STAFFORD STRATEGY

TRANSPORT HERITAGE NSW

THIRLMERE HERITAGE RAILWAY LOOP LINE BUSINESS CASE

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PREPARED BY **STAFFORD STRATEGY** FOR **TRANSPORT HERITAGE NSW**

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1.   OVERVIEW

THNSW is a not-for-profit, member-based organisation that was established by the NSW Government in 2013 to manage rail heritage throughout the State. Its focus is on four key areas, being:

- **Heritage and collections management:** Managing a portfolio of primarily rail heritage assets owned by the NSW Government on behalf of Transport for NSW.
- **Museums:** Operation of two public rail heritage attractions: NSW Rail Museum and Valley Heights Locomotive Depot Heritage Museum.
- **Heritage events and experiences:** Operation of heritage train experiences at the NSW Rail Museum and throughout NSW. Delivering major events, activities, and education programs at the NSW Rail Museum and throughout NSW such as "a Day out with Thomas."
- **Sector development:** Providing a leadership role and delivering a range of support services to 30+ heritage transport organisations (as of May 2019) on behalf of the NSW Government.

THNSW is funded by the NSW Government through three annual funding streams to ensure public access and enjoyment, ongoing care of our heritage assets and support for the wider heritage transport sector.

The NSW Rail Museum is situated in Thirlmere, within the Wollondilly Shire. It is the Shire's (and arguably, the broader surrounding region's) largest tourism attraction, attracting (pre-COVID) almost 60,000 visitors each year. The NSW Rail Museum is also the hub for Loop Line activity, and it currently operates steam services on that part of the Loop Line between Thirlmere and Buxton which can take heritage train excursions.

To deliver stronger economic benefit and uplift for the LGA and broader region, further investment in the Loop Line is required. This will provide an exciting new visitor attraction for Western Sydney for visitors and Greater Sydney residents by extending experiences and introducing new product which allows far more of the NSW Rail Museum to be experienced.

Rejuvenating the Loop Line will enhance the customer experience, increase activity and visitation, offer longer-term futureproofing, and create opportunities for greater awareness of the significance of NSW's rail and transport history. The upgrade will also enable THNSW to better meet changing market demands from current and emerging markets and deliver stronger revenue streams.

The 2019 bush fire impacted parts of the Loop Line, destroying railway sleepers and associated infrastructure. This needs to be replaced where required.

2.   ABOUT THE PROJECT

This Business Case supports a proposal by Transport Heritage NSW (THNSW) to re-establish heritage rail operations on the Loop Line at Thirlmere.

The project has been proposed primarily to:

- re-activate the Loop Line from Thirlmere to Colo-Vale which has been out of commission for over 45years, has been keenly desired by the community and the local member, and which was damaged by the 2019/20 bush fires;
- grow activity and visitation to the NSW Rail Museum precinct at Thirlmere;
- enhance the financial sustainability of THNSW/NSW Rail Museum through strengthening and diversifying revenue streams by introducing new commissionable product and offering year-round services that will enable THNSW to continue to deliver on its Vision to bring transport heritage to life;
- maximise THNSW's ability to contribute to educating the public on the state's rail and transport history, and most importantly;
- creating a unique series of heritage rail experiences that cannot be duplicated elsewhere in Australia, and which will support more interstate visitors and in time, international visitors once borders reopen.

3.   THE EXISTING LOOP LINE

The Loop Line, which is the focus of this Business Case, is a 34-kilometre, single-track line which runs from Picton through to Mittagong, created when the new (and current day) Main South line was constructed. There are nine stations situated on the Loop Line: two of which operate regular services (Mittagong and Picton which are both part of the current Main South line); and several which have been restored but which are only used for heritage trips operated by THNSW. Currently, THNSW operates heritage rail services (both steam and rail motor) between Thirlmere and Picton and between Thirlmere and Buxton. The remainder of the line is currently not in operating condition to allow for rail travel beyond Buxton. The 2019/20 bush fires caused damage to rail and sleepers, particularly along the Buxton – Colo Vale portion of the track. This, along with general ageing (from non-use) means that many sleepers and rail need to be upgraded between Buxton – Colo Vale to be operational.

Figure 1 illustrates the Loop Line, the various stations on the line, followed by Figure 2 which provides a high-level condition summary of the track provided by THNSW.

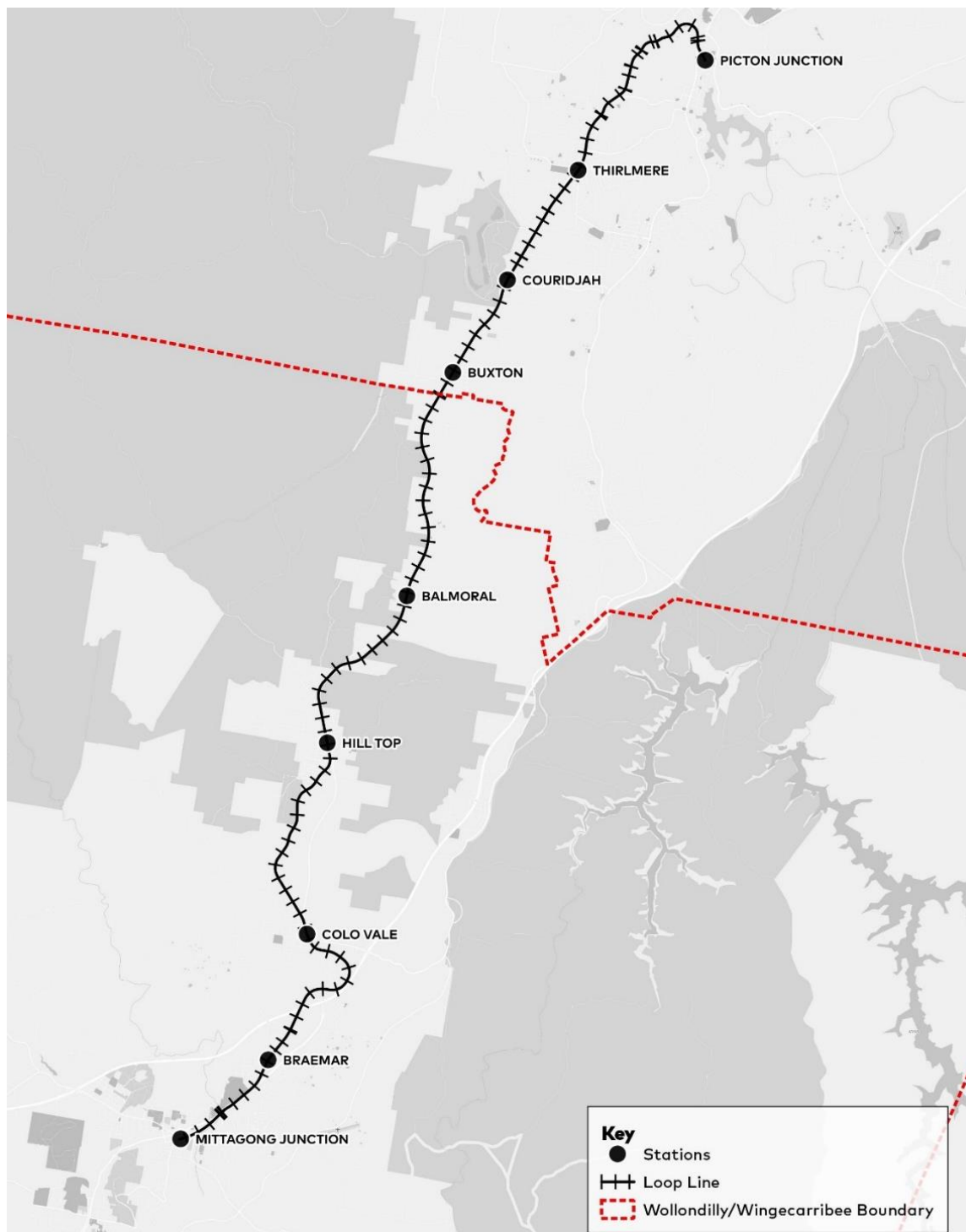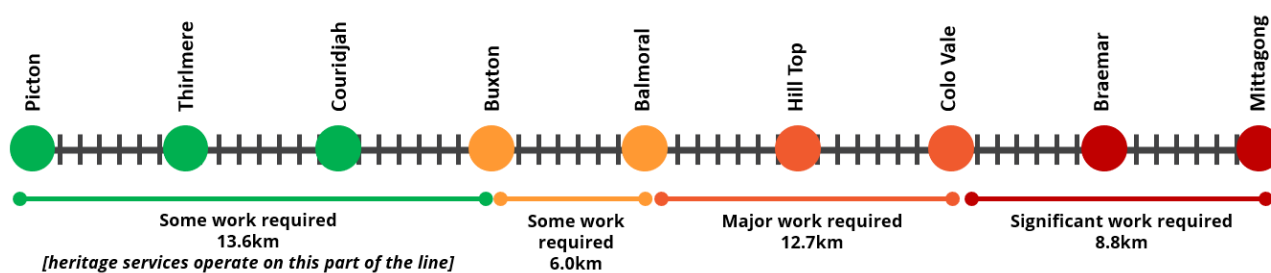**Figure 1: The existing Loop Line**

Figure 2: Condition summary of the existing Loop Line

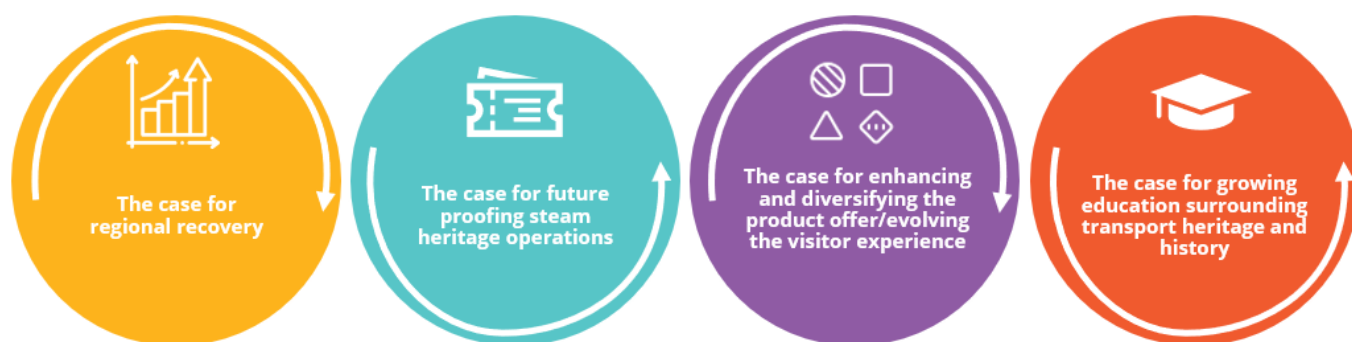# 4.   THE CASE FOR CHANGE (WHY UPGRADE THE LOOP LINE?)

There are many benefits to be realised from the upgrades to the Loop Line proposed in this Business Case.

Figure 3 summarises the primary drivers for the investment requested. This investment is required to support regional recovery, to continue to develop a major heritage attraction for Greater Sydney and NSW, broadening the visitor experience to meet changing market needs, and offering stronger awareness about NSW's extensive and important transport history.

This project has been proposed primarily to:

- **Re-activate the Loop Line** from Thirlmere to Colo-Vale which has been out of commission for over 45 years, has been keenly desired by the community and the local member, and which was damaged by the 2019/20 bush fires.

- **Grow activity and visitation** to the NSW Rail Museum precinct at Thirlmere.

- **Enhance the financial sustainability** of THNSW/NSW Rail Museum through strengthening and diversifying revenue streams by introducing new commissionable product and offering year-round services that will enable THNSW to continue to deliver on its Vision to bring transport heritage to life.

- Maximise THNSW's ability to contribute to **educating the public on the state's rail and transport history.**

- **Create a unique series of heritage rail experiences** that cannot be duplicated elsewhere in Australia, and which will support more interstate visitors and in time, international visitors once borders reopen.

Figure 3: Summary of the primary rationale/drivers of the Business Case

The case for regional recovery

The case for future proofing steam heritage operations

The case for enhancing and diversifying the product offer/evolving the visitor experience

The case for growing education surrounding transport heritage and history

5. A MARKET-DRIVEN FOCUS

This Business Case has a **market-driven** focus. That is, it is focused on identifying potential experiences which appeal to current and future visitor markets and their changing expectations including far stronger interstate and national appeal.

Although heritage train and steam train experiences traditionally have strong appeal to a niche visitor market (typically 'train enthusiasts' and families with young children), there are opportunities to diversify the experience offered on the Loop Line to appeal to a broader visitor market and offer a stronger point of difference.

This, in turn, will provide THNSW with the ability to actively promote interest in heritage transport (one of the key objects of THNSW's Constitution) to a visitor market they may traditionally have struggled to capture and with far greater interstate and intrastate visitor market appeal.
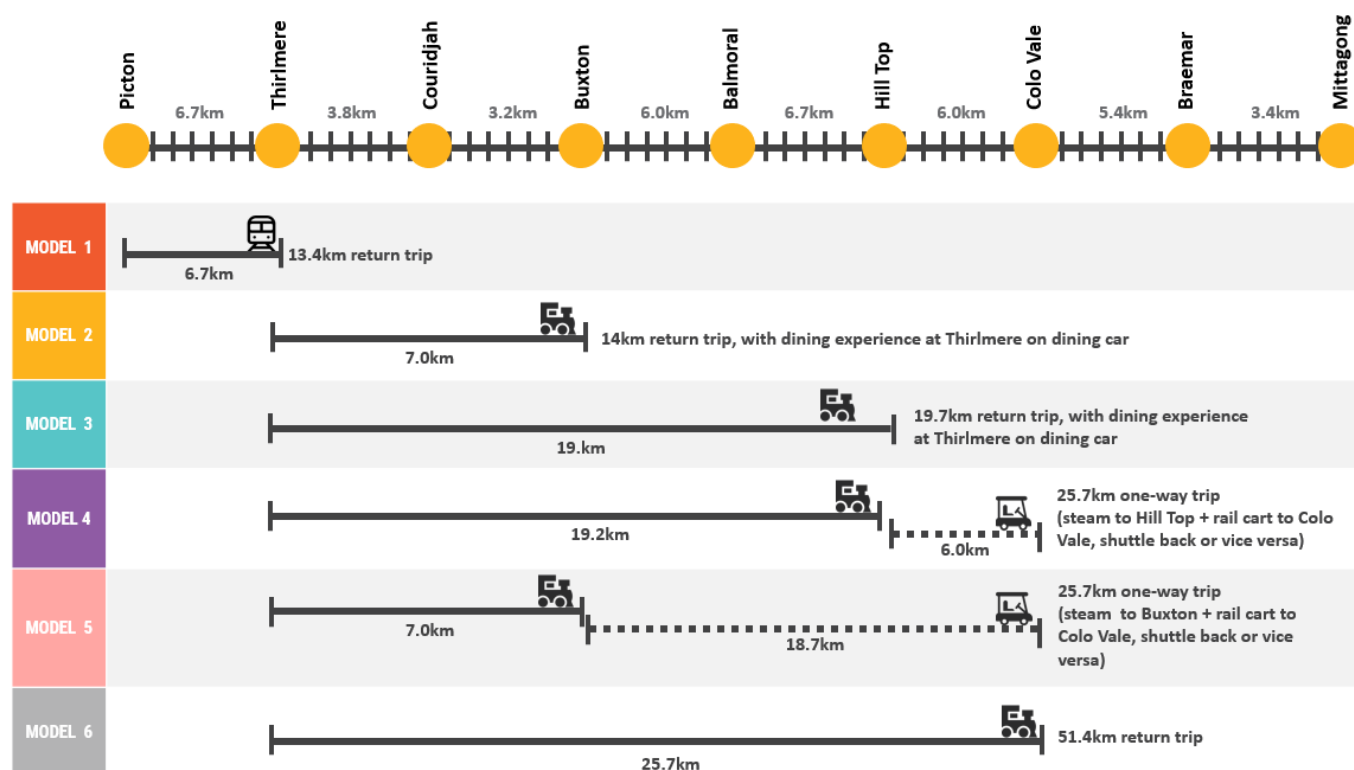
6. OPTIONS/MODELS ASSESSED

As part of an earlier Feasibility/Options Study undertaken for the reactivation of the Loop Line, the following operational models were assessed (see Figure 4). These models varied in terms of duration of experience, mode of transport and stations travelled to. The only Model which could truly reactivate the Loop Line with steam-based experiences was Model 6. This model will reactivate the Loop Line from Thirlmere – Colo Vale and have the strongest market appeal.

The option of reactivating the Loop Line between Colo Vale – Mittagong was also investigated; however, it was discounted because:

■ the cost required to redevelop the line is higher and the market demand forecast offers less incremental benefit;
■ there is a rail bridge missing between Braemar and Mittagong which would involve further cost to develop though we note this could be a culvert style bridge rather than a traditional bridge span; and
■ the market demand analysis and research indicated that longer experiences do not tend to generate stronger demand – families, particularly those with young children– have a desire for shorter, more exciting experiences.

Figure 4: The models assessed as part of the initial Feasibility Study

7. THE PREFERRED CONCEPT PROPOSED

Based on this Feasibility Study, the THNSW Board and senior management resolved to further investigate, as part of a Business Case, a hybrid model which encompassed Model 1, Model 2 and Model 6. The hybrid model is what is **referred to in this Business Case as The Preferred Option.**

Figure 5 summarises the option that has been assessed as part of this Business Case.

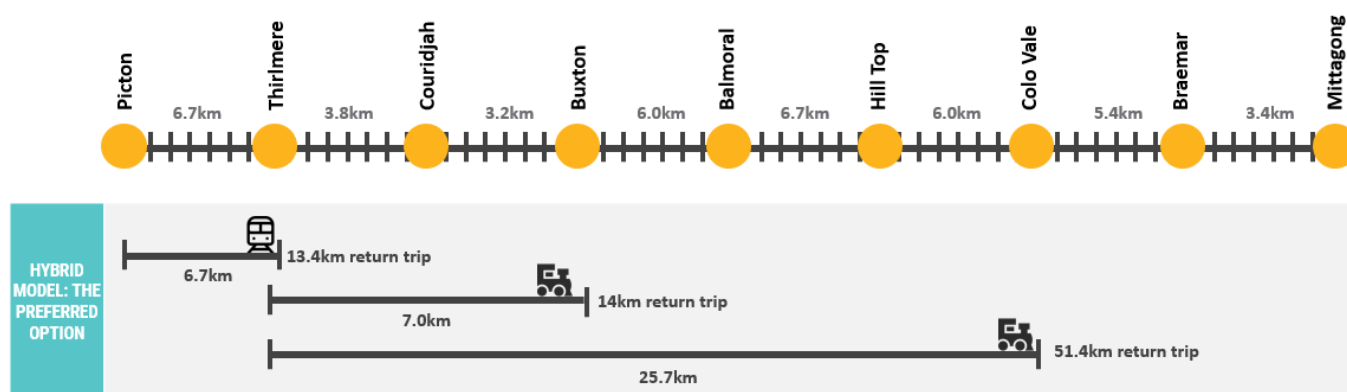The preferred concept offers:

- **A premium, weekly, steam service running from Thirlmere to Colo Vale:** this service is a 3-hour experience which includes an on-train food experience, following its introduction as a weekly service it is expected market demand will increase such that this service will increase to twice weekly in year 3.
- **A special events steam service which runs from Thirlmere to Colo Vale:** once per month introducing new premium experiences such as dining and/or coordinating with local events such as farmers markets.
- **A shorter, rail motor experience which runs from Thirlmere to Picton:** taking visitors into Picton for a rural town, arts and crafts experience and enabling these visitors to visit the cafes and shops which Picton offers.
- **Enhancements to the existing Thirlmere to Buxton steam service which currently operates:** Increasing the amenity and experience at Thirlmere and Buxton stations as well as improve track reliability to maintain both existing audiences and attract new audiences (primarily families) interested in shorter experiences.

Figure 5: The Preferred Concept

Service offer / Key attributes	Rail Motor to Picton (New)	Steam Thirlmere to Buxton (Existing)	Steam Thirlmere to Buxton Special Event (Existing)	Steam Thirlmere to Colo Vale (New)	Steam to Colo Vale Special Event (New)
Length of experience	40 min return trip	45 min return trip	45 min return trip	3-hour return trip	3-hour return trip
Frequency	3 return trips Sat & Sun	Year 1 3 x return trips Sat, 2 return trips Sun Year 3 2 x return trips (Sat & Sun)	12 days per year. Thirlmere Festival of Steam and Day out with Thomas	Year 1 1xreturn trip Sun Year 3 1 x return trip Sat & Sun	Year 1 1 x return trip once per month
Consistent capacity	1 x Railmotor 27 seats	1 x steam engine and 3 x pax carriages (64 pax)	1 a steam engine and 5 x pax carriages (64pax)	1 x Steam engine and 3 x pax carriages (64 pax)	1 x steam engine and 3 x pax carriages (64 pax)
Predicted occupancy (year 1)	65%	72%	100%	65%	90%

8.   CONCEPT MODELLING OUTCOMES

Table 1 illustrates the options assessed as part of the Business Case and the financial appraisal outcomes.

It demonstrates that:

- The Preferred Option, while necessitating higher capital expenditure than the Base Case, is able to generate the highest internal rate of return (IRR), net present value (NPV) and benefit-cost ratio (BCR), being the three key economic metrics for assessing the merit of a proposed development.
- The BCR generated by The Preferred Option, in particular, is very strong. It demonstrates that for every $1.00 invested in the project, it will deliver an average of $1.24 in benefits. For many public good projects, it is only possible to generate BCR results close to but below 1.0, so the importance of this strong BCR should not be undervalued. By comparison, the Base Case option only achieves a BCR of 0.86 and far lower IRR and NPV results as well.

- The Preferred Option reactivates the Loop Line between Picton and Colo Vale, therefore, delivering on the strong desire of community as well as delivering far stronger regional economic benefits thereby contributing to regional economic recovery. The Base Case option is unable to deliver on this.
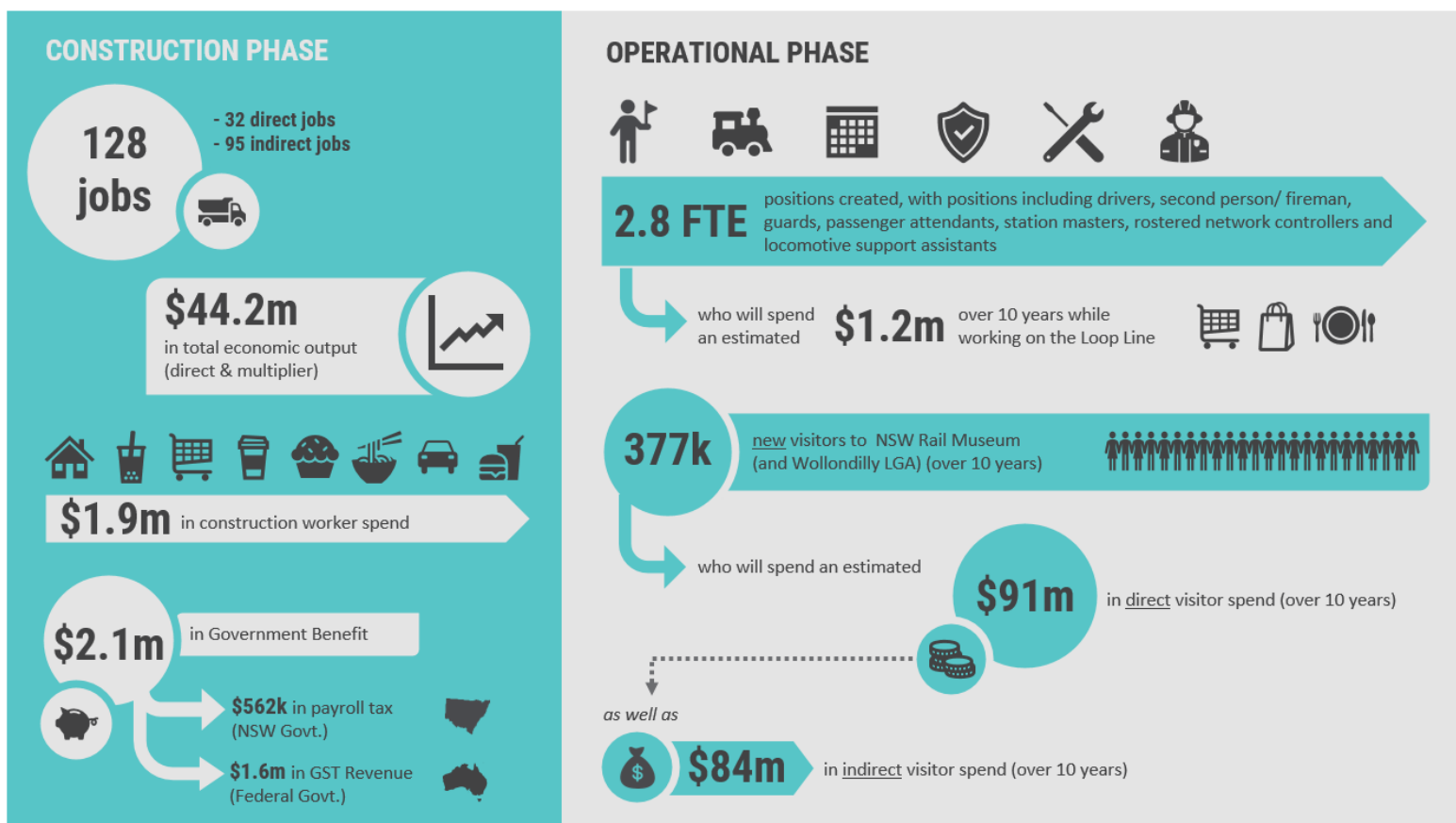
Table 1: Modelling outcomes

Metric	The Preferred Option
Required Yield	4.0%
Discount Rate	7.0%
EBITDA Y1	$971k
EBITDA Y10	$2.7m
CAPEX	$13.8m
IRR	✔ 31.8%
NPV	✔ $36.2m
BCR	✔ 1.24

9.   THE BENEFITS GENERATED

9.1   Economic Benefits

The upgrade of the Loop Line will generate a plethora of economic benefits during both the construction and operational phases of redevelopment (see Figure 6).

Figure 6: Benefits generated by the Loop Line upgrade

9.2   Other Benefits Generated

In addition to these financial/economic benefits, the re-establishment of the Loop Line (the Preferred Option) is also expected to generate:

- higher visitor spend and greater visitation to cafes and restaurants and bars within Wollondilly Shire especially and the broader region generally, associated with stronger visitation and with different forms of events and related activity within the NSW Rail Museum precinct;
- higher accommodation occupancy rates throughout Wollondilly Shire and extending into commercial accommodation outside of the Shire due to an increase in overnight visitation from the extended Loop Line experiences which can be offered;

- further levels of spend associated with the supply of goods and services to support regional hotels (wholesale food and beverage supplies, laundry services, electricity and utility spend etc.), regional cafes, restaurants and bars;
- through the supply of goods and services to retail providers who may also deliver services to those additional visitors expected to come to the NSW Rail Museum site for a wider variety of events and functions throughout the year, including those utilising the Loop Line and the Museum precinct; and
- greater direct and indirect employment potential within the region.

10. THE FUNDING REQUEST

To deliver The Preferred Option will necessitate a capital expenditure of $13.767m.

As outlined, $5.0m of this has already been received in grant funding from the NSW Government. There is, therefore, a gap of $8.767m in funding still required.

It is anticipated that once funding is approved, the Loop Line could be reactivated and operational by mid-2023.

11. SUMMARY

In conclusion, it is evident that for the desired investment of $8.767m, numerous economic, financial, and related benefits are able to be realised to boost the visitor economy in Wollondilly specifically, Greater Sydney and the NSW state overall. Most importantly, the introduction of new heritage rail experiences and products will have a far stronger appeal to boost an interstate visitor market and eventually, the international visitor market once borders open.

The ability to appeal to these broader markets without the Loop Line reactivation and expanded product is far less likely to occur.

Finally, the reactivation of the Loop Line enables the replacement of track, sleepers, and other infrastructure, which was impacted by the 2019 bush fires, to be addressed. This is important to support local community aspirations and needs, NSW Rail Museum sustainability and expansion desires, and to deliver additional and stronger revenue streams for the future to create stronger sustainability and viability.