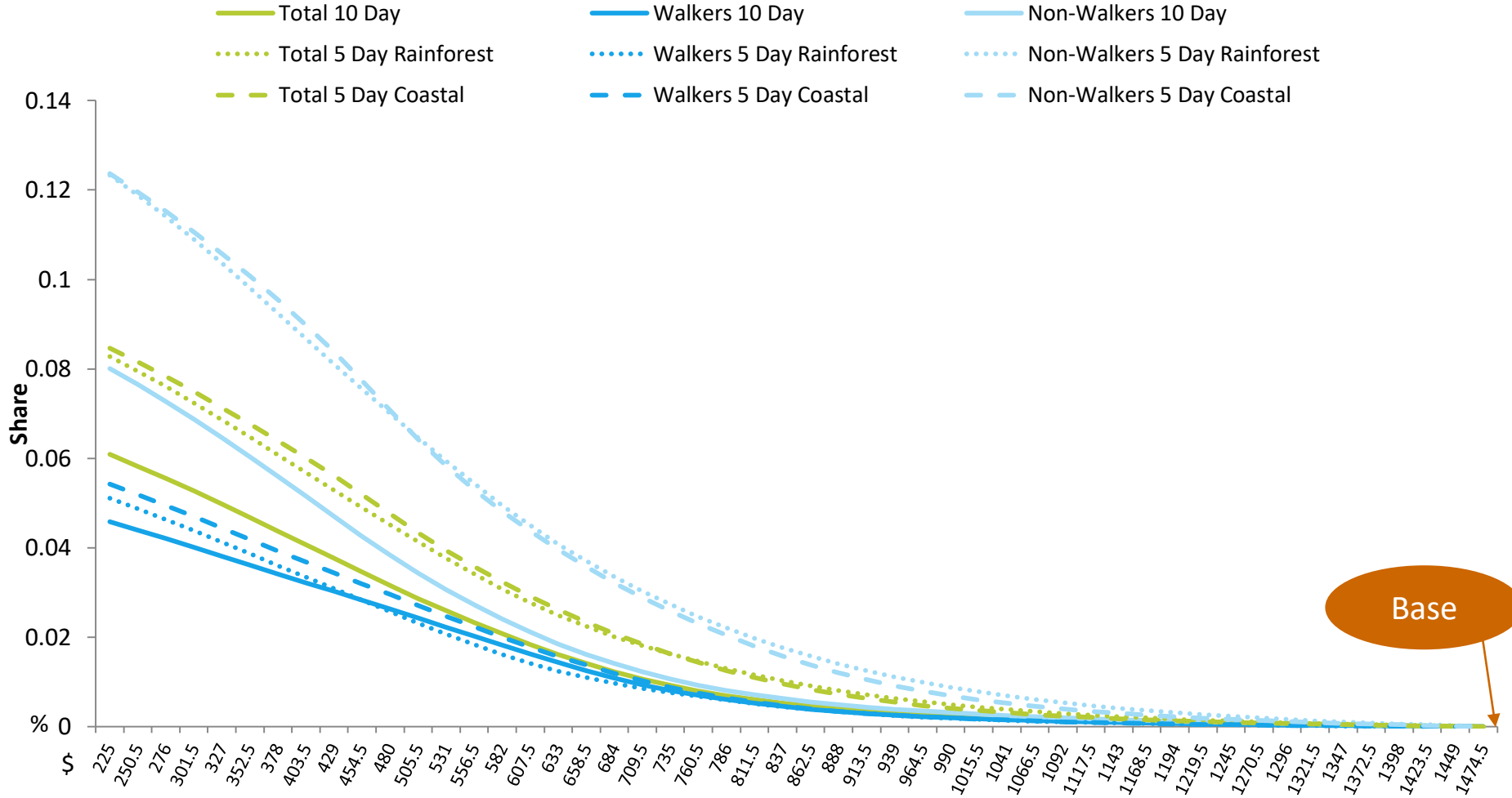


ALL drivers of choice when considering the TTT

5 day coastal Trans-Tarkine Track

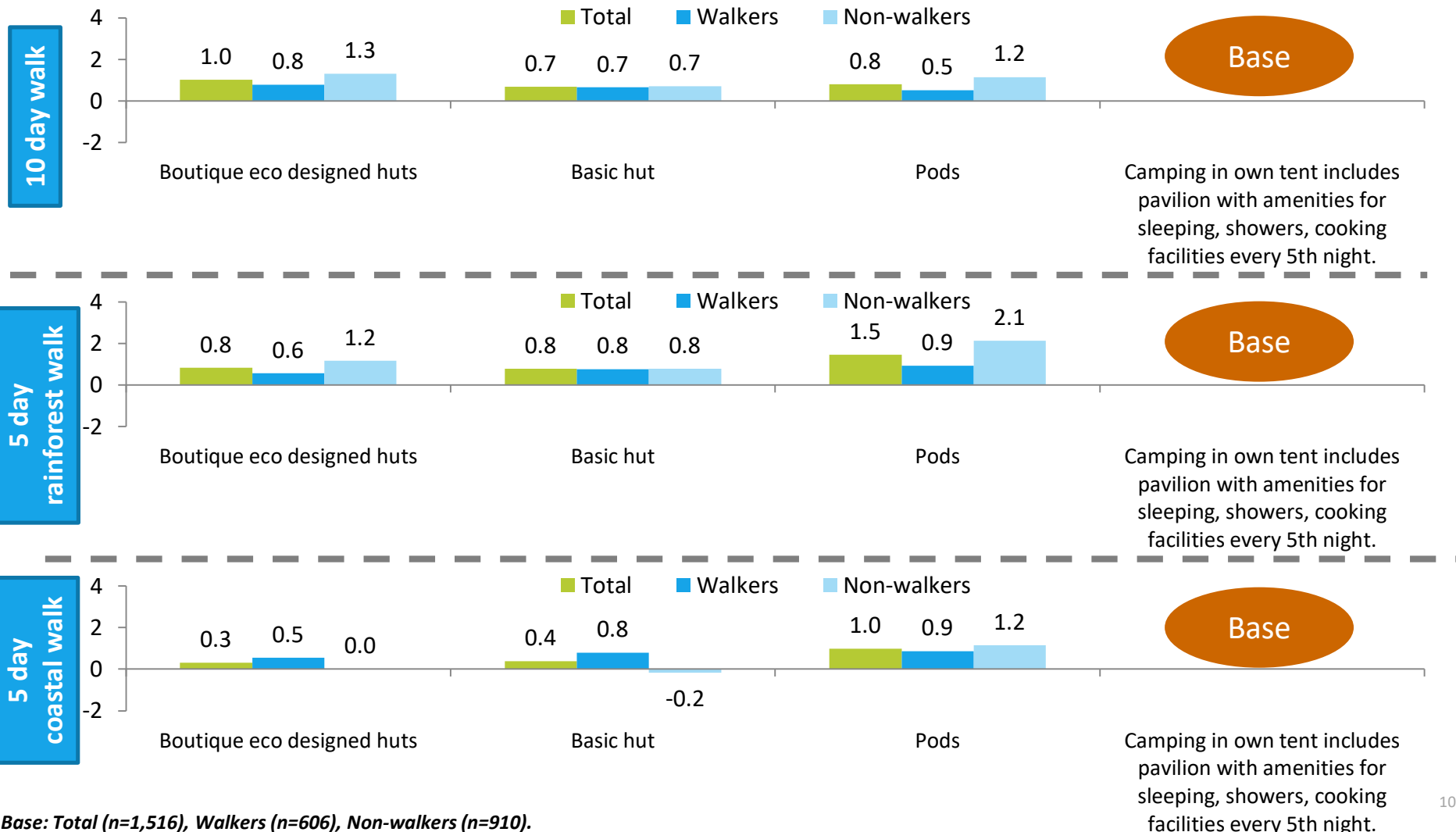


How does the total cost affect choice?



Base

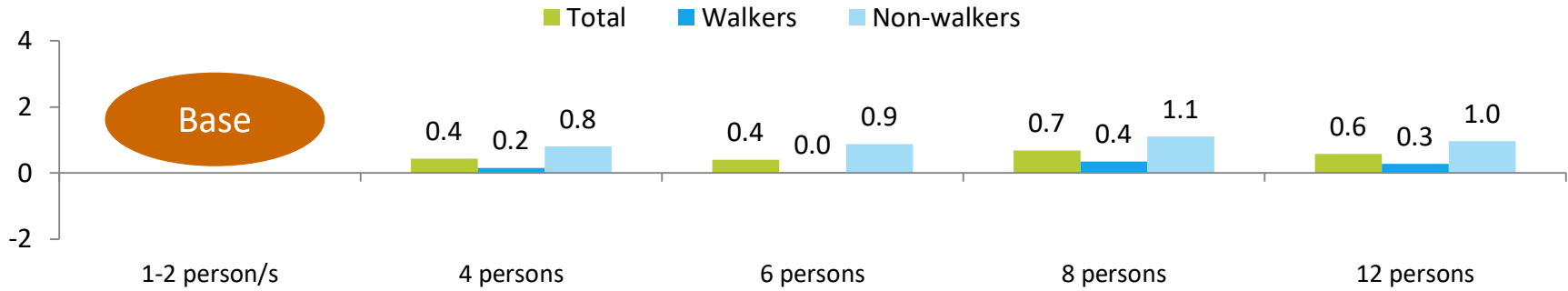
How does the style of accommodation affect choice?



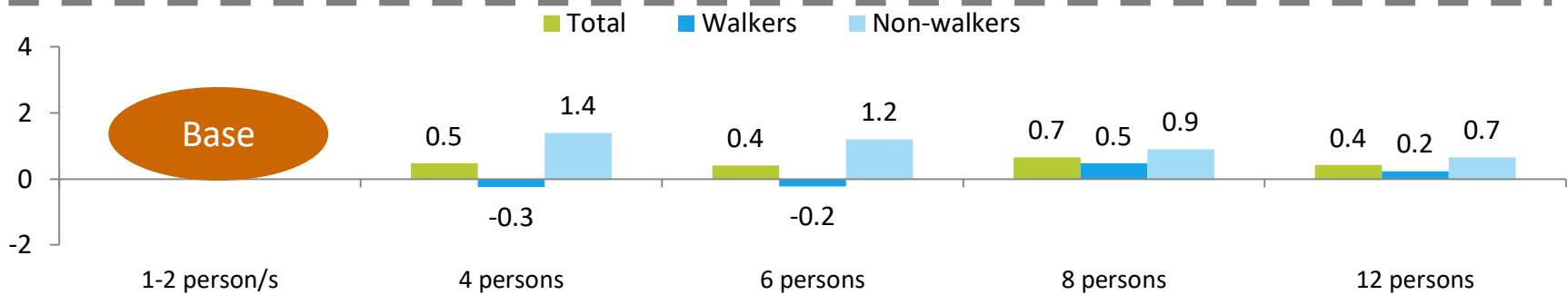
Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How does the number of people in various accommodation styles affect choice?

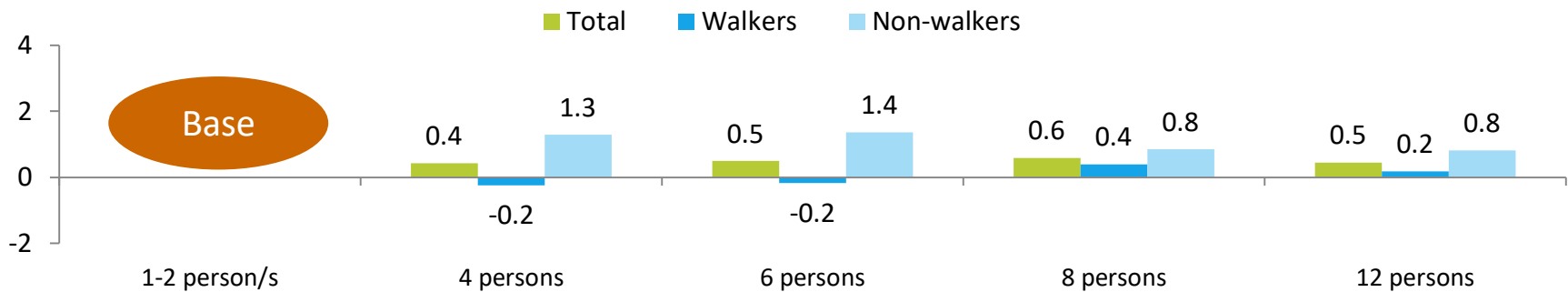
10 day walk



5 day rainforest walk



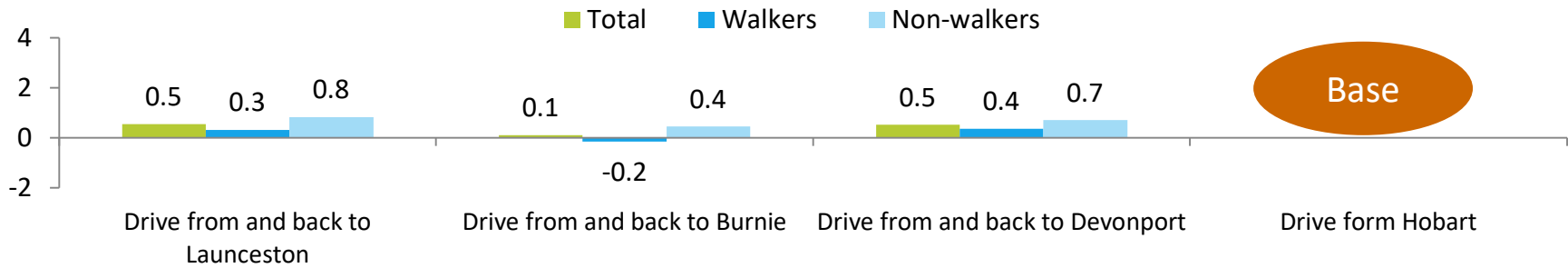
5 day coastal walk



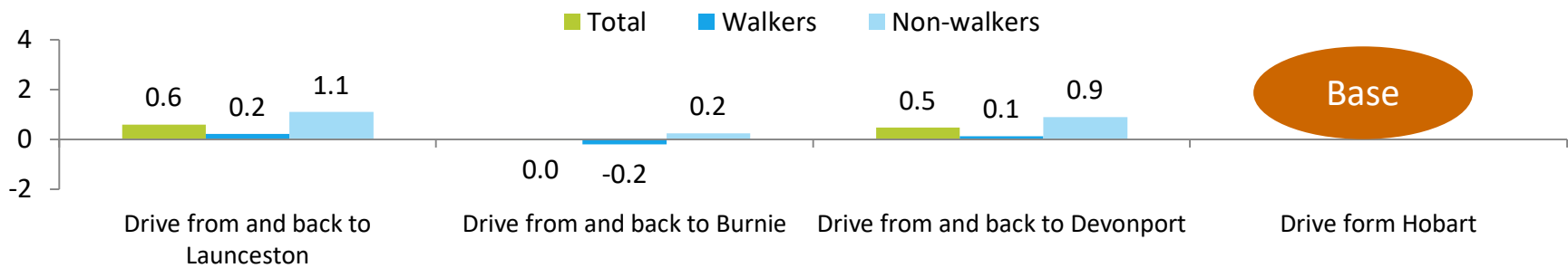
Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How does how walkers get to the start and home affect choice?

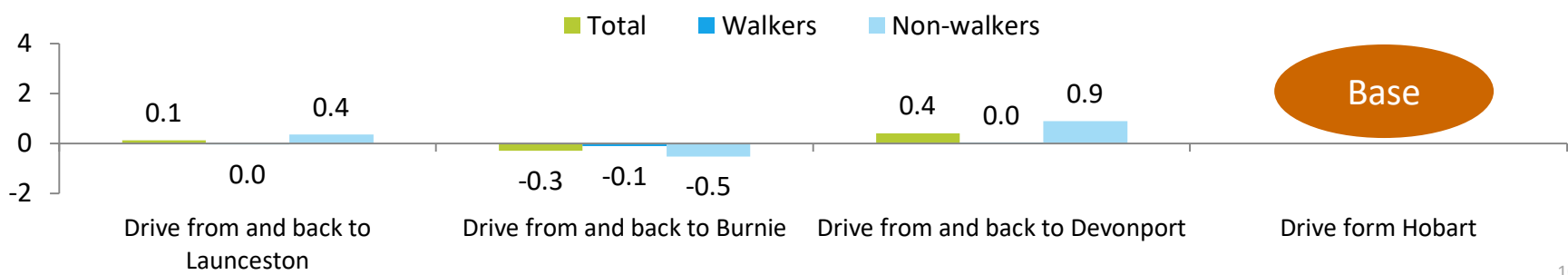
10 day walk



5 day rainforest walk



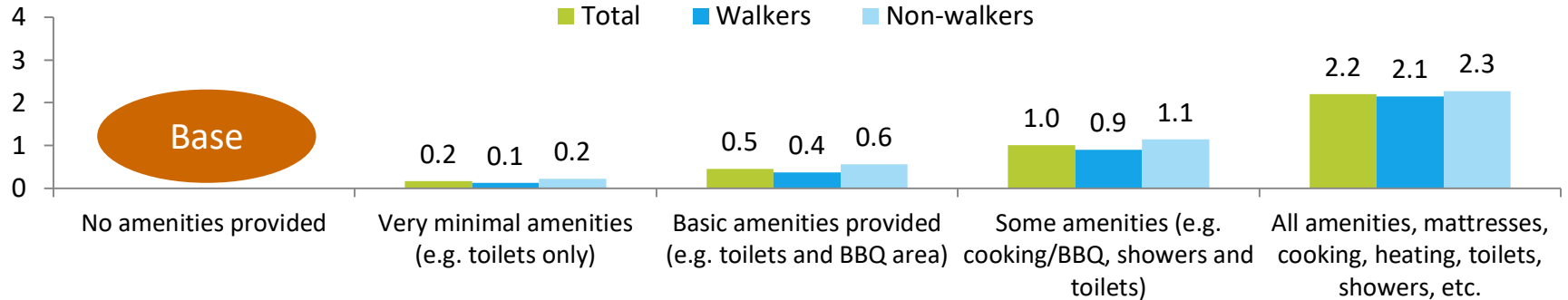
5 day coastal walk



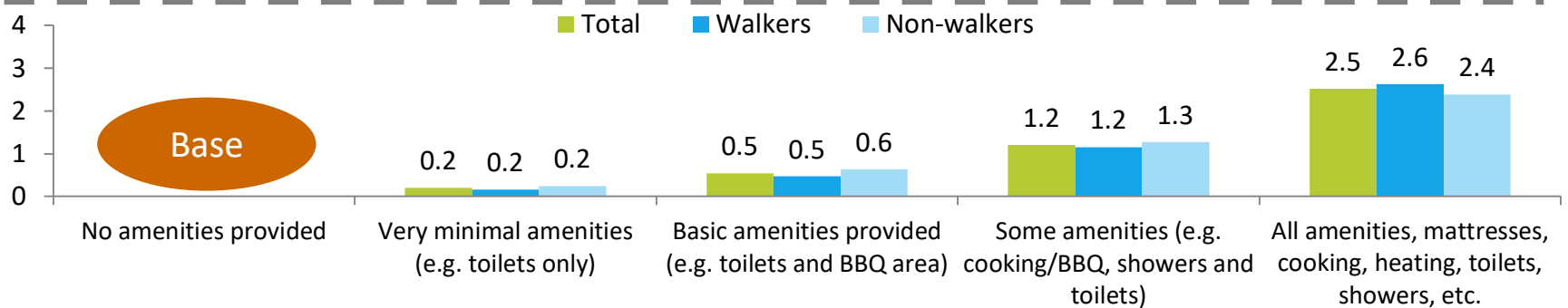
Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How do the style of amenities affect choice?

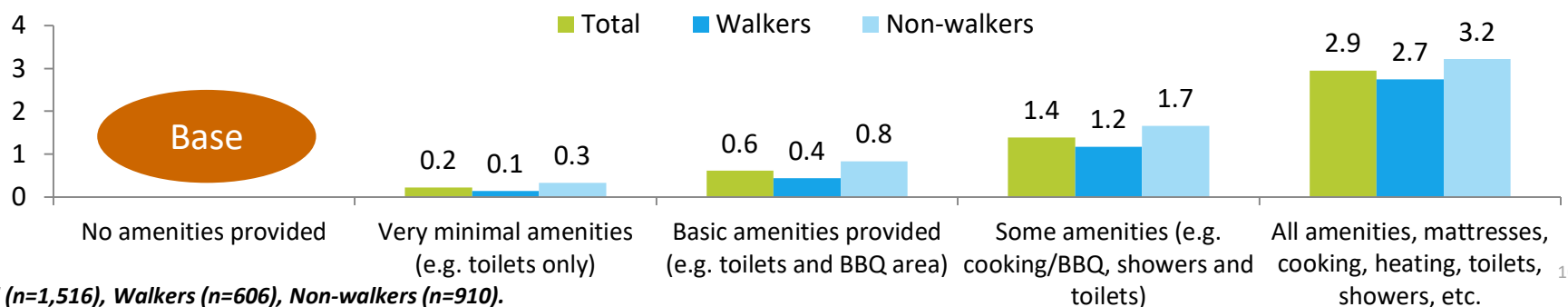
10 day walk



5 day rainforest walk

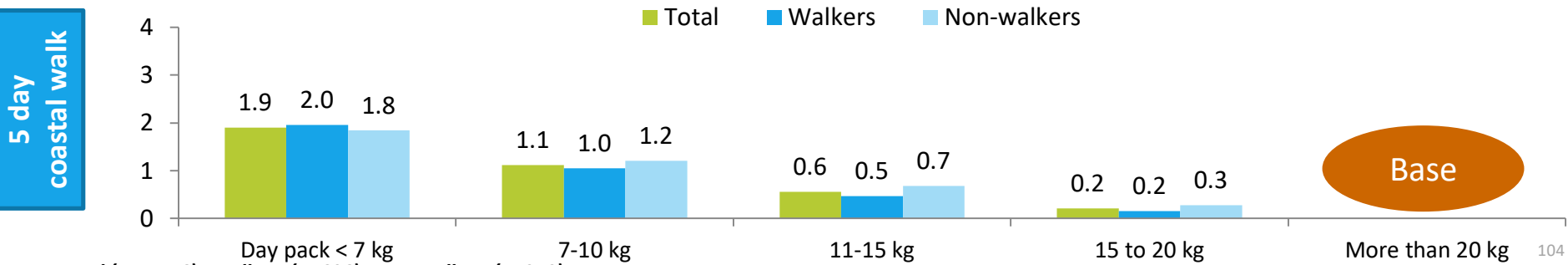
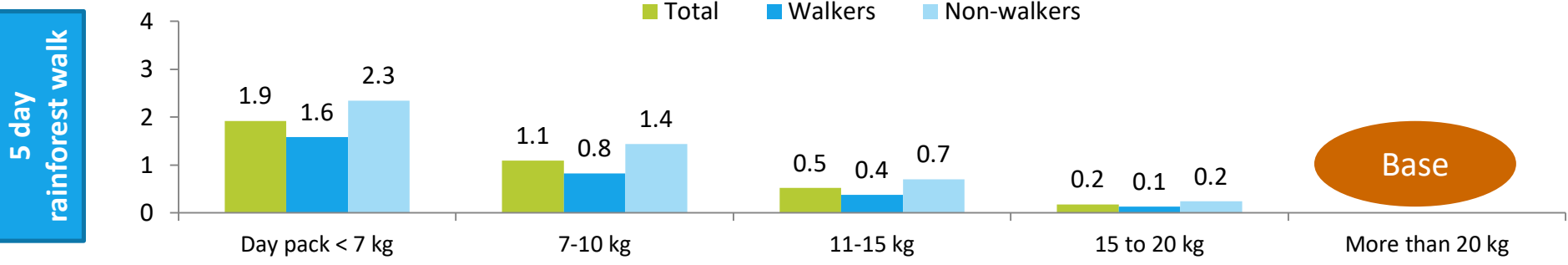
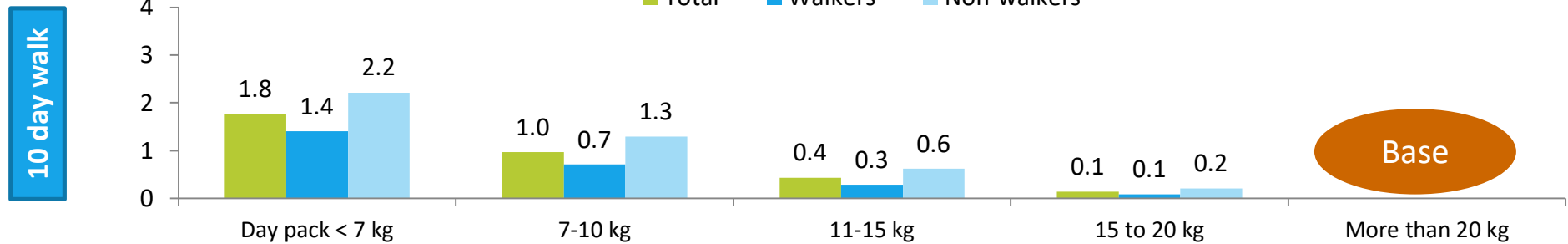


5 day coastal walk



Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

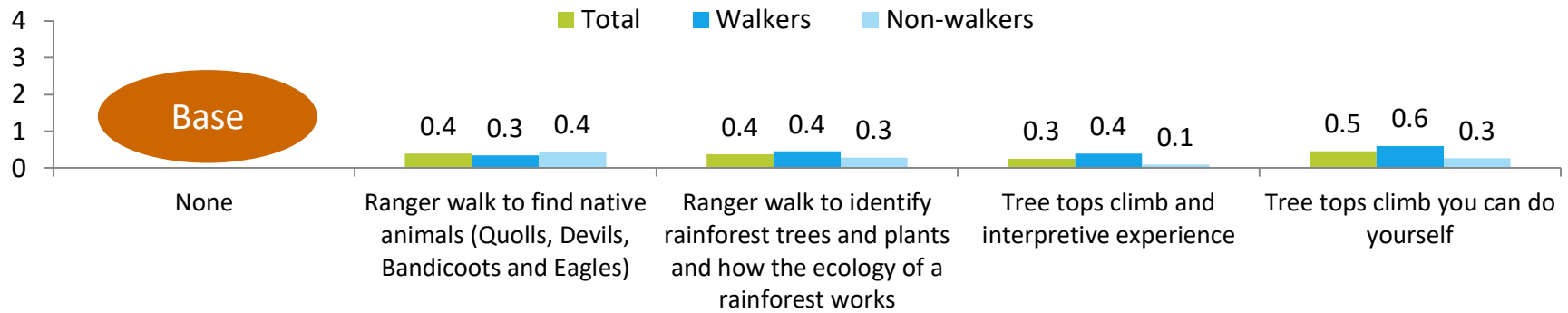
What impact does the weight a walker carries have on choice?



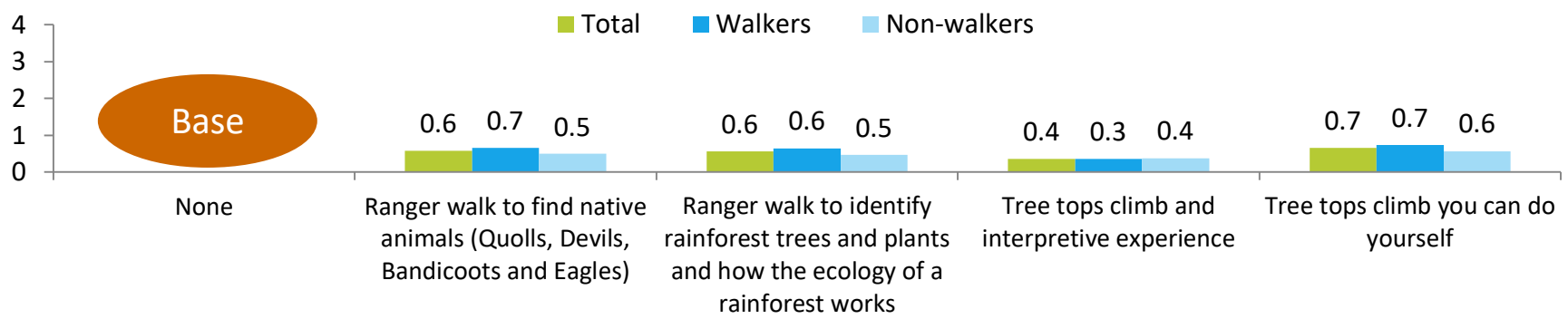
Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910). 104

How does the inclusion of a rainforest experiences affect choice?

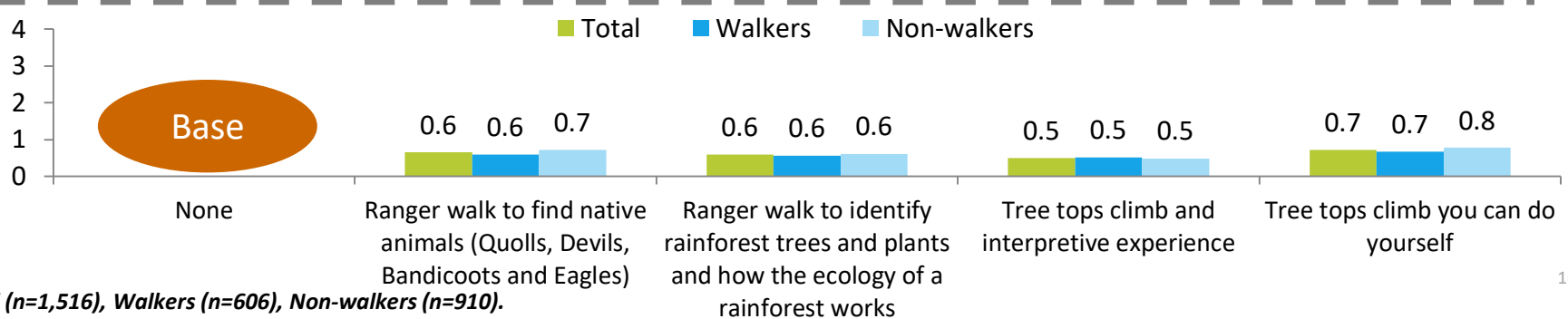
10 day walk



5 day rainforest walk



5 day coastal walk



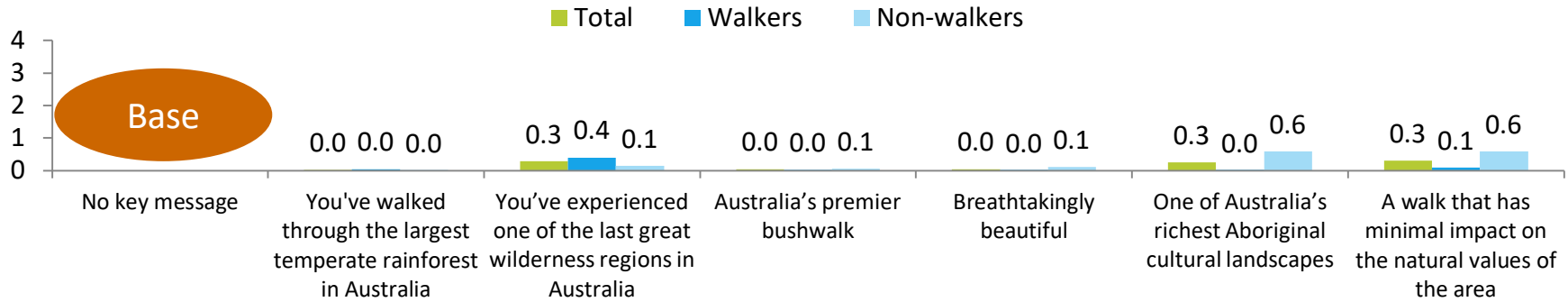
Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How do key selling points/messages affect choice?



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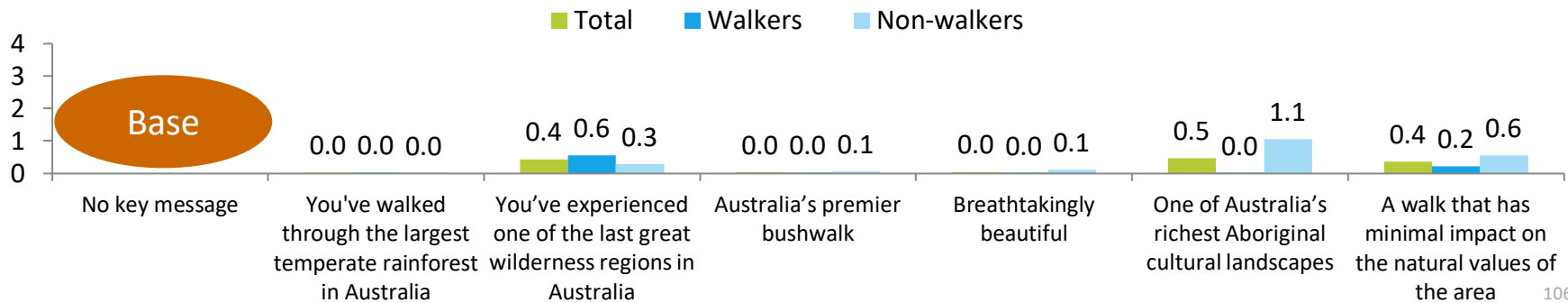
10 day walk



5 day rainforest walk



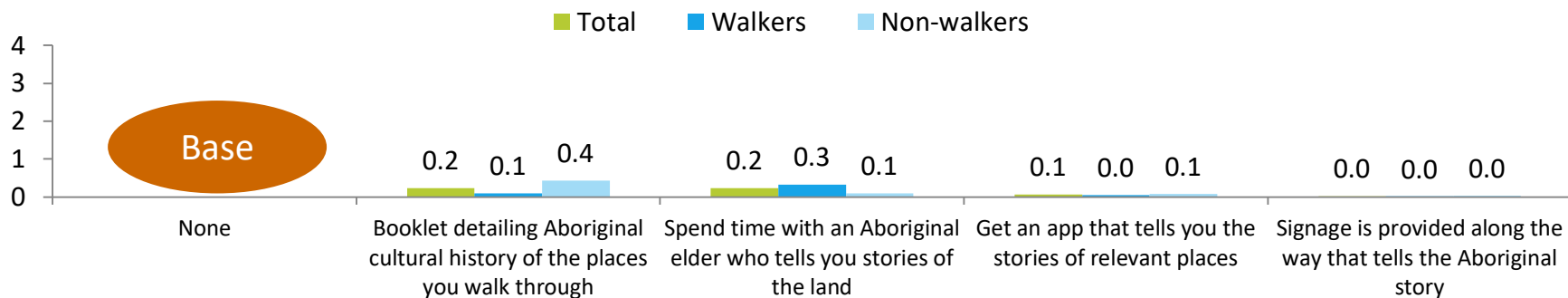
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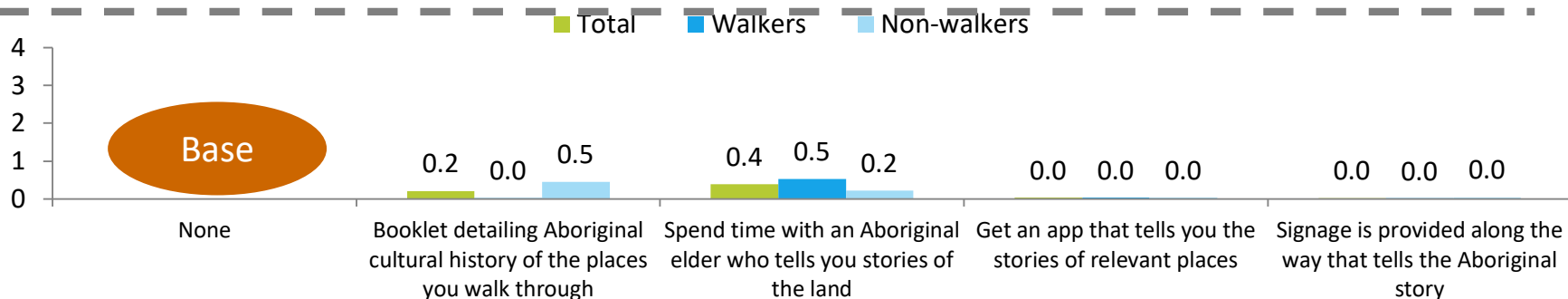
Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How does the inclusion of an Aboriginal cultural affect choice?

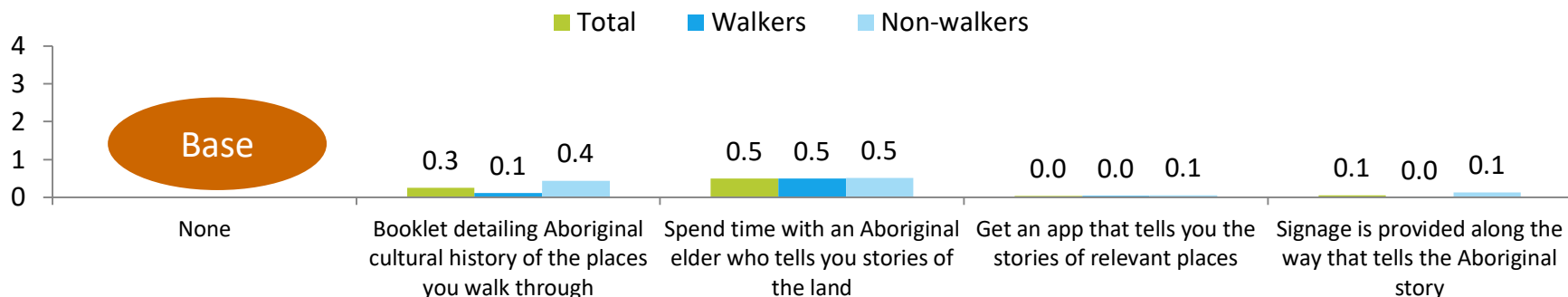
10 day walk



5 day rainforest walk



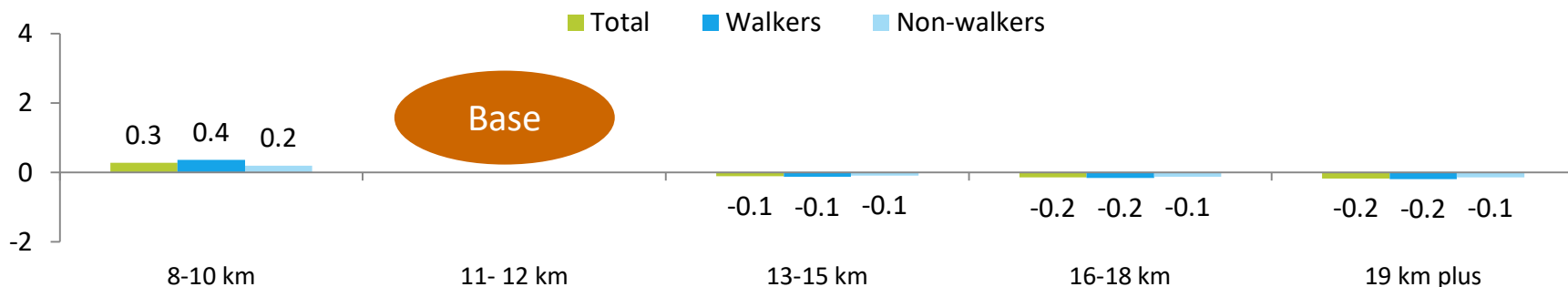
5 day coastal walk



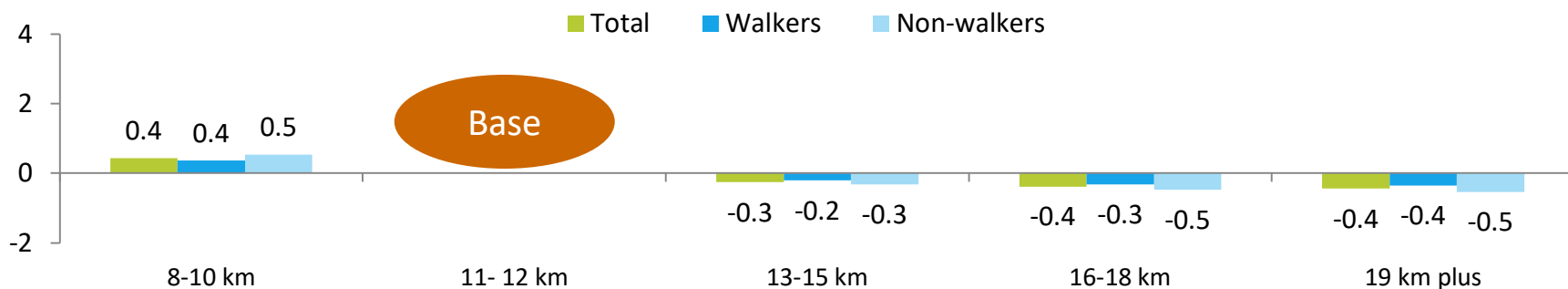
How does the length of walk per day affect choice?



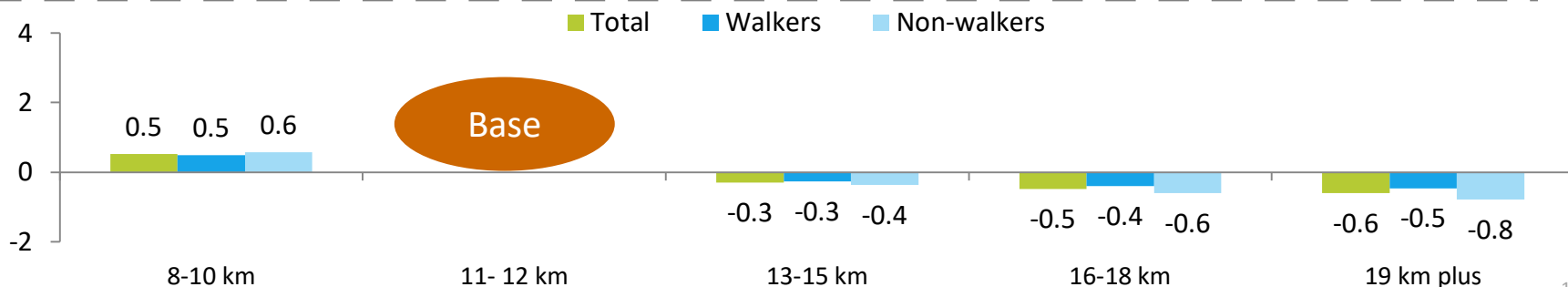
10 day walk



5 day rainforest walk



5 day coastal walk



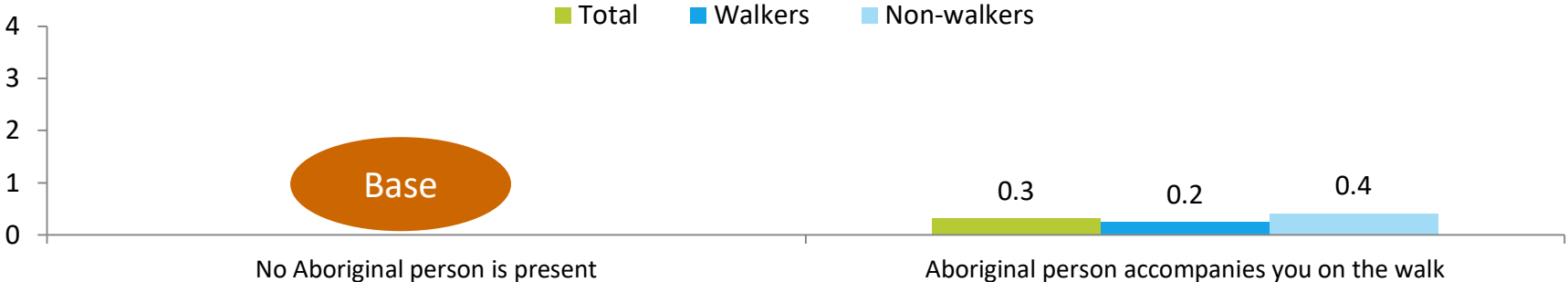
Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How does having an Aboriginal guide affect choice?

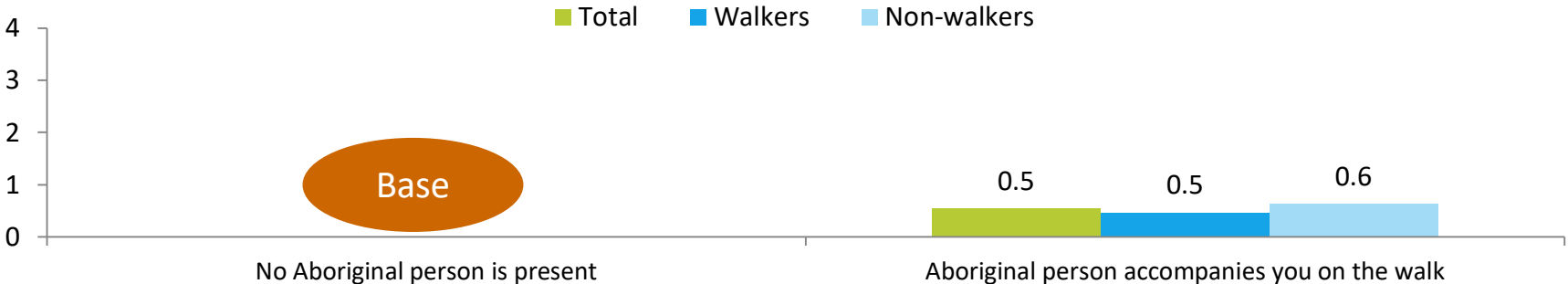


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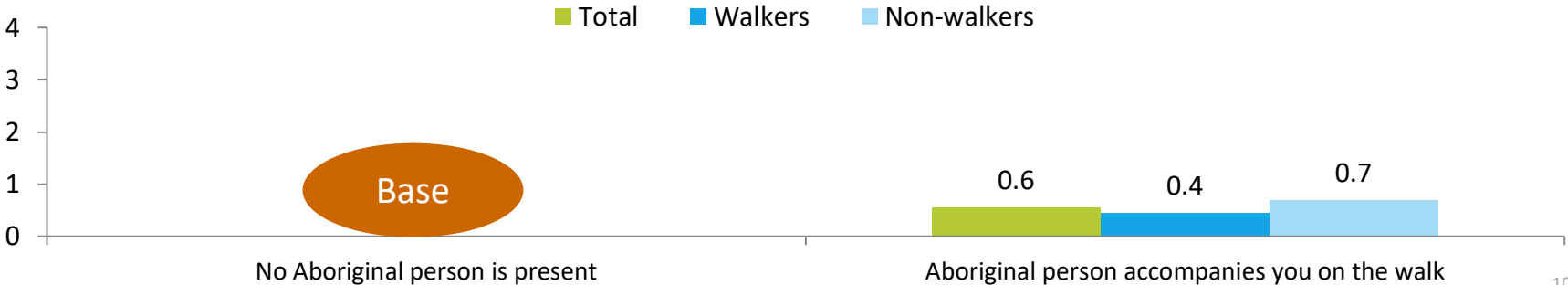
10 day walk



5 day rainforest walk



5 day coastal walk



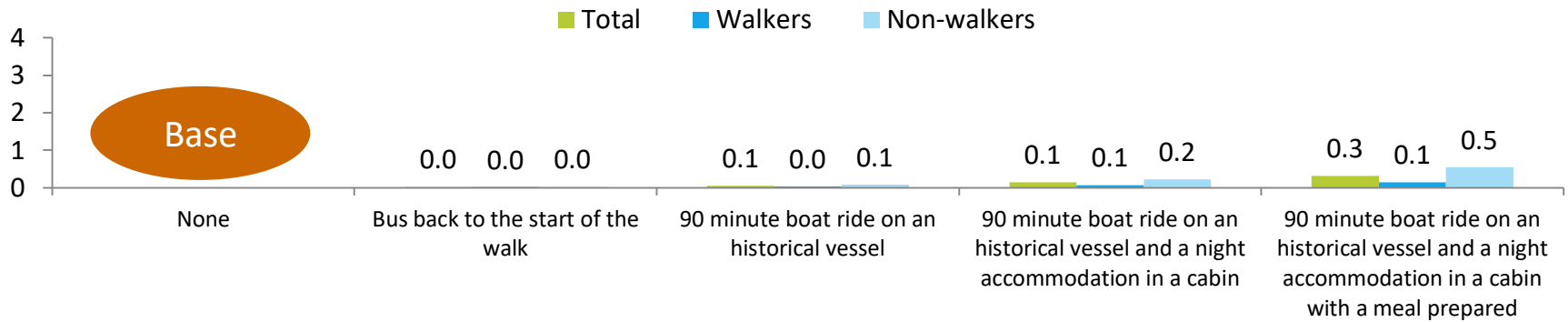
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How does the end of walk experience affect choice?

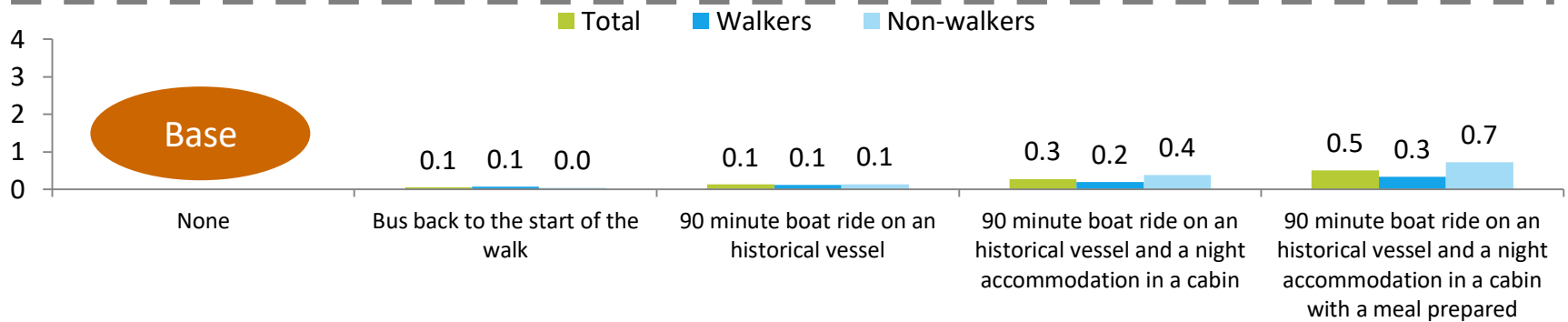


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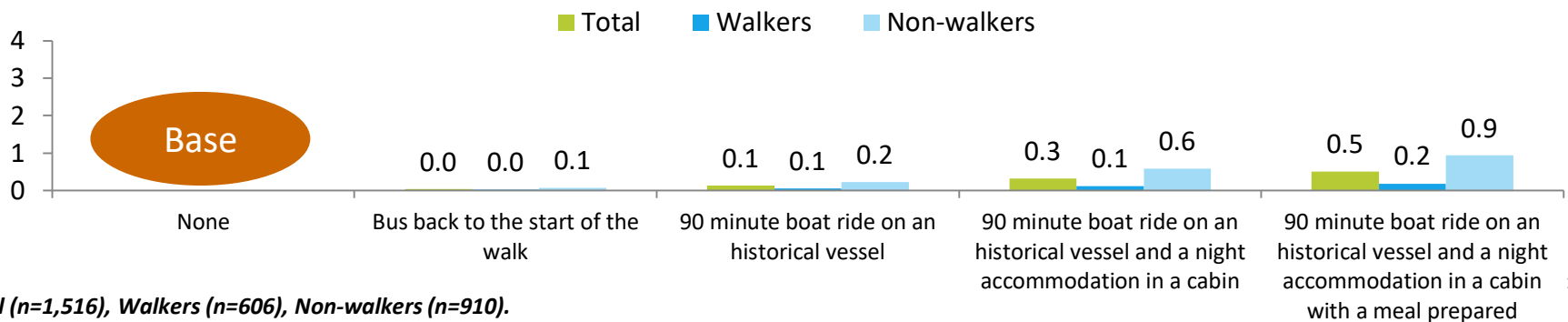
10 day walk



5 day rainforest walk

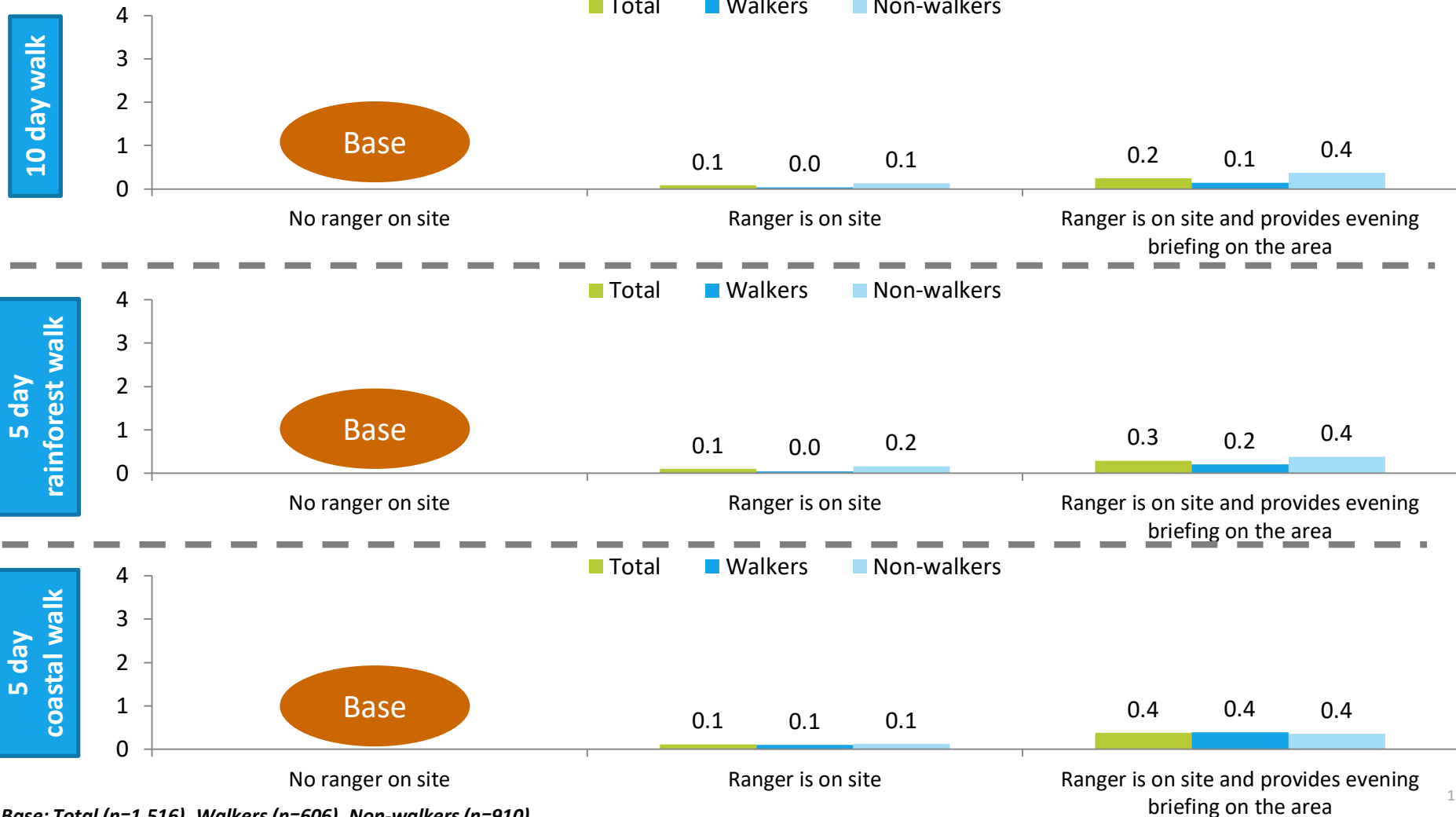


5 day coastal walk



Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).

How does having the campsite hosted affect choice?



Base: Total (n=1,516), Walkers (n=606), Non-walkers (n=910).



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December 2018

Bob Brown Foundation

Business Case for the Trans Tarkine Track (Preliminary draft 21 December 2018)

DRAFT

Notice to any reader of the attached report

This Report has been prepared by PricewaterhouseCoopers Indigenous Consulting Pty Limited (PIC) in our capacity as advisors to Bob Brown Foundation in accordance with our engagement letter dated 29 November 2018.

The information, statements, statistics, material and commentary (together the “Information”) used in this Report have been prepared by PIC from publicly available material, from information provided by Bob Brown Foundation and from discussions held with a range of Bob Brown Foundation stakeholders. PIC has relied upon the accuracy, currency and completeness of the Information provided to it by Bob Brown Foundation and the Bob Brown Foundation stakeholders and takes no responsibility for the accuracy, currency, reliability or correctness of the Information and acknowledges that changes in circumstances after the time of publication may impact on the accuracy of the Information. The Information may change without notice and PIC is not in any way liable for the accuracy of any information used or relied upon by a third party.

Furthermore PIC has not independently validated or verified the Information provided to it for the purpose of the Report and the content of this Report does not in any way constitute an audit or assurance of any of the Information contained herein.

PIC has provided this advice solely for the benefit of Bob Brown Foundation and disclaims all liability and responsibility (including arising from its negligence) to any other parties for any loss, damage, cost or expense incurred or arising out of any person using or relying upon the Information.

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Terminology

Terminology used in this document that may not be familiar to all readers, includes the following. It is important to note that no capital letters are used when writing in palawa kani. This approach has been adopted throughout this document, in respect of palawa community protocols and the palawa kani language.

BFF/Foundation	Bob Brown Foundation
<i>palawa</i>	an Aboriginal Tasmanian
<i>palawa kani</i>	the reconstructed, modern-day Tasmanian Aboriginal language
takayna	palawa name for the Tarkine
The Track	the abbreviated name used in this document to refer to the proposed tourist venture. The full name of the venture is the “Trans Tarkine Track”
PWS	Parks & Wildlife Services Tasmania



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6 Revenue and pricing	20
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8 Risk identification and mitigation strategies	34
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1 Scope of Work

1.1 Project purpose

The Bob Brown Foundation (BBF) has commissioned PwC's Indigenous Consulting (PIC) to develop a Business Case for the establishment of the Trans Tarkine Track (the Track). The approach to developing the evidence base for the Business Case will include:

- desktop research
- consolidating and testing the significant previous work that has been undertaken
- consultations with key stakeholders (to be undertaken in January 2019)

The intention is that the business case that PIC will develop will provide funders with evidence and insights in order to make informed decisions about contributing grant funding to its establishment. We understand that BBF intends to use the Business Case as a supporting resource when approaching funding bodies to secure funding.

1.2 About this Preliminary Draft

This Preliminary Draft of the Business Case for the Track is:

- intended to provide a mid project check to enable BBF to validate the overall method and approach (including construction of the cost model and core assumptions)
- based on desktop analysis and review.

Detailed consultations with key stakeholders are yet to occur and are anticipated to take place in January 2019. Cost estimates, revenue projections and any breakeven analyses contained in this Preliminary Draft are subject to change and updating following these consultations. **Any estimates, numbers and assumptions contained within this report are subject to change as a result of the consultations and should not be relied upon by any reader of this report.**

PIC has drawn on previous work commissioned by BBF in developing this Preliminary Draft. This includes:

- Hawes Report, commission May 2016: This report outlined the proposed construction of the Trans-Tarkine Track including considering the track route, construction materials and an estimated cost for building the track.

A final Business Case is scheduled to be provided to BBF on 15th February 2019.

2 Overview of the Trans Tarkine Track

The Track is a proposition to establish an Aboriginal tourism experience of significant scale that has the potential to realise significant benefits for both the palawa community and non-Indigenous Tasmanians and Australians.

The Track is intended to be a high quality, minimal impact, multi-day bushwalking experience in takayna / Tarkine, allowing visitors to experience Tasmanian Aboriginal culture and the natural values of a flexible itinerary which comprises a ten-days guided and self guided walks, which can be undertaken in two shorter five days guided and self-guided walks.

Guests will be immersed in a series of authentic experiences that will deepen their understanding of Tarkine region, palawa culture, community and history. This will be achieved through a unique palawa interpretation of the magnificent natural landscape of the Tarkine region, and its historic and ongoing significance to palawa people.

The Track is intended to be sustainable on a long-term basis and to provide palawa people with opportunities for economic development and cultural expression. A high level overview of the Track's strategic directions (purpose, vision and values) is outlined in Table 1.

Table 1 Trans Tarkine Track – strategic direction

Overview of Strategic Direction	
Purpose	To establish a sustainable, high quality eco-tourism venture which provides palawa people with opportunities to utilise their traditional landscape for cultural expression and economic development.
Vision	<i>The Track will immerse visitors in the places, practices, people and traditions of the world's oldest surviving culture. Through sharing these previously untold stories, we will increase respect and understanding of palawa culture and community.</i> <i>The Track will incorporate authentic an Aboriginal tourism experience. - enhancing the overall Tasmanian tourism offering and setting the path for future economic development opportunities for the palawa community.</i>
Values	<ul style="list-style-type: none"> • Self Determination • Sustainability • Customer Focus • Cultural Authenticity • Eco-Tourism • Model of Success • Respect • Sharing Knowledge

This Business Case assumes that the Parks and Wildlife Services Tasmania (PWS) will retain a key role in the administration, management and maintenance of the Track and that this may be complemented by a commercial operator to conduct guided supported walks on the Track.

2.1 Itinerary

Table 2 summarises the draft itinerary for the Track outlined in the Hawes Report noting that this summarised the overall 10 day track¹. In addition to this 10 day Track this business case also models options for the Track to be undertaken in two separate 5 day walks.

¹ Hawes, M. (2016)

Table 2 Trans Tarkine Track Itinerary (10 day track) – From Hawes, M (2016)

DAY	LOCATION	OVERVIEW
Day 1	Keith River Road to Eastons Falls (10 km)	This would be the shortest day of the first half of the walk, offering a fairly gentle start to the trip and allowing time for travel to the trailhead from population centres such as Burnie or Smithton. The day’s walk would be mostly on former vehicle tracks and would involve crossing the Arthur and Lyons Rivers, sidling/ascending Frog Hill, crossing Eastons Creek, climbing to the plateau south of Hoof Hill (a substantial climb) and descending again to Eastons Creek. The walk’s main recreational attractions will be mixed forests, riverine environments and Eastons Falls. The proposed campsite is adjacent to Eastons Creek and close to the falls and a swimming hole.
Day 2	Eastons Falls to Rapid River (14 km)	The day’s walk will start with a traverse up the Eastons Creek valley and a gradual climb to Tarkine Falls on the upper reaches of the creek. A short side-track will provide access to the falls. Walkers will then traverse ‘Lookout Hill’, cross the Pipeline Road and traverse the forested plateau west of the road before descending to the Rapid River. Although the day’s walk is moderately long it does not involve any significant climbing apart from the fairly gradual 100m ascent of ‘Lookout Hill’. The day’s 96 attractions will include Tarkine Falls, extensive views from ‘Lookout Hill’, and spectacular tall forests particularly on the approach and descent to the Rapid River. The campsite will be on an elevated (i.e. not flood-prone) area close to the river.
Day 3	Rapid River to upper Donaldson River (15 km)	This will be one of the most challenging days of the 10-day walk, involving a 200m climb of Mt Bertha and an extended traverse of moderately high (maximum 700m) exposed country. After climbing out of the Rapid River valley walkers will traverse spectacular tall forest to the scenic buttongrass plain northeast of Mt Bertha, then climb the range via the ridge north of the peak before traversing the summit and gradually descending the 4 km ‘tail’ to its south. The proposed campsite will be close to the point where the track crosses the upper Donaldson. An emergency campsite (cleared but with no infrastructure) should be established near the base of the northern ascent of Mt Bertha, to allow walkers to wait out bad weather before attempting the traverse.
Day 4	Upper Donaldson River to plateau northeast of Pyramid Hill (13 km)	The day’s walk will traverse the west side of the middle Donaldson valley before climbing and then traversing (southwards) the plateau northeast of Pyramid Hill. The walk will be almost entirely in tall myrtle forests, including spectacular stands of open forest on the ascent and traverse of the plateau. The track will also access at least one scenic point on the Donaldson River. The proposed campsite will be in open rainforest above a creek at the southern end of the plateau northeast of

Pyramid Hill. The day's walk will be moderately long but will involve little climbing overall.

Day 5 Plateau northeast of Pyramid Hill to Mt Bolton (11 km)

This walk will be fairly short in terms of kilometres but will involve two moderate climbs, namely the 200m ascent of Pyramid Hill and the (gradual) 140m ascent of Mt Bolton from the east. Both high 97 traverses will offer extensive views in good weather. The proposed campsite location is in a small valley just north of Mt Bolton, which is moderately sheltered but within 10 minutes' walk of the summit (offering potential evening and early morning views). As many walkers will terminate or break their walk at the Western Explorer Road, the Mt Bolton campsite can be smaller than others on the walk. An emergency campsite should be established on the heathland shelf at the eastern end of the Mt Bolton traverse, to accommodate walkers who choose to delay the traverse in severe weather.

Day 6 Mt Bolton to upper Lagoon River (10 km)

This will be a fairly short and easy walk across open, gently undulating country flanked by the massifs of Mt Edith, Mt Holloway and the Norfolk Range. The campsite will be close to the foot of the Norfolk Range near the upper Lagoon River (above flood level). In the event of adverse weather parties can wait at this campsite before attempting the traverse of Mt Norfolk.

Day 7 Upper Lagoon River to upper Skull Creek (10 km)

Walkers today will cross the Norfolk Range, which will involve a fairly steep 400m climb and a traverse of exposed country particularly on the western descent. The track will pass close to the summit of Mt Norfolk, with a short side-track offering the option of climbing the peak. Open sections of the traverse will offer dramatic views including extensive albeit distant views of the coast.

The campsite will be in a sheltered location close to upper Skull Creek. This is approximately 5 km from the base of the range, allowing walkers to cover a significant proportion of the walk to the coast before they camp (hence sparing them from nearly a full day crossing the relatively featureless coastal plain). A sidetrack near the campsite will access viewpoints overlooking the Italian Creek gorge.

Day 8 Upper Skull Creek to Lagoon River (12 km)

Walkers will spend the morning continuing to the coast, which will become increasingly visible in the last few kilometres. By early afternoon they will cross lower Italian Creek and emerge onto the dunes country south of the creek. After traversing beaches and low dunes for two kilometres they will rejoin the formed walking track and follow it for a further 1.5 km to the campsite.

The proposed campsite is on the upper part of a large grassy area situated approximately 400m northwest of Camp Creek, from which drinkable water is normally available. The grassy area does not command views but is close to vantage points overlooking the coast, and it

may be expedient to construct short sidetracks to these vantage points. The lower part of the grassy area floods in winter, but there is ample room on the upper part for 20 camping platforms.

**Day 9 Lagoon River to Interview River
(10 km)**

The day's walk will consist entirely of beach walking. The main attractions of the walk will be the vast beaches and dune systems that dominate this section of the coastline, and the lagoon mouths of Lagoon River, Chimney Creek and the Interview River. As noted in 4.8.2, bridges (or boats in the case of Lagoon River) will be provided over major creeks and rivers to allow passage in all but the most extreme conditions. Around the halfway mark walkers will be able to replenish their drinking water supplies at Chimney Creek.

**Day 10 Interview River to Pieman Head
(11 km)**

This section of the walk traverses the rocky slopes between the Interview River and Pieman Head, with frequent views of small bays and rocky headlands. The walk will terminate at Hardwicke Point near Pieman Head, where walkers will be picked up by ferry and taken to Corinna. Highlights of the day will include Rupert Point (see cover photo) and the ferry trip (see Photo 6.2.10). A campsite will be provided somewhere in the vicinity of Pieman Head, probably near the coast.

3 High level benefits

The Track will allow walkers to experience the significant natural wonder and cultural values of the diverse Tarkine region, particularly the rainforests, mountains and coastline as well as the extensive Aboriginal heritage throughout the Tarkine. The Track has the potential to provide a significant positive impact across a number of areas including:

- celebrating the cultural significance of the region
- benefits to the Tasmanian economy and tourism industry
- benefits to the local Tasmanian and palawa communities.

A high level overview of these benefits is explored in this section.

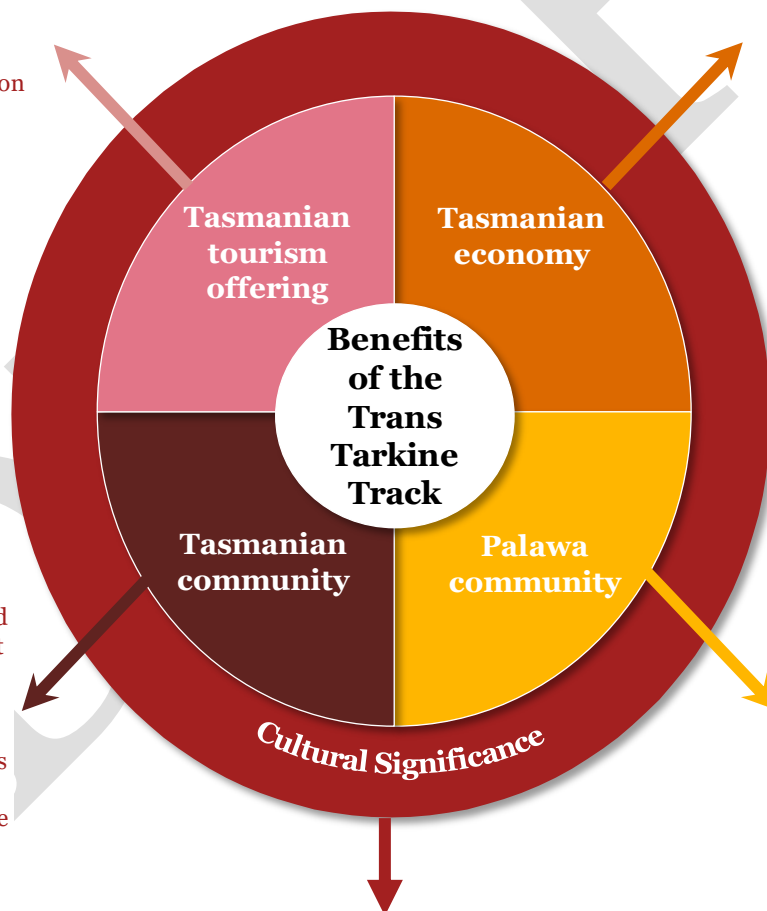
Figure 1: High level overview of the benefits of the Track

The Track will add to the collective value of the increasing Tasmanian Tourism sector, strengthening its position against competing domestic and international tourism destinations

Contributing to the economy by increasing employment across the North West Tasmanian community and through direct revenue

An opportunity for greater pride in Tasmania's palawa culture and history, and for greater engagement with the palawa community. The Track may also provide economic opportunities for individuals, particularly those in the North West

Improved outcomes in terms of employment and economic development for palawa community members



The cultural significance of the Tarkine region is both a unique selling point to customers and a key driver for establishing the Track.

3.1 Significance of the Tarkine

The Australian Heritage Council has described the Tarkine as a ‘dramatic, powerful and awe-inspiring landscape’. These qualities arise from its scale, vast wilderness and cultural significance² and as a result the Australian Heritage Council has found the Tarkine is an area of outstanding national heritage significance.

The Tarkine contains highly significant rainforest wilderness areas and has many rare and unusual species not found anywhere else in Australia.³ The Tarkine also has ‘one of the most important tertiary fossil flora sites in Australia’ these fossils are often used as evidence of the evolution of Australian flora.⁴

The Tarkine coast also has ‘the greatest number, diversity and density of Aboriginal hut depressions in Australia’.⁵ The number of specialised coastal sites that include Aboriginal hut depressions, stone artefact quarries, and large, complex shell middens are evidence of an Aboriginal economic adaption along the North West coast of Tasmania. These rich and diverse cultural heritage values are extremely important to the Tasmanian Aboriginal community.

3.2 Benefits to Tasmanian tourism industry and economy

The tourism sector is an extremely competitive industry. Tasmania as a destination is competing with each of the Australian states and territories and other relatively accessible international tourism destinations. Any quality new tourism product will support the overall tourism offering of the State, by providing an increase in both visitor numbers and the number of overnight stays. This impact is mostly captured through economic benefits, although will also add value to the sustainability of the Tasmanian tourism industry. The Track will diversify the Tasmanian tourism offering and will also provide an incentive for ‘trekking tourists’ to return to Tasmania resulting in an increase of repeat visitors to Tasmania.

The contribution of tourism to the Tasmanian economy is increasing. The Tasmanian Visitor Survey (TVS) shows that during the 2017-18 financial year

- there were 1.3 million visitors (a 2% increase from 2016-17)
- a 3.2% increase in visitors on holiday compared to the previous year
- those on holiday stayed for an average of 9.2 nights (representing a 11% increase from 2016-17)

Tourism expenditure reached \$2.3 billion in the year ending December 2017, this represents a 8% increase with holiday expenditure up 8% from the previous year.⁶

The tourism industry in North West Tasmania is growing and according to the most recent publicly available figures, the tourism value-add in North West Tasmania is \$176.1 million (4.1%) in 2011-12 which represented a 4.1% increase on the previous financial year.⁷

In October 2018 Tasmania’s estimated unemployment rate was 5.6%, which is above the national rate of 5.1%.⁸ However, the tourism industry is fast becoming a significant employer in Tasmania’s North West where it

² Australian Heritage Council, Final Assessment Report: The Tarkine.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ Tasmanian Tourism Snapshot (2018).

⁷ Economic Impact Analysis of Tourism, updated REMPLAN Summary for North West (July 2013)

⁸ Tasmanian Government, Department of Treasury and Finance (2018), Labour Force (ABS Cat No 6202.0).

High level benefits

employed 2,714 people in 2011-12 which is approximately 7% out of the total 37,277 jobs in the area.⁹ The Track has to the potential to contribute to the North West's growing tourism sector by contributing:

- 15 full time equivalent positions (comprised of three full-time management/administration positions and 4 ranger positions with PWS and 4 management/administration positions and 4 part time guide positions with a commercial operator¹⁰)
- indirect employment - the Track will contract out a number of elements to suppliers including catering, cleaning and maintenance.

3.3 Benefit to the palawa community and North-West Tasmania

Tasmania's Aboriginal history has previously been told largely through a European perspective. A perspective that equated civilisations with buildings, writing, animal husbandry, fencing and metals – a perspective that initially concluded that Tasmania was terra nullius (an 'empty land'), categorised palawa people with flora and fauna, and saw palawa people as a problem that needed to be solved. It is a perspective that did not comprehend a culture based on skilled land management techniques, sophisticated social systems, and a rich artistic and ceremonial life.

The Track will provide an opportunity to walk with palawa guides in the footsteps of their traditional people on the culturally significant landscape of the Tarkine. It will provide an opportunity to hear first-hand palawa creation stories and to participate in cultural practices that have been passed down for hundreds of generations. An opportunity to understand and unlock the cultural background of Tasmania's original custodians and for authentic engagement with palawa people. Furthermore, the Tarkine is also of great significance to the palawa community, as a way to promote greater understanding and respect of the ongoing presence and important value of palawa culture and people. The Track has the potential to be a 'journey of learning' for domestic, interstate and international tourists and therefore a chance to move towards true reconciliation with Aboriginal Australia.

A clear benefit to the palawa community, and an important driver for the establishment of the Track, will be an increased respect and understanding of palawa culture and community. In addition to this cultural significance, the Track provides an interface for the Aboriginal community to obtain improved outcomes in terms of employment and economic development.

In addition to the benefits outlined above to the overall Tasmanian economy and tourism industry the Track may also provide benefits to the broader Tasmanian community. These benefits will be realised differently by individuals depending on their engagement with the Track, but may include:

- Greater pride in palawa culture and history – the establishment of a unique and significant walking track will attract attention across Tasmania. It will provide Tasmanians with opportunities to express their support for acknowledging and celebrating palawa people and culture.
- Increased opportunities to engage with palawa people – both for Tasmanians who participate in the Track and also for stakeholders who will be regularly engaging with its palawa staff.
- Economic benefits, particularly to North West Tasmania - the Track will provide both direct and indirect economic benefits to employees and stakeholders. The majority of these economic benefits will be realised to individuals in North West Tasmania, an area acknowledged by the Tasmanian Government to be in particular need of economic stimulation.

⁹ As above no.6

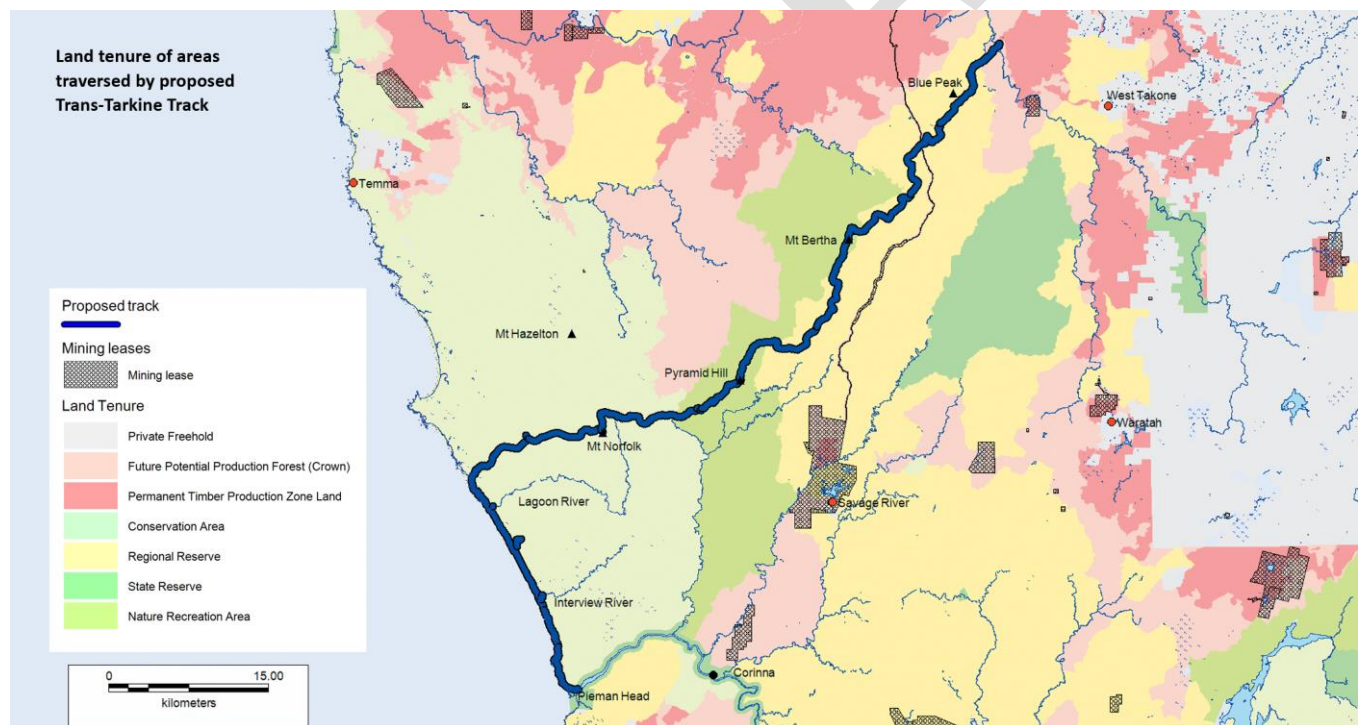
¹⁰ Employment costs have been outlined in section 7.1.2 and 7.2.1 below

4 Preliminary estimates on structure and staffing

Any estimates, numbers and assumptions contained within this report are subject to change as a result of the consultations and should not be relied upon by any reader of this report.

The following section will outline a proposed operating structure and governance for the Trans Tarkine Track. The structure of the Trans Tarkine Track is informed by the various tenures that exist over the land that the proposed track will traverse. As outlined in Figure 1 below, the Tarkine region includes land operated under private mining leases, Crown land and various reserves which are managed by PWS. The land surrounding the proposed track route is, in the main, currently managed by PWS (Conservation areas, Regional reserves, State reserves and Nature Recreation Areas as marked on Figure 1).

Figure 1: Land tenure of areas traversed by proposed Trans-Tarkine Track



The establishment of the Track provides an opportunity for the Tarkine region to be declared a World Heritage Area and afforded National Park status, with the intention to provide an opportunity for an Aboriginal organisation to operate the Track. If this is to occur, the proposed model includes PWS maintaining responsibility for various sections of the land surrounding the track, as well as additional areas that were previously tenured as Crown land or through mining leases. Designation as a National Park would allow the area to be dual named and managed by PWS appointed Aboriginal Rangers. In this case PWS would maintain responsibility for the land as managed by Aboriginal Rangers which is unlikely to significantly impact on the operating structure of the Track.¹¹

¹¹ Under the current *Nature Conservation Act 2002* and *National Parks and Reserves Management Act 2002*, there is no recognition of Aboriginal title over national Park lands or ability for the lands to be delegated to an Aboriginal management authority. It is therefore reasonable to assume that the PWS would maintain responsibility for the track until such time as there is an amendment to Legislation.

4.1 Proposed operating structure for the track

Following construction of the track we assume that PWS will operate the track as follows:

- PWS will maintain responsibility for managing the land (either the current Conservation areas, Regional reserves, State reserves and Nature Recreation Areas as marked on Figure 1 or as a National park)
- PWS will undertake track maintenance and maintain all track facilities including campsites, toilets and trailhead infrastructure. This could be undertaken by Aboriginal Rangers who are specifically appointed by the PWS to manage the Tarkine, or by any park rangers employed by PWS.
- PWS will employ park rangers who will patrol the trail and manage the booking of walking permits and National Parks Passes.
- PWS will manage track capacity including the booking of departure slots and sales to independent walkers. PWS will offer a 'first five days' walk, a 'second five days' walk and a full ten day walk. We assume that this would be administered in the same way as the Overland Track through an online booking system.¹²
- Commercial Visitor Services (CVS) Tasmania will licence the use of the track to commercial operator(s) (e.g. palawa Enterprises, Tasmanian Aboriginal Corporation or others) who will be able to book group walks and departures on the track (up to a maximum limit which will preserve capacity for independent walkers).
- PWS will contract a ferry operator to provide a ferry service each day from Pieman Head at the conclusion of the ten day track, for months of the year that the track is open. PWS will pay for the ferry and will charge a ferry fee to walkers who undertake the second half of the track (either during a 10 day walk or undertaking the second 5 day walk).

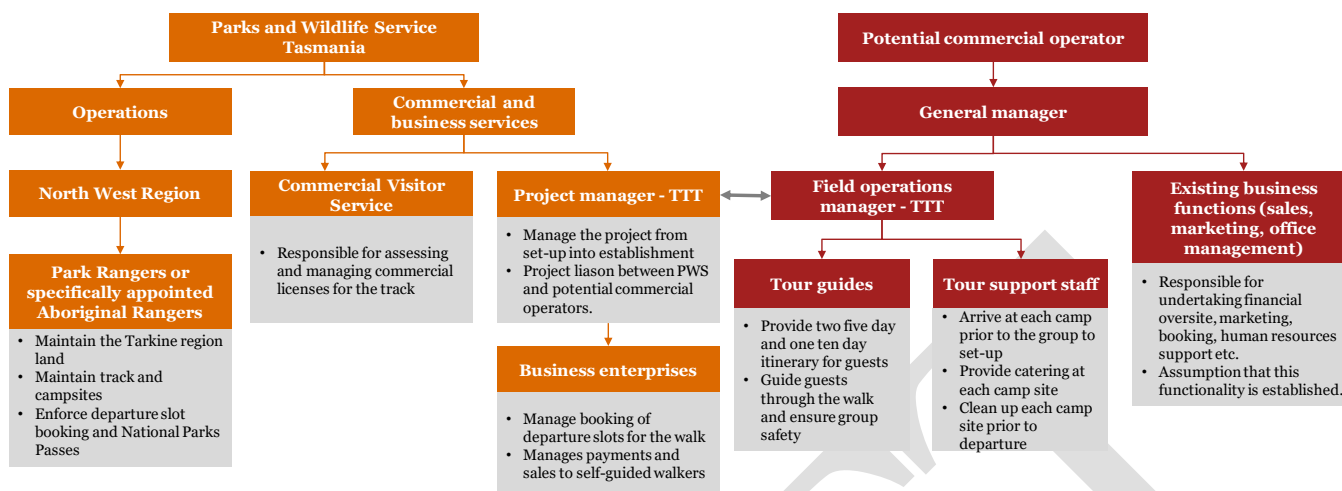
The construction of the track will enable the potential establishment of commercial tourism walks along the track. A high level outline of the potential operating structure of the track is outlined in Figure 2 below. The figure shows the proposed separation of responsibility between PWS and a potential commercial operator.

A key assumption is that PWS will maintain responsibility for maintaining the track and campsites as well as facilitating the booking of departure slots for individual walkers and the capacity which is assigned to commercial operators. Commercial operators will have responsibility for booking departure slots for their guests with the PWS and facilitating booking and payments for their walk.

As the success of the Track is dependent on the success of both the establishment of the Track and the commercial operation which is expected to drive demand for the Track, it is expected that the Project manager from PWS and the Field operations manager from a potential commercial operator would collaborate in establishing the two ventures concurrently.

¹² The Overland Track online booking system is accessed at: <https://www.parks.tas.gov.au/index.aspx?base=27902>

Figure 2: Potential operating structure of the track



4.2 Exploration of a potential commercial operating structure for the track

Whilst we have suggested a high level operating structure for the commercial operation in Figure 2, a number of potential operating models exist for tourism walks in Tasmania with a range of services provided. These are summarised in four options in Table 3 below (a market analysis is outlined in Section 5 of this report which provides further detail on comparable options which exist in the market). In addition, it may be possible for a number of tourism operators to offer walks along the track concurrently, providing options with different levels of service and price points.

Table 3: A selection of commercial operating models for bushwalking in Tasmania

	Independent walking	Equipment hire/rental	Hosted camping	Fully guided walk
Access to the track and camp facilities	✓	✓	✓	✓
Transport to the start and from the end of trail to Launceston		✓	✓	✓
Equipment rental (pack, tent, clothing, cooking, etc.)		✓		✓
Hosted camp sites including cooking and electricity facilities			✓	✓
Printed guidance (meal planning, navigation)		✓	✓	
Basic meals provided				✓

	Independent walking	Equipment hire/rental	Hosted camping	Fully guided walk
Guide walks with small group				✓

PIC will undertake consultation with a range of relevant stakeholders, and potential commercial operators of walks along the Track. These will include the Aboriginal Land Council of Tasmania and their associated tourism venture, palawa Enterprises, who The Foundation reports have indicated an interest in establishing a ‘sister’ walk to their fully guided wukalina Walk which operates in the Bay of Fires area in North Eastern Tasmania.

Whilst the exact model of operation for a commercial, tourism walk will require further exploration and planning from the proposed provider, we have made assumptions about the proposed model as detailed below. These assumptions enable a high level assessment of the commercial viability of this proposal but should not be relied upon by a commercial operator, who should undertake their own business assessment.

- The commercial operator will operate over the length of the track offering a ‘first five days’ walk, a ‘second five days’ walk and a full ten day walk. All three walks will operate in the same manner with the same inclusions.
- The walk is a full service offering that includes:
 - the provider arranges transport at the start and end of the walk (including bus transport and/or ferry transport if concluding the walk at Pieman Head)
 - a minimum of two guides walk with guests each day
 - each campsite is pre-set-up and hosted by the provider with accommodation provided in personal tents
 - the provider cooks basic meals for breakfast and dinner at each campsite, and provides packed lunches and snacks for guests throughout their walk
 - beverages including alcohol are provided at each campsite
 - equipment is provided including: backpacks, water bottle, Gore-tex jacket and gaiters for each guest as required
 - guests carry a day pack of their personal belongings and equipment only (no food, camping or cooking equipment)
 - an Elder or Aboriginal community member attends one day/night of the walk providing a cultural experience for guests (the exact nature of the cultural experience may be determined by the provider).
- Any potential construction of lodges, pavilions or eco-huts is excluded from this business case but may be possible at a later stage subject to negotiation with PWS and the availability of funding.¹³ Modelling contained within this report assumes that no permanent accommodation options will be available along the track.
- We have assumed that any potential operator of the Track would be an established tourism operator in Tasmania.

¹³ We note that the Foundation has been approached regarding a proposal to develop a communal pavilion and bunk house at night five of the proposed full ten day walk.

5 Preliminary market analysis

Any estimates, numbers and assumptions contained within this report are subject to change as a result of the consultations and should not be relied upon by any reader of this report.

5.1 Tasmanian Tourism – demand and target market overview

The Tasmanian tourism industry is strong and continually growing. According to the Tasmanian Visitor Survey (TVS) during the 2017-18 financial year:

- Tasmania had 1,083,950 interstate visitors (an increase of 2% compared to the previous year);
- 50% of visitors to Tasmania cited holiday as their primary reason for travel;¹⁴
- visitors spent a total of 10.9 million combined nights in Tasmania, of which:
 - 54% of the total (5,942,247 nights) were on holidays
 - there was an 11% increase in holiday nights from the previous year
 - for those on holiday the average length of stay was 9.2 nights
- visitor expenditure reached \$2.4 billion (an increase of 6% compared to the previous year):
 - the average spend for those visitors on holiday was \$2,560 per person.

The TVS also reports the activities that visitors participated in during their stay, with 705,721 visitors participating in bushwalks and 57,695 experiencing Tasmanian Aboriginal culture. The interest in Tasmanian Aboriginal cultural experiences has been steadily increasing. The number of visitors that participated in a Tasmanian Aboriginal cultural experience in 2017-18 increased 16.8% from the previous year.

5.2 Competitor analysis

A high level analysis was undertaken of a number of guided and self-guided walks currently operating in Tasmania. This section explores many of the great walks of Tasmania, including walks currently operating in the Tarkine region as well as the wukalina Walk, which is owned and operated by palawa Enterprises and offers a unique cultural experience with palawa guides.

This is followed by a brief analysis of longer self-guided walks across Australia that align with the Track's proposed 10 day walk.

A closer analysis is provided of the most comparable walks to the proposed commercial offering along the Track, which considers elements such as accommodation, catering, activities, transport, cost, operating times, and customer to guide ratio. This analysis explores the offerings of the four Great Walks of Tasmania.

[The final draft business case will include further exploration of current walks in the Tarkine who are in direct competition with this walk]

¹⁴ The other reasons cited for travelling to Tasmania were: 26% visiting family and friends; 19% business and 5% other.

5.3 High level overview of Tasmanian walks

The table below provides a high level overview of a selection of walks across Tasmania. The walks outlined in the table are run by a number of commercial operators (9 different operators) and include established walks in the Tarkine region. The average length of the walks presented is 47.3km over 4.7 days - this aligns with the proposed option to split the Track into two 5 day offerings as well as the full 10 day walk.

The majority of Tasmanian walks operated by commercial operators are guided walks. Inclusions in these walks vary. The average price per person is \$2,375 equating to an average cost of \$505 per person for each day of the walk. The guided summarised in Table 4 offer a range of:

- accommodation, from camping in tents to luxury cabins
- food, from basic meals and snacks to a selection of local Tasmanian produce and wines prepared by local chefs
- activities, from basic guides to cultural activities led by palawa guides and Elders
- equipment, from carrying all required equipment to pack free walks.

The self-guided options similarly vary in what is provided. The average price for the self-guided walks below are \$695 per person, over an average of 5.3 days, and range from being free, purchasing a National Parks Pass for \$30 through PWS and up to \$1,390 per person.

Table 4: Summary of a selection of comparable guided walks in Tasmania

Name	Location	Length	Time	Cost ¹⁵	Guided/ Self-guided	Operator
Bay of Fires Lodge Walk	NE Tasmania, Mt William National Park	27 km	4 days	\$2395 - \$2695	Guided	Tasmanian Walking Co
wukalina Cultural Walk – Bay of Fires	NE Tasmania, Mt William National Park	33 km	4 days	\$2,495	Guided	palawa Enterprises
Maria Island Walk	SE Tasmania, Maria Island	45 km	4 days	\$2,500 - \$2,750	Guided	The Maria Island Walk
Freycinet Experience Walk	NE Tasmania, Freycinet National Park	40 km	4 days	\$2,450 - \$2,600	Guided	Freycinet Experience
Walls of Jerusalem Experience	Central Tasmania	40 km	4 days	\$1,495	Guided	Tasmanian Expeditions
Tarkine Rainforest Walk	NW Tasmania, Tarkine rainforest	43 km	4 days	\$1,849	Guided	Tarkine Trails
Tarkine and the West	NW Tasmania, Tarkine rainforest	60km	6 days	\$2,395	Guided	Trek Tasmania

¹⁵ The cost is per person, including GST. The variance in cost on some walks is due to discounted rates during the shoulder seasons.

Preliminary market analysis

Name	Location	Length	Time	Cost ¹⁵	Guided/ Self-guided	Operator
Cradle Mountain Huts Walk	NW Tasmania, Cradle Mountain-Lake St Clair National Park	59 km	6 days	\$3,380 - \$3,995	Guided	Tasmanian Walking Co
Frenchmans Cap	SW Tasmania	46km	5 days	\$1,725	Guided	Wilderness expeditions
South Coast Track	Southern Tasmania, South Coast	80 km	9 days	\$2,595	Guided	Tasmanian Expeditions
Three Capes Track	SE Tasmania, Tasman National Park	48km	4 days	\$495	Self-guided	Tasmanian Parks and Wildlife Service
Overland Track	NW Tasmania, Cradle Mountain-Lake St Clair National Park	65km	6 days	\$1,390	Self-guided with inclusions	Tasmanian Expeditions
Overland Track	NW Tasmania, Cradle Mountain-Lake St Clair National Park	65km	6 days	\$200 from 1 October – 31 May otherwise free	Self-guided	Tasmanian Parks and Wildlife Service

5.4 High level overview of comparable walks outside of Tasmania

The table below provides a brief overview of longer walks across Australia with an average of 108km over 8.4 days. These walks are comparable to the proposed full 10 day walk along the Trans-Tarkine Track. The walks below are mostly self-guided walks provided by commercial operators with an average price of \$2,918 per person. While in most of the locations below you may be able to walk the same routes for free, the self-guided options presented are considered 'all inclusive' and may include:

- detailed trip notes
- accommodation each night (luxury campsites, private rooms)
- prepared meals (breakfast, lunch, dinner and snacks)
- camping and hiking equipment
- all national park fees and permits
- transport at the beginning and end of each walk.

Table 5 Summary of a selection of comparable walks outside of Tasmania

Name	Location	Length	Time	Cost ¹⁶	Guided/ Self-guided	Operator
Cape to Cape	Cape Leeuwin and Cape Naturaliste	101.5km	9/10 days	\$2,695 - \$2,855	Self-guided	AusWalk
Flinders Ranges	Heysen Trail	107.5km	8 days	\$2,795 - \$2,895	Self-guided	AusWalk
Great South west walk	Victoria Cobboboonee Forest Surry Fitzroy Rivers	132.2km	8 days	\$2,195 - \$2,295	Self-guided	AusWalk
Larapinta	Outback Australia NT	188km	9 days 12 days	\$1,390 - \$1,590	Self-guided	Australian walking holidays
Snowy Mountains and Mount Kosciuszko	Kosciuszko National Park	77km	7 days	\$2,355 - \$2,455	Self-guided	AusWalk
Blue Mountains	NSW	46.6km	7 days	\$1,395 - \$1,459	Self-guided	Lifes an Adventure
Seven Peaks Walk	Lord Howe Island.	45km	6 days	\$3,766	Guided	Pinetrees Lodge
Twelve Apostles Lodge Walk	Vic	55km	4 days	\$2,195 - \$2,285	Guided	Great walks of Australia

5.5 Snapshot of Comparable Walks

[The following section will provide further detail of the most similar walks to the proposed Tarkine Track and will be expanded on in the final draft business case]

This section provides a closer snapshot of comparable Tasmanian walks. The snapshot looks at key features including: accommodation, catering, transport, activities, cost, and cultural activities of the following Tasmanian walks:

- Tarkine Rainforest walk
- The Overland track (guided and self-guided)
- Tarkine and the west
- South Coast track





¹⁶ The cost is per person, including GST. The variance in cost on some walks is due to discounted rates during the shoulder seasons.

Preliminary market analysis




- wukalina Walk
- Three Capes track

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Table 6 Comparable Tasmanian Walks – summary [provided for indicative purposes]

Walk	Operator	Cost (per person)	Number of days	Fully Guided	Catering	Accommodation	Equipment provided	Transport provided to and from walk	Cultural Activities provided
Tarkine Rainforest Walk		\$1,849 - \$2,149	4 days	✓	All meals and snacks provided by guides (plant based environmental and ethical meals)	Exclusive rainforest camp	✓	✓	
The Overland Track		\$2,195	6 days	✓	All meals provided, food drops along the way including local Tasmania produce	Camping on designated platforms, tents provided	✓	✓	
Tarkine and the West		\$2,395	6 days	✓ 2 professional wilderness guides	All meals and snacks provided, no alcohol	Lodge/cabin style accommodation (twin share)	✓	✓	
South Coast Track		\$2,595	9 days	✓ 2 professional wilderness guides	All meals provided, food drops along the way including local Tasmanian produce	Tents and sleeping mats provided (twin share)	✓	✓	

Preliminary market analysis

Walk	Operator	Cost (per person)	Number of days	Fully Guided	Catering	Accommodation	Equipment provided	Transport provided to and from walk	Cultural Activities provided
wukalina walk	 palawa enterprises	\$2,495	4 days	✓ Up to 2 experienced guides	All meals and snacks, including complimentary Tasmanian wine	Purpose built sleeping huts, communal bathroom facilities, and renovated cottage (twin share)	✓	✓	palawa owned and operated, interactions with elders
Three Capes Track		\$495	4 days	Self-guided (guidebook provided, host ranger at accommodation to greet and answer questions)	Walkers are required to bring their own food and utensils	Comfortable sleeping cabins	✓ Cooking facilities provided	✓ Return bus trip	
Overland Track		\$1,390	6 days	Self-guided	Self-prepared meals all included	Tents at campsites	✓ All equipment and permits provided	✓ Transfers included	

6 Preliminary revenue and pricing

Any estimates, numbers and assumptions contained within this report are subject to change as a result of the consultations and should not be relied upon by any reader of this report.

6.1 Proposed pricing for the Trans-Tarkine Track

This section will explore a possible pricing structure for PWS and a potential commercial operator of the track. It is proposed that the pricing structure applied for self-guided walkers is also charged to a potential commercial operator on a per head basis for their guests.

The current PWS pricing structure for the Overland Track includes a National Park Pass and a track fee which secures a booking of a departure slot (day) and access to camping along the track. We have assumed that this structure is applied to the Trans-Tarkine Track.

National Park Passes can be purchased by visitors for \$30 per person for a holiday pass which may be utilised for up to 8 weeks.¹⁷ For the purposes of modelling in the report we have assumed that all guests of the track will need to purchase a Holiday Visitor National Park Pass.

The report by Hawes, M. (2016)¹⁸ outlined a potential pricing structure for the walk of \$25 per adult per day and \$10 per child per day. Based on a high level market analysis as outlined in Section 5.3 above, this pricing structure would be broadly comparable with other self-guided walks (without inclusions) that are on offer in Tasmania, with the Overland track priced at approximately \$33 per night and the South Coast Track only requiring the purchase of a National Parks Pass. Based on this interim assessment and including inflation from 2016 to 2018 a price of \$26.50 per adult per night seems reasonable and this assumption will be further tested through consultation with interested stakeholders and community in the next phase of work.

For the purposes of this business case we have assumed the following:

- the same per day price is charged for both the five day walks and the ten day walk
- the price is increased each year based on CPI of 1.90%
- 80% of walkers are adults
- all walkers who finish their walk at Pieman Head purchase a ferry ticket for an additional \$25 (indexed in year 2 and year 3)

6.1.1 Potential pricing structure for a commercial operator

Given the suggested operating structure for the walk outlined in section 4.2, we have assessed the potential commercial walk pricing against other full service walking options. A selection of comparable walks and prices are outlined in section 5.3 above with an average price per night of \$505 for a 4.7 day walk. Included in this average are a number of options which include luxury or permanent accommodation options, as the proposed model for this walk is accommodation in tents only, a conservative assumption is that the walk would be priced on the lower end of the per day spectrum at an average cost of \$400 per day for the five day walk and slightly less for the ten day walk (pricing estimates are subject to change following consultation).

¹⁷ Parks and Wildlife Service Tasmania, National Parks Passes, <https://www.parks.tas.gov.au/?base=914>, accessed 17/12/2018

¹⁸ Hawes, M. (2016)

We have assumed that the walk is priced as follows:

- The price for a five day walk (either the first or second half) is \$2,000 per person in year 1;
- The price for a ten day walk is \$3,600 per person in year 1 (this is 1.8 times the five day price, reflecting a small discount for completing the longer walk);
- The price of the walks will be indexed in line with CPI at a rate of 1.90% each year¹⁹; and
- The price is all inclusive of tariffs to PWS and the Ferry from Pieman Head (where applicable).

6.2 Projected track utilisation

The report undertaken by Hawes, M. (2016) suggested that the Trans-Tarkine Track has the potential to rank in one of the World's Great Wilderness Walks and as such is expected to have a high rate of utilisation across the nine months of the year that the track is open. However it is expected that the track may take some time to become well known and to gain market share in the Tasmanian market where a lot of competitor walks are already established.

The Hawes, M. (2016) report (pg. 9) included the following utilisation rates of comparable walks:

Table 7: utilisation of comparable overnight bush walking experiences

Walk	Location	Length (days)	Annual Usage
Overland track	Tasmania	5	8,000
South Coast Track	Tasmania	6	2,000
Three Capes	Tasmania	6	17,500 (max)
Grampians peaks Trail	Victoria	13	23,000 (proj)
Thorsborne Trail	Queensland	4	14,000
Milford Track	New Zealand	4	14,000
Routeburn Track	New Zealand	2-4	10,000

Based on these utilisation rates and the proposed capacity of the track being 30 walkers per day it is assumed that in time the Track could host the equivalent of 6,570 walkers annually. This rate corresponds to 80% utilisation of the track but may in fact represent more than 6,570 individuals as some walkers are likely to only complete the first or second half of the walk.

For the purposes of this business case we have made a conservative estimate that utilisation will ramp up over time, reaching 80% utilisation in year 3 of the projection.

Table 8: Utilisation rate assumptions

	Year 1	Year 2	Year 3
Track utilisation for five days walks (average)	30%	40%	50%

¹⁹ ABS, Sep 2018, <http://www.abs.gov.au/ausstats/abs@.nsf/0/938DA570A34A8EDACA2568A900139350?Opendocument>

Preliminary revenue and pricing

	Year 1	Year 2	Year 3
utilisation across both halves)			
Track utilisation for ten day walks	10%	20%	30%
Total track utilisation	40%	60%	80%

Based on these assumptions the following individual walker numbers are expected:²⁰

Table 9: total individual walkers

	Year 1	Year 2	Year 3
Independent walkers – 5 days	4,716	6,210	7,632
Independent walkers – 10 days	738	1,480	2,196
Total Independent walkers	5,589	7,977	10,368
Commercial – 5 days	90	189	360
Commercial – 10 days	45	98	180
Total commercial walkers (excluding guides)²¹	135	287	540
All walkers – 5 days	4,860	6,480	8,100
All walkers – 10 days	810	1,620	2,430
Total walkers (inc commercial)	5,670	8,100	10,530

6.2.1 Projected track utilisation by a commercial operator

The utilisation rates above are assumed to include a portion of capacity which will be booked by a commercial operator. Based on the proposed operating structure in section 4.2, a commercial operator would utilise capacity at the camp sites thereby reducing the capacity which would be available for self-guided walkers.

Utilisation for the commercial operation will be constrained by the availability of equipment, staff and vehicles. We have assumed that in the first two years the commercial operator would not offer concurrent trips (therefore all trips must conclude fully prior to another trip starting). In addition, group size is constrained by the operator's requirement to maintain compliance with Commercial Visitor Services Tasmania Guidelines²² which outline that there must be one guide per 5 guests, we have therefore assumed that the maximum group size is 10 guests with two guides and one support person who assists with camp set-up prior to arrival.

²⁰ Individual walkers refer to the count of people setting out on one of the three possible walks along the track. In terms of track utilisation, two walkers who set out on the first five day walk and the second five day walk respectively count as one full ten day walk completion.

²¹ Note: guides have been excluded from the number of individual walkers as these people are likely to walk the Track many times a year and so will not purchase a National Parks Pass each time. Guides have been included within daily utilisation calculations as they will utilise capacity at each campsite.

²² <https://www.parks.tas.gov.au/file.aspx?id=6444>

It is assumed that utilisation of a commercial operation would also take time to ramp up and therefore we have assumed a smaller number of trips on offer in year one and smaller average group sizes. The assumptions underpinning utilisation for a commercial operator are outlined below:

Table 10: Utilisation assumptions for a commercial operation

	Year 1	Year 2	Year 3
Number of 5 day trips	18	27	36
Number of 10 day trips	9	14	18
Average group size	5	7	10

Based on these assumptions the following guest numbers are expected:

Table 11: Guest numbers for commercial operation

	Year 1	Year 2	Year 3
Guests of 5 day trips	90	189	360
Guests of 10 day trips	45	98	180

6.3 Estimated revenue

Based on the assumptions outlined above regarding pricing and utilisation we estimate that the track will generate revenue for the PWS of approximately \$1 million in year 1 growing to approximately \$2.1 million in year 3 (estimate subject to change following consultation).

Table 12: Estimated annual revenue

Revenue source	Year 1 (\$)	Year 2 (\$)	Year 3 (\$)
Revenue from National Parks Pass	167,670	243,857	322,972
Revenue from independent walker sales	718,272	1,083,931	1,448,289
Revenue from ferry tickets	81,000	123,809	168,214
Revenue from Commercial walker sales (inc entry price for guides)	38,160	74,260	128,778
Total revenue	1,005,102	1,525,856	2,068,253

6.3.1 Potential revenue of a commercial operator

Based on the pricing and utilisation assumptions outlined above a commercial operator may be able to generate approximately \$250,000 in year one growing to approximately \$1 million in year 3 (estimate subject to change following consultation). This is based on a significant ramp up of operation including increasing both utilisation and the number of walks offered each year.

Table 13: Estimated annual revenue

Revenue source	Year 1 (\$)	Year 2 (\$)	Year 3 (\$)
Revenue from 5 day walks	180,000	385,182	747,620
Revenue from 10 day walks	162,000	359,503	672,858
Total revenue	342,000	744,685	1,420,478

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7 Preliminary cost and funding requirements

Any estimates, numbers and assumptions contained within this report are subject to change as a result of the consultations and should not be relied upon by any reader of this report.

7.1 Summary of the potential costs of the Trans Tarkine Track - PWS

An initial high level exploration of the establishment and operational costs of the Trans-Tarkine Track has been undertaken. At this stage of the business case it has not been possible to sense-check assumptions and cost estimates with key stakeholders such as the PWS and as such these estimates are **indicative only**. It is expected that, in the finalisation of the business case, assumptions and estimates will be refined through consultation which is likely to impact on the final costs, revenue and funding requirements that are estimated.

7.1.1 Preliminary establishment costs

It is expected that establishment costs for the The Track would be approximately \$21 million (estimate subject to change following consultation). These costs represent only those costs that are expected to be born and administered by PWS - the costs associated with a potential commercial operation are outlined in section 7.2. The costs included in the estimate of establishment costs to PWS are outlined in Table 14.

Table 14: Indicative establishment costs (to be refined following consultation)

Description	Total cost	Notes	Source
Track and campsite construction	\$20,692,452		Hawes, M. (2016), pg. 8
Assessment of wilderness loss/gains associated with track	\$26,400	A report will be prepared assessing the impact of building the track on the wilderness area.	Estimate provided by the Bob Brown Foundation
Undertake field trips/research and training	\$58,025	Estimate indexed from 2015 to 2018 \$ based on CPI. Refers to the cost to attend the Tarkine for development of the Track offering and to undertake training with rangers.	Estimated in line with similar business cases, estimate to be tested and refined through consultation.
Develop marketing plan	\$52,750		Estimated in line with similar business cases, estimate to be tested and refined through consultation.
Project manager salary (inc on costs)	\$114,783	Based on the mid-point of a salary band for a Policy and Project Officer of between \$89,714 and \$101,591, including additional on costs of 20%.	Department of Primary Industries, Parks, Water and Environment, Job Vacancies, accessed 17/12/2018.

Preliminary cost and funding requirements

Description	Total cost	Notes	Source
Set-up of booking and information webpages page	\$31,650		Estimated in line with similar business cases, estimate to be tested and refined through consultation.
Consumer research	\$0	Consumer research has been funded and undertaken by the Bob Brown Foundation.	Instinct and Reason, (April 2018), Demand for the Trans-Tarkine Track, Bob Brown Foundation.
Consultants (marketing, media, business)	\$52,750		Estimated in line with similar business cases, estimate to be tested and refined through consultation.
Training and development for rangers	\$43,150		Estimated in line with similar business cases, estimate to be tested and refined through consultation.
TOTAL	\$21,071,959	All estimates are in 2018 \$.	

The following costs have not been included in the estimate above but will be considered in a revised version of this business case that is informed through consultation with stakeholders.

Table 15: Costs that have not been considered at this stage

Description	Notes
Creation, build and installation of signage to mark significant sites	Signage could be installed along the track to assist self-guided walkers to understand the ecological and heritage value of the sites and areas that they are walking through. No estimate for the cost of creating and building these signs has been included in the estimates at this stage.
Clearing of vegetation at campsites	Hawes, M (2016) identified that some clearing of vegetation may be required in order to construct camp site locations however the cost of this clearing was excluded from the report.
Road upgrades and car parking	Hawes, M (2016) identified that greater traffic flows to the area from walkers and rangers/guides may necessitate upgrades of roads and car parks however the cost of these potential upgrades were excluded from the report.
Jetty at Pieman Head	Hawes, M (2016) identified that it would be desirable to build a jetty at Pieman head on the north bank of the river to facilitate pick up of walkers from this side. The alternative is to use a dinghy to pick up walkers and take them to the ferry however this may not be feasible in bad weather. The cost of building a jetty was excluded from the report.

7.1.2 Preliminary annual operating costs

In addition to establishing the Track it is expected that PWS would incur additional costs to operate the walk each year. These costs include additional resources for rangers to maintain the track, check walkers in and out, enforce departure bookings and for PWS to administer bookings for the track through their online system. Annual operating costs are expected to grow over time as utilisation of the track increases and through natural price growth in line with the wage price and consumer prices indexes.

Preliminary cost and funding requirements

Indexation has been applied to all costs in Table 14 and Table 16 as follows:

- Consumer Price Index growth of 1.90% is applied to all goods and services²³
- Wage Price Index growth of 2.20% is applied to all salaries and wages²⁴

The high level annual costs that are expected in operating the Track are outlined in Table 16. A full outline of assumptions underpinning the model is outlined in o.

Table 16: Preliminary annual costs of operation for PWS (to be refined following consultation)

Description	Year 1	Year 2	Year 3	Notes	Source
Track and campsite maintenance	\$991,018	\$1,009,847	\$1,029,034	Estimate based on 5% of track build costs.	Hawes, M. (2016) pg 9
Project manager salary (inc on costs)	\$117,308	\$119,889	\$122,527	Based on the mid-point of a salary band for a Policy and Project Officer of between \$89,714 and \$101,591, including additional on costs of 20%.	Department of Primary Industries, Parks, Water and Environment, Job Vacancies, accessed 17/12/2018.
Field operations salary (inc on costs)	\$72,162	\$73,750	\$75,372		Estimated in line with similar business cases, estimate to be tested and refined through consultation.
Sales coordinator salary (inc on costs)	\$65,389	\$66,827	\$68,298		Estimated in line with similar business cases, estimate to be tested and refined through consultation.
Additional administration and overheads	\$125,658	\$190,687	\$258,405	Assumption that overheads are 13% of revenue generated. This covers the cost of administering the booking system, payment services and PWS overheads.	Assumption to be refined following consultation
Ongoing training for rangers (first aid, professional development etc)	\$22,000	\$22,418	\$22,844	Based on an assumption that the walk employs 4 FTE rangers. A training budget of \$5,500 per FTE is applied in year 1 and indexed based on CPI in subsequent years.	Estimated in line with similar business cases, estimate to be tested and refined through consultation.
Lead ranger salary (inc on costs)	\$181,325	\$185,314	\$189,391	Estimate is based on average salary in the highest band with 20% on costs added. Estimate is	Accessed: 17/12/2018 at https://au.indeed.com/salaries/Park-

²³ ABS Sep 2018, <http://www.abs.gov.au/ausstats/abs@.nsf/o/938DA570A34A8EDACA2568A900139350?Opendocument>

²⁴ ABS Sep 2018, <http://www.abs.gov.au/ausstats/abs@.nsf/o/938DA570A34A8EDACA2568A900139350?Opendocument>

Preliminary cost and funding requirements

Description	Year 1	Year 2	Year 3	Notes	Source
Junior ranger salary (inc on costs)	\$161,664	\$165,221	\$168,855	based on 2 FTE Lead Rangers. Estimate is based on average salary in the lowest band with 20% on costs added. Estimate is based on 2 FTE Junior Rangers.	Ranger-Salaries,- Tasmania Accessed: 17/12/2018 at https://au.indeed.com/salaries/Park-Ranger-Salaries,-Tasmania
Ferry	\$108,000	\$110,052	\$112,143	Based on an assumption that PWS pays \$400 per day for the ferry service which operates 9 months of the year and that at 80% utilisation (24 people) the ferry is able to pick up all walkers in one trip.	Assumption to be refined following consultation
TOTAL	\$1,733,999	\$1,941,424	\$2,044,232	All estimates are in 2018 \$.	

7.1.3 Preliminary breakeven analysis

In order to cover annual operating expenditure, a breakeven analysis has been completed which explores the price that PWS would need to charge for a 5 day or 10 day walk. Importantly this analysis assumes that revenue from track fees is not expected to repay establishment costs over time.

The breakeven analysis is based on assumptions regarding track utilisation which are outlined in Section 6. These assumptions include that all walkers (excluding guides) purchase a National Park Pass²⁵ and all walkers including guides, pay a per day track fee. Walkers and guides who finish their walk at Pieman Head are assumed to all purchase a ferry ticket from PWS.

The results of the breakeven analysis are outlined in Table 17, breakeven prices are presented as a weighted average of the price for adults and children (i.e. it represents the average revenue that must be generated per walker in order to breakeven).

Table 17: Preliminary breakeven pricing for PWS

	Year 1	Year 2	Year 3
Total annual costs	\$1,741,529	\$1,951,679	\$2,057,337
Revenue from National Parks Passes	\$167,670	\$243,857	\$322,972
Revenue from Ferry tickets	\$81,000	\$123,809	\$168,214
Net cost	\$1,492,859	\$1,584,014	\$1,566,150
Net cost per utilised day	\$46.08	\$32.59	\$24.17
Breakeven price per person (5 days) - average of adults and children	\$230	\$163	\$121
Breakeven price per person (10 days) - average of adults and children	\$461	\$326	\$242

NOTE: these data are included for indicative purposes as they are based on assumptions and have yet to benefit from stakeholder consultations. A definitive breakeven analysis will be provided in the final business case.

²⁵ National Park Pass price is \$30 per person in year 1 and the Ferry ticket price is \$25 per person in year 1, both prices are indexed at a rate of 1.90% pa from year 2 onwards.

7.2 Exploration of potential operational costs for a commercial venture

In order to fully articulate the opportunity of building and establishing the Trans-Tarkine Track, we have explored the potential for a commercial operator. The exact operating costs of any proposed commercial model will be based on the model of the operator and numerous considerations such as economies of scale that may be available for larger tourism operators including staffing efficiencies that exists when an operator can share staff between a number of ventures, centralised systems (i.e. shared booking, marketing and other business functions), expertise and experience, reputational benefits and cross-referral.

The costs outlined in this section are based on the indicative operating model outlined in section 4.2. Consultation with potential commercial operators will occur in January 2019 and as such the costs included are indicative and included for the purposes of exploring the potential viability of a commercial model only. In addition we have assumed that establishment costs for a potential commercial operation will be borne by or sourced by the operator through a separate process and therefore we have excluded them from this business case.

7.2.1 Potential annual operating costs

The following costs have been considered based on the proposed operating model and assumptions outlined in section 4.2 above.

Table 18: High level costs and assumptions

Description	Year 1	Year 2	Year 3	Notes	Source
Trade and consumer engagement	\$20,000	\$20,380	\$20,767		Estimate based on assumptions provided by Tourism Tasmania for a similar business case. Assumption to be refined following consultation
Vehicle registration	\$1,750	\$1,783	\$1,817	Based on assumption of one vehicle.	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Vehicle insurance	\$1,500	\$1,529	\$1,558	Based on assumption of one vehicle.	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Business insurance	\$15,000	\$15,285	\$15,575		Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Advertising / Social Media	\$12,825	\$27,926	\$53,268	2.5% of revenue	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Office expenses	\$15,000	\$15,285	\$15,575		Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Marketing	\$30,780	\$67,022	\$127,843	6% of revenue	Estimate based on assumptions contained within

Preliminary cost and funding requirements

Description	Year 1	Year 2	Year 3	Notes	Source
					a similar business case. Assumption to be refined following consultation
First Aid items/training	\$5,500	\$5,605	\$5,711		Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Accounting Expenses	\$7,000	\$7,133	\$7,269		Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Vehicle maintenance	\$9,800	\$9,986	\$10,176	Based on assumption of one vehicle.	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
General Manager salary (incl on-costs)	\$80,000	\$81,760	\$83,559		Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Field operations manager (inc on-costs)	\$60,000	\$61,320	\$62,669		Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Field operations support (inc on-costs)	\$50,000	\$51,100	\$52,224		Assumption based on estimated salary for Sales & Office Coordinator.
Sales & Office Coordinator (incl on-costs)	\$50,000	\$51,100	\$52,224		Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Fuel costs	\$7,200	\$11,209	\$14,952	Fuel for vehicles and for generators provided on sites, assumption that the 10 day walk uses double the fuel as a 5 day walk. Fuel costs assumed at \$200 per 5 day walk and \$400 per 10 day walk.	Assumption to be refined following consultation.
Waste disposal	\$3,600	\$5,605	\$7,476	Waste disposal assumed at \$100 per 5 day walk and \$200 per 10 day walk.	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Laundry	\$1,350	\$2,925	\$5,607	Estimated based on \$10 per guest.	Estimate based on assumptions contained within

Preliminary cost and funding requirements

Description	Year 1	Year 2	Year 3	Notes	Source
					a similar business case. Assumption to be refined following consultation
Lead guide wages	\$38,945	\$60,629	\$80,878	Assumption adults employed permanent part time for the walks that are delivered each year at Grade 7, 12 hour days, no overtime.	Fair Work Ombudsmen Pay Guide - Amusement, Events and Recreation Award 2010, [MA000080] (2018)
Junior guide wages	\$33,874	\$52,736	\$70,347	Assumption adults employed permanent part time for the walks that are delivered each year at Grade 3, 12 hour days, no overtime	Fair Work Ombudsmen Pay Guide - Amusement, Events and Recreation Award 2010, [MA000080] (2018)
Consumables	\$9,000	\$19,616	\$37,381	Estimated based on \$10 per head per day of the walk.	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Vehicle cleaning	\$2,160	\$3,342	\$4,486	Assumed that the car is cleaned once per trip. 1 person at \$30 per hour x 2.5 hours plus cleaning product.	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Food	\$38,250	\$83,367	\$158,869	Based on \$43 per head per day. Assume this is provided by an external catering company and no staffing costs are included in addition to this.	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Beverages	\$10,350	\$22,558	\$42,988	Based on estimate of \$12 per person per day.	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Additional gear/ equipment for guests	\$1,400	\$1,427	\$1,454	Based on a cost of \$700 per pack (\$200 for backpack, \$200 jacket, \$300 for sleeping bag), with up to 10 participants per trip, we assume full turnover of 2 packs per annum.	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation

Preliminary cost and funding requirements

Description	Year 1	Year 2	Year 3	Notes	Source
Payment for Elder/community member presentation	\$8,100	\$12,534	\$16,821	\$300 per group	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
Track pass fees	\$38,160	\$74,260	\$128,778	Based on utilisation and group size assumptions outlined in Section 6.2. It is assumed that a commercial operator pays full track fees for all guests.	Estimate based on assumptions of utilisation and pricing outlined in Section 6.2
Ferry tickets	\$27,000	\$52,861	\$91,116	Based on utilisation and group size assumptions outlined in Section 6.2m, assuming that half of all five day walks conclude at Pieman Head.	Estimate based on assumptions of utilisation and pricing outlined in Section 6.2
Commission	\$66,690	\$145,214	\$276,993	Based on a 13% commission on sales being charged by Tourism Tasmania	Estimate based on assumptions contained within a similar business case. Assumption to be refined following consultation
TOTAL	\$608,469	\$885,439	\$1,295,681	All estimates are in 2018 \$	

7.2.2 Preliminary breakeven analysis

A breakeven analysis has been completed which explores the price that a commercial operator with the cost structure outlined above would need to charge for a 5 day or 10 day walk in order to cover annual operating expenditure.

The breakeven analysis is based on assumptions regarding the number of trips offered and average group size which are outlined in Section 7.

The results of the breakeven analysis are outlined in Table 19.

Table 19: Preliminary breakeven pricing for a commercial operator

	Year 1	Year 2	Year 3
Total annual costs	\$564,009	\$788,630	\$1,111,018
Total cost per trip (10 day trip or 2 x 5 day trip)	\$15,666.92	\$14,338.73	\$15,430.81
Breakeven price per person	\$3,133	\$2,048	\$1,543
Commission (13% of price pp)	\$407.34	\$266.29	\$200.60
Breakeven price per person (5 days) - average of adults and children	\$3,541	\$2,315	\$1,744

Preliminary cost and funding requirements

	Year 1	Year 2	Year 3
Breakeven price per person (10 days) - average of adults and children	\$7,081	\$4,629	\$3,487

NOTE: these data are included for indicative purposes as they are based on assumptions and have yet to benefit from stakeholder consultations. A definitive breakeven analysis will be provided in the final business case.

7.2.3 Potential commercial viability of the operation

Based on the revenue and costs outlined in Sections 6 and 7.2 above, the commercial operation appears to be viable in year three. In order to establish this operation it may be necessary for an operation to seek seed funding or self-fund the opportunity's establishment and first two years of operation. The potential seed-funding requirement and revenue generating opportunity is summarised in Table 20.

Table 20: Preliminary commercial operation profit/loss summary

	Year 0 (establishment)	Year 1	Year 2	Year 3
Estimated costs	Not Assessed	(\$608,469)	(\$885,439)	(\$1,295,681)
Estimated revenue		\$256,500	\$558,514	\$1,420,478
Profit (Loss)	Not Assessed	(\$266,469)	(\$140,754)	\$124,797

7.3 Indicative funding requirement

The funding requirement for the track is broken into two parts:

- Establishment costs for PWS to build the track and undertake the project
- Annual operating costs to PWS.

Based on the assessment of the costs and revenue (outlined in section 6 and section 7.1.1 above) the track is unlikely to generate revenue, in its first three years of operation, which would enable it to repay the costs of establishment. In addition the track is likely to require seed funding to support the annual costs of operation in the initial years as utilisation in the first two years is unlikely to drive sufficient revenue to cover costs.

The total amount of funding required is expected to be approximately \$27 million over four years (estimate subject to change following consultations).

However by year 3 (based on the assumptions contained within this report) it is expected that the track would breakeven and could sustain the annual operating costs of the walk. Assuming that high levels of utilisation continue, the walk would be sustainable for years to come.

Table 21: Preliminary estimated funding requirement

	Year 0 (establishment)	Year 1	Year 2	Year 3
Estimated costs	\$21,071,959	\$1,733,893	\$1,941,263	\$2,044,013
Estimated revenue	\$Nil	\$1,005,102	\$1,525,856	\$2,068,253
Estimated funding requirement	\$21,071,959	\$736,427	\$425,823	Nil²⁶

²⁶ Based on the revenue and cost assumptions outlined above the Track would make a small profit of \$10,916 in year 3.

8 Risk identification and mitigation strategies

The Track will be a new offering traversing land identified as Crown land, holds private mining leases and various reserves which are managed by PWS.

The BBF has identified The Track could potentially complement and act as a ‘sister walk’ to the wukalina Walk. A cultural guided tour option with an Aboriginal operator could be incorporated in to the few existing Aboriginal tourism experiences in Tasmania.

Due to these factors there are elements of the proposition that cannot yet be fully tested. This means that effective risk assessment and mitigation is particularly important, and that risk and mitigation strategies have been considered at this stage of the business case however will need to be reconsidered subsequent to consultations and prior to finalising the report.

A preliminary risk identification process identified seven key risks to the successful establishment and operation of the Track as set out in Table 22. Mitigation strategies were identified that will be (and, in some cases, already have been) implemented to manage these risks. It is considered that the proposed mitigation strategies will manage each risk to an acceptable level.

Table 22 Preliminary assessment of Risks and Mitigation Strategies

Risk	Overview of Key Mitigation Strategies
1. Sufficient tourist demand to support the sustainable operation of The Track	<ul style="list-style-type: none"> • Comparability with offerings of existing Tasmanian guided walks, with the addition of the unique Aboriginal cultural element • Alignment between the profile of tourists to Tasmania and the profile of tourists undertaking 10 day guided walks and those seeking Aboriginal cultural experiences in Australia • Market research will be conducted to further test the desire in the target market and their thoughts on the proposed itinerary • Focus on effective marketing and promotion
2. Walking track user experience and limiting impact on the environment	<ul style="list-style-type: none"> • The proposed walking track route has been designed to have minimal impact on the environment • Design of the accommodation as raised platforms to have minimal impact on the environment • Track standard and walk difficulty to be a Class 3 standard, using the Australian Standard Classification System • Walker safety issues addressed by identifying track hazards e.g. campsite locations, flood locations identified • Changes to the environment to be considered and monitored, and specialist advice sought on the risks that it imposes • Key environmental issues to be identified for the walking trk – animal and wildlife to be considered
3. Securing an appropriately qualified and experienced operator and workforce	<ul style="list-style-type: none"> • An Aboriginal organisation or operator with palawa and non-Aboriginal staff to provide the required skill set and experience. To be recruited via a merit based and transparent process • PWS appointed Aboriginal Rangers or the training of palawa Tour Guides with relevant qualifications • Skills-based Board of Directors • Aboriginal ownership, a key ingredient in recruiting high calibre Aboriginal staff

Risk	Overview of Key Mitigation Strategies
	<ul style="list-style-type: none"> Salary rates that are comparable with other Tasmanian guided walks
<p>4. Aboriginal cultural and heritage sites</p>	<ul style="list-style-type: none"> Route of walking track to avoid damaging middens, strategies to be implemented to protect these sites Interpretation signage to be placed along the walk to inform non-guided walkers of the significance of the area
<p>5. Ability to compete with established tourist walks</p>	<ul style="list-style-type: none"> Unique selling point, the Aboriginal cultural element is a significant differentiator, as is the diversity of the wildlife the walk entails Product offering compares favourably with competitor products Compliments the wukalina walk and other existing guided walks, rather than competing with them by providing an Aboriginal experience for a different market of walkers Focus on customer satisfaction and continuous improvement
<p>6. Ongoing commitment to the sustainable operation of <i>The Walk</i></p>	<ul style="list-style-type: none"> Significant investment to date by BBF Ongoing commitment by BBF to identify an Aboriginal operator
<p>7. Ability to attract funding for <i>The Walk</i></p>	<ul style="list-style-type: none"> Comprehensive consultations with relevant stakeholders to occur Submission to PWS to identify and operate the walk Proposition aligns with the stated priorities of a number of potential funders



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