

Pike River to Punakaiki Track Feasibility Study

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Executive Summary

This is a report to the Department of Conservation on the feasibility of establishing a proposed easy multiday tramping track in memory of the Pike River miners and as an economic boost to the local economy. The report also makes comment on the Pike River Mine Amenities Area.

The desired outcome is for an easy overnight tramp that directly or indirectly links the Pike River area to Punakaiki. It should appeal to a wide range of markets, both domestic and international.

Four options were put forward for consideration. Two of these link the Pike River Valley to Punakaiki via the Paparoa Range. One option links Blackball to Punakaiki via the Croesus Track, Moonlight Tops and Pororari Gorge (with a possible side – track to the Pike River Amenity Area) while a fourth option links the Pike River to Greymouth via the Southern Paparoa Range and Sewell Peak.

Option A from Pike River to Sewell Peak near Greymouth, would offer some expansive views from the tops but is seriously constrained by having to pass through or around the Roa Mine operation.

Option B from Pike River to Punakaiki via Mt Bovis is over such rugged terrain that it would be a three-day challenging tramp at best.

Option C from Pike River west to Punakaiki lacks the wow factor needed for an easy overnight tramp. Most of it would be in forest on both sides of the Paparoa Range with little chance of views and only limited time on open tops.

Option D would connect the existing Croesus Track to Punakaiki via the Moonlight Tops, Pike River Basin, Tindale Creek and the spectacular Pororari Gorge. A side - track could also be provided to the Pike River Amenity Area. Connecting to the Pororari Gorge gives the potential to link with existing tracks in what is one of the more spectacular and accessible river valleys in Paparoa National Park.

In terms of environmental impacts, no threatened, rare or endemic species have been identified as being at risk from the four route options, although further detailed investigation will be required once a final option is agreed upon. Considerable clearance of mature trees and other vegetation will be required with all options to create a high standard tramping track. Soil erosion is high throughout the Paparoa Range and this will pose a technical risk to construction and ongoing maintenance of the track. Indicative development costs are as follows:

Option	Total estimate
A: Pike River to Sewell Peak	
B: Pike River north to Punakaiki via Mt Bovis	
C: Pike River west to Punakaiki via Punakaiki River	
D: Blackball to Punakaiki via Croesus Track – Pororari Gorge	

The four scenarios were assessed for the possible economic impact that would be associated with the best performance outcome of all four options. This assumes a pessimistic scenario of 500 walkers per annum, a base case (most likely) scenario of 1,000 walkers per annum and an optimistic scenario of 2,500 walkers. The justification for these projections is made clear in the main body of the report.

Aspect	Pessimistic	Base Case	Optimistic
Walkers p.a.	500	1,000	2,500
Direct output	\$272,000	\$545,000	\$1,400,000
Direct value added	\$144,160	\$288,850	\$742,000
% value added of direct output*	53%	53%	53%
Total value add after multiplier	\$172,992	\$346,620	\$890,400
Type II multiplier 1.2*	1.2	1.2	1.2
\$ Output per FTE*	\$91,000	\$91,000	\$91,000
FTEs (Employment multiplier 1.1)*	3 Direct 4 Indirect	6 Direct 7 Indirect	15 Direct 17 Indirect

This report concludes that the Base Case is the most likely outcome for whatever option is pursued. However it is important to point out that the Base Case assumes that most if not all the major challenges are solved. This includes (i) being able to construct the track to a consistent high standard over very difficult terrain (ii) marketing the walk effectively over the next 5+ years (iii) solving the transportation issue as walkers will need to return to their start point or nearest transport / accommodation node and (iv) obtaining the necessary planning approvals and (v) convincing international visitors to alter their West Coast travel itinerary to undertake the walk.

At this preliminary stage of investigation, it appears that Option D has the best potential to become an overnight easy tramping track of regional significance, but only if all of its associated issues can be solved (transport, marketing and promotion, management plan change, support from the wider community and businesses). It may have the potential for being a shared use track for bikers and walkers although this requires further detailed investigation.

To exceed 2,500 overnight visitors, Option D would have to be of exceptional quality. With 20 bunk huts running at 50% occupancy (most popular DOC huts run at less than 50%), it would require an average of 250 days with 10 trampers to receive 2,500 visitors per annum. To exceed this would mean the walk has to have the potential to become one of the most compelling, must-do overnight tramps on the West Coast. It would have to be a shared use

track and the mountain biking would also need to be outstanding. The shuttle service would be seamless and affordable catering to both walkers and bikers. Marketing and promotion would be in excess of \$20,000 p.a. for the first three years to raise profile and drive demand. Option D would need to be promoted nationally as one of DOC's new "Top Tracks" or perhaps in time, become a Great Walk if it is to exceed 2,500 visitors per annum.

The main advantages for Option D is that it has the right mix of open tops, forested river valleys, great views and potentially spreads benefits to Blackball, Punakaiki and the wider Grey District (assuming visitors spend a night before or after somewhere in the District). The main disadvantage (in addition to the challenges mentioned earlier) is that it would compete directly with the Old Ghost Road due to open later in 2015.

The options for a track from Pike River to the ventilation shaft were also assessed. Access up Pike Stream is steep, broken and incised by side streams and a therefore series of cantilevered structures and bridges would be required to gain access to the ventilation shaft. The conclusion was that a track to the ventilation shaft is not practical or feasible, and is unlikely to attract even a small number of visitors. An alternative is to provide for helicopter access to the ventilation shaft to allow family members to visit this location.

An assessment for use of the Pike River Mine amenity facilities concluded that is difficult to imagine that many visitors would make the drive to the amenities area. If the intent is to share the stories with as many visitors as possible, then the memorials and museums in Greymouth offer a better option for achieving this. It would be possible to convert the control room as a display area. It would not have personnel based there and be designed in a way to minimise vandalism.

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1 Introduction

Purpose

This report has been prepared for the Department of Conservation (DoC) to assess the feasibility of developing an easy overnight tramping track that directly or indirectly links the Pike River area to Punakaiki. The proposal is for a new 2-day walk that would serve as an enduring memorial to the 29 miners who lost their lives in the Pike River Mine tragedy and bring benefits to communities in the Grey District. The role of this report is to provide an independent assessment of the options in order to facilitate discussion between the Crown and the Pike River Families Leadership Group.

Stakeholder expectations

It is understood that an ideal outcome would be that the tramping track would be a thriving visitor experience in its own right as well as a legacy to the Pike River miners. This is combined with the goal of linking the Pike River Valley to the tourist hub of Punakaiki. The Crown, the families and the wider communities desire a successful result. This report is a working tool for how this may be achieved.

Method

This initial assessment of feasibility was undertaken during April and May 2015 involving: desktop analysis of relevant trends in walking/hiking tracks and Great Walks in New Zealand, field visits to Pike River Mine and the Paparoa Range between 4-8 of May 2015, discussion with Pike River Mine family representatives, interviews with DoC staff and other stakeholders, including the Grey District Mayor.

Report Structure

The report begins with an analysis of the market demand for comparable walking products, nationally and on the West Coast. This is followed by an assessment of the feasibility of four proposed walk options. This is described in terms of each walk concept, the benefits and issues, development costs, transport services required, and how well each fits the technical feasibility criteria. Estimated economic benefits are also provided.

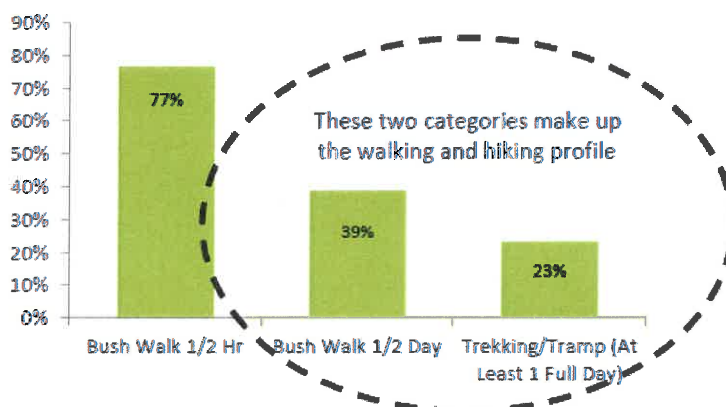
2 Market analysis

2.1 Tourism on a roll

Domestic and international tourism have exceeded performance levels prior to the Global Financial Crisis. Just over 3 million visitors arrived in New Zealand for the year ended May 2015 with strong growth from China, US, UK and Germany. Australia remains the country's biggest market. Domestic tourism is up in virtually all regions after what has been described by the industry as one of the best summers ever. International visitor expenditure is tracking at 6% above 2013/2014. This is the same growth rate projected by Tourism 2025 that would need to be sustained year-on-year in order to reach the sector's target of being a \$42 billion industry by 2025.

Tourism New Zealand (TNZ) regards walking and hiking as a Special Interest sector. The agency is committed to growing levels of participation in these activities through its international marketing channels. The walking/hiking profile in Figure 1 shows that about one in four holiday visitors participate in a walking or hiking activity during their visit to New Zealand. In terms of volume, the total number of international visitors undertaking walking or hiking between 2009 and 2013 has ranged from about 220,000 to 265,000 visitors per annum.¹

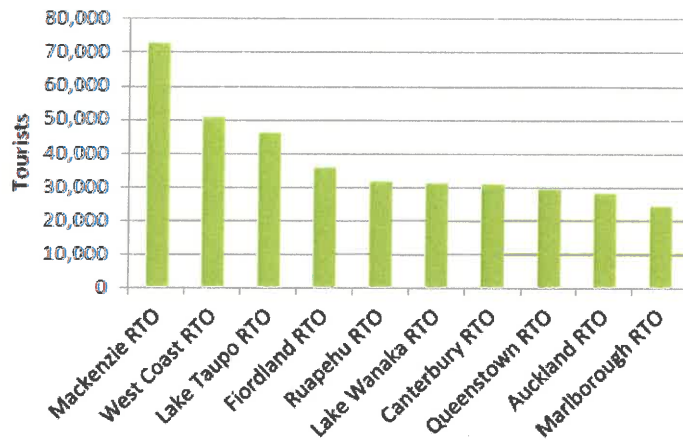
Figure 2 — Participation in walking and hiking 2009 - 2013



International visitors that go walking and hiking tend to spend more (on average \$3,600 per visit to New Zealand) compared to the \$2,800 average spend of all holiday visitors. The regions most popular with international walkers/hikers are the Mackenzie (72,800), West Coast (50,800), Lake Taupo (46,100), Fiordland (35,700), Ruapehu (31,500) and Wanaka (31,100). These and other regions most visited for walking and hiking are shown in Figure 3.

¹ Tourism New Zealand, *Tourism Profile for Walking and Hiking*, February 2014

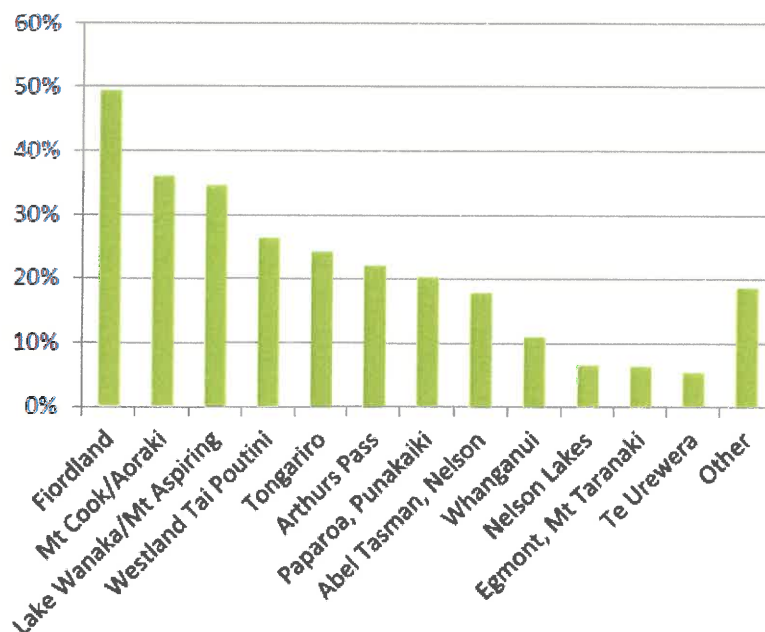
Figure 3 — Locations for walking and hiking by international visitors



The Mackenzie region rates most highly because of the high proportion of international visitors walking in the lower Hooker and Tasman Valleys for views of Aoraki Mount Cook and the Tasman Glacier. The West Coast also rates highly, attributable to the short walks at Punakaiki, Cape Foulwind and at the Glaciers. Fiordland region is next most visited because of the Milford, Routeburn (including the short walk up to Key Summit) and Kepler Great Walks. There are no Great Walks that start and finish on the West Coast (the Heaphy Track only finishes at Karamea).

The West Coast’s Paparoa National Park is the 7th most visited national park by international visitors for walking or hiking. The most popular walk there is to the Pancake Rocks at Dolomite Point.

Figure 4 — National parks visited for walking and hiking by international visitors²



² Tourism New Zealand, *Tourism Profile for Walking and Hiking*, February 2014

2.2 Outdoor recreation

With relevance to this report, the most popular recreation activities for New Zealanders include walking, swimming, cycling, equipment-based exercise, fishing, jogging/running, and yoga. Tramping is participated in by about 9% of the adult population (322,000 people), ranked 8th for adult men and 10th for women out of the top 20 activities.³

Men		%	Number of men participating
1	Walking	46.8	744,000
2	Fishing	29.2	465,000
3	Cycling	28.4	451,000
4	Swimming	27.0	430,000
5	Equipment-based exercise	23.2	370,000
6	Jogging/running	20.3	323,000
7	Golf	15.0	238,000
8	Tramping	11.2	178,000
9	Football	10.5	167,000
10	Hunting	9.7	154,000
11	Canoeing/kayaking	9.5	151,000
12	Cricket	8.7	139,000
13	Touch rugby	7.3	116,000
14	Basketball ^F	7.2	115,000
15	Snow sports	6.9	110,000
16	Rugby	6.8	109,000
17	Tennis	6.6	106,000
18	Shooting	6.2	99,000
19	Surfing/bodyboarding	6.2	98,000
20	Table tennis	6.0	95,000

Women		%	Number of women participating
1	Walking	72.2	1,245,000
2	Swimming	33.1	570,000
3	Equipment-based exercise	21.7	374,000
4	Cycling	21.6	372,000
5	Jogging/running	18.1	312,000
6	Pilates/yoga	16.6	287,000
7	Dance	14.1	243,000
8	Aerobics	13.4	231,000
9	Fishing	10.5	181,000
10	Tramping	8.3	144,000
11	Netball	8.1	139,000
12	Callisthenics	7.1	123,000
13	Canoeing/kayaking	6.9	119,000
14	Tennis	6.0	103,000
15	Snow sports	5.5	95,000
16	Aquarobics	4.9	84,000
17	Golf	4.6	80,000
18	Exercising at home [other] ¹³	4.4	75,000
19	Exercise classes [other] ¹⁴	3.8	65,000
20	Badminton	3.6	61,000

Looking ahead the next 10 to 20 years, the following trends will have an influence on participation in walking and tramping and overall use of lands managed by the Department of Conservation:

1. Two-thirds of the New Zealand population live in the North Island – from this it is reasonable to expect increasing demand for walking, tramping, biking and other outdoor opportunities in the North Island, close to the main centres of population
2. Visitors aged between 45 and 49 years participate the most in tramping compared to other age groups. With an ageing population there is likely to be more use of easy to moderate walking and tramping tracks easily accessible to main population centres
3. Use of easy to moderate walking and tramping tracks by international visitors can be expected to increase commensurate with the rising tide of inbound tourism to New Zealand. However, these visitors will be drawn mostly towards the tracks and trails that are dominant in the market place now (such as the Routeburn, Milford and Kepler Tracks, Tongariro Alpine Crossing and Abel Tasman Coastal Track)

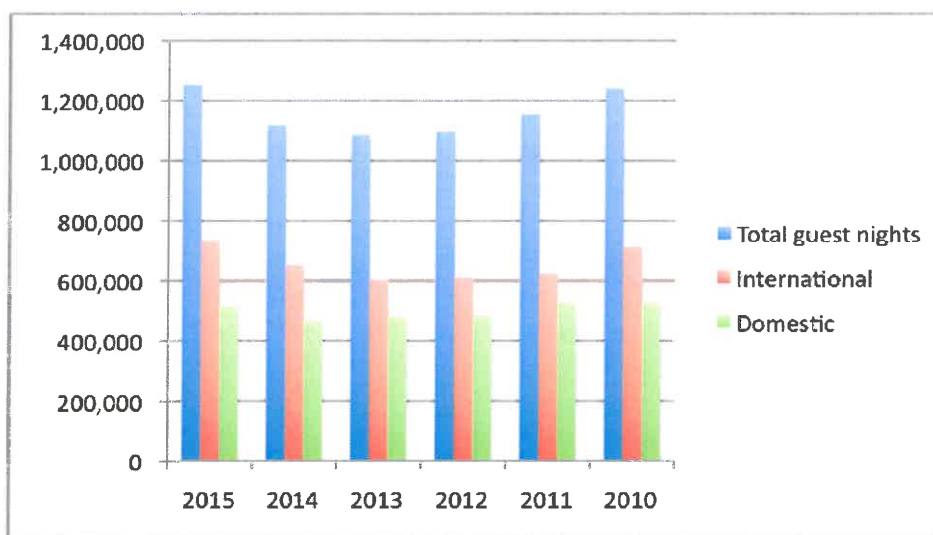
Collectively, these trends will pose challenges for any new overnight tramping or cycling trails to gain significant market share over those in the market now.

³ Sport New Zealand, 2014 *Sport and Active Recreation in the Lives of New Zealanders*

2.3 Tourism on the West Coast

Tourism on the West Coast is doing well. Growth in commercial guest nights has returned after a period of decline between 2010 and 2014. Total guest nights to YE March 2015 were close to 1.3 million, nearly 60% generated by international and 40% domestic visitors (Figure 5). Average length of stay is 1.4 days. New investment has occurred with the tree top canopy walk at Lake Mahinapua, the West Coast Wilderness Cycle Way between Greymouth and Ross and the Old Ghost Road mountain bike track, which starts in the Buller Gorge and finishes near Seddonville.

Figure 5 — Commercial guest nights on the West Coast 2010 - 2015



The West Coast is known for its rugged wilderness character, offering one of the most spectacular scenic drives in the world. It is no surprise that the dominant pattern of visitation is to journey along the West Coast Highway, taking in key attractions such as the Buller Gorge, Cape Foulwind, Punakaiki, Shantytown, Franz Josef and Fox Glacier, Lake Matheson, Ship Creek, Knights Point and Haast Pass. The most visited sites in 2014 include Franz Josef Gacier (488,000 visitors), Dolomite Point (394,000), Fox Glacier (175,000), Lake Matheson (101,000) and Cape Foulwind (74,000). The most popular walks are less than 4 hours return. Historic heritage sites are also popular. The Denniston Plateau historic mine site was upgraded between 2006 and 2007 with a corresponding increase in visitors from 9,300 in 2006 to 23,000 in 2013. A similar lift in visitation has been experienced at the Brunner Mine historic site near Greymouth after it was upgraded in the last few years.

2.4 The easy tramping market

The West Coast has a very limited range of easy overnight tramps.⁴ In terms of walking and hiking, the West Coast is best described as having one of the best selections of short walks and moderate to difficult tramping tracks and routes. There is not a lot in between. In our professional opinion, the West Coast generally and Paparoa National Park in particular, is not perceived by most trampers/hikers with limited to moderate ability, as a place to go for an easy overnight tramp. Regions such as Fiordland, the Southern Lakes, Abel Tasman and

⁴ DOC CMS, 2010; TRC Tourism 2006

Tongariro / Taupo have much stronger positions in the market as walking/hiking destinations. West Coast tracks that are considered easy to moderate overnight tramps are summarised in Table 1:

Table 1 – West Coast examples of easy to moderate overnight tramps

Track or Trail	Visitor Demand/Use p.a.	Markets
Heaphy Track Great Walk	6,000 (2,000 mountain bikers in winter), slight increase over previous years	Mostly domestic trampers and mountain bikers
Copland Track – Welcome Flat	4,000 – fairly static	Domestic and international
Croesus Track	1,000 – static with about 500 staying in Ces Clark Hut overnight and 500 returning to Blackball as a day trip. Less than 20% continue over to Barrytown on the West Coast	Domestic – West Coast and Christchurch
Lake Daniels	4,000 – fairly static	West Coast and Canterbury
St James Walkway	800 - decreasing	Canterbury

It is interesting to note that these tracks have been in the market place for over 25 years. Despite the longevity, total visitor numbers are relatively low and have not grown in any substantial way for many years.⁵ There are various possible explanations for this. In the case of the Heaphy Track, it is not as spectacular as other Great Walks, is much longer and has a long drive back to its start-point. The Copland Track is now a well-graded and relatively easy tramp to Welcome Flat. Without the natural hot pools at Welcome Flat, the level of use would be much less. The Croesus Track is the closest example to where the Paparoa Great Walk could go and is now being used by mountain bikers. Originally designed as an overnight walk from Blackball to Barrytown, at least 80% of visitors prefer to return the same way. Although served with a good hut (Ces Clark), only half of all visitors stay there, preferring to walk it as a day trip.⁶

In 2010 the feasibility of an easy to moderate overnight tramp (Southern Paparoa Journey) was assessed. The concept was to link the existing Croesus Track with Sewell Peak, providing an opportunity to walk along the easiest sections of the Paparoa Range. Partly funded by Solid Energy, the track concept involved constructing a new hut and careful track construction along the tops in amongst subalpine forest, open herb field and rocky outcrops. One of the key constraints was in gaining access across State Coal Reserve at the

⁵ DOC track data 1994 - 2015

⁶ DOC, 2007 Survey of Croesus Track Users

Roa Mine. Other constraints included weather and access permission to Sewell Peak. The track has not progressed since the investigation.

A more recent example is the Old Ghost Road in the Buller Gorge. Due to be completed by the end of 2015, this is a shared-use track although primarily designed for intermediate to advanced skill mountain bikers. The feasibility study in 2010 estimated 2,200 overnight users and 5,800 day users in Year 1 increasing to 2,800 and 7,200 respectively in Year 5 (under the 'realistic scenario'). The track is already in use and is about 75% complete. As at April 2015, overnight users at Ghost Lake Hut totalled 576 and Mokihinui Forks 314. At present most cyclists are riding in and out from either end of the track. There is an estimated 2,200 day users at present.⁷ Even if the track was completed at this point, these data suggest that use of the Old Ghost Road is receiving 50% less use than what was forecast.

Elsewhere, many easy overnight tramps have not achieved the level of response from the market that was planned for. Examples include:

- Holdsworth Jumbo Circuit, Tararua Forest Park – less than 3,500 visitors complete this weekend tramp that is only 1.5hrs from Wellington. Inclement weather over the Tararua tops often turn trampers back
- Pouakai Northern Circuit, Taranaki – less than 2,000 trampers complete this weekend tramp that was developed as a potential 'must do' overnight tramp in Taranaki / Egmont National Park
- Northern Circuit – State Highway to Waihohonu Hut, Tongariro National Park – after the new Waihohonu Hut was opened in 2013, visitor numbers increased to around 8,000 p.a. but have reached a plateau since then
- Cass Lagoon Saddle, Craigieburn Forest Park – less than 3,000 trampers are thought to use this easy weekend circuit 1.5hrs drive from Christchurch just outside Arthur's Pass National Park
- Mingha Deception Circuit – less than 1,500 trampers complete this trip by staying overnight at Goat Pass Hut. Most users are runners training for the Coast-to-Coast endurance event and pass through in a day
- Hump Ridge Track, Southland – developed by the Tuatapere community to create jobs, track use peaked at 3,500 after 5 years of opening and has been in decline ever since (it now receives about 1,800 trampers per year)

Some of the more popular easy to moderate overnight tramps (1 or 2 nights) in the country that are not Great Walks⁸ and receive over 3,000 visitors p.a. include Lake Angelus (Nelson Lakes National Park), Pinnacles Hut - Kauaeranga Valley (Thames Coromandel) and the Rees Dart Valleys.

2.5 Great Walks

Established in the early to mid 1990s, New Zealand's nine Great Walks now have an international reputation for outstanding walking and hiking and on the list of 'must do' tramps for many New Zealanders.

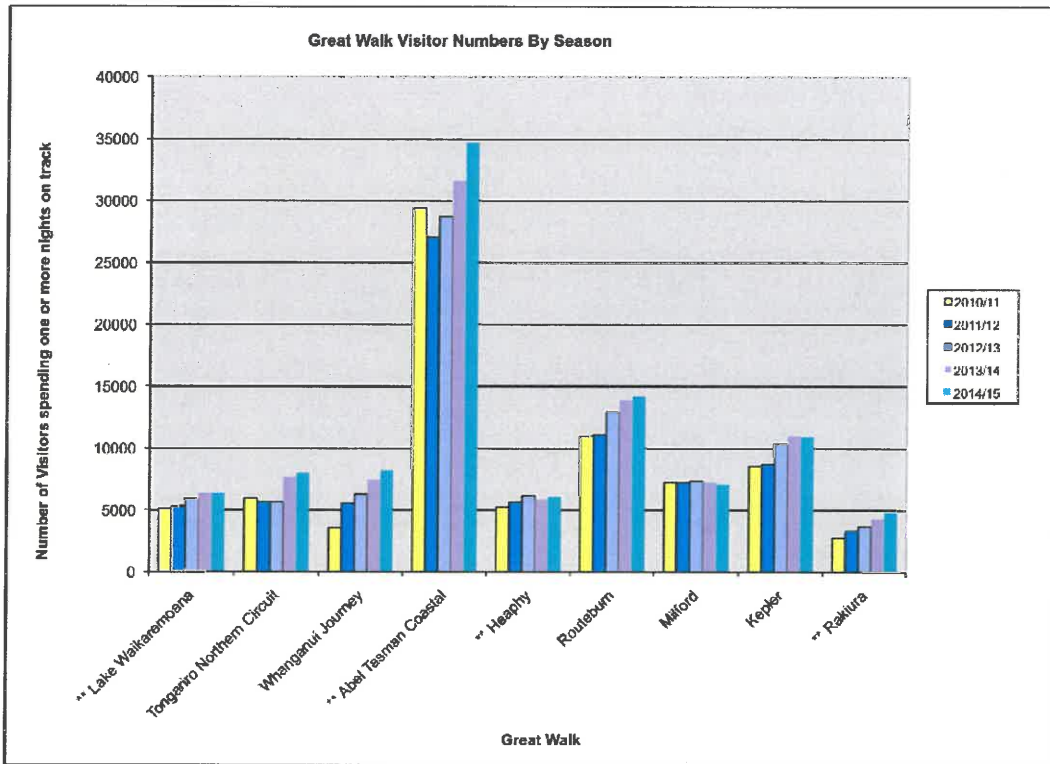
⁷ DOC, Old Ghost Road data to April 2015, Old Ghost Road Feasibility Study, 2010

⁸ As in they attract international and domestic visitors

As a general rule, the walking experience must be the best or among the best in New Zealand and have strong appeal to international visitors. There needs to be a wow factor. Great Walks are targeted towards walkers / hikers / trampers with moderate fitness and at least some tramping or hiking experience. Huts are fully serviced and most have hut wardens present over spring and summer. Most of the Great Walks also have commercially guided operations using them. The Milford and Routeburn Tracks have private lodges for guided clients while DOC provides 40 bunk huts for free and independent trampers.

A few Great Walks clearly outshine the others. The Milford, Routeburn, Kepler and Abel Tasman are often referred to as the best of the best. That does not mean that these tracks receive the most use – it refers to a package of attributes such as outstanding scenery, quality of facilities and options, transport connections, trail alignment and distances walked each day and the sense of wilderness, peace and quiet. Even with Great Walk status, it does not translate into high levels of visitor use. Figure 5 illustrates use of the Great Walks since 2010.

Figure 5 – Great Walk use 2010 - 2015



** Abel Tasman Coastal, Heaphy and Rakiura Tracks are open for bookings year-round. Tongariro

Great Walk Track	Lake Waikaremoana	Tongariro Northern Circuit	Whanganui Journey	Abel Tasman Coastal	Heaphy	Routeburn	Milford	Kepler	Rakiura
2010/11	5113	5882	3528	29408	5193	10946	7235	8546	2748
2011/12	5277	5649	5507	27055	5863	11053	7179	8678	3305
2012/13	5837	5651	6280	28739	6118	12920	7275	10358	3619
2013/14	6336	7684	7431	31639	5841	13880	7244	11024	4277
2014/15	6382	8000	8193	34723	6065	14227	7107	10936	4805

Northern Circuit, Whanganui Journey, Routeburn, Milford and Kepler Tracks are open for bookings October to April.

The Abel Tasman Coastal Walk shows significantly higher levels of use because most of that is day use. An element of day use is also associated with the Routeburn, Milford, Kepler and Tongariro Northern Circuit although this is relatively minor compared to the overnight use.

No new Great Walks have been added since the late 1990s. Reasons for this are not entirely clear. The most commonly reported reason was to protect the Great Walk brand by having fewer quality walks rather than a larger number of mediocre experiences. The cost of maintenance was also another reason for not expanding the Great Walk network.⁹

Since Great Walks were established, growth in their use has been generally modest. The exceptions being Rakirua (Stewart Island) and Whanganui River Journey where use has doubled since 2010, albeit off a small base.

With relevance to this report, DoC will have the choice to apply Great Walk status to the proposed tramping track through to Punakaiki although that decision will depend on how well it fits the Great Walk criteria and DoC's willingness to put its marketing efforts behind the new walk.

⁹ DOC Visitor Strategy, 1996

3 Assessment of options

3.1 Description of Concept

The desired outcome is for an easy overnight tramp linking the Pike River Valley to Punakaiki. The track would be constructed to a high standard and thereby appeal to a wide range of markets, both domestic and international. The target domestic market would be residents of Christchurch, and it is also expected that the walk would be used by the West Coast population. While these are the primary domestic markets, it may also appeal to walkers and trampers from the North Island.

Four options have been put forward for consideration. Three of these link the Pike River Valley to Punakaiki via the Paparoa Range. A fourth option links the Pike River to Greymouth via the Southern Paparoa Range and Sewell Peak (refer Figure 6). These are discussed below.

Figure 6 – Map of track options



3.2 Assessment criteria

The following assessment criteria have been applied to each option:

Table 2 — Assessment criteria

Criteria	Explanation
Broad market appeal	<ul style="list-style-type: none"> • Suitable for visitors with moderate and above levels of fitness • Some tramping experience required • Wide age range, from 12-13 years old and older • Capability of being used by mountain bikers would be of added value
Suitable for weekend / short break market	<ul style="list-style-type: none"> • Will be of most interest to the Christchurch market for an easy weekend tramp • A two night/three day is also possible
Economic impact	<ul style="list-style-type: none"> • Potential for creating local jobs and business opportunities • Adding value to West Coast as a visitor destination
Environmental effects	<ul style="list-style-type: none"> • Alignment would have the least adverse environmental effects possible

3.3 Option A: Pike River to Sewell Peak

Description

This option involves construction of a new trail from Pike River to Sewell Peak. It would extend the walk along the tops of the Paparoa Range, taking in Mt Leitch (1153m), Mt Watson (1102m) and Mt Davy (1012m). Two huts would be desirable. The first hut would be located in an area known as the Moonlight Tops. A second hut could be located near Mt Leitch, near the boundary of the Roa Mine. The length of track from Pike River to Sewell Peak is approximately 33.5 km. This route would traverse the same ground as proposed by the earlier (2010) Southern Paparoa Journey from Croesus Track to Sewell Peak.



View from the Moonlight Tops looking south towards Sewell Peak

Benefits

This option provides an opportunity for visitors to experience the open and gentler tops of the southern Paparoa Range. No sections of track would need to be above 1200m. Overall the construction of new track is likely to have a lower environmental impact than Options B and C. The track traverses a spectacular and diverse landscape and has distinctive geology along the route, with sandstone tors, conglomerate rock outcrops and fault scarps. The ever-changing scenery from the track is superb and on a clear day visitors will have spectacular views of Aoraki Mt Cook, the Southern Alps *Kā Tiritiri o te Moana* and the West Coast.

There are a number of historic features along the track, including the Croesus mine and mullock heap, remnants of an aerial ropeway and the massive rock cairns that mark the historic Coolgardie miners route to Mt Davy.

The track would traverse an area where Great Spotted Kiwi can be heard at night and are being monitored and actively managed by the Paparoa Wildlife Trust.

The section of track from Sewell Peak to Croesus Track (or beyond) could be constructed for dual use walking and mountain biking. The track is already popular for mountain biking and an extension of the opportunity south to Mt Davy would make a great one-day ride for intermediate/advanced mountain bikers.

There is also an option to upgrade the historic Coolgardie Track, which would provide visitors an option to walk from Sewell Peak down to the historic Brunner Mine site. Alternatively, another option exists to descend from the Paparoa Range to Rewanui. This would end up closer to Greymouth passing through some interesting mining history.

The southern track option would provide visitors with flexible options for a number of trips or repeat visits, as it would provide links to the existing Moonlight Track and Croesus Track. The Croesus Track is a well-formed pack track that starts at Blackball and has the existing Ces Clark 16 bunk hut located at 920m. The Croesus Track continues west and descends from Mt Ryall to Barrytown, 15 km south of Punakaiki. A section of track descending from Mt Ryall would need to be upgraded to provide a track of a similar standard, allowing for an alternative option of people descending from the range to visit Punakaiki.

The Sewell Peak access road could allow walkers and mountain bikers to start their trip at 850m, although there will be issues with two-way traffic on this steep telecommunications

service road. This is approximately 30 minutes drive from Greymouth and would make it ideal for people who wish to visit for the day.

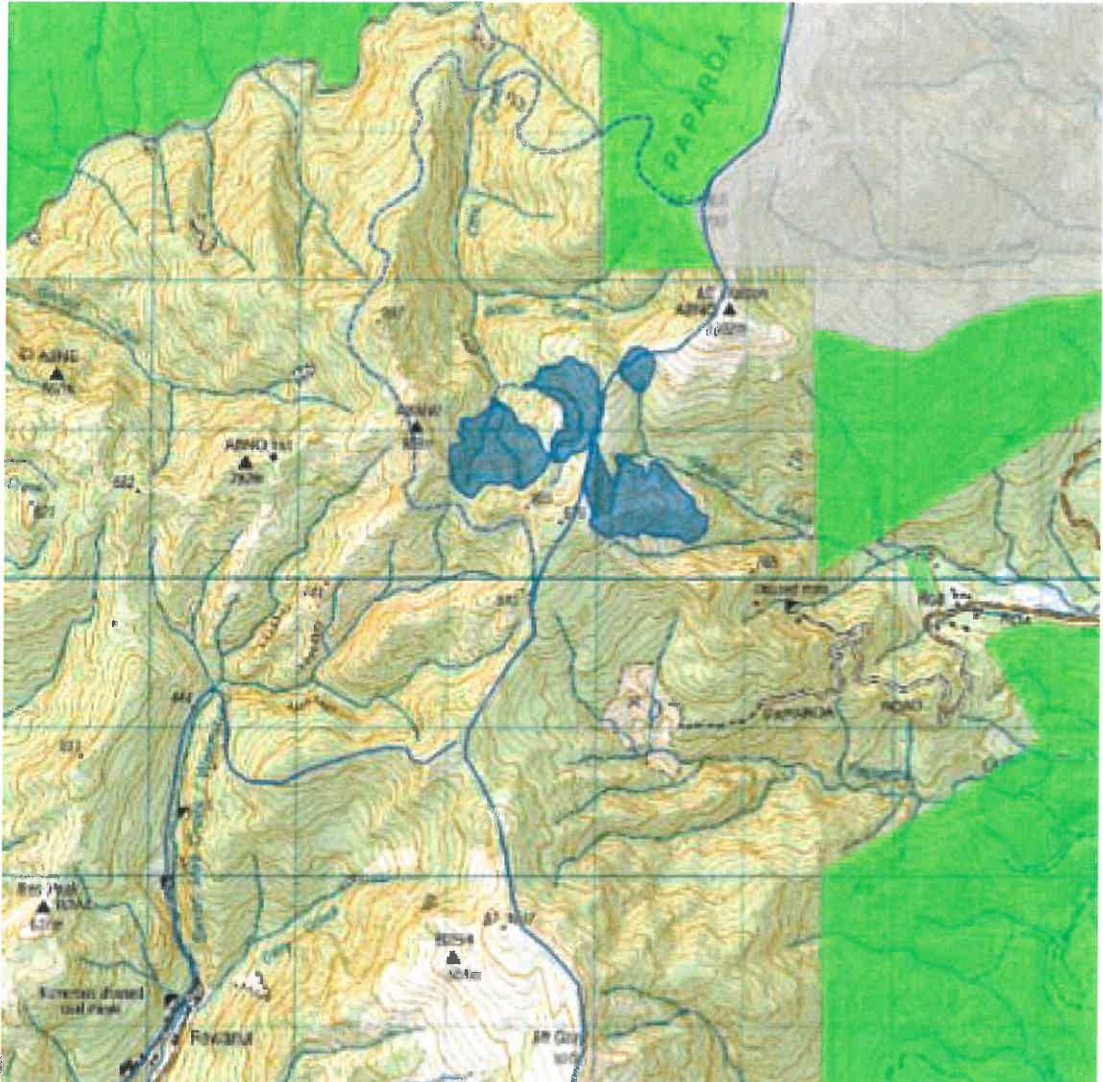
Option A is in close proximity to Greymouth which has a range of accommodation, dining and retail facilities, as well as a connection with the Tranz Alpine train and other vehicle transport services. The majority of track and all huts can be located outside the Paparoa National Park and therefore a review of the National Park Management Plan will not be required for this proposal to proceed. A Southern Paparoa Journey Feasibility Study proposing an Easy Tramping Track from the Croesus Track to Sewell Peak was completed in 2010.

Issues

Gaining public access through State Coal Reserve land (administered by Land Information New Zealand), south of Mt Watson will be required for this proposal to proceed. The track would traverse the range above the Roa Mine. A haul road crosses the Paparoa Range between the Roa Mine to a Solid Energy mine on the west and the track would need to cross the haul road. While access maybe permitted, the bigger issue is that walking through or around an active mine that is planned to increase in size and scale in the future.

Alternative options to locate the track south of Mt Watson, further to the west (Figure 7) were considered, however these were disregarded, as they will require significant descent and ascent to avoid passing through current and future mining operations. Any alignment of the track to avoid mining operations from being visible from the track will be very difficult to achieve, as the terrain in Otto Creek is very rugged and unstable. It would be extremely problematic to bench a track. In summary, this would not be compatible with an easy tramping experience built to showcase natural landscapes.

Figure 7 — Alternative routes south of Mt Watson located to the west to avoid current and future mining operations. The area in blue shows planned mining operations in the future



While the Sewell Peak road does provide access, it is a very steep one-lane service road, requiring 4-wheel drive transport and has the potential for hazards with telecommunications service vehicles and tourist traffic. This would therefore potentially need to be a controlled concessionaire activity.

A drop-off / pick up shuttle service will be required to service both ends of the track (regardless of whether it finishes at Sewell Peak, the Brunner Mine site or Rewanui). Security of vehicles left at either road end will be an issue to many people. Vehicle break-ins are fairly common at car parks in the Grey District and within Arthur's Pass National Park – in other words, the area already has a reputation for vandalism.

Weather is also an issue. The main window of opportunity to walk the track is between late September and late April or early May with approximately 30% to 50% of days offering ideal walking conditions. Some estimates put the number of fine / clear days suitable for

walking over the tops at 100 days per year – and the winter is well-known to local residents as having extended periods of clear days.¹⁰

A section of the proposed track from Pike River to the high points of 1122 m and 1030 m passes through the Southern Paparoa Remote Zone. Section 3.6.1.3 Policy 3 of the West Coast Te Tai Poutini CMS, however, states that consideration may be given to the development of a minimal number of new recreational facilities for public use within the Remote Zone. Applications to provide new facilities will be considered on a case-by-case basis and should be consistent with the objectives for Remote Zones. Given the existing infrastructure in the Pike River catchment, the construction of new track is not considered to significantly impact on the objectives for the Southern Paparoa Remote Zone.

The overall fit with criteria is summarised as:

Criteria	Assessment
Broad market appeal	<ul style="list-style-type: none"> • Has wide appeal, moderate level of fitness required and also has potential for mountain bikes • Long sections on exposed Paparoa Range • Up to 3 days required • Huts would have striking outlooks • Will be used more by domestic than international visitors
Suitable for weekend / short break market	<ul style="list-style-type: none"> • For very fit people, can be done in a weekend • Most people would require 3 days
Economic impact	<ul style="list-style-type: none"> • Offers better potential economic benefits to Grey District than the Pike River – Punakaiki options
Environmental effects	<ul style="list-style-type: none"> • Depends on construction method. Initial assessment suggests no threatened species are at risk. Disturbance to other wildlife and vegetation is commensurate with construction of a high standard tramping track. Adverse effects on soil profiles are expected in what is an erosion-prone area. Further analysis of environmental effects is provided in the following section on feasibility

¹⁰ Richard Arlidge, Punakaiki resident

3.4 Variation to Option A: Pike River to Croesus Track

Description

A slight variation to Option A is possible by connecting the existing Croesus Track to the Pike River Valley. This would leverage off the existing track and hut infrastructure on the Croesus Track. An additional hut could be built on the Moonlight Tops offering a spectacular outlook, although this is not absolutely essential. It would be a two-day / weekend experience that could be walked or potentially ridden in either direction. The steep climb out of/down to the Pike River Valley would require considerable switchback construction for walkers and bikers.

Benefits

This option enables a weekend easy to moderate tramp that leverages off some existing infrastructure. It may also provide increased economic impact for Blackball and indirectly Greymouth. There is potential for the track to be shared use (walkers and bikers) although further detailed assessment and track design is required to confirm.

Issues

The same issues would apply as with Option A in terms of challenging terrain for track construction, weather and transportation (car park security and shuttle services). The overall fit with criteria is summarised as:

Criteria	Explanation
Broad market appeal	<ul style="list-style-type: none">Suitable for most walkers and trampers with moderate fitness and intermediate-advanced mountain bikers. Would appeal to West Coast and Christchurch residents. International visitors will be a minor component of use
Suitable for weekend / short break market	<ul style="list-style-type: none">Will be 'doable' from Christchurch or the West Coast
Economic impact	<ul style="list-style-type: none">No guarantee that it would receive much more use than the 1,000 walkers/bikers that use the Croesus Track now. A slight increase in use can be expected and this may be enough to support a new shuttle service or provide more business to the existing shuttle service provided by the Blackball Hilton pub
Environmental effects	<ul style="list-style-type: none">As with Option A, although total adverse effects would be less due to the existing Croesus Track

3.5 Option B: Pike River north to Punakaiki

Description

This option involves constructing new track from the Pike River amenities area and climbing a slope and ridgeline to White Knight (1224m), traversing north along the Paparoa Range before turning west to Mt Bovis. The track could descend to Bullock Creek using the existing and very steep Mt Bovis Route. An alternative is to construct new track to a grade more suitable for an easy tramping track by descending from Mt Bovis and joining the Inland Pack Track near Fossil Creek. This option involves constructing approximately 28 km of new track. Huts could potentially be located on the Paparoa Range and also on the former Bullock Creek Farm. Approximately 5 to 6hrs moderate to hard tramping per day would be required to cover the distance given the nature of the terrain.



Mt Bovis ridge line seen looking north from White Knight above the Pike River Valley

Benefits

This option provides an opportunity for visitors to experience the rugged remoteness of Paparoa National Park. The track would traverse distinctive granite tops and provide a further option for visitors to enjoy spectacular limestone landscapes.

People could be picked up by vehicle at the end of the Bullock Creek road, or continue tramping to Punakaiki via the Inland Pack Track. This would provide a two or three day tramping option, however, it should be noted that there is currently extensive damage on the Inland Pack Track between Bullock Creek and Fossil Creek, caused by Cyclone Ita in Easter 2014.

Issues

The northern option passes through some steep and particularly rugged country, with 12 peaks over 1200 metres in height from White Knight to Mt Bovis. The track would require formation or benching around steep granite/gneiss tops and through some broken limestone country. Some creeks will require bridging to provide a link to the Inland Pack Track. Weather will always be an issue given the length of the track along exposed tops.

Even with careful and sensitive track construction techniques, the formation of the track along the tops will have a relatively high environmental impact in an otherwise pristine area of Paparoa National Park.

The likely location for a hut on the Paparoa Range is steep and exposed and will need careful assessment of its feasibility.

The vehicle access to Bullock Creek is via a long narrow gravel road and subject to periodic flooding and is high maintenance. Shuttle services will be essential for drop-off and pick ups – it is nearly 2 hrs drive from either end of the track.

The northern option passes through the Paparoa National Park, the Southern Paparoa Remote Zone and is on the boundary of the Paparoa Wilderness Area. The construction of a high standard tramping track and associated huts is inconsistent with the objectives in the Paparoa National Park Management Plan and Remote Zones described in the West Coast *Te Tai Poutini* Conservation Management Strategy. A track and associated facilities cannot be built in a Wilderness Area. Mountain biking along this route would not be possible due to the steep terrain.

White Knight stream and the tarn immediately to the south of the peak is also a site of significant cultural importance to Ngati Waewae. Consultation will be required with Te Runanga o Ngati Waewae to better understand the cultural impacts of developing a track in the vicinity of White Knight stream.

The overall fit with criteria is summarised as:

Criteria	Explanation
Broad market appeal	<ul style="list-style-type: none"> Limited to fit and capable trampers. Mostly a domestic product with some uptake by international visitors with good tramping skills. Not practical for mountain bikers
Suitable for weekend / short break market	<ul style="list-style-type: none"> Would be two long days on the tramp excluding transport therefore this would be more of a 2 night 3 day experience
Economic impact	<ul style="list-style-type: none"> The main benefits would accrue to both Punakaiki and Greymouth depending on market uptake and where transport shuttles are based. It would be desirable to walk the track from Pike River to Punakaiki as most people would prefer to walk towards the sea and finish at a known destination
Environmental effects	<ul style="list-style-type: none"> Initial assessment suggests substantial clearance of mature trees in order to connect the tops to the valley floor on the Punakaiki side and on the Pike River side. Considerable soil disturbance along the tops expected to create a track of a high standard

3.6 Option C: Pike River west to Punakaiki

Description

The feasibility of constructing a track from the Moonlight Tops on the Paparoa Range west to the headwaters of the Punakaiki River was also considered. There is the possibility of constructing a track down a leading spur from the Moonlight Tops, however the spur is very long and the country is particularly broken, and the track would need to gain and lose elevation before connecting with the Punakaiki River and the Inland Pack Track. This option of a direct crossing of the Paparoa Range does not have any significant time on the 'tops' and would lack the 'wow' factor of the other options. The length of track from Pike River to Punakaiki via the Pororari River is approximately 34 km. If people exited to Punakaiki via the Punakaiki River the track would be approximately 30 km.



Looking west to Punakaiki and the Punakaiki River (upper left) from the ridge line that descends west from the Moonlight Tops

Benefits

As with Option B, this route would take visitors through some of the more rugged and challenging parts of Paparoa National Park. There would be variety and challenge and while on the tops (about 3 – 4hrs out of up to three days), some grand views of the Paparoa Range, West Coast and in the distance and the Central Southern Alps.

Issues

This route option was flown over in early May following a steep and broken ridge line from the Moonlight Tops to the Punakaiki River. If constructed, most of the experience would be in forest with limited views out. There is considerable wind-throw damage to trees along this route. Because of the rugged terrain, it is likely that two huts would be required. The first would be as with Option A and located in a spectacular open location on the Moonlight Tops. A second hut is likely to be required approximately 2.5 to 3hrs from Punakaiki.

As with Option A it is desirable to walk the track from Pike River to Punakaiki rather than the other way. This is because from Punakaiki the first day would be long and steep through forest with little chance of a view. The other limiting factor is that finishing in the Pike River

Valley would potentially be seen as a mystery to most walkers. Psychologically, walkers prefer to start and finish at known destinations or at least places that make sense to their travel plans.

The issue here is that the bulk of international visitors would be passing through Punakaiki. Starting from there would make more sense to them than diverting to Pike River, only to return to Punakaiki. For domestic walkers/trampers, most of who would be from the West Coast and Christchurch, there is likely to be more appeal and convenience starting at Pike River.

Transport shuttles would be essential, as with Option B and A. Considerable clearance of mature trees would be required to provide access from the Pike River Valley to Moonlight Tops and from the Tops to the Punakaiki River.

The overall fit with criteria is summarised as:

Criteria	Explanation
Broad market appeal	<ul style="list-style-type: none"> Limited to fit and capable trampers. Mostly a domestic product with some uptake by international visitors with good tramping skills. Not possible for mountain bikers
Suitable for weekend / short break market	<ul style="list-style-type: none"> Would be two long days on the tramp excluding transport therefore this would be more of a 2 night 3 day experience
Economic impact	<ul style="list-style-type: none"> The main benefits would accrue to both Punakaiki and Greymouth depending on market uptake and where transport shuttles are based. It would be desirable to walk the track from Pike River to Punakaiki as most people would prefer to walk towards the sea and finish at a known destination
Environmental effects	<ul style="list-style-type: none"> Initial assessment suggests substantial clearance of mature trees in order to connect the tops to the valley floor on the Punakaiki side and on the Pike River side. Considerable soil disturbance along the tops is expected A plan change would be required to enable new huts to be built

3.7 Option D: Blackball to Punakaiki linking with the Pike River Amenity Area

Description

This option would connect the two towns of Blackball and Punakaiki via a three-day tramp using the existing Croesus Track and Pororari Gorge track. The first day would involve walking / tramping for 5 to 6hrs along the Croesus Track to overnight at a new hut site on the Moonlight Tops, as with Option A and C. The next day would involve walking along the tops to the bluff outcrops known as the Escarpment and through the Pike River Basin before descending for approximately two hours through forest to a second hut site above the junction of Tindale Creek. This would be a relatively easy 4 to 6hr day tramp along the tops and then downhill from there. Subject to track alignment, it may also be possible to mountain bike most or all of this route. A side - track is also envisaged from the Pike River Amenity area that would join the Paparoa Range near a high point at the southern end of the Escarpment.

From the second hut, it would take about 4hrs to walk out to Punakaiki. This section of the track would be quite spectacular first entering limestone country on an elevated bench with views, then beech forest and back into the Pororari limestone gorge for a breathtaking end to the trip. It would need three to four new footbridges depending which route was best (Upper Pororari, Watson Creek and maybe Tindale Creek depending on the alignment).



View from helicopter looking along the Escarpment between Croesus Track and the descent down to Tindale Creek

Benefits

Preliminary investigation suggests there are some advantages of this option over Options A, B and C. It would make use of two existing tracks (Croesus and Pororari) and have a more reasonable balance of time on the tops and time in forest. By combining mountain biking and walking over part or all of the track, it becomes a more compelling proposition. The exit to Punakaiki via the Pororari Gorge would be very scenic taking in the Pororari River and dramatic limestone cliffs. An existing shuttle provider – the Blackball Hilton – may be interested in providing transport services for pick-ups and drop-offs. A side - track linking Option D to the Pike River Amenity Area would go some way in meeting the interests of the Pike River families.

Issues

This option will face the challenge of transportation issues and in finding a viable track alignment from the Escarpment down to Tindale Creek. The descent from the tops to valley floor is steep, forested and mostly untracked (although some goat cullers have found their way from the valley floor to the tops in the past). A change to the Paparoa National Park Management Plan will be required for the new huts. It may also indirectly lead to a reduction in the use of Ces Clark Hut on the Croesus Track, should this option become popular. If mountain bike use is possible, then it would compete directly with the new Old Ghost Road Track which is due to be completed later in 2015 – early 2016. As Option D links to two existing tracks, it would need to be renamed to capture the imagination of potential visitors.

The overall fit with criteria is summarised as:

Criteria	Explanation
Broad market appeal	<ul style="list-style-type: none">• More suitable for moderately fit walkers/trampers – easier than Option B• Predominantly a domestic tramping experience• May be suitable for mountain bike use subject to track alignment and review of Paparoa National park Management Plan
Suitable for weekend / short break market	<ul style="list-style-type: none">• Could be walked by very fit trampers in 2 days but for most people, this is a 3-day walk
Economic impact	<ul style="list-style-type: none">• Potential to bring benefits to Blackball and Punakaiki although not substantial in terms of employment or direct visitor expenditure to either communities. One of these locations may receive an extra night's accommodation before or after the walk but this needs further investigation

Criteria	Explanation
Environmental effects	<ul style="list-style-type: none"> Initial assessment indicates substantial removal of mature trees on the western side of the route through to Tindal Creek and on to the Pororari Track A plan change would be required to enable new huts to be built

3.8 Summary of options within Paparoa National Park

All of the options discussed have the potential to create a 2 to 3 day easy tramping track in Paparoa National Park. At this preliminary stage of investigation, it appears that Option D has the best potential to become an overnight tramp of regional significance, but only if all of its associated issues can be solved (transport, marketing and promotion, management plan change, support from the wider community and businesses). The next best option is a variation to Option A that is to connect the Croesus Track to the Pike River Valley via the Moonlight Tops.

The rest of Option A is untenable as it requires access through the Roa Mine and this would not be compatible with a regionally significant multiday tramping experience associated with Paparoa National Park.

Options B and C to Punakaiki, while offering some outstanding vistas from the Paparoa Range, will be technically very challenging to establish. Option B would be a challenging 2 to 3 day tramp rather than an easy overnight tramp suitable to a wide audience. With Option C there are limited opportunities to actually enjoy the expansive views possible with the other options.

3.9 Other options

During the course of this investigation, the consultants met with family representatives in Greymouth to discuss expectations and concerns. ***The consultants raised the point that the proposed walk has to succeed in its own right – and that may mean not being physically connected to the Pike River Valley.***

In light of this, other possibilities have been raised closer to Greymouth involving a network of easy tracks and mountain bike trails linking Point Elizabeth, the Nine Mile and Rewanui with potential links further to the Brunner Mine historic site. They are raised at this point as an alternative solution should the families and the Crown not reach an agreement on a preferred option within the park.

4 Feasibility

This section examines the feasibility of the proposal in terms of market demand, potential economic impact, development costs, transport logistics and environmental effects.

4.1 Market demand

Three demand scenarios for each option have been developed to illustrate how visitors may respond. These are based on a number of assumptions outlined below. The Pessimistic scenario assumes that there is little interest from walkers/trampers and that transport or other logistics are not solved. The Base Case scenario assumes the most realistic outcome in terms of market demand and operation of the walk. Competition from other tramping and mountain biking tracks or other activities would still have a dampening effect on demand. The Optimistic scenario assumes that all issues have been solved and that the walk is better than anyone expected. It also assumes that international visitors would change their West Coast itinerary in order to undertake the walk.

Walk Option	Projected use by Year 5			Ratio of domestic to international visitors
	Pessimistic	Base Case	Optimistic	
A: Pike River to Sewell Peak or Rewanui	450	900	1,700	90:10
Variation to A: Pike River to Croesus Track	600	1,200	1,800	90:10
B: Pike River north to Punakaiki	400	800	1,500	80:20
C: Pike River west to Punakaiki	400	700	1,200	80:20
D: Blackball to Punakaiki via Croesus Track and Pororari Gorge with a link to Pike River Amenity Area	500	1,000	2,500	80:20

Assumptions:

1. The projections are considered reasonable in light of competition from other comparable overnight easy to moderate tramps on the West Coast. The Heaphy Track (6,000 visitors), Lake Daniels (4,000 visitors), Copland Track (4,000) and Croesus Track (1,000 visitors) are reasonable indicators of how the Pike River to Punakaiki walk could perform. And these tracks have been in the market for over 20 years. Further to this, the Old Ghost Road is receiving less than 50% of its forecast use. When it opens later in 2015, use would have to double within 12 months in order to achieve projected levels of demand
2. To exceed 2,500 overnight visitors, Option D would have to be exceptional quality. With 20 bunk huts running at 50% occupancy (most popular DOC huts run at less than 50%), it would require an average of 250 days with 10 trampers to receive

2,500 visitors per annum. To exceed this would mean the walk has to have the potential to become one of the most compelling, must-do overnight tramps on the West Coast. It would have to be a shared use track and the mountain biking would also need to be outstanding. The shuttle service would be seamless and affordable catering to both walkers and bikers. Marketing and promotion would be in excess of \$20,000 p.a. for the first three years to raise profile and drive demand. Option D would need to be promoted nationally as one of DOC's new "Top Tracks" or perhaps in time, become a Great Walk if it is to exceed 2,500 visitors per annum¹¹

3. Option A has a lower market penetration because of the issues associated with crossing the Roa Mine operation. Weather will also play a big part in influencing market demand on all options
4. The international component of total visitation for each option is estimated to be between 10% and 20%. This is quite low however there is likely to be a real constraint around the percentage of international visitors who would change their West Coast itinerary to do this walk. Those most likely already have or are planning to do the Heaphy, Abel Tasman, Routeburn, Kepler or Milford tracks. Time on the West Coast is very limited and therefore these visitors would have to choose between taking in iconic attractions such as the Franz Josef and Fox Glaciers and doing the Pike River to Punakaiki walk. Quite simply, the Pike River to Punakaiki walk would have to be as good if not better than the Routeburn, Kepler or Milford to change international visitor itineraries in any substantive way
5. Market demand will be influenced to some extent by the lack of profile that the Paparoa National Park has for easy overnight tramps and the perception of transport issues. This means that marketing of the walk and transport arrangements for pick-up and drop-off will need to be slick, effective and seamless in the minds of consumers. Changing consumer perceptions in this regard will take at least 5 years. In the case of the Hump Ridge Track, its reputation was damaged within 3 years of being open by being too long, too difficult and without good transport connections. It has never recovered.

4.2 Economic impact

A preliminary estimate of economic impact has been undertaken using Option D as the best scenario. Estimates of economic impact could also be applied to the other options but at this stage, because there are serious logistical and market demand issues with all the options, it is considered more practical to choose the one with the better outlook – even if in the end one of the other options is pursued.

This tentative economic impact assessment is based on the spend per person using figures considered relevant for 2018 when walk could be operational:

Item	Cost per person
2 nights in huts @ \$60/night/pax (assumes a fully serviced hut)	\$120.00

¹¹ Top Tracks is a working title for a select number of high standard, easy overnight tramps that are not Great Walks, but the next tier of quality tramping experience with high standard facilities

Item	Cost per person
Transport shuttles to return to vehicles	\$75.00
Food for up to 3 days	\$100.00
Fuel - based on a per person round trip from Christchurch as a rough average	\$100.00
1 night accommodation in Grey district before / after the walk	\$150.00
Total	\$545.00

Compared to today's prices, these costs could be considered to be slightly on the high side. A commercially guided option has not been factored into these estimates at this stage. It is doubtful this would generate substantial visitor expenditure into the local economy given better guided walk options elsewhere on the Routeburn, Milford, Abel Tasman and Kepler tracks.

For the purpose of this report, economic impact is described in terms of total visitor expenditure (direct output), direct value added and Full Time Equivalent (FTE) jobs. The calculation of value added impact and FTEs is based on Butcher's previous work on tourism on the West Coast.

Under the Base Case scenario, total visitor expenditure would be in the order of \$545,000 per annum that in turn could generate 6 direct and 7 indirect jobs. A word of caution applies to any calculation of employment in the tourism sector. The figures below assume that all issues are resolved and that the Pike River to Punakaiki walk is working in the most optimal conditions. That will be different from reality and the number potential jobs could be more or less than shown here. The optimistic scenario is just that – optimistic. It assumes exceptional circumstances and that everything is working perfectly which, at this stage, is unlikely.

Aspect	Pessimistic	Base Case	Optimistic
Walkers p.a.	500	1,000	2,500
Direct output	\$272,000	\$545,000	\$1,400,000
Direct value added	\$144,160	\$288,850	\$742,000
% value added of direct output*	53%	53%	53%
Total value add after multiplier	\$172,992	\$346,620	\$890,400

Aspect	Pessimistic	Base Case	Optimistic
Type II multiplier 1.2*	1.2	1.2	1.2
\$ Output per FTE*	\$91,000	\$91,000	\$91,000
FTEs (Employment multiplier 1.1)*	3 Direct 4 Indirect	6 Direct 7 Indirect	15 Direct 17 Indirect

* Based on Butcher, 2000 Economic impact of tourism on Westland

4.3 Development cost

Estimates of development costs are derived from DOC staff involved with track and hut construction. A preliminary cost estimate for track construction in this sort of terrain is

The cost per metre of constructing Option B is likely to be more expensive than Options A and C due to the more challenging terrain. Option B will require an increase in DoC's operating budget to reopen the section of storm - damaged track from Fossil Creek to Bullock Creek.

An estimate for the construction of a serviced 20 bunk hut with a 2 bunk hut warden quarters is

Note the estimated costs for each hut will increase if a decision is made to increase the size of each hut. The summary of construction costs is:

4.4 Transport logistics

All options require the transfer of cars to the start and finish and or a shuttle service. Provided the walking experience is compelling enough to drive market demand, shuttle services will solve transport issues. That is being seen on a number of successful walking and cycle trails such as the Tongariro Alpine Crossing, Otago Central Rail Trail, Mountains to Sea cycle way and the Great Lake Trail, Lake Taupo.

In the case of the proposed Pike River to Punakaiki walk, incentives such as a transport subsidy should be considered to stimulate interest from the private sector in a shuttle service. The constraint for the private sector will be the relatively low level of demand in the first few years to make the risk worthwhile. Existing tourism operators are likely to be most interested, as a shuttle service could become an added value to their existing business. It is unlikely that the walk will generate enough demand to sustain a stand-alone shuttle business. At the time of writing, the Blackball Hilton pub does provide a shuttle service associated with the Croesus Track.

4.5 Environmental effects

A brief desktop assessment of potential environmental effects was undertaken with input from DOC biodiversity specialists.

Option A Pike River to Sewell Peak

A DoC biodiversity specialist has provided the following notes:

‘Beginning with a commentary about the vegetation, no rare, unusual nor under represented forest types will be adversely affected by the proposal. Adverse effects will mostly be confined to the proposed track path. The track is also situated well north east of where beech forest becomes patchy near the edge of the West Coast beech gap.

Likewise it is unlikely that the proposal would have significant adverse effects on fauna. Although the proposed walk will pass through *Powelliphanta* habitat, species of this land snail are of widespread occurrence alongside tracks elsewhere in the northwest South Island. Their known and widely publicised decline is clearly due to other factors that are beyond the scope of this report to discuss. Similarly any arguments that the proposal would lead to adverse effects on threatened bird species hold little justification. In fact if the proposal comes to fruition it could lead to positive effects by generating opportunities to expand predator control currently under way in nearby Moonlight and Blackball Creek catchments. This could in turn lead to new conservation partnerships.

In contrast it is abundantly clear that track construction and maintenance will lead to significant adverse effects on the physical environment. During early phases of track construction trees of varied size will require felling if they and/or their roots are in the way. Any dead roots that are left behind will only provide soil cohesion in the short term. However these matters by themselves pale into insignificance in comparison to the major challenge that will be posed by the extreme physical environment of the Papatōia Range. The issues are likely to be ratcheted up to an even higher level, given the high standards required for a tramping track of “easy” standard that also caters for intermediate-grade mountain bike users.

Overall the proposed track should lead to positive effects for nature conservation. What is less clear is whether it is feasible. Its construction and maintenance will be highly challenging and management of attendant risks to public safety are other concerns. In view of these matters, it is strongly recommended that a thorough geo-technical investigation be prioritised.'

Option B Pike River north to Punakaiki via Mt Bovis

Considerable clearance (including blasting) of rock, alpine herb fields and forest will be required for this option. It is conceivable that no threatened, rare or endemic species of plant or wildlife would be adversely affected by careful track alignment and construction.

Greater issues maybe encountered with stakeholders concerned over intrusion into the Southern Paparua Remote Zone and the Paparua Wilderness Area. In order to construct a high standard track of approximately 600mm to 1000mm wide it will require an initial track corridor, in places, in the order of 1 to 2 metres to allow room for construction machinery, materials and equipment.

Option C Pike River west to Punakaiki

The assessment of environmental effects is the same for this option as for the first part of Option A, up to the Moonlight Tops. From that point, the track takes a series of forested ridge - lines and spurs descending steeply to the Punakaiki River. This will require a 1 to 2 metre track corridor to be cut through subalpine and mature canopy forest. Multiple bridges are likely to be required to span steep ravines, streams and the upper reaches of the Punakaiki River. A change to the Management Plan (as with Option B) would be required to enable up to two new huts to be built.

Option D Blackball to Punakaiki

The potential for environmental effects is similar to Options B and C. To gain access from the Moonlight Tops to the Pororari Gorge will require a 1 to 2 metre track corridor to be cut through subalpine and mature canopy forest. At least three bridges are likely to be required for rivers and streams between the Moonlight Tops and Pororari Gorge. A change to the Management Plan (as with the other options) would be required to enable two new huts to be built and mountain bikes to be permitted.

5 Pike River Amenities Area and Ventilation Shaft

Description

The Pike River Mine amenity area includes the control room, engineering workshops, bath - house facilities and a collection of training and administration buildings. A short gravel road provides access up to the mine portal. Beyond there a steep-sided valley leads to the ventilation shaft.

Stakeholder aspirations and concerns

Family representatives raised the following points at a meeting with DoC and the consultant in Greymouth on Tuesday 5 May:

1. A desire to have an appropriate memorial or shrine located at the portal in memory of the 29 miners. This would be a quiet, sombre space for reflection and of most interest to the families
2. The possibility of turning the control room area into a small memorial display or information centre for visitors to learn about the mine operation and tragedy
3. The possibility of using the remaining buildings for outdoor education and or workplace safety training
4. Formation of a track between the amenities area and the ventilation shaft

Options

During the 5 May meeting with the family representatives, the consultant raised the point that the proposed tramping track and Pike River Mine do not necessarily need to be linked physically. The consultant pointed out that visitor markets will only be interested in the walk for its own sake and not necessarily because it has grown out of a modern day mining disaster. The point of saying that is so the families could consider more viable options that may lie outside of the Pike River catchment.

This means that the visitor use of the Pike River Mine amenities area could be looked at separately to and not reliant on the easy tramping track concept.

Control room visitor centre

A preliminary assessment of this option indicates that it would only be viable if there were other things to do at the amenity area and that access was still possible. Sites associated with industrial or other tragedies can become tourism attractions although these tend to be in locations with an established flow of visitors and a range of support services (for instance, the Twin Towers in New York and the Oklahoma bombing memorial site). Although not directly attributable to a mining disaster, the Deniston Plateau historic site is a good example of interpretation being used to bring to life the stories associated with mining on the Deniston Plateau.

Should access remain to the amenities area, a possible solution is to have a converted control room as a display area. It would not have personnel based there and be designed in a way to minimise vandalism. It is difficult to imagine that many visitors would make the drive to the amenities area. If the intent is to share the stories with as many visitors as possible, then the memorials and museums in Greymouth offer a better option for achieving this.



Control room, Pike River Mine

Outdoor education and workplace safety training

On the face of it, the facilities at the amenity area could make for a useful centre for outdoor education and or workplace safety training. But on closer investigation, there are some real constraints for both options. In terms of outdoor education, the current market is generally struggling to make ends meet. Most centres such as Outward Bound (Anakiwa) and the Outdoor Pursuits Centre (Tongariro) are facing issues of declining participation. Many outdoor centres owned and run by schools are facing similar issues. Further, the supply of outdoor education facilities in mid Canterbury and the West Coast does not seem to be an issue with facilities located at Arthur's Pass, Hanmer, Akaroa/Wainui and Peel Forest.

The site is also limited in terms of the activities that groups could undertake. There are no suitable tracks or open space areas and the climate is less than ideal. The consultant suggests that these options would be very difficult to turn into viable operations.

In terms of workplace safety training, Mines Rescue has developed a modern facility at Rapahoe close to Greymouth and this existing facility is currently underutilized.

One way to explore these options further is to seek expressions of interest from potential providers. This may generate some ideas or concepts that have not been considered to date. Running an expression of interest process would provide a good basis for making a final decision about the amenity area.



Amenity buildings Pike River Mine

Track to the ventilation shaft

Family representatives also asked whether it was feasible to construct a walking track from Pike River to the ventilation shaft.

This option was explored in early March by DOC staff and the route was flown by the consultant. Several options were assessed while walking up to the ventilation shaft. The conclusion was that the valley is so steep that a series of cantilevered structures would be required to gain access to the ventilation shaft. This would only be viable if access to the amenities area remained and that there were sufficient visitors coming to the site. At this stage, this seems doubtful given that the location of Pike River Valley is well away from the main flow of tourists in the region and the wide range of alternative recreation activities.

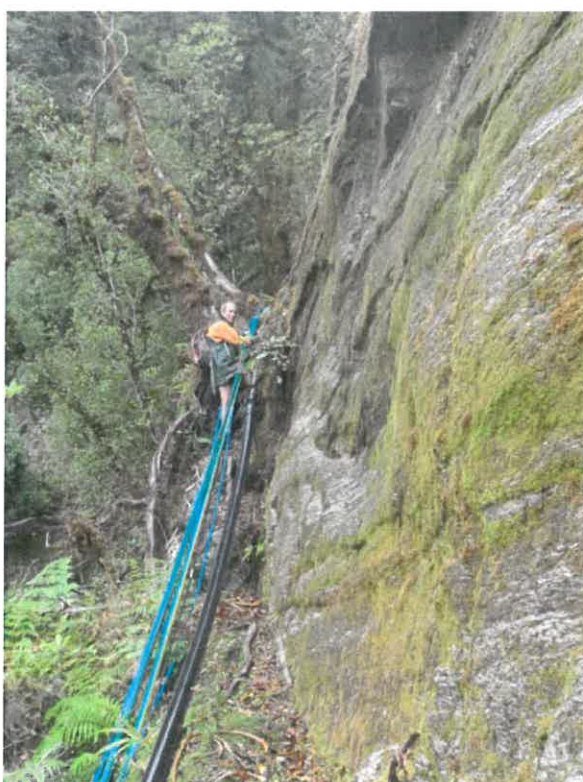
An alternative option for family members to access the ventilation shaft is to retain the heli pad at the vent shaft and review the Paparoa National Park Management Plan to allow helicopter landings at this location.



Looking down to the ventilation shaft



Looking up Pike Stream towards the ventilation shaft



Steep bluffs on proposed track to ventilation shaft

6 Conclusion

This report considered four main options for establishing a proposed Pike River to Punakaiki walk in memory of the Pike River miners and as an economic boost to the local economy. The report also made comment on the Pike River Mine Amenities Area.

At this preliminary stage of investigation, it appears that Option D has the best potential to become an overnight tramp of regional significance but only if all of its associated issues can be solved (transport, marketing and promotion, management plan change, support from the wider community and businesses). Option D would connect the existing Croesus Track to Punakaiki via the Moonlight Tops, Pike River Basin, Tindale Creek and the spectacular Pororari Gorge. A side - track could connect the journey to the Pike River Amenity Area. Connecting to the Pororari Gorge gives the potential to link with existing tracks in what is one of the more spectacular and accessible river valleys in Paparoa National Park. At least half the journey would be in forest with the potential for views out not known at this stage. The next best option is a variation to Option A that is to connect the Croesus Track to the Pike River Valley via the Moonlight Tops.

Option A from Pike River to Sewell Peak near Greymouth, would offer some expansive views from the tops but is seriously constrained by having to pass through or around the Roa Mine operation. Option B from Pike River to Punakaiki via Mt Bovis is over such rugged terrain that it would be a three-day challenging tramp at best. Option C from Pike River west to Punakaiki lacks the wow factor needed for an easy overnight tramp. Most of it would be in forest on both sides of the Paparoa Range with little chance of views and only limited time on open tops.

In terms of the Pike River mine amenity area, a track to the ventilation shaft is not considered to be practical or feasible, and is unlikely to attract even a small number of visitors. An alternative is to provide for helicopter access to the ventilation shaft to allow family members to visit this location.

It is difficult to imagine that many visitors would make the drive to the amenities area. It would be possible to convert the control room as a display area. If the intent is to share the stories with as many visitors as possible, then the memorials and museums in Greymouth offer a better option for achieving this.