



Economic Impact Analysis for
Three Capes Track, Tasman
National Park – revisited 2012

Prepared for

Tasmanian Parks and Wildlife Service

by

Syneca Consulting Pty Ltd

Final Draft 29 August 2012

Executive Summary

This report revisits an earlier economic impact assessment of the proposed Three Capes Walking Track (3CT) on the Tasman Peninsula (Syneca Consulting 2008).

The report provides an assessment of the impacts of three walking experiences as of 2011/12:

- the previous walking experience assessed in 2008: 6 days/5 nights on walking track between White Beach and Fortescue Bay for independent walkers and a revised 5 days/4 nights track between Stormlea Road and Fortescue Bay for commercial walkers (update of 2008 analysis)
- two new walking experiences on a portion of the 3CT (hereafter referred to as the *eastern section*):
 1. 4 days/3 nights walk between Stinking Bay (near Denmans Cove) and Fortescue Bay (walk only), and
 2. 4 days/3 nights walk between Denmans Cove and Fortescue Bay, arriving by ferry from near Port Arthur (ferry + walk).

The findings from the assessment are presented below – all estimates other than for the construction phase are annual figures for 10,000 walkers where 8200 are independent walkers and 1800 are commercial walkers.

Complete track – update of 2008 analysis

Spending by walkers

- Total walking fees paid: \$5.2m split \$1.6m by independent walkers and \$3.6m by walkers in guided groups (commercial walkers)
- Total spend directly related to use of 3CT: \$8.2m
- Total spend in Tasmania attributable to 3CT but not directly related to walk: \$10.8m
- Total spend in Tasman Peninsula attributable to 3CT but not directly related to walk: \$0.5m
- Total spend in Tasmania attributable to 3CT: \$19.0m
- Total spend in Tasman Peninsula attributable to 3CT: \$1.6

Impacts on economy

- Employment gains for Tasmania: 310 jobs total
- Contribution to Tasmanian GSP: \$16.5m
- Employment gains for Tasman Peninsula: 72 jobs total
- Contribution to Tasman Peninsula GRP: \$2.8m

Impacts during construction phase

- Total construction cost: \$48m
- Employment impact: 552 jobs (worker years) over construction period
- Contribution to Tasmania GSP: \$28.3m

Eastern section of the track – new walking experiences

Spending by walkers

- Total walking fees paid: \$3.7m split \$1.0m by independent walkers and \$2.7m by walkers in guided groups (commercial walkers)
- Total spend directly related to use of 3CT: \$5.42m (walk only) and \$ 5.53m (walk plus ferry)
- Total spend in Tasmania attributable to 3CT but not directly related to walk: \$10.8m
- Total spend in Tasman Peninsula attributable to 3CT but not directly related to walk: \$0.5m
- Total spend in Tasmania attributable to 3CT: \$16.25m (walk only); \$16.36m (walk plus ferry)
- Total spend in Tasman Peninsula attributable to 3CT: \$1.0m (walk only); \$1.1m (walk plus ferry)

Impacts on economy

- Employment gains for Tasmania: 278 jobs total
- Contribution to Tasmanian GSP: \$14.1m (walk only); \$14.2m (walk plus ferry)
- Employment gains for Tasman Peninsula: 44 jobs total
- Contribution to Tasman Peninsula GRP: \$1.6m (walk only); \$1.7m (walk plus ferry)

Impacts during construction phase

- Total construction cost: \$23m
- Employment impact: 264 jobs (worker years) over construction period
- Contribution to Tasmania GSP: \$13.5m

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Abbreviations

3CT	Three Capes Track
ABS	Australian Bureau of Statistics
CW	Commercial walkers (on guided walks)
IW	Independent walkers
OTVS	Overland Track Visitor Survey 2010-2011
PWS	Parks and Wildlife Service (Tasmania)
TVS	Tasmania Visitor Survey (12 months to March 2012)

Glossary of terms

Gross Regional Product is the total market value of goods and services produced in the region (the Tasman Peninsula defined to be the area for the Tasman Council) within a given period after deducting the cost of goods and services used up in the process of production, but before deducting allowances for the consumption of fixed capital.

Gross State Product (GSP) is the total market value of goods and services produced in Tasmania within a given period after deducting the cost of goods and services used up in the process of production, but before deducting allowances for the consumption of fixed capital.

Direct jobs are jobs created in businesses that supply goods and services directly to visitors - such as accommodation, food and drink, entertainment and retail services and transport services.

Total jobs include the additional employment created by flow-on effects to the rest of the local market economy. Two types of flow-on effect are factored in.

- **Production-induced effects:** These are the effects on local businesses that supply the front-line businesses. Obvious examples are the butchers and bakers who supply the restaurants and the laundry and cleaning services engaged by accommodation operators.
- **Consumption-induced effects:** These effects flow from the spending of the incomes earned in jobs supported by visitor spending, for example, in local retailing.

Total Trip Expenditure is all monies which have left the hands of the respondent in order for them to participate in their trip to Tasmania. For example this may include airfares and package tour expenditure. Since these expenditures have unknown impact on the state economy they have been excluded from this assessment.

Spend in Tasmania: The Tasmania Visitor Survey is restricted to collecting data on the amount of money that is spent by the visitor while actually in Tasmania and may include items such as food and beverages, accommodation, activities, intrastate travel and shopping.

Spend in region: This item is similar in concept to 'Spend in Tasmania' but restricted to expenditures actually made within the Tasman Peninsula. In particular, the spending on track fees is included in 'Spend in region' only to the extent that the outlays by Parks and Wildlife Service used in maintaining and operating the track are considered to be spent within the region.

Acknowledgements

This revised study was funded by the Parks and Wildlife Service.

1 Introduction

Proposals assessed

This report revisits an earlier economic impact assessment of the proposed Three Capes Walking Track in the Tasman Peninsula (Syneca Consulting 2008).

The report provides an assessment of the impacts of three walking experiences as of 2011/12:

- the previous walking experience assessed in 2008: 6 days/5 nights on walking track between White Beach and Fortescue Bay for independent walkers and 5 days/4 nights for commercial walkers (update of 2008 analysis);
- two new walking experiences on a portion of the 3CT (hereafter referred to as the *eastern section*):
 3. 4 days/3 nights walk between Stinking Bay (near Denmans Cove) and Fortescue Bay (walk only), and
 4. 4 days/3 nights walk between Denmans Cove and Fortescue Bay, arriving by ferry from near Port Arthur (ferry + walk).

Further details regarding the Three Capes Track (hereafter referred to as the 3CT) and the assessment undertaken in 2008 may be found in the 2008 report by Syneca Consulting.

Data used

The current report makes use of the following datasets which are the most recent versions of data used in the 2008 report:

- the Tasmania Visitor Survey covering the 12 months to March 2012: data on spending of visitors to Tasmania who undertook at least one overnight walk;
- the Overland Track Visitor Survey (and data from the Overland Track booking system) for 2010/2011: characteristics of walkers on the Overland Track.

In addition, Tasmania Parks and Wildlife Service have provided revised estimates for the capital and recurrent costs for the 3CT.

Key assumptions

As in the 2008 study, the walkers on the 3CT are assumed to be similar to overnight walkers currently visiting Tasmania and the current walkers on the Overland Track (different items are extracted from each of the two datasets).

Further, for each of the three walking experiences, the modelling has assumed that the 3CT has reached its capacity of 10,000 walkers per year or which 8,200 are independent walkers and 1,800 are in groups run by commercial tour operators. It is to be noted that the track capacity is computed on the basis of the accommodation available during the peak season as defined for the Overland Track. It is anticipated that in view of the more benign climate in the Tasman Peninsula, use of the 3CT will not be as 'peaked' as has been observed with the Overland Track, and a greater number of walkers will use the 3CT outside the peak season.

Estimates for recurrent costs and expenditure items related to walking the 3CT have been extracted from the earlier report and inflated by 10.7% being the CPI increase (Table G02 from the Reserve Bank of Australia). The only exceptions are the nightly track fees which remain the same at \$40 for independent walkers and \$500 for commercial walkers. For use of the complete 3CT, total fees are \$200 for independent walkers and \$2000 for walkers on guided tours (down from \$2500 in 2008 due to the number of nights reducing from 5 to 4). Track charges have been scaled down for the new experiences on the eastern section of the 3CT based on the charges for

accommodation in terms of 3 nights: \$120 for independent walkers (down from 5 nights) and \$1500 for walkers on guided tours (down from 4 nights).

The broad multiplier methodology based on the input-output formalism is the same as in the previous analysis and the same values for the multipliers extracted from other studies have been adopted in this update, except that the employment multipliers have been adjusted for inflation.

In addition, this new analysis retains the assumptions made in regard to the extent that expenditures by walkers and by the Tasmanian Parks and Wildlife Service as well as by 3CT staff remain in the region.

Table numbers (other than those with a letter) in what follows refer to the table numbers in the 2008 report.

2 Forecasts of the number of walkers

2.1 What does it mean for the 3CT

In the absence of any new survey data, the indicated preferences have not been updated and table 2.1 has been replicated from the 2008 report.

Table 2.1: What might potential 3CT walkers do – base case

	Independent walkers	Commercial walkers
Independent walkers		
3-4 day	23.97%	14.98%
5-6 day	46.01%	16.60%
7-9 day	15.17%	9.00%
Guided walkers		
3-4 day	0.44%	24.18%
5-6 day		10.54%
7-9 day		3.10%
None	14.38%	21.61%

Source: Instinct and Reason (2007)

3 Estimates of spending by 3CT walkers

3.1 Spending directly associated with use of the 3CT

Summary

Table 3.1 summarises the spending estimates related directly to use of the complete 3CT. Table 3.1A summarises the spending estimates related directly to use of the eastern section of the 3CT.

Note that the estimates in Table 3.1 (and the corresponding items in table 3.1A) are stated in 2008 prices. Inflation since 2008 is 10.7% ((Reserve Bank of Australia *Table G2 Consumer Price Index* accessed from http://www.rba.gov.au/statistics/tables/index.html#prices_inflation).

Table 3.1B presents the estimates for total walk related spending of in 2012 prices and for three cases of 10,000, 8000 and 6000 walkers per year.

Table 3.1: Spend on items directly related to walk for full track – 10,000 walkers, 2008 prices

Spend item	Spend per walker	Applies to	Aggregate spend
Independent walkers			
Track use fee	\$200 ^c	All independent walkers	\$1,640,000
Travel to access 3CT	\$70	Use boat service from Hobart -15% of IW	\$116,850 ^a
	\$50	Use public transport – 80% of remaining IW	\$278,800
	\$20	Use private vehicle -20% of remaining IW	\$27,880
Water based travel	\$25	Safety Cove to Denman's Cove – all IW	\$205,000
	\$50	Fortescue Bay to Pirates Bay – 90% of IW	\$369,000
Daily living needs	\$150	All independent walkers	\$1,230,000
Minor purchases	\$50	All independent walkers	\$410,000
		Subtotal: all independent walkers	\$4,277,530
Guided walks	\$2,000 ^{bc}	All commercial walkers	\$3,600,000
Total			\$7,877,530

Source: Feasibility Study for the 3CT and Syneca Consulting analysis

Notes:

- (a) Includes fare for return to Hobart by coach
- (b) includes \$200 track use fee and water based travel, assumed to be covered by guided walk charges
- (c) note that in later tables in this report the track use fees remain the same as in 2008 and all other spend items are inflated to 2012 prices

IW = independent walkers

Table 3.1A: Spend on items directly related to walk for new experiences – 10,000 walkers, 2008 prices

Spend item	Spend per walker	Applies to	Aggregate spend
Independent walkers			
Track use fee	\$120 ^c	All independent walkers	\$984,000
Travel to access 3CT	\$70	Use boat service from Hobart -15% of IW	\$116,850 ^a
	\$50	Use public transport – 80% of remaining IW	\$278,800
	\$20	Use private vehicle -20% of remaining IW	\$27,880
Water based travel ^d	\$12	Port Arthur to Denmans Cove – all IW	\$98,400
Daily living needs	\$90	All independent walkers	\$738,000
Minor purchases	\$50	All independent walkers	\$410,000
Subtotal: all independent walkers:			
<i>Walk only</i>			\$2,555,530
<i>Walk + ferry</i>			\$2,653,930
Guided walks	\$1,500 ^{bc}	All commercial walkers	\$2,700,000
Total: Walk only			\$5,255,530
Walk + ferry			\$5,353,930

Source: Feasibility Study for the 3CT and Syneca Consulting analysis

Notes:

- (a) Includes fare for return to Hobart by coach
- (b) includes \$120 track use fee, assumed to be covered by guided walk charges
- (c) note that in later tables the track use fees remain the same as in 2008 and all other spend items are inflated
- (d) applies only for new experience 2 (walk + ferry)

IW = independent walkers

Table 3.1B: Summary of spend on items directly related to walk for new experiences – 2012 prices

	Number of walkers		
	10,000	8,000	6,000
Total track - update of 2008 analysis	\$8,159,746	\$6,527,797	\$4,895,847
Eastern section (walk only)	\$5,423,684	\$4,338,947	\$3,254,210
Eastern section (walk + ferry)	\$5,532,613	\$4,426,090	\$3,319,568

Note: The entries in table 3.1B have been derived from tables 3.1 and 3.1A by inflating all the spend items by 10.7% to bring to 2012 prices with the exception of the track fees where the nightly charges for independent walkers and commercial walkers have remained the same as in the 2008 analysis¹.

The following observations can be made:

- for the total track and 10,000 walkers, the estimated spend in table 3.1B is around \$0.6 million lower than the previous assessment (due to reduction in track fees for commercial walkers from \$2500 to \$2000) after adjusting for inflation on all items other than track fees ;
- the difference in spending between the total 3CT and the eastern section is made up of the lower track fees and the reduced spending on daily living needs;
- for the new experience, the ferry leg adds approximately \$100,000 to aggregate spending (at an assumed ferry fare of \$12);

¹ As an example of the computations, for the case of 10,000 walkers the total spend excluding track fees is \$2,637,530 in 2008 prices and \$2,919,746 in 2012 prices. Adding \$5,240,000 for track fees gives the result \$8,159,746.

- the spending estimates for 8,000 walkers and 6,000 walkers have been computed as the proportion of the estimates for 10,000 walkers using factors of 0.8 and 0.6 respectively.

Statistics on spending by overnight walkers in Tasmania as reported in the Tasmanian Visitor Survey (2012) are summarised in table 3.2

Table 3.2: Spending in Tasmania by overnight walkers – all visitors

Spend category	Aggregate spending (\$000)			Average spend per visitor		
	All visitors	Mainland visitors	Overseas visitors	All visitors	Mainland visitors	Overseas visitors
Transport	6,774	4,313	2,460	\$312	\$249	\$565
Accommodation	17,445	13,394	4,051	\$804	\$772	\$931
Other	20,925	16,281	4,644	\$965	\$939	\$1,067
Total spending	45,144	33,988	11,155	\$2,081	\$1,960	\$2,563

Source: Tasmanian Visitor Survey – year ending March 2012

Table 3.3: Purpose of visit to Tasmania – walkers on Overland Track

	Total	Deemed not visit Tasmania if 3 CT was not available*
Group 1. Purpose only to do the walk	34%	17%
Group 2. Main purpose to do walk		
2A Staying longer to do other walks	7%	0%
2B Staying longer to do other activities	49%	49%
Group 3. Not the main purpose	10%	0%

Source: OTVS 2010/11

Note: * see text

In what follows, the assumption has been made that walkers on the 3CT will be statistically similar to the current walkers on the Overland Track in terms of their reasons for coming to Tasmania and intentions for further activities.

Table 3.3 has been used to make inferences for the proportion of 3CT walkers who would not visit Tasmania if the 3CT was not available (right column in the table). The explanations for the entries in the right column follow.

Group 1: Currently these have visited Tasmania only to walk the Overland Track. It has been assumed that over and above these Overland Track walkers, an additional half (17%) this number would only do a single walk and it would be the 3CT.

Group 2A: These would have come to Tasmania regardless of the 3CT – in the absence of the 3CT, they would have walked other tracks.

Group 2B: These have come to Tasmania with the express intention to do one overnight walk and one walk only. It is assumed these walkers would not visit Tasmania if the 3CT was not there.

Group 3: These would have come to Tasmania regardless of whether the 3CT was available, since the 3CT walk was just one of a number of reasons for the visit to Tasmania.

Non-walk related spending during the stay in Tasmania can be attributed to the 3CT only for those walkers who would not visit Tasmania if the 3CT was not there. This is 66% of all walkers (the total of the right column in table 3.3). Estimates for non-walk related spending have been factored by 66% to arrive at the level of spending that can be attributed to the 3CT and this flows into the estimates for the impacts on the state and regional economy.

For those walkers in group 1 who came to Tasmania only to walk the 3CT the non-walk related spending has been put at a nominal \$220 for the purpose of the assessment.

Table 3.4: Spend in Tasmania for 10,000 3CT walkers: non-walk related

	Origin of walkers			Average/ total
	Tasmania	Mainland	Overseas	
Total spending per walker	\$1,960	\$1,960	\$2,563	\$2,081
Inferred spend by group 1 walkers ^b		\$220 ^b	\$220	
Spend - all walkers on 3CT	\$566,168 ^a	\$9,532,317	\$3,827,427	\$13,925,912
Spend attributable to 3CT - group 2	\$566,168	\$7,077,023	\$2,841,575	\$10,484,766
Spend attributable to 3CT - group 1	\$0	\$260,553.33	\$81,033.33	\$341,587
Total spend attributable to 3CT	\$566,168	\$7,337,577	\$2,922,608	\$10,826,352

Notes:

- (a) assumes 33% of walks on the 3CT substitute for interstate trips with similar spending; these are not included in average based on approach in Madden et al. (2002)
- (b) \$220 is a nominal spend estimate for group 1 walkers (only visit Tasmania to walk 3CT); by definition, no Tasmanian walkers are in group 1 so group 1 spending by Tasmanian walkers is set to zero

In total, the amount of spending in Tasmania that can be attributed to the 3CT walkers is estimated to be \$10.8 million (excluding spending directly associated with walking the 3CT). This is an decrease of 0.9% from the 2008 estimate of \$10.9 million.

Tasman Peninsula – regional spending

Table 3.5 summarises the estimates for spending by 3CT walkers not related to the walk itself but that would not have occurred in the absence of the 3CT.

Table 3.5: Regional spend for 10,000 3CT walkers: non-walk related

	Origin of walkers			Average/ total
	Tasmania	Mainland	Overseas	
Number of walkers stay overnight in region	20%	20%	20%	20%
Average spend per visitor	173	1,393	433	2000
	\$528	\$528	\$223	\$338
Total spend all 3CT walkers	\$30,499	\$537,536	\$80,033	\$648,068
expenditure attributable to 3CT - group 3	\$30,499	\$399,080	\$59,419	\$488,997
expenditure attributable to 3CT - group 1	\$0	\$26,055	\$8,103	\$34,159
Total attributable to 3CT	\$30,499	\$425,135	\$67,522	\$523,156
Transport spend	\$4,576	\$53,949	\$14,891	\$73,416
Accommodation spend	\$11,786	\$167,537	\$24,521	\$203,844
Other spend	\$14,137	\$203,649	\$28,110	\$245,896

Source: TVS (2012) for year ending March 2012 and analysis by Syneca Consulting

Note *: the estimate of 20% is based on an ad hoc assumption for the increase from the 8% of all overnight walkers in the TVS who spent one or more nights in the Tasman Peninsula

In total, the amount of spending in the Tasman Peninsula that can be attributed to the 3CT walkers is estimated to be \$523,156 excluding spending directly associated with walking the 3CT). This is a decrease of 25% from the 2008 estimate of \$698,000.

Consolidated spending estimates

The spending estimates presented in table 3.1 and table 3.1B (directly related to walking the 3CT) and tables 3.4 and 3.5 (other spending by 3CT walkers that can be attributed to 3CT) have been consolidated and summarised in table 3.6 (new table).

Table 3.6: Consolidated spending by 10,000 3CT walkers

		Tasmania	Tasman Peninsula
Full track experience	Walk related	\$8,159,746	\$1,111,428*
	Non-walk related	\$10,826,352	\$523,156
	Total	\$18,986,098	\$1,634,584
Eastern section – walk only	Walk related	\$5,423,684	\$476,010*
	Non-walk related	\$10,826,352	\$523,156
	Total	\$16,250,036	\$999,166
Eastern section – walk + ferry	Walk related	\$5,532,613	\$584,939*
	Non-walk related	\$10,826,352	\$523,156
	Total	\$16,358,965	\$1,108,095

Note: * the walk related spend items that are deemed to occur in the Tasman Peninsula are the boat legs and minor purchases from tables 3.1 and 3.1A inflated by 10.7% to 2012 prices

For the full track case, spending in the Tasman Peninsula accounts for some 8.6% of total walker expenditures while in Tasmania. For the new experiences on the eastern section of the 3CT, spending in the Tasman Peninsula represents between 6.1% and 6.8% of total visitor spending while in Tasmania.

Note that the differences between the full track case and the new experiences that have been modelled for the eastern section of the 3CT all occur in the walk related spending – it is assumed that other than on the 3CT the behaviour of walkers and the decisions they make while in Tasmania are identical (in aggregate) between the different cases assessed.

Tables 3.6A and 3.6B replicate table 3.6 for 8,000 walkers and 6,000 walkers respectively. The spend estimates have been factored by 0.8 and 0.6 respectively from the entries in table 3.6.

Table 3.6A: Consolidated spending by 8,000 3CT walkers

		Tasmania	Tasman Peninsula
Full track experience	Walk related	\$6,527,797	\$889,142
	Non-walk related	\$8,661,082	\$418,525
	Total	\$15,188,879	\$1,307,667
Eastern section – walk only	Walk related	\$4,338,947	\$380,808
	Non-walk related	\$8,661,082	\$418,525
	Total	\$13,000,029	\$799,333
Eastern section – walk + ferry	Walk related	\$4,426,090	\$467,951
	Non-walk related	\$8,661,082	\$418,525
	Total	\$13,087,172	\$886,476

Table 3.6B: Consolidated spending by 6,000 3CT walkers

		Tasmania	Tasman Peninsula
Full track experience	Walk related	\$4,895,847	\$666,857
	Non-walk related	\$6,495,811	\$313,894
	Total	\$11,391,659	\$980,750
Eastern section – walk only	Walk related	\$3,254,210	\$285,606
	Non-walk related	\$6,495,811	\$313,894
	Total	\$9,750,022	\$599,500
Eastern section – walk + ferry	Walk related	\$3,319,568	\$350,963
	Non-walk related	\$6,495,811	\$313,894
	Total	\$9,815,379	\$664,857

4 Impacts on the economy from 3CT walkers

The estimates for spending in chapter 3 provide the basis for an analysis of the impacts on the economy at both the state and regional levels.

The method used in this assessment is *multiplier analysis*. The use of multiplier analysis for economic impact assessment is well established and there is extensive experience with the approach (see for example ABS (2000) which provides a guide to the construction, interpretation and use of input-output multipliers).

4.1 Walking fee for the 3CT

It will be recalled that the discussion of the impacts from the payment of the walking fee was deferred when the spending by overnight walkers was discussed in chapter 2. This is because the impacts on the economy and in particular on employment from the walking fee are qualitatively different from the other spending and because we have information specifically for what happens to these payments. The discussion is presented separately for independent walkers and for walkers in guided commercial operations.

Independent walkers

The proposed charge for use of the track is \$200 per person for the full track (5 nights – existing experience) and \$120 per person for the new experience (3 nights). The respective total fee takings are \$1.64 million and \$0.984 million per year.

The question is how much of this charge will remain in the region.

Direct employment impacts from the 3CT

For the full track, management structure and staffing are discussed in section 5.7 on page 19 of the business plan prepared for the feasibility study on the 3CT (PWS 2007a). The enterprise will require five permanent staff (5 FTE):

- operations manager (1 FTE)
- business enterprise manager (1 FTE)
- visitor information officer track bookings (1 FTE)
- two rangers/field officers. (2 FTE)

In addition, the following seasonal staff are required (6 FTE):

- ten track rangers (Hut wardens) (two for each of the five overnight nodes)²(5 FTE)
- two visitor reception officers. (1 FTE)
- additional track workers based on need

The ten track rangers and two visitor reception officers are assumed to work for six months each year, so these represent six equivalent full-time employees. Adding the five full-time positions gives a total staff of 11 full-time equivalent employees, excluding the casual positions for track workers.

All the above positions contribute to employment for Tasmania as a whole. One role for economic impact assessment is to highlight anticipated capacity constraints on the supply side but in this case the forecast numbers of jobs are too small at the state level to place significant strains on the availability of suitable employees.

² This is an upgrade from the six track rangers estimated in the feasibility study for the 3CT

Of the above positions, only the two permanent rangers/field officers and all the seasonal staff are expected to live within the Tasman Peninsula. This represents approximately seven full-time equivalent employees plus the casual staff for track work (the wages and on-costs for the casual staff are included in the item repairs and maintenance).

For the eastern section of the 3CT only, staff requirements are as follow

Permanent full time (4 FTE):

- Operations Manager (1 FTE)
- Business Enterprise Manager/Visitor Information Officer Track Bookings (combined 1 FTE)
- Ranger (1FTE) (Maintenance)
- Field Officer (1 FTE) (Maintenance)

Seasonal (5.75 FTE)

- Six Hut wardens (3FTE)
- Four Track Worker (2 FTE)
- Visitor Reception Officer (0.75 FTE) (based potentially somewhere like Port Arthur Visitor Centre)

The six hut wardens, four track workers and visitor reception officer are assumed to work part-time (namely six monthly for the wardens/track workers and nine months for the visitor reception officer), so this represents 5.75 equivalent full-time employees. Adding the four full-time positions gives a total staff of 9.75 full-time equivalent employees.

Guided tours

Employment impacts for guided tours

Guided tours in Tasmania are currently required to have a minimum of two guides per group, which can be a maximum of ten walkers.

Based on the latest proposed 3CT commercial experience being four nights and five days for the full track, and the peak season lasting 181 days³, the assumption is that there would be a maximum of 1810 guided group walkers in 181 groups per peak season. This would require, after rounding, 14 guides for 26 weeks (taking the duration of each walk to be one working week) or approximately seven full-time equivalent employees (if taken over a full year). In practice, there would need to be at least twice this number of equivalent staff during the peak season given the need for guides to have time off once they complete a walk and the requirements for reserves⁴. For this study it is assumed that the number of guides for 10,000 walkers in total on the 3CT is 15 full-time equivalent employees.

To the number of guides must be added the activities that need support staff: purchase and transport of food and other supplies; overall management; operate the booking system; undertake marketing. To an extent the resource requirements for these support staff are largely fixed and do not vary with the number of walkers. We have adopted an estimate of three equivalent full-time staff for these activities for this assessment in the case of 10,000 walkers per year and 2 FTE for 8000 and 6000 walkers per year.

In summary total employment is assumed to be 18 full-time equivalent staff for 10,000 walkers and 17 FTE for 6000 and 8000 walkers. These will be sourced from the Tasmanian workforce.

³ The peak season is assumed to be the same as that for the Overland Track in 2011/2012 from 1 November to 30 April

⁴ The number of guides is determined by the need to meet the variation in demand during the season, since the timing of departures of groups will not be uniform. This is ignored in this study which concentrates on equivalent staff assuming, in effect, that when guides are idle (while waiting for the next tour) they are able to undertake other meaningful activities including, possible, paid employment on a casual basis.

For the new experiences on the eastern section of the 3CT (3 nights rather than 5 nights), the estimate of 15 tour guides has been scaled down to 9 guides.

The requirements for tour guides are reduced for the scenarios with lower number of walkers. Employment impacts directly associated with the 3CT are set out in table 4.0.

Table 4.0: Summary of employment generation (new table)

Number of walkers	Employment type	Track option	
		Full track	Eastern section
10,000 walkers	Independent walkers	11	9.75
	Guided walkers	18	12.00
	Total	29	21.75
8,000 walkers	Independent walkers	11	9.75
	Guided walkers	14	9.20
	Total	26	18.95
6,000 walkers	Independent walkers	11	9.75
	Guided walkers	11	7.40
	Total	23	17.15

Notes

- assumes PWS requirements not affected by number of walkers
- assumes 3 'overhead' staff positions for tour operators for 10000 walkers and 2 'overhead' staff positions for 8000 and 6000 walkers.

4.2 Impacts on Tasmanian economy

For the impacts on the Tasmanian state economy, we make use of work reported in Thapa et al. (2000) based on a 1998 survey. The focus of the Thapa et al. study was the economic impacts of the Tasmanian Parks and Wildlife Estate defined to be the localities managed by the PWS. Simulation of the impacts on the Tasmanian economy as a result of the PWS tourism spending was undertaken using the FEDERAL general equilibrium model of the economy. The results from the simulation showed that for every \$1 million of PWS visitor expenditure (in 2012 prices⁵):

- gross state product increased by \$869,000
- employment grew by 19.36 jobs.

The estimates derived by Thapa et al. for the effects on gross state product and employment from PWS tourism spending appear to be on the high side in comparison to other published data on similar studies.

Table 4.1 brings together the expected impacts on the Tasmanian economy as a result of walk fees, other walk related spending and non-walk related spending.

Note that the estimates for direct employment generation do not use the above multiplier (19.36 jobs per \$1 million worth of expenditure) but make use of the specific information provided by staffing levels for the track.

⁵ Inflation from 1998 to 2008 was 35% and from 2008 to 2012 inflation was 10.7% - source: Reserve Bank of Australia www.rba.gov.au

Table 4.1: Impacts on Tasmania economy for full track – 10,000 walkers

	Spend	Contribution to gross state product	Employment Direct (FTE) ^c	Total impact (jobs) ^a
Walk fees				
Independent walkers	\$1,640,000 ^b	\$1,425,160	11.0	16.5
Guided walkers	\$3,600,000	\$3,128,400	18.0	27
Total	\$5,240,000	\$4,553,560	29.0	43.5
Walk related spending (Independent walkers only)				
Total	\$2,919,746	\$2,537,259	N / C	56.5
Non-walk related spending				
Tasmanian residents	\$566,168	\$492,000	N / C	11.0
Mainland visitors	\$7,337,577	\$6,376,354	N / C	142.1
Overseas visitors	\$2,922,608	\$2,539,747	N / C	56.6
Total	\$10,826,352	\$9,408,100	N / C	209.6
Total	\$18,986,098	\$16,498,919		309.7

N/C = not calculated

Notes

- (c) Assuming a state-based multiplier of 1.5 from direct full-time equivalent employees to total jobs for jobs associated with the management of the track.
- (d) This estimate corresponds to total track fees of \$1.64 million for independent walkers net of the costs for 3CT staff that are accounted for explicitly in the rightmost columns of the table
- (e) The direct employment estimates are based on expected staffing levels for the track – see also note (a)

In summary, under the assumptions used in this analysis, for every 10,000 walkers on the 3CT gross state product is predicted to increase by \$16.5 million and employment by 310 jobs. This compares to the 2008 estimates of \$17.1 million and 334 jobs

Table 4.1A: Impacts on Tasmania economy for eastern section – 10,000 walkers

	Spend	Contribution to gross state product	Employment Direct (FTE)	Total impact (jobs) ^a
Walk fees				
Independent walkers	\$984,000	\$855,096	9.75	14.6
Guided walkers	\$2,700,000	\$2,346,300	12	18.0
Total	\$3,684,000	\$3,201,396	21.75	32.6
Walk related spending (independent walkers only)				
Walk only	\$1,739,684	\$1,511,785	N /C	33.7
Walk + ferry	\$1,848,613	\$1,606,444	N /C	35.8
Non-walk related spending				
Tasmanian residents	\$566,168	\$492,000	N /C	11.0
Mainland visitors	\$7,337,577	\$6,376,354	N /C	142.1
Overseas visitors	\$2,922,608	\$2,539,747	N /C	56.6
Total	\$10,826,352	\$9,408,100	N /C	209.6
Total (walk only)	\$16,250,036	\$14,121,281		276.0
Total (walk + ferry)	\$16,358,965	\$14,215,941		278.1

N/C = not calculated

Notes (a) Assuming a state-based multiplier of 1.5 from direct full-time equivalent employees to total jobs for jobs associated with the management of the track.

4.3 Impacts on regional economy

The impact on the regional economy from visitor spending depends on the magnitude of ripple effects: to what extent does the primary spending flow on to suppliers of the firms that have primary contact with visitors, contribute to employment creation and are captured by households in the form of increased income? This in turn is a function of the depth of the regional economy. Where there is little in the way of supporting industry in the region, a larger proportion of the support of goods and services sold to visitors needs to be imported into the region and the potential for flow-on and value added is reduced.

Estimates for the impacts on the Tasman Peninsula economy are presented in table 4.2. The multipliers used to derive the entries in table 4.2 were extracted from a study on the contribution of Coolah Tops National Park to the regional economy commissioned by the NSW National Parks and Wildlife Service (NPWS 1998). It is considered that while the population of the study region for the NPWS study was approximately twice that of the Tasman Peninsula, the structure of the two regional economies are sufficiently similar to justify the use of the multipliers in the present study.

Table 4.2: Impacts on Tasman Peninsula economy for complete track – 10,000 walkers

	Spending	Regional gross product		Employment (jobs)	
		Direct effect	Total impact	Direct effect	Total impact
Walk fee revenues					
Independent walkers ^a	\$988,610	\$502,069	\$776,395	7.0 ^b	12.0
Guided walkers	\$348,705	\$177,091	\$273,852	6.6	8.3
Surplus from 3CT ^c	\$555,219	\$281,970	\$436,036	10.5	13.1
Total	\$1,892,534	\$961,130	\$1,486,283	24.0	33.4
Walk related spending					
Total (independents only)	\$1,111,428	\$579,169	\$878,678	20.9	26.3
Non-walk related spending					
Tasmanian residents	\$30,499	\$15,893	\$24,112	0.6	0.7
Mainland visitors	\$425,135	\$221,540	\$336,105	8.0	10.1
Overseas visitors	\$67,522	\$35,186	\$53,382	1.3	1.6
Total	\$523,156	\$272,619	\$413,599	9.8	12.4
Total	\$3,527,118	\$1,812,918	\$2,778,560	54.8	72.1

Source: multipliers extracted from NPWS (1998)

Note:

- (a) The spend from fees for independent walkers represents the operating costs that are spent in the Tasman Peninsula
- (b) The direct employment effect has been estimated based on proposed staffing levels
- (c) It is assumed that any operating surplus from the 3CT is spent in the Tasman Peninsula

The total impact that can be attributed to the 3CT associated with 10,000 walkers is \$2.8 million contribution to regional gross product and an additional 72 jobs. This compares to the 2008 estimates of \$2.5 million and 70 jobs.

The gains in both regional gross product and employment for the Tasman Peninsula are made up largely from PWS operation of the track and walk related spending in the region. Spending on non-walk related activities contributes less than 20% to the total.

Table 4.2A: Impacts on Tasman Peninsula economy for eastern section – 10,000 walkers

	Spending	Regional gross product		Employment (jobs)	
		Direct effect	Total impact	Direct effect	Total impact
Walk fee revenues					
Independent walkers ^a	\$790,888	\$401,655	\$621,116	7.0	12.0
Guided walkers	\$199,260	\$101,195	\$156,487	3.8	4.7
Surplus from 3CT	\$37,524	\$19,057	\$29,469	0.7	0.9
Total	\$1,027,672	\$521,907	\$807,072	11.5	17.6
Walk related spending – independents only					
Walk only	\$476,010	\$248,051	\$376,326	9.0	11.3
Walk + ferry	\$584,939	\$304,814	\$462,443	11.0	13.8
Non-walk related spending					
Tasmanian residents	\$30,499	\$15,893	\$24,112	0.6	0.7
Mainland visitors	\$425,135	\$221,540	\$336,105	8.0	10.1
Overseas visitors	\$67,522	\$35,186	\$53,382	1.3	1.6
Total	\$523,156	\$272,619	\$413,599	9.8	12.4
Total – walk only	\$2,026,838	\$1,042,576	\$1,596,997	30.3	41.3
Total – walk + ferry	\$2,135,767	\$1,099,339	\$1,683,115	32.3	43.8

Source: multipliers extracted from NPWS (1998)

- (a) Note: The spend from fees for independent walkers represents the operating costs that are spent in the Tasman Peninsula; the overheads for the eastern section are assumed to be 20% less than the overheads for the full track
- (b) The direct employment effect has been estimated based on proposed staffing levels
- (c) It is assumed that any operating surplus from the 3CT is spent in the Tasman Peninsula

The total impact that can be attributed to the eastern section associated with 10,000 walkers is \$1.6 million (walk only) and \$1.7 million (walk + ferry) contribution to regional gross product and an additional 44 jobs.

4.4 Effect of numbers of walkers

Table 4.3 (new table) summarises the effects on the modelled visitor spending and impacts on the state economy and employment if the number of walkers does not reach 10,000.

Table 4.4 (new table) summarises the effects on the modelled visitor spending and impacts on the regional economy and employment if the number of walkers does not reach 10,000.

Table 4.3: Impacts on Tasmanian economy by number of walkers

		10,000 walkers	8,000 walkers	6,000 walkers
Full Track	Spending	\$18,986,098	\$15,188,879	\$11,391,659
	Contribution to GRP	\$16,498,919	\$13,199,135	\$9,899,352
	Total impact (jobs)	309.7	247.7	185.8
New experience (walk only)	Spending	\$16,250,036	\$13,000,029	\$9,750,022
	Contribution to GRP	\$14,121,281	\$11,297,025	\$8,472,769
	Total impact (jobs)	276.0	220.8	165.6
New experience (walk + ferry)	Spending	\$16,358,965	\$13,087,172	\$9,815,379
	Contribution to GSP	\$14,215,941	\$11,372,752	\$8,529,564
	Total impact (jobs)	278.1	222.4	166.8

Table 4.4: Impacts on regional economy by number of walkers

		10,000 walkers	8,000 walkers	6,000 walkers
Full track	Spending	\$3,527,118	\$2,821,694	\$2,116,271
	Contribution to GRP	\$2,778,560	\$2,222,848	\$1,667,136
	FTE	54.8	43.8	32.9
	Total impact (jobs)	72.1	57.7	43.2
New experience (walk only)	Spending	\$2,026,838	\$1,621,470	\$1,216,103
	Contribution to GRP	\$1,596,997	\$1,277,598	\$958,198
	FTE	30.3	24.2	18.2
	Total impact (jobs)	41.3	33.0	24.8
New experience (walk + ferry)	Spending	\$2,135,767	\$1,708,613	\$1,281,460
	Contribution to GRP	\$1,683,115	\$1,346,492	\$1,009,869
	FTE	32.3	25.9	19.4
	Total impact (jobs)	43.8	35.1	26.3

5 Construction phase

Since the previous analysis in 2008, the Tasmanian Parks and Wildlife Service has developed improved estimates of the costs of track construction through expressions of interest from industry and by completing an upgrade of the Cape Hauy track. The new cost estimates are:

- \$48 million for the full 3CT
- \$23 million for the eastern section of the 3CT.

The cost estimate for construction of the full 3CT is substantially greater than the cost estimate used in the 2008 analysis which was \$25.3 million in 2008 dollars or \$28.0 million in 2012 dollars.

5.1 Impacts of construction on the Tasmanian economy

The 3CT represents a substantial investment. Over the term of construction the project will provide significant employment opportunities and generate increased levels of economic activity.

Nevertheless, the net aggregate impact on the Tasmanian economy of a decision to go ahead with the 3CT is expected to be minimal in terms of funds provided by the Tasmanian Government (noting effectively half of the money is provided by the Commonwealth Government). The funds committed to construction of the 3CT will come out of the state budget. Unless there is an increase in the budget specifically for the 3CT, then these funds will displace spending on alternative works, and these in turn would have been associated with direct and flow-on economic effects. It is not possible to quantify the size of the economic impacts associated with the alternative activities that will be displaced by the 3CT, but it is expected they will be of a similar magnitude to those for construction of the 3CT. Consequently the impacts will cancel in any comparison between the with-3CT and without-3CT cases.

For the full track, private sector investment is \$8.762 million in 2012 prices. For the eastern section of the track private sector investment is \$3.829 million for the walk only experience and \$5.822 million for walk plus ferry. To the extent that these private sector funds are 'new' and would not have been spent in Tasmania in the absence of the 3CT, it is anticipated that there would be a net impact on the Tasmanian economy.

5.2 Impacts of construction on the Tasman Peninsula

As hinted above, construction of the 3CT will have important distributive consequences, and these will be most apparent for the economy of the Tasman Peninsula. Expenditures by the Government are taken to constitute income entering the Tasman Peninsula for the purpose of the regional economic impact assessment. Note that all impacts are limited to the construction period, currently assumed to be three years for the 4 days/3 nights experience constructing the infrastructure for the project on the eastern side only..

Forecasts of impacts on regional economy

The process adopted for making forecasts of impacts on the regional economy from construction is similar to the approach taken for impacts associated with the use of the track as discussed in section 4.2

Estimates for multipliers that link construction expenditures with economic activity and job creation were derived in the NSW study on the contribution of the Coolah Tops National Park to the regional economy (NPWS 1998).

The results are summarised in table 5.1.

Table 5.1: Impacts on regional economy during construction period

	Total track	Eastern section
Construction cost	\$48,000,000	\$23,000,000
Gross regional product	\$28,269,663	\$13,545,880
Number of jobs	551.5	264.2

Notes: multiplier analysis using multipliers from NPWS (1998): 0.588951 for gross regional product and 0.011489 for jobs

The impacts associated with the total track in table 5.1 are much larger than those reported in the 2008 analysis due to the much higher construction costs.

Construction of the total track is forecast to add \$28.3 million to the economy in the Tasman Peninsula and provide 552 new jobs. It is stressed that these are not annual figures: the estimates in table 5.1 represent the one-off impacts that will be spread over the construction period (for example it could be 552 workers employed for one year or 276 workers employed for 2 years etc).

The impacts on gross regional product and regional employment for the total track option are approximately double the impacts if only the eastern section is constructed. This reflects the fact that the construction costs are roughly in the ratio of 2:1.

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