Proposed Eastern Creek Business Hub: Cost Benefit Analysis

PREPARED FOR

Western Sydney Parklands Trust

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DEFINITION OF TERMS

Accessibility – refers to the extent to which people have access to employment, goods and services, either through proximity or transport links to places.

Base Case – the scenario against which the marginal costs and benefits of all other Options are measured. This is sometimes referred to as the "do nothing" option, although "do nothing" is not always an option in every case.

Benefit Cost Ratio (BCR) – ratio of the present value of total incremental benefits over the present value of total incremental costs.

Cost Benefit Analysis – a technique for evaluating the economic performance of different options. For each Option it involves quantifying the incremental (marginal) costs and benefits to all sectors of the economy through the life of the project and discounting them to a net present value.

Discounted Cash Flow – a technique for appraising a future cash flow based on the idea of discounting it to present value. It is the reciprocal of "compounding" or "adding interest to" present capital in order to calculate future value.

Externalities – refer to impacts, either positive or negative, on third parties which are not normally traded. External benefits improve overall economic performance whilst external costs reduce it.

Gross Floor Area –Gross Floor Area (GFA) is Gross Lettable Area plus common mall spaces (including amenities), centre management area and plant rooms.

Gross Lettable Area –Gross Lettable Area (GLA) is the common measure used for lease and for other descriptive purposes in retail centres and shops. It is usually defined as the total area of the lease and includes back of house, storage, offices and mezzanine levels but usually excludes loading docks and common mall spaces. GLA is more commonly used in the industry because it defines the area of the lease.

Intangibles – refer to costs and benefits that are difficult to quantify.

Internal Rate of Return (IRR) – the discount rate at which the present value of benefits equals the present value of costs.

Net Present Value (NPV) – the difference between the present value of total incremental benefits and the present value of the total incremental costs.

Opportunity Cost: resources are priced at their value against their best alternative use, which may be above or below the actual cost of production. In this case the opportunity cost refers to the value of the land put to its highest and best use in the base case.

Marginal (or incremental) costs and benefits – refer to changes in the levels of costs and benefits between options or between an option and the base case (sometimes referred to as the 'do nothing') option.

Revenue – the total sales revenue of a business, including sales (exclusive of excise and sales tax) of goods and services; plus transfers to other firms of the same business; plus subsidies on production; plus all other operating income from outside the firm (such as commission income, repair and service income, and rent, leasing and hiring income); plus capital work done by rental or lease. Receipts from interest royalties, dividends and the sale of fixed tangible assets are excluded.

Risk -is the extent of expected variability in the project's returns.

Sunk Cost – a cost that occurred in the past and therefore cannot be included in assessing the net present value of future costs and benefits.

Terminal (or Residual) Value – is the value of the project at the end of its life or at the end of the assessment period.

Transfer Payment – refers to a monetary payment made from one sector of the economy to another with zero net gain to the total economy. An example may be a Section 94 payment to Council from a developer.

Value Added – the market value of goods and services produced by a business minus the cost of goods and services used in the production process, which leaves the gross product of the business (also known as contribution to gross domestic product or GDP).

EXECUTIVE SUMMARY

Hill PDA was commissioned by the Western Sydney Parklands Trust (WSPT) to undertake a Cost Benefit Analysis (CBA) related to the proposed Eastern Creek Business Hub (ECBH). The proposed ECBH would comprise 9,500sqm gross floor area (GFA) of retail premises, a 14,000sqm large format retail (LFR) unit and 29,300sqm of bulky goods uses.

Options

The purpose of a CBA is to assess potential development options to determine which would yield the greatest benefit overall from a whole of economy viewpoint. For the purposes of this CBA, the following options have been tested:

- **The Base Case or *'do nothing'* option**. There is no development on the Subject Site or in the surrounding area[1]. This is used as a benchmark against which to test potential development options.

Options

- **Option 1** – The Preferred Option. The proposed Business Hub is developed on the Subject Site;
- **Option 2** – The entire Business Hub is accommodated on the Westfield Mt Druitt car park site;
- **Option 3** – The entire Business Hub is accommodated on the Rooty Hill Council depot site;
- **Option 4** – Half of the Business Hub is accommodated on the Westfield Mt Druitt site and half on the Rooty Hill site;
- **Option 5** – The proposed amount of floor space is accommodated evenly on the subject site, the Westfield Mt Druitt site and on the Rooty Hill site; and
- **Option 6** – The proposed level of floor space is accommodated on a completely different hypothetical site in an *"out of centre"* location.

Tangible Results

All the tangible costs and benefits of the Options were identified, quantified and modelled. The summary results of this CBA are shown in Table 1.

[1] Note: the Base Case does not preclude minor bulky goods floorspace supply increases on small-scale sites within or adjacent to centres, or as part of a larger development, occurring over the period. However due to a lack of sequential sites as established by Hill PDA in our previous work there are no larger sites in the local area which are commercially or financially capable of accommodating the proposed development in the absence of it being accommodated on the Subject Site

Table 1 - Summary of PV of Benefits and Costs of Options 1 to 6 ($m)

	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
BENEFITS						
Net Industry Value Add	41.0	41.0	41.0	41.0	41.0	41.0
Benefit to Parklands	104.3	0.0	0.0	0.0	34.8	0.0
Terminal Value	35.4	9.0	9.0	9.0	17.8	9.0
TOTAL BENEFITS	**180.7**	**50.1**	**50.1**	**50.1**	**93.6**	**50.1**
COSTS						
Opportunity Cost of Land	16.0	0.0	14.3	14.3	30.3	16.0
Capital Costs	100.2	204.9	138.3	161.9	152.6	100.2
TOTAL COSTS	**116.2**	**204.9**	**152.6**	**176.2**	**182.9**	**116.2**
NET BENEFIT	**+64.5**	**-154.9**	**-102.5**	**-126.2**	**-89.3**	**-66.1**

Option 1 is the only Option that records a positive net benefit using the CBA approach. The table below details the Key Performance Indicators (KPIs) for the 6 Options.

Table 2 - Key Performance Indicators

Performance Indicators	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
4% Discount Rate						
NPV ($m)	134.0	-155.5	-94.0	-122.2	-64.7	-55.6
BCR	2.06	0.31	0.43	0.37	0.68	0.56
NPV/$	1.15	-0.76	-0.62	-0.69	-0.35	-0.48
7% Discount Rate						
NPV ($m)	64.5	-154.9	-102.5	-126.2	-89.3	-66.1
BCR	1.56	0.24	0.33	0.28	0.51	0.43
NPV/$	0.56	-0.76	-0.67	-0.72	-0.49	-0.57
10% Discount Rate						
NPV ($m)	22.5	-150.3	-105.4	-125.4	-101.8	-70.8
BCR	1.21	0.20	0.26	0.23	0.40	0.34
NPV/$	0.19	-0.73	-0.69	-0.71	-0.56	-0.61
IRR	+12.5%	-6.8%	-3.7%	-5.3%	+0.2%	-1.6%

Note: NPV = Net Present Value
BCR = Benefit Cost Ratio
NPV/ $ = NPV per dollar of investment
IRR = Internal Rate of Return

Option 1 is the best performing based on all of the KPIs and the only one which delivers a positive NPV, a positive NPV/$ and a BCR of greater than 1. Option 1 is the only option that achieves the hurdle rate of 7% IRR. The other options are not economically viable.

Unquantifiable Costs and Benefits Assessment

The assessment of unquantifiable costs and benefits indicates that, because of the need for the proposed development and the associated impacts on economic development, jobs and competition, there are more potential benefits than there are potential costs. All of the options would deliver more unquantifiable benefits than costs; however the qualitative assessment indicates that:

- Option 1 is the best performing overall with the most unquantifiable benefits (4) and the least costs (2) overall. Although Option 1 performs comparatively poorly in terms of accessibility, as it is not well served by public transport, it is an appropriate location to cluster new bulky goods facilities, it would respond to market demand, promotes the most competition and the greatest benefit on recreation and environmental amenity. It is the only Option which would lead to an increase in the quantum of land dedicated to economic development within Blacktown LGA and would support greater economic opportunity as a result;

- Options 2, 3, 4 and 5 are the joint next best performing Options with 4 unquantifiable benefits and 3 costs each as they would cluster the proposed uses on an established retail destination/s which are easily accessible by public transport. However as established previously none of these Options would be financially or commercially viable; and
- Options 6 is the least strong performer based on unquantifable costs and benefits.

Conclusion

The overall CBA and unquantifiable costs and benefits assessment undertaken for the 6 Options conclude that:

- Option 1 is the best performing based on all of the KPIs and the only one which delivers a positive NPV, a positive NPV/$ and a BCR of greater than 1. Option 1 is the only option that achieves the hurdle rate of 7% IRR. The other options are not economically viable; and
- Option 1 achieved the highest overall unquantifiable benefits versus costs because it would promote retail competition and choice and bring new economic land into the system whilst causing the least disruption to existing tenants.

On this basis, Option 1 is the preferred Option based on both the qualitative and quantitative assessment.

Impact of Rejection

In the event that the proposed ECBH does not proceed on the Subject Site, the following impacts and consequences may result:

- The continued underutilisation of a peri-urban site not currently accessible to the public and which does not contribute towards the environmental, social or economic wellbeing of residents;
- A missed opportunity to increase access to retail and bulky goods floorspace in this location in response to market demand;
- Missed opportunities for greater retail competition within the "Standing"[2], opportunities to retain additional expenditure within the City of Blacktown and to achieve a net increase in jobs across the City without leading to job losses in commercial centres;
- A missed opportunity to lower the need for residents to travel to locations where their demand for retail floorspace and for jobs can be met. This saves associated costs of time, travel expenses, traffic and congestion, pollution and environmental externalities;
- A missed opportunity to support economic development in the City of Blacktown and facilitate some multiplier benefits for the local and broader economies;
- A missed opportunity to provide funding for the WSPT to use for the public benefit to enhance the quality of, and access to, parklands for residents in Western Sydney;
- A missed opportunity to contribute towards the City of Blacktown and North West Subregional job targets; and

[2]Note: *'The Standing'* comprises the area within which impacts are assessed for the purposes of the CBA. At the request of SGS this is defined as the extent of the bulky goods and large format retail trade area identified in the 'Eastern Creek Business Hub: Economic Impact Assessment' (Hill PDA, August 2012)

- A missed opportunity to bring more land into economically beneficial use.

1. INTRODUCTION

Hill PDA was commissioned by the Western Sydney Parklands Trust (WSPT) to undertake a Cost Benefit Analysis (CBA) related to the proposed Eastern Creek Business Hub (ECBH).

1.1 CBA CONTEXT

Hill PDA originally completed a Net Community Benefit Test (NCBT) pertaining to the proposed ECBH at the request of NSW Planning and Infrastructure (P&I). Subsequent to completing and issuing the NCBT to P&I, a more quantitative Cost Benefit Analysis (CBA) approach was requested by P&I. This request is fulfilled in this CBA report which replaces the NCBT previously submitted with the planning proposal[3].

1.2 WHAT IS A CBA?

A CBA *"is a method for organising information to aid decisions about the allocation of resources"*[4]. It is recognised that a CBA is useful where developments can impose costs and benefits on third parties having wider economic and social effects. As a result, a CBA takes a broader perspective than a site specific impact study as it assesses the costs and benefits made to the community as a whole, rather than to the sponsors of the project or to an individual[5].

The CBA differs from the NCBT in that it quantifies both the external economic, social and environmental costs and benefits (or welfare impacts) of a proposal. The CBA converts the benefits and costs of a proposal that may occur in the future into present values through *'discounting'*. This technique thereby enables a comparison of the value of costs and benefits at any one point in time.

This requirement accords with the recommendations of *The Guide to Preparing Planning Proposals* and the first NSW Draft Centres Policy (2009) which states that:

> *"For larger and more complex proposals, the proponent should consider the use of more formal cost benefit analysis techniques. Such analysis should be carried out objectively taking into consideration matters such as the number and type of jobs generated, the local or regional economy multiplier effects and any infrastructure and likely travel cost implications."*[6]

This Report has been prepared in accordance with the *Department of Finance and Administration Handbook of Cost Benefit Analysis (2006)*, as advocated by the NSW Draft Centres Policy (2009). It is also informed by the NSW Government Guidelines for Economic Appraisal (NSW Treasury, 2007).

[3] Note: The draft Centres Policy requires an NCBT or a CBA to assess the impacts of a proposal. Accordingly Hill PDA's CBA has been provided in replace of the prior NCBT for the purposes of assessment. Hill PDA previously provided a NCBT in response to the strategic justification queries raised by the Department in Schedule 1 (Strategic Justification) of their letter to WSPT (dated November 2012) but this has now been superseded by the CBA.

[4] Source: Handbook of Cost Benefit Analysis, Department of Finance and Administration (2006)

[5] ibid

[6] Source: Page 25, NSW Draft Centres Policy, NSW Department of Planning and Infrastructure (2009)

Government guidance confirms the primary question which a CBA seeks to answer:

> *"Does the expenditure of public money on this particular programme provide a net benefit to the Australian economy and the Australian public, bearing in mind that these resources could be applied in an alternative use?"*[7]

SGS Economics and Planning (SGS) was retained by P&I to peer review documentation pertaining to the proposed ECBH on behalf of P&I. Hill PDA has liaised closely with SGS in finalising this CBA as detailed in the Preface and Appendices 1 and 2.

1.3 The Proposed Eastern Creek Business Hub

In September 2012 an Environmental Impact Statement (EIS)[8] was lodged with P&I by the WSPT for the proposed ECBH. The EIS and accompanying application sought consent for:

- The concept proposal which provides a development structure including site layout, land uses, building envelopes and design guidelines; and
- Stage 1 approval for super lot subdivision for retail uses and early works including construction of an access road, stormwater management, civil engineering works and woodland planting.

The Eastern Creek site comprises 34ha of land and the EIS proposed to develop the ECBH on 15.77ha of this site. This area is referred to as *'the Subject Site'* for the remainder of this CBA.

More specifically the proposal incorporated 52,800sqm gross floor space area (GFA)[9] as follows:

- 9,500sqm (GFA) of retail premises (a large food and beverage operator and specialty shops); and
- 43,300sqm (GFA) of bulky goods premises and large format retail.

Stage 1 of the proposal can accommodate 33,500sqm (GFA) of retail premises, bulky goods premises and large format retail (LFR), with Stage 2 accommodating 19,300sqm (GFA) of bulky goods premises. For the purposes of the CBA it is assumed that Stage 1 would be fully developed and trading by 2016 and Stage 2 by 2022. In actuality however this would be dependent upon market demand and uptake.

Note that the description of the development for which consent is being sought has been modified since the EIS to accommodate changes to the scope of the development, to make clearer the intended use of the land, and to make it clear that Staged Development is being sought in accordance with Section 83b of the Environmental Planning and Assessment Act 1979.

Staged development consent is sought for:

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[7] Source: Page 4, Introduction to Cost-Benefit Analysis and Alternative Evaluation Methodologies, Department of Finance and Administration (2006)

[8] Source: Eastern Creek Business Hub, Environmental Impact Statement, State Significant Development (SSD 5175), Architectus (September 2012)

[9] Note: Gross Floor space Area or GFA is Gross Lettable Area (GLA) plus common mall spaces (including amenities), centre management area and plant rooms. In a typical indoor centre with at least one department store and supermarket the GLA makes up around 72% to 75% of the GFA

a) Concept Proposal including development structure, site layout, land uses, building envelopes and design guidelines to accommodate 'retail premises' use, 'bulky goods premises' use, and 'business premises' use (up to 52,800sqm Gross Floor Area), landscaping, 'environmental protection works', roads and stormwater infrastructure;

b) Superlot subdivision; and

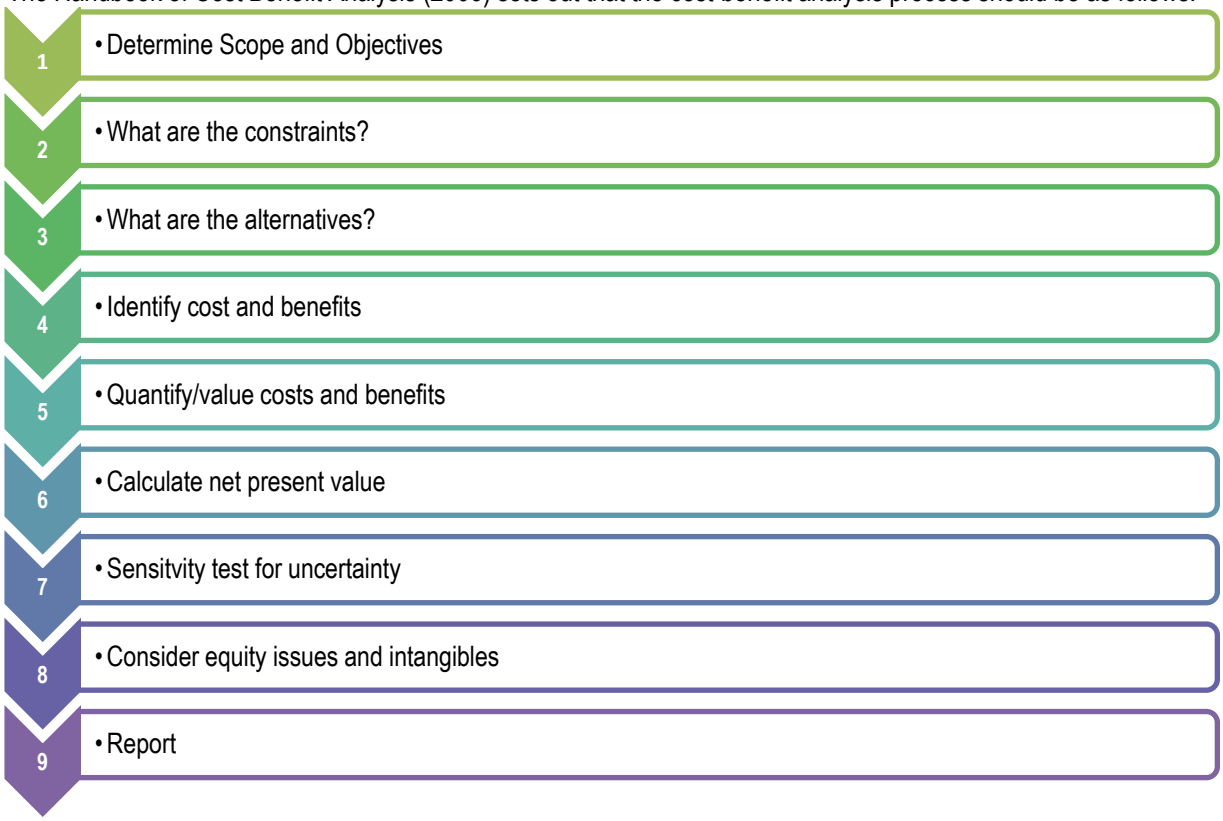
c) Stage 1 Early works comprising:

- Bulk and detailed earthworks;
- New access road (staged construction);
- Estate infrastructure;
- Estate landscaping;
- Rehabilitation of existing woodland in areas identified for open space/conservation.

The site is proposed to accommodate up to 52,800sqm of floorspace, indicatively comprising bulky goods premises (29,300sqm), large format retail (14,000sqm) and retail premises / business premises (9,500sqm) as shown on the Structure Plan.

1.4 METHODOLOGY

The Handbook of Cost Benefit Analysis (2006) sets out that the cost-benefit analysis process should be as follows:



Source: Page 9, Handbook of Cost Benefit Analysis, Department of Finance and Administration (2006)

To address these requirements the CBA is structured in the following manner:

- Chapter 2: Determines the scope and objectives of the CBA, identifies constraints and Options to be considered and other key assumptions and parameters;
- Chapter 3: Identifies all the costs and benefits of the options from a *'whole of economy'* viewpoint and considers the extent to which these can be quantified;
- Chapter 4: Quantifies the costs and benefits into CBA models and documents our assumptions in doing so. It considers key performance indicators and undertakes testing of sensitivity and risk;
- Chapter 5: Considers other costs and benefits which are not quantifiable; and
- Chapter 6: Concludes the CBA by summarising our key findings and considering the impact of rejecting the proposed ECBH.

2. KEY PARAMETERS

This Chapter sets out the key parameters, assumptions and approach used in this CBA to frame the rationale used subsequently. This Chapter also identifies some of the limitations of the CBA approach.

2.1 THE SCOPE AND OBJECTIVES

The CBA approach to assessing potential development is outlined in Chapter 1. This CBA applies this methodological approach to the proposed Business Hub at Eastern Creek. Previous work undertaken by Hill PDA has established that the proposal would yield a net positive community impact, would not lead to adverse impacts on any existing or planned commercial centres to the extent to which their vitality or viability would be jeopardised, and has demonstrated that the proposal is a response to significant growth in demand[10].

This CBA provides a further analysis of the potential impact of the proposal by examining the impact from a whole of economy perspective. The quantitative CBA ignores secondary effects of investment. As such, we caution that whilst this approach is a useful means of considering the economic justification of the proposal it is only one of a number of tools which should be used.

2.2 THE STANDING OF THE CBA

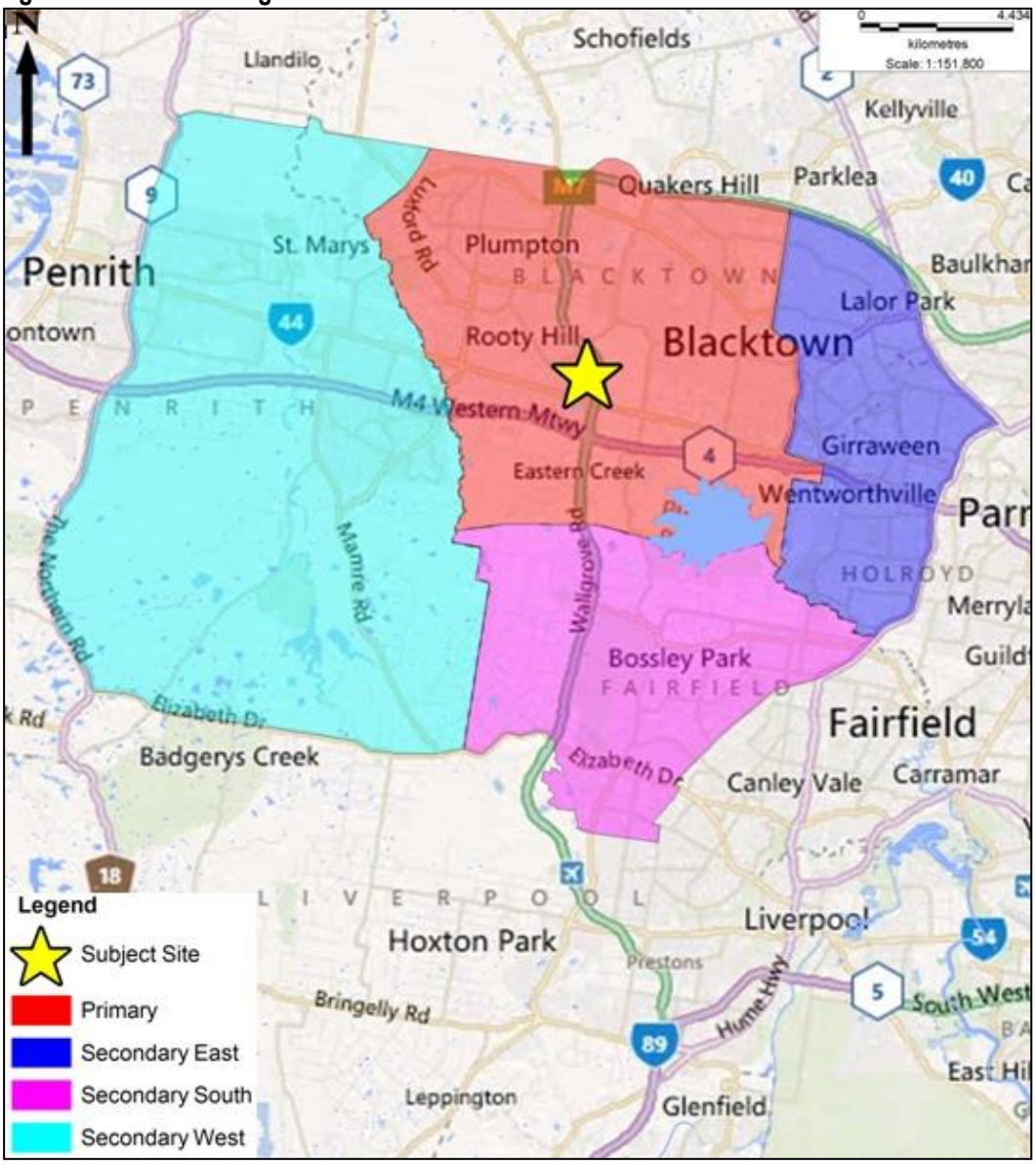
The *'standing'* refers to the area within which impacts are assessed for the purposes of the CBA. This comprises the extent of the bulky goods and large format retail trade area as defined in the *'Eastern Creek Business Hub: Economic Impact Assessment'* (Hill PDA, August 2012) as encompassing the following areas:

- Primary trade area – southern part of the Blacktown LGA including the suburbs of Eastern Creek, Minchinbury, Huntingwood, Doonside and extending to Oakhurst and Hassall Grove in the north.
- Secondary East trade area – extends 5km to the east and includes the suburbs of Greystanes, Kings Langley, Lalor Park, Seven Hills, Toongabbie, Girraween, Pendle Hill, Pemulwuy and parts of Smithfield.
- Secondary South trade area – comprising the western portion of Fairfield LGA including the suburbs of Wetherill Park and Horsley Park.
- Secondary West trade area – comprising the eastern side of the Penrith LGA including the suburbs of St Clair, Claremont Meadows, Werrington, St Marys and Erskine Park.

The extent of the standing is shown in Figure 1.

[10] Source: Eastern Creek Business Hub Economic Impact Assessment, Hill PDA (2012), Eastern Creek Business Hub Supplementary Economic Report, Hill PDA (2013)

Figure 1 - The Standing



Source: Map produced by Hill PDA using MapInfo 11.0 software and Microsoft Bing © 2011 Microsoft Corporation

2.3 Options Tested

The purpose of a CBA is to assess different development options to determine which would yield the greatest benefit overall from a whole of economy viewpoint. For the purposes of this CBA, the following Options have been tested:

- **The Base Case or *'do nothing'* option**. There is no development on the Subject Site or in the surrounding area[11]. This is used as a benchmark against which to test options.

[11] Note: the Base Case does not preclude minor bulky goods floorspace supply increases on small-scale sites within or adjacent to centres, or as part of a larger development, occurring over the period. However due to a lack of sequential sites as established by Hill PDA in our previous work there are no larger sites in the local area which are commercially or financially capable of accommodating the proposed development in the absence of it being accommodated on the Subject Site

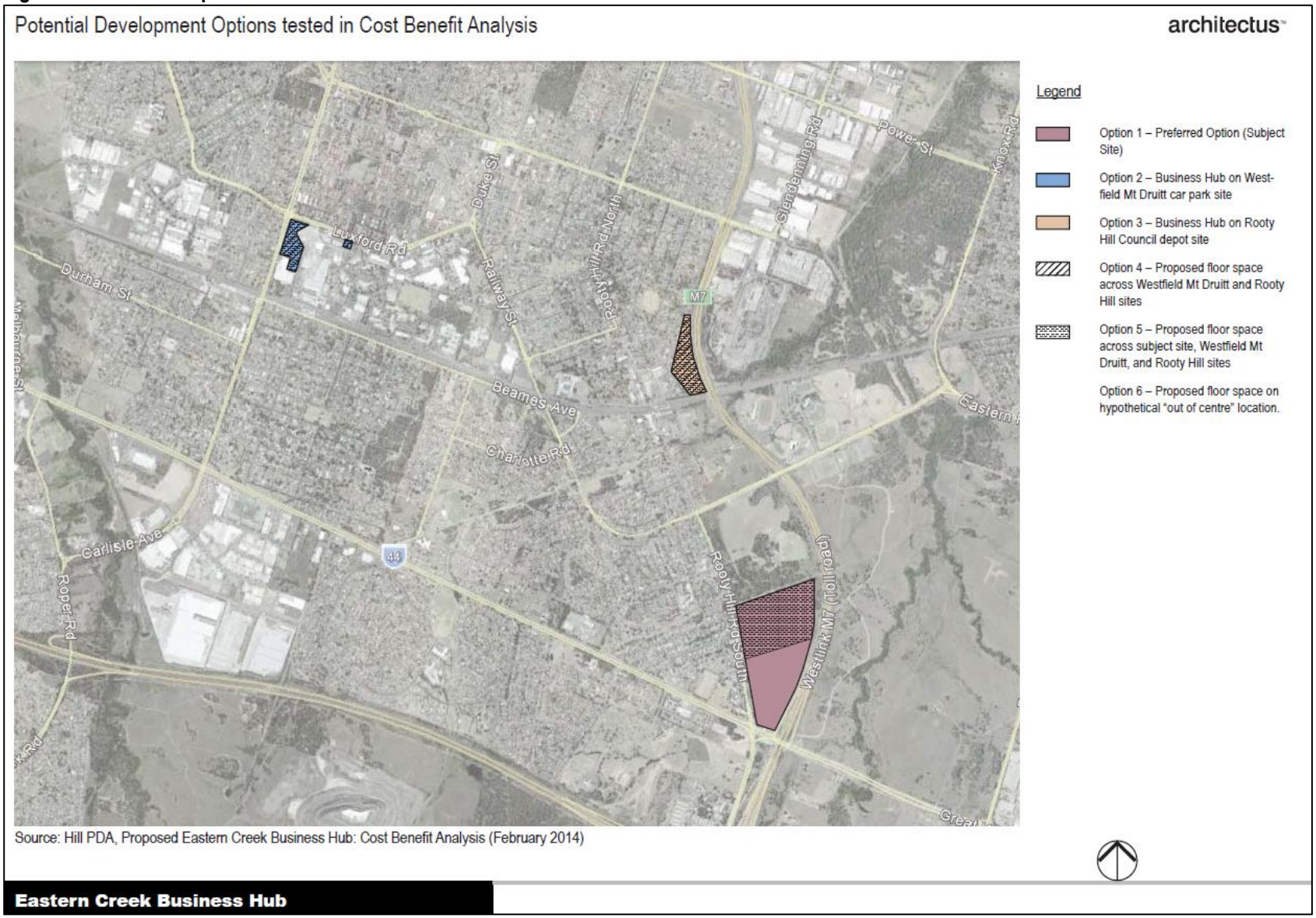
Options

- **Option 1** – The Preferred Option. The proposed Business Hub is developed on the Subject Site;
- **Option 2** – The entire Business Hub is accommodated on the Westfield Mt Druitt car park site;
- **Option 3** – The entire Business Hub is accommodated on the Rooty Hill Council depot site;
- **Option 4** – Half of the Business Hub is accommodated on the Westfield Mt Druitt site and half on the Rooty Hill site;
- **Option 5** – The proposed amount of floor space is accommodated evenly on the subject site, the Westfield Mt Druitt site and on the Rooty Hill site; and
- **Option 6** – The proposed level of floor space is accommodated on a completely different hypothetical site in an *"out of centre"* location. This Option was included to recognise SGS's preferred Base Case.

Note that the sites in Options 2 to 5 were identified with P&I as potential preferable sequential sites to accommodate the proposed ECBH. For the reasons outlined in Hill PDA's Supplementary Economic Report there is little likelihood of the ECBH, in whole or in part, being accommodated on any of these sites because of commercial and financial viability considerations. Notwithstanding this we have tested the cost benefit of accommodating a comparable or disaggregated component of the ECBH on these sites for the theoretical purposes of this CBA. This does not mean that we accept that there is any potential of these developments actually eventuating, especially given the figures contained in this report.

The location of the sites is depicted in the following figure.

Figure 2 - The CBA Options



Source: Architectus (2014)

2.4 Range of Potential Impacts

For the purposes of assessment, we have identified three types of impacts:

1. Those impacts that are quantifiable in the CBA. These are further divided into internal and external impacts.
    i. Internal impacts include land, capital costs, maintenance, value-add to GDP, etc.
    ii. Externalities refer to impacts on third parties, some of which can be quantified such as travel time savings.
2. Those impacts that are recognised as legitimate costs and benefits in the CBA but are not as easy to quantify in dollar terms. For example the benefit to shoppers of increased competition eventuating from new retail development. These are referred to as 'intangibles'.
3. Those impacts that should not be included in the CBA to calculate economic return or performance. Construction costs are considered an economic cost for example but *"jobs generated by construction"* is often viewed as a benefit in social impact assessment.

2.5 Methodological Assumptions

Chapter 4 outlines in detail the data, research and assumptions used to underpin the CBA modelling undertaken by this CBA. The methodological assumptions underpinning the CBA are as follows:

- The standing or focus is City of Blacktown LGA;
- The development comprises two Stages: Stage 1 would be developed by 2016 and Stage 2 would be developed by 2022. The proposed floorspace mix in Stages 1 and 2 is shown in the following table:

Table 3 - Eastern Creek Business Hub Proposed Uses

Stage	Proposes Uses	Floor Space (sqm GFA)	Land Area (ha)
Stage 1 - South of Beggs Street	Lot 2 - Retail Premises	9,500	4.19
	Lot 2 – Bulky Goods Retail	6,500	
	Lot 1 - Large Format Retail Premises	14,000	4.76
	Lot 1 - Bulky Goods Retail	3,500	
Stage 2 - North of Beggs Street:	Lot 3 - Bulky Goods Retail	19,300	6.82
	Total	**52,800**	**15.77**

Source: Architectus (April 2014)
Notes:

- The 10,000sqm of Bulky Goods Retail previously shown in Lot 1 is distributed between Lot 1 and Lot 2 as per the GFA shown above.
- Lot 3 - Land Area of 6.82ha is the size of the superlot (not including the access road extension). It is assumed the 6.82ha would go to market as one land parcel and the required length of the access road will depend on the preferred building arrangement on the future developer. Our indicative design shows the maximum length of the access road required to service all lots.
- Only land areas have been revised in the above table. Floorspace areas have not been adjusted.
- For the purposes of this CBA we have assumed that the Large Format Retail premises is occupied by a Costco-type retailer which is consistent with our Eastern Creek Business Hub Economic Impact Assessment (August 2012).

- The evaluation period for the CBA is 20 years[12];
- All values are expressed in constant 2013 dollars; and

[12] Note: As recommend on Page 40, NSW Government Guidelines for Economic Appraisal, NSW Treasury (2007)

- Future net benefits are discounted to the base year (2013) using a discount rate of 7% with sensitivity testing analysis of 4% and 10%[13].

2.6 Key Concepts

The CBA reports on the following measures of economic performance:

- **Net Present Value (NPV)** – the difference between the present value (PV) of total incremental benefits and the present value of the total incremental costs. Where there is a positive NPV, it means that the incremental benefits of the scenario in question exceeds the incremental costs over the evaluation period (or project life);
- **Benefit Cost Ratio (BCR)** – the ratio of the PV of net recurrent benefits to the PV of project capital costs[14]. Where there is a BCR greater than 1 to 1 the project is considered economically viable (i.e. the benefits outweigh the costs);
- **NPV per dollar of Capital Investment (NPV/$)** – The NPV divided by capital investment to determine the NPV on a per dollar basis in the context of the total capital cost; and
- **Internal Rate of Return (IRR)** – the discount rate at which the PV of benefits equals the PV of costs i.e. which leads to an NPV of zero. An IRR over the specified discount rate (7% real or non-inflated under NSW Treasury Guidelines) also indicates a project is economically worthwhile.

2.7 Limitations to Using CBA

The *Department of Finance and Administration 2006 Handbook of Cost Benefit Analysis* identifies that the effective use of CBAs requires an appreciation of their limitations as well as their merits. Accordingly, this Section identifies some of the project specific and more commonly identified limitations associated with CBA analysis in general. These limitations have been recognised in the assessment process and associated risks minimised where possible.

Potential limitations associated with using a CBA in this instance are:

- The need for reliable evidence to quantify costs and benefits. Since economics is partially a behavioural science this can be a difficult due to uncertainties in human behaviour. For example travel cost savings in the case of Eastern Creek could vary considerably from prediction. This assessment has stated all assumptions and data sources which have been used in estimating all the quantifiable costs and benefits identified to provide a clear rationale and economic basis for our findings;
- The framing of the Base Case and the Options. Given that the CBA makes assumptions on future patterns of behaviour this can create a higher level of uncertainty or margin for error;
- Not all costs and benefits can be quantified in dollar terms and therefore some intangible costs or benefits may be overlooked or not accorded sufficient weight in deliberations;

[13] Note: As recommend on Page 52, NSW Government Guidelines for Economic Appraisal, NSW Treasury (2007)

[14] Source: Page 156, Handbook of Cost Benefit Analysis, Department of Finance and Administration (2006)

- A CBA may have inherent bias against members of the community with a lower ability to pay. It assumes that the value of one dollar is the same to all community members whereas in actuality a dollar may be valued more highly by lower income residents compared to those with higher incomes; and
- A CBA may have a degree of obscurity when the focus is on the 'bottom line'.

To try and address these limitations as far as possible Hill PDA has clearly sourced and justified our assumptions within the CBA to provide clarity to the reader in reviewing our findings. For those impacts that cannot be quantified or included in a CBA, we have designed an additional assessment of impacts against adopted Local and State Government criteria. Above all, and consistent with NSW Treasury Guidelines, we have undertaken an objective CBA guided by common sense.

3. POTENTIAL COSTS AND BENEFITS

This Chapter seeks to acknowledge and identify the costs and benefits which are expected to eventuate from the 6 Options identified compared to the Base Case. This is commensurate with CBA guidelines which note that:

> *"Before they can be valued, benefits and costs must first be identified, and separated clearly from transfer or distributional effects which do not entail any opportunity costs. Use of a simple incidence matrix can assist in this process"*[15].

All potential costs and benefits are identified and a common sense judgment call is made as to whether they are relevant considerations for the CBA and whether they can be quantified.

The impacts have also been separated clearly from transfer or distributional effects which do not entail any opportunity costs. As stated in CBA guidelines:

> *"…secondary and multiplier benefits are excluded. Employment multipliers' seldom measure actual benefits or opportunity costs and should generally not be included in cost-benefit analyses. Likewise, 'secondary benefits' are often another way of presenting primary benefits that have already been included in the analysis or that represent transfers. While secondary effects of a project may be important for distributional analysis or for planning purposes, their inclusion in a cost benefit analysis involves inappropriate double counting"*[16].

To inform subsequent Chapters of this CBA, we have distinguished the costs and benefits by the following symbols:

X	Being a cost or benefit that can be quantified but cannot be included in the CBA;
Q	Being a cost or benefit that can be quantified and included in the CBA
UQ	Being a cost or benefit than can be included in the CBA, but cannot be quantified at this stage.

This analysis is shown in Table 4.

[15] Source: Page 46, Handbook of Cost Benefit Analysis, Department of Finance and Administration (2006)
[16] Source: Page 47, Handbook of Cost Benefit Analysis, Department of Finance and Administration (2006)

Table 4 - Summary of Costs and Benefits Associated with the Options

Benefits	CBA	Costs	CBA
Employment			
Job Years generated during construction	X		
Job generation - multiplier effect during construction	X		
Job generation upon operation	X	Any loss of jobs in centres	X
Travel time savings for workers	UQ		
Finance			
		Opportunity Cost of land	Q
		Design and Construction	Q
Retail Sales and Rental Revenue	Q	Operational and Occupancy Costs	X
		Disruptions / loss of trade	Q
		Compensation to existing tenants	UQ
		Relocation of existing uses	X
Economic			
Value add to GDP of retail operations	X	Value Loss due to redirection of trade	X
Value add from capture of escape expenditure	X		
Increased supply of land for economic development	UQ		
Social and Public Benefits			
Retail choice and price competition	UQ		
Positive impact on WSPT finances	Q		
Travel time savings to shoppers	UQ		
Environmental			
Impact on WSPT Financing	Q		
Promoting sustainable transport options	UQ		
		Noise and traffic impacts during construction	UQ
		Increased localised traffic movements	UQ

Source: Hill PDA (2014)

4. COST BENEFIT ANALYSIS

This Chapter outlines the assumptions which have been used to calculate the quantifiable costs and benefits of for the 6 Options identified. It applies these assumptions to the Options to consider the Key Performance Indicators (KPIs) of each.

4.1 QUANTIFIABLE BENEFITS

Net Value Add of Retail Operations

"Industry value added" is defined by IBIS World as "*the market value of goods and services produced by an industry minus the cost of goods and services used in the production process, which leaves the gross product of the industry"*[17]. It is also referred to as the contribution that the industry makes to gross domestic product. The value added component of retail sales is projected to be 26.6% of revenue in 2015-16[18].

Hill PDA and SGS disagree on the definition of Base Case, however, both consultants agree that as a minimum the Large Format Retail (LFR) component of floorspace would not be provided locally under the Base Case. Hill PDA believe that, due to a lack of sequential sites as established by the *Supplementary Report: Economic Considerations*, there is little potential for the majority of the proposed development to be satisfied in this locality if the Business Hub does not proceed on the Subject Site. Notwithstanding this, for the purposes of this CBA only the net value add of retail operations from the LFR floorspace has been included in the DCF modelling. This does not mean that we endorse this outcome however, as in actually we believe the net value add of retail operations under all Options will be a lot higher.

The *Eastern Creek Business Hub Economic Impact Assessment* (Hill PDA, August 2012) estimated that 80% of the turnover of the proposed ECBH would be redirected from existing retailers within the Standing and the residual 20% from locations outside of the Standing. The LFR is estimated to attain a turnover from household retail expenditure of $80m in 2016. As such $16m is assumed to be redirected from retailers outside of the Standing and on this basis the net retail value add is $4.3m. This is assumed to increase by 1.3% per annum consistent with our previous reports. This is a conservative estimate given the level of population and expenditure growth identified in the trade areas.

Terminal Value

The terminal value in the Year 20 was derived from capitalising the previous year's net benefit by 15%. At a 7% discount rate this method has the same effect as adding a further 9-10 years to the cash flow.

[17] Source: IBIS World Report Consumer Goods Retail in Australia 2011

[18] Ibid

Benefits of Parkland Enhancement

Development of the proposed ECBH would generate funding for the WSPT. This would be reinvested in parkland in Western Sydney and the Standing from which the public would benefit. Contribution towards improving parkland amenity and access for the public is an economic benefit, in theory, can be quantified.

The difficulty however with quantifying the net benefit is that there is a potential array of options for the WSPT and each of these can be appraised through the same methodology of CBA. It is not unusual for the use benefit of the parklands to well exceed the capital and recurrent costs of embellishment often resulting in a BCR well above unity and sometimes 2 or 3 times higher.

For the purpose of this exercise we have taken the likely revenue generated from a rental income stream assuming the WSPT retains ownership of the land and buildings. This is a conservative position since the benefits of parkland embellishment is likely to outweigh the costs. Whilst the site could be divested, in theory, it provides a similar level of funding in NPV terms. For the purpose of the CBA we have assumed a commencing net rental income of $235 per square metre for all bulky goods/ large format stores. This is consistent with the findings of our *'Eastern Creek Business Hub Supplementary Report: Review of Market Assumptions'* (October 2013) report prepared by Hill PDA to inform the NSW Treasury and which was based on market research[19]. We have used a rental income of $600 per square metre for the smaller stores (below 400sqm). It is assumed that rent will increase in real terms at a rate of 1% per annum.

The WSPT Plan of Management 2020 Supplement (October 2013) was adopted by the Minister for the Environment on 2nd March 2014. It notes that releasing 2% of the Parklands with the least ecological value to create business hubs servicing local and regional communities will provide funding to enable the WSPT to be managed and developed by 2020 at nil cost to the community. It would become financially self-sustaining. The Plan of Management 2020 Supplement plans to invest $30 million over the next five years in a recreational capital works program to activate an additional 5% (250 ha) of the Parklands for passive recreation. It is publically beneficial projects like this that the additional capital generated by the ECBH for the WSPT would help to support.

4.2 Quantifiable Costs

Opportunity Cost of Land

Valuing the opportunity cost of the land is vexed because the WPST land has no commercial value. No development is currently permitted on the Subject Site and this situation is assumed to continue in perpetuity under the Base Case. Nevertheless for the purpose of the analysis we have adopted a rate of $16m ($1m per hectare), equivalent to the rate of englobo (undeveloped) land for industrial uses. Developed industrial land has a value of around $2.8m per hectare. After subtracting the costs of development at around $1.2m per hectare, 20% design and other soft costs, interest and other ancillary costs results in a residual land value of round $1m per hectare.

[19] This was based on published data sources including Colliers and Savills research reports which indicated a bulky goods rental value range of $125-$450/sqm. This was validated by Hill PDA research and a median of $235/sqm was deemed appropriate.

In Options 2, 4 and 5 we have not included a cost for the land at Westfield Mount Druitt. However we have included in our capital costs the reinstatement of the retail space and car parking facilities on site in the new development.

The Rooty Hill depot site is zoned 5(a) General Special Uses under the Blacktown LEP (1988) and SP2 Depot in the Draft Blacktown LEP 2013. The use of the site for the Business Hub would require rezoning. Under Options 3, 4 and 5 there is a significant cost in relocation of the Council depot and this would include land acquisition. For the purpose of the analysis we have assumed a cost of $280/sqm for industrial land which equates to $12.3m plus relocation costs of say $2m.

We have applied the same $16m cost of land for Option 6.

Capital Costs

Total capital costs for the proposed ECBH on the Subject Site have previously been quantified by WT Partnerships at $129m. Note that this was for a slightly different scheme including a hotel. Construction costs associated with the current scheme were estimated by Hill PDA (based on the WT Partnerships and Rawlinsons data) at around $97m with further costs of 20-25% to cover design costs, project management fees and so on. As such, for the purposes of the CBA we have assumed total capital costs of $129m under Option 1.

Whilst not examined in detail, any redevelopment of the Westfield site is likely to require part of the site to continue trading throughout the construction period. With this in mind, the only practical way to achieve a proposal such as the ECBH on the Westfield site is likely to include demolition of the western building (including Kmart and Harvey Norman stores) together with much of the car park immediately to the north. This will enable the main building to continue trading.

Under Option 2 accommodating the proposed 52,800sqm of floor space (as per the Eastern Creek Business Hub proposal) as well as the reinstatement of the existing stores (around 13,000sqm) and reprovision of existing and new car parking spaces would require a three level retail building with a multi-deck car park of around 5 levels.

Construction costs would be higher for multi-storey construction – particularly with car parking which will increase from $4,000 per at grade car space to $20,000 per multi story car space. It has been assumed that basement car parking would not be desirable in this location due to the higher costs of construction (upwards of $40,000 per car space). Construction costs for built form would also increase from an estimated $1,200/sqm for single storey construction to around $2,000/sqm for multi-level construction[20].

Some $210m of construction costs are estimated to be associated with Option 2 using this high level cost estimate, more than double the cost of the proposal on the Eastern Creek Business Hub. Note that this excludes any additional costs outside of those associated with construction that will occur with this option. The loss of trading during the construction process, the loss of car parking spaces, the impacts of construction on the operations of the Westfield, compensation to existing tenants (etc.) will all contribute to additional project costs. There are also higher risks with these more complex projects that generally translate to higher contingency allowances or costs for mitigation measures.

[20]Source: Rawlinsons Construction Handbook 2013

Allowing for a further 25% of soft costs (design, application fees, project contingencies, etc) increases the total capital cost for Option 2 to around $263m.

Option 3, which is a 52,000sqm centre on the Rooty Hill Council Depot site, was previously estimated by Hill PDA to cost around $157m. Allowing for a further 25% covering soft costs increases the total capital cost to $196m. Note that we have not included the capital cost of relocating the Council Depot site in our CBA. Inclusion of this cost would increase the costs associated with Option 3.

For Options 4 and 5 we have taken the broad aggregates and of the constructions costs associated with Options 1, 2 and 3 and pro-rata these costs based on respective floor areas and car parking requirements.

For Option 6, which is a hypothetical *"out of centre"* site elsewhere in the standing we have applied the same costs as for Option 1.

4.3 FINDINGS

The full CBA cash flow models for all of the Options are included in Appendix 1 of this CBA. Table 5 below provide a summary of the findings.

Table 5 - Summary of PV of Benefits and Costs of Options ($m)

	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
BENEFITS						
Net Industry Value Add	41.0	41.0	41.0	41.0	41.0	41.0
Benefit to Parklands	104.3	0.0	0.0	0.0	34.8	0.0
Terminal Value	35.4	9.0	9.0	9.0	17.8	9.0
TOTAL BENEFITS	**180.7**	**50.1**	**50.1**	**50.1**	**93.6**	**50.1**
COSTS						
Opportunity Cost of Land	16.0	0.0	14.3	14.3	30.3	16.0
Capital Costs	100.2	204.9	138.3	161.9	152.6	100.2
TOTAL COSTS	**116.2**	**204.9**	**152.6**	**176.2**	**182.9**	**116.2**
NET BENEFIT	**+64.5**	**-154.9**	**-102.5**	**-126.2**	**-89.3**	**-66.1**

As shown in the above table, Option 1 is the only Option that records a positive net benefit using the CBA approach attributable to the significant financial benefit to the Western Sydney Parklands and the lower capital costs associated with this Option. Option 6 has the same costs and benefits as the preferred option except that the financial benefit to Western Sydney Parklands is not realised.

The following table provides a summary of the KPIs for the 6 options.

Table 6 - Key Performance Indicators

Performance Indicators	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
4% Discount Rate						
NPV ($m)	134.0	-155.5	-94.0	-122.2	-64.7	-55.6
BCR	2.06	0.31	0.43	0.37	0.68	0.56
NPV/$	1.15	-0.76	-0.62	-0.69	-0.35	-0.48
7% Discount Rate						
NPV ($m)	64.5	-154.9	-102.5	-126.2	-89.3	-66.1
BCR	1.56	0.24	0.33	0.28	0.51	0.43
NPV/$	0.56	-0.76	-0.67	-0.72	-0.49	-0.57
10% Discount Rate						
NPV ($m)	22.5	-150.3	-105.4	-125.4	-101.8	-70.8
BCR	1.21	0.20	0.26	0.23	0.40	0.34
NPV/$	0.19	-0.73	-0.69	-0.71	-0.56	-0.61
IRR	12.5%	-6.8%	-3.7%	-5.3%	0.2%	-1.6%

Note: NPV = Net Present Value
BCR = Benefit Cost Ratio
NPV/ $ = NPV per dollar of investment
IRR = Internal Rate of Return

The conclusion is that Option 1 is the only option that achieves the hurdle rate of 7% IRR. The other options are not economically viable.

4.4 Sensitivity and Risk Analysis

There are several methods of assessing risk including the following:

- Adding a premium to the discount rate;
- Sensitivity testing which tests the degree of variation to the performance indicators resulting from variations to the risky variables (usually referred to as *'what-if'* tables);
- Scenario analysis which tests the changes to the performance indicators from a combination of changes to the risky variables (*'near worst case'* scenario for example); and
- Probability analysis which assigns probability profiles to the risky variables and runs multiple simulations to derive probability profiles of the key variables.

The method of risk assessment selected was a combination of one-way what-if and two-way what-if tables. The performance indicators below the cash flow tables in Appendix 1 are shown with varying discount rates including 4% and 10% in accord with Treasury Guidelines. Importantly only Option 1 shows a positive NPV for all target IRR levels. The other options all express a negative NPV against all discount rates.

The two-way what-if table shows variations to the NPV at 7% discount rate resulting from variations to construction costs at the proposed ECBH. The results clearly show that Option 1 performs strongly. It outperforms Option 2 by around $209m to $240m and it outperforms Option 3 by around $166m to $169m. It is the only Option that achieves a positive NPV under any scenario and under all scenarios tested.

4.5 Conclusion

Option 1 is the only Option that would be commercially viable. It would deliver a positive net community benefit due to the significant positive impact it would have on WSPT finances which would be reinvestment in the Parklands for public benefit. For all other Options the associated costs would outweigh the potential benefits from a CBA perspective.

Note that the trading impacts on retailers in the Standing would be the same under all of the Options, however as Options 2 to 5 would at least in part be within or immediately adjacent to a centre, the overall impact on the associated centre would be amalgamated with the turnover of these centres.

Dis-benefits relate to capital costs and value-add associated with redirected trade. Option 1 has the lowest level of dis-benefits as a result of significantly lower design and construction costs.

Other important considerations include the following:

- Growth in expenditure in the trade areas will absorb any losses on the existing commercial centres and retail facilities (i.e. redirection of trade) over time;
- The development of the ECBH at Westfield Mt Druitt Car Park would lead to significant disruption to retail activities and adverse impacts upon the centre due to the temporary loss of car parking and would require rezoning;
- The Rooty Hill Council Depot would require rezoning and a replacement site to accommodate the depot use. As a result of these issues, and the higher capital costs, there is less chance of these Options being realised (even if they were financially or commercially viable) compared to Option 1; and
- There is the risk of bulky goods floorspace being provided outside of the Standing to meet growth in demand if suitable facilities are not provided locally, resulting in further expenditure escaping the City of Blacktown LGA and increase in travel, traffic, congestion and other associated externalities.

5. UNQUANTIFIABLE COSTS & BENEFITS

As identified by the *Department of Finance and Administration 2006 Handbook of Cost Benefit Analysis*, a potential limitation to an effective CBA includes the oversight of, or inability to include the unquantifiable costs and benefits of an Option in an assessment.

The *Handbook of Cost Benefit Analysis 2006* refers to costs and benefits that cannot be quantified as 'intangibles'. It is recognised that these impacts should be included in any assessment, together with an appropriate description so that they may be considered and balanced against the quantifiable benefits.

Table 4 of this Study identified costs and benefits which were deemed to be unquantifiable for the purposes of a CBA. Each of these is considered in turn below.

5.1 UNQUANTIFIABLE BENEFITS

Travel time savings for workers

Travel time savings for workers constitute an economic benefit by reducing the time, expense and other externalities associated with travel such as congestion, pollution, accidents and noise.

Hill PDA's previous Economic Impact Assessment for the proposed ECBH (2012) quantified that it would support 753 additional jobs in operations by 2016 and 1,021 jobs by 2022. The provision of additional jobs compared to the Base Case would allow a greater number of residents in the Standing the opportunity to work locally rather than commuting outside of it, provided they are net additional jobs (i.e. jobs which would not otherwise have been supported under the Base Case).

Overall we would expect Options 2 to 4 to support stronger worker travel time benefits than Options 1 and 6. Given the comparably greater public transport accessibility of Rooty Hill and Westfield Mt Druitt compared to the Subject Site, more workers could access the Business Hub by public transport.

Increased supply of land for economic development

Development of the Business Hub under all Options would support economic development. However the establishment of a dedicated special purpose bulky goods centre – a new centre in the system – under Option 1 creates more employment land for Blacktown LGA and thus would provide more land for economic development. It would not remove town centre land from use for bulky good purposes and thus the net result would be more economic activity. Existing activity centre land could be used for commercial, core retail, and mixed use housing development.

Retail choice and price competition

Allowing additional retail floorspace development affords consumers greater choice about what to buy and provides greater incentive for retailers to compete on price. Retail choice and price competition are a consumer benefit.

All Options would promote competition in the retail sector. However as only Option 1 would introduce new land into the system and support more overall opportunities for new retail entrants (as the other Option sites could be used for other retail purposes, if such uses were viable) it would make the greatest contribution towards supporting retail choice and promoting price competition.

Travel time savings to shoppers

The proposed ECBH would lead to travel time savings for shoppers. The Base Case assumes there is no significant new development in centres to cater for the significant quantum of retail and bulky goods floorspace demand identified[21]. If the level of floorspace of the proposed ECBH is not provided locally, the resulting implications under the Base Case would be:

- Overtrading at existing retail facilities, primarily bulky goods and LFR floorspace provision;
- Limited expansion of existing floorspace where space allows, for example Minchinbury, however due to a lack of sequential sites the scope for expansion is extremely limited;
- Increased shopping trips from residents in the Standing to places outside of it which are capable of providing new floorspace and new retail formats to service unmet need.

By delivering additional floorspace to meet identified need within the local area all Options would assist to lower the need for shoppers to travel to satisfy their shopping requirements. Options 2 to 5 would be expected to yield greater contributions towards lowering the need for shopping trips (if they were commercially or financially viable) because these sites have greater public transport access comparative to Options 1 and 6. However, bulky goods/ LFR trading due to the size of the products on sale, presupposes good car and parking access. Options 2 to 5 also offer greater potential for shoppers to undertaken multi-purpose trips – particularly with Option 2 (Mount Druitt) where shoppers can shop for bulky goods, clothing and food and groceries at the one location.

Promoting sustainable transport options

Concentrating new development on locations which are accessible by public transport, by bicycle and on foot reduces the need for residents to travel and the associated negative environmental and economic externalities which were previously identified. This is why consolidation of uses on centres which benefit from public transport accessibility is advocated by planning policy.

The site of Option 1 is not currently easily accessible by public transport but is an appropriate location at which to accommodate a high generator of trips (bulky goods floorspace) given its superior location relative to the road network. Options 2, 3, 5 and 5 would be focused in full or in part on Westfield Mt Druitt and Rooty Hill which have a high level of public transport accessibility.

[21] Although the Base Case does not preclude minor bulky goods floorspace supply increases on small-scale sites within or adjacent to centres, or as part of a larger development, occurring over the period. However due to a lack of sequential sites as established by Hill PDA in our previous work there are no larger sites in the local area which are commercially or financially capable of accommodating the proposed development in the absence of it being accommodated on the Subject Site

5.2 Unquantifiable Costs

Compensation to existing tenants

When new development occurs which impacts upon the trading performance of existing tenants and retail operators, compensation to tenants may be payable. Option 1 would deliver new economically productive land in a new cluster where there are no existing tenants which could be impacted. There would thus be no compensation payable in Option 1.

Options 2, 4 and 5 would lead to significant disruption to Westfield Mt Druitt due to the loss of car parking and would be expected to deliver a strong adverse impact to existing tenants and their trading performance. Compensation can be expected under these Options. Options 3, 4 and 5 relate to the Rooty Hill Council Depot. Compensation to the existing tenant (Council) may be required to make good for the loss of this facility which is in active use.

Noise and traffic impacts during construction

All of the Options would lead to some adverse impacts during construction associated with noise, traffic and so on, however these would be short-term in duration. Options 2, 3, 4 and 5 would be delivered in whole or in part on Westfield Mt Druitt and Rooty Hill which have a greater number of local businesses, residents and commuters. As such adverse construction impacts can be expected to affect more people under these Options and thus be more significant than under Options 1 or 6.

Increased localised traffic movements

All Options can be expected to increase localised traffic movements given the attraction of the proposed development in the context of established demand. However, by retaining shopping trips that would otherwise be directed towards destinations capable of meeting this need in the absence of localised development all Options would also reduce the distance of trips made overall and thus decrease total traffic movements throughout the wider road network. Given that Options 2, 3, 4 and 5 would be delivered wholly on in part on destinations which have good public transport access and offer greater ability to undertake multi-purpose trips, localised traffic movements may be lower slightly as a result comparative to Options 1 and 6. However we still expect the majority of shoppers to access the proposed bulky goods and LFR floorspace by car wherever it is located.

5.3 Results

Based on the unquantifiable benefits and costs identified above, Table 7 determines which Options would support which benefits and costs. Table 7 does not seek to apportion weight to different costs or benefits or compare the contribution of different Options to the same cost or benefit.

Table 7 - Unquantifiable Options Assessment

	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Unquantifiable Benefits						
Travel time savings for workers	✓	✓	✓	✓	✓	✓
Increased supply of land for economic development	✓	✗	✗	✗	✗	✗
Retail choice and price competition	✓	✓	✓	✓	✓	✓
Travel time savings to shoppers	✓	✓	✓	✓	✓	✓
Promoting sustainable transport options	✗	✓	✓	✓	✓	✗
Total Unquantifiable Benefits	**4**	**4**	**4**	**4**	**4**	**3**
Unquantifiable Costs						
Compensation to existing tenants	✗	✓	✓	✓	✓	✗
Noise and traffic impacts during construction	✓	✓	✓	✓	✓	✓
Increased localised traffic movements	✓	✓	✓	✓	✓	✓
Total Unquantifiable Costs	**2**	**3**	**3**	**3**	**3**	**2**

The assessment of unquantifiable costs and benefits identified above indicates that, because of the need for the proposed ECBH and the associated impacts on economic development, jobs and competition, there are more potential benefits than there are potential costs.

All Options would deliver more unquantifiable benefits than costs; however the qualitative assessment indicates that:

- Option 1 is the best performing overall with the most unquantifiable benefits (4) and the least costs (2) overall. Although Option 1 performs comparatively poorly in terms of accessibility, as it is not well served by public transport, it is an appropriate location to cluster new bulky goods facilities, it would respond to market demand, promotes the most competition and the greatest benefit on recreation and environmental amenity. It is the only Option which would lead to an increase in the quantum of land dedicated to economic development within Blacktown LGA and would support greater economic opportunity as a result;
- Options 2, 3, 4 and 5 are the joint next best performing Options with 4 unquantifiable benefits and 3 costs each as they would cluster the proposed uses on an established retail destination/s which are easily accessible by public transport. However as established previously and in the Supplementrayr Report (sequential test) none of these Options would be financially or commercially viable; and
- Options 6 is the least strong performer based on unquantifable costs and benefits.

6. CONCLUSION AND OPINION

Based on the assumptions, research, information and analysis discussed in Chapters 1 to 5, the following Chapter summarises the Report's key findings and recommendations.

6.1 OVERALL ASSESSMENT OF THE OPTIONS

The overall CBA and unquantifiable costs and benefits assessment undertaken for the 6 Options concludes that:

- Option 1 is the best performing based on all of the KPIs and the only one which delivers a positive NPV, a positive NPV/$ and a BCR of greater than 1. Option 1 is the only option that achieves the hurdle rate of 7% IRR. The other options are not economically viable; and
- Option 1 achieved the highest overall unquantifiable benefits versus costs because it would promote retail competition and choice and bring new economic land into the system whilst causing the least disruption to existing tenants.

On this basis, Option 1 is the preferred Option based on both the qualitative and quantitative assessment.

6.2 IMPACT OF REJECTION

In the event that the proposed ECBH does not proceed under the Preferred Option, the following impacts and consequences may result:

- The continued underutilisation of a peri-urban site not currently accessible to the public and which does not contribute towards the environmental, social or economic wellbeing of residents;
- A missed opportunity to increase access to retail and bulky goods floorspace in this location in response to market demand. There is a strong likelihood that this demand to remain unmet locally if this site does not come forward;
- Missed opportunities for greater retail competition within the "Standing", opportunities to retain additional expenditure within the City of Blacktown and to achieve a net increase in jobs across the City without leading to job losses in commercial centres. This would benefit residents;
- A missed opportunity to lower the need for residents to travel to locations where their demand for retail floorspace and for jobs can be met. This saves associated costs of time, travel expenses, traffic and congestion, pollution and environmental externalities;
- A missed opportunity to support economic development in the City of Blacktown and facilitate some multiplier benefits for the local and broader economies;
- A missed opportunity to provide funding for the WSPT to use for the public benefit to enhance the quality of, and access to, parklands for residents in Western Sydney;
- A missed opportunity to contribute towards the City of Blacktown and North West Subregional job targets; and
- A missed opportunity to bring more land into economically beneficial use.

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1. This report is for the confidential use only of the party to whom it is addressed ("Client") for the specific purposes to which it refers and has been based on, and takes into account, the Client's specific instructions. It is not intended to be relied on by any third party who, subject to paragraph 3, must make their own enquiries in relation to the issues with which this report deals.

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5. Due care has been taken to prepare the attached financial models from available information at the time of writing, however no responsibility can be or is accepted for errors or inaccuracies that may have occurred either with the programming or the resultant financial projections and their assumptions.

6. This report does not constitute a valuation of any property or interest in property. In preparing this report Hill PDA has relied upon information concerning the subject property and/or proposed development provided by the Client and Hill PDA has not independently verified this information except where noted in this report.

Appendix 1 - **COST BENEFIT ANALYSIS FOR THE OPTIONS**

Table A1.1 Option 1 – Preferred Option

Year	PV @	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	7.0%	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BENEFITS																						
Net Industry Value Add	41.0	-	-	-	4.3	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.7	4.8	4.9	4.9	5.0	5.1	5.1	5.2	5.3	5.3
Benefit to Western Syd Parklands	104.3	-	-	-	8.7	8.8	8.9	9.0	9.1	9.2	13.8	14.0	14.1	14.3	14.4	14.5	14.7	14.8	15.0	15.1	15.3	15.4
Terminal Value	35.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	136.9
TOTAL BENEFITS	**180.7**	**-**	**-**	**-**	**13.0**	**13.1**	**13.3**	**13.4**	**13.6**	**13.7**	**18.5**	**18.7**	**18.9**	**19.1**	**19.3**	**19.5**	**19.7**	**19.9**	**20.1**	**20.3**	**20.5**	**157.7**
COSTS																						
Land	16.0	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Design and Construction	100.2	-	15.4	66.9	-	-	-	-	10.3	36.0	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL COSTS	**116.2**	**16.0**	**15.4**	**66.9**	**-**	**-**	**-**	**-**	**10.3**	**36.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
NET BENEFIT	**64.5**	**-16.0**	**-15.4**	**-66.9**	**13.0**	**13.1**	**13.3**	**13.4**	**3.3**	**-22.3**	**18.5**	**18.7**	**18.9**	**19.1**	**19.3**	**19.5**	**19.7**	**19.9**	**20.1**	**20.3**	**20.5**	**157.7**

Performance Indicators

Discount Rate	4.0%	7.0%	10.0%	12.5%
Net Present Value ($m)	134.0	64.5	22.5	0.0
Benefit Cost Ratio (BCR)	2.06	1.56	1.21	1.00
NPV/$	1.15	0.56	0.19	0.00

Sensitivity Testing

Variation to NPV @ 7%		Variations to No. of Shoppers			
		-30%	-15%	0%	15%
Variation to D+C Costs	-10%	59.5	67.0	74.5	82.0
	0%	49.5	57.0	64.5	72.0
	10%	39.4	47.0	54.5	62.0
	20%	29.4	36.9	44.5	52.0

Table A1.2 Option 2 – Business Hub on the Westfield Mt Druitt Car Park

Year	PV @	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	7.0%	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BENEFITS																						
Net Industry Value Add	41.0	-	-	-	4.3	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.7	4.8	4.9	4.9	5.0	5.1	5.1	5.2	5.3	5.3
Benefit to Western Syd Parklands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terminal Value	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.0
TOTAL BENEFITS	**50.1**	**-**	**-**	**-**	**4.3**	**4.3**	**4.4**	**4.4**	**4.5**	**4.6**	**4.6**	**4.7**	**4.7**	**4.8**	**4.9**	**4.9**	**5.0**	**5.1**	**5.1**	**5.2**	**5.3**	**40.3**
COSTS																						
Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Design and Construction	204.9	-	31.6	136.8	-	-	-	-	21.0	73.7	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL COSTS	**204.9**	**-**	**31.6**	**136.8**	**-**	**-**	**-**	**-**	**21.0**	**73.7**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
NET BENEFIT	**-154.9**	**-**	**-31.6**	**-136.8**	**4.3**	**4.3**	**4.4**	**4.4**	**-16.5**	**-69.1**	**4.6**	**4.7**	**4.7**	**4.8**	**4.9**	**4.9**	**5.0**	**5.1**	**5.1**	**5.2**	**5.3**	**40.3**

Performance Indicators

Discount Rate	4.0%	7.0%	10.0%	-6.8%
Net Present Value ($m)	-155.5	-154.9	-150.3	0.0
Benefit Cost Ratio (BCR)	0.31	0.24	0.20	1.00
NPV/$	-0.76	-0.76	-0.73	0.00

Sensitivity Testing

Variation to NPV @ 7%		Variations to No. of Shoppers			
		-30%	-15%	0%	15%
Variation to D+C Costs	-10%	-149.4	-141.9	-134.4	-126.9
	0%	-169.9	-162.4	-154.9	-147.4
	10%	-190.4	-182.9	-175.4	-167.8
	20%	-210.9	-203.4	-195.9	-188.3

Table A1.3 Option 3 – Business Hub on the Rooty Hill Council Depot Site

Year	PV @	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	7.0%	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BENEFITS																						
Net Industry Value Add	41.0	-	-	-	4.3	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.7	4.8	4.9	4.9	5.0	5.1	5.1	5.2	5.3	5.3
Benefit to Western Syd Parklands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terminal Value	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.0
TOTAL BENEFITS	**50.1**	**-**	**-**	**-**	**4.3**	**4.3**	**4.4**	**4.4**	**4.5**	**4.6**	**4.6**	**4.7**	**4.7**	**4.8**	**4.9**	**4.9**	**5.0**	**5.1**	**5.1**	**5.2**	**5.3**	**40.3**
COSTS																						
Land	14.3	14.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Design and Construction	138.3	-	23.5	101.8	-	-	-	-	10.3	36.0	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL COSTS	**152.6**	**14.3**	**23.5**	**101.8**	**-**	**-**	**-**	**-**	**10.3**	**36.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
NET BENEFIT	**-102.5**	**-14.3**	**-23.5**	**-101.8**	**4.3**	**4.3**	**4.4**	**4.4**	**-5.8**	**-31.4**	**4.6**	**4.7**	**4.7**	**4.8**	**4.9**	**4.9**	**5.0**	**5.1**	**5.1**	**5.2**	**5.3**	**40.3**

Performance Indicators

Discount Rate	4.0%	7.0%	10.0%	-3.7%
Net Present Value ($m)	-94.0	-102.5	-105.4	0.0
Benefit Cost Ratio (BCR)	0.43	0.33	0.26	1.00
NPV/$	-0.62	-0.67	-0.69	0.00

Sensitivity Testing

Variation to NPV @ 7%		Variations to No. of Shoppers			
		-30%	-15%	0%	15%
Variation to D+C Costs	-10%	-106.5	-98.9	-91.4	-83.9
	0%	-117.5	-110.0	-102.5	-95.0
	10%	-128.6	-121.1	-113.6	-106.1
	20%	-139.7	-132.2	-124.7	-117.2

Table A1.4 Option 4 – Half of the Business Hub is accommodated at Westfield Mt Druitt and half at the Rooty Hill Council Depot Site

Year	PV @ 7.0%	2013 0	2014 1	2015 2	2016 3	2017 4	2018 5	2019 6	2020 7	2021 8	2022 9	2023 10	2024 11	2025 12	2026 13	2027 14	2028 15	2029 16	2030 17	2031 18	2032 19	2033 20
BENEFITS																						
Net Industry Value Add	41.0	-	-	-	4.3	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.7	4.8	4.9	4.9	5.0	5.1	5.1	5.2	5.3	5.3
Benefit to Western Syd Parklands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terminal Value	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.0
TOTAL BENEFITS	**50.1**	**-**	**-**	**-**	**4.3**	**4.3**	**4.4**	**4.4**	**4.5**	**4.6**	**4.6**	**4.7**	**4.7**	**4.8**	**4.9**	**4.9**	**5.0**	**5.1**	**5.1**	**5.2**	**5.3**	**40.3**
COSTS																						
Land	14.3	14.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Design and Construction	161.9	-	24.9	108.1	-	-	-	-	16.6	58.2	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL COSTS	**176.2**	**14.3**	**24.9**	**108.1**	**-**	**-**	**-**	**-**	**16.6**	**58.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
NET BENEFIT	**-126.2**	**-14.3**	**-24.9**	**-108.1**	**4.3**	**4.3**	**4.4**	**4.4**	**-12.1**	**-53.6**	**4.6**	**4.7**	**4.7**	**4.8**	**4.9**	**4.9**	**5.0**	**5.1**	**5.1**	**5.2**	**5.3**	**40.3**

Performance Indicators

Discount Rate	4.0%	7.0%	10.0%	-5.3%
Net Present Value ($m)	-122.2	-126.2	-125.4	0.0
Benefit Cost Ratio (BCR)	0.37	0.28	0.23	1.00
NPV/$	-0.69	-0.72	-0.71	0.00

Sensitivity Testing

Variation to NPV @ 7%		Variations to No. of Shoppers			
		-30%	-15%	0%	15%
Variation to D+C Costs	-10%	-125.0	-117.5	-110.0	-102.5
	0%	-141.2	-133.7	-126.2	-118.7
	10%	-157.4	-149.9	-142.4	-134.9
	20%	-173.6	-166.1	-158.6	-151.0

Table A1.5 Option 5 – The proposed amount of floor space is accommodated evenly on the subject site, the Westfield Mt Druitt site and on the Rooty Hill site

Year	PV @	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	7.0%	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BENEFITS																						
Net Industry Value Add	41.0	-	-	-	4.3	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.7	4.8	4.9	4.9	5.0	5.1	5.1	5.2	5.3	5.3
Benefit to Western Syd Parklands	34.8	-	-	-	2.9	2.9	3.0	3.0	3.0	3.1	4.6	4.7	4.7	4.8	4.8	4.8	4.9	4.9	5.0	5.0	5.1	5.1
Terminal Value	17.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69.0
TOTAL BENEFITS	**93.6**	**-**	**-**	**-**	**7.2**	**7.3**	**7.4**	**7.4**	**7.5**	**7.6**	**9.2**	**9.3**	**9.4**	**9.6**	**9.7**	**9.8**	**9.9**	**10.0**	**10.1**	**10.2**	**10.3**	**79.5**
COSTS																						
Land	30.3	30.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Design and Construction	152.6	-	23.5	101.8	-	-	-	-	15.7	54.8	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL COSTS	**182.9**	**30.3**	**23.5**	**101.8**	**-**	**-**	**-**	**-**	**15.7**	**54.8**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
NET BENEFIT	**-89.3**	**-30.3**	**-23.5**	**-101.8**	**7.2**	**7.3**	**7.4**	**7.4**	**-8.1**	**-47.2**	**9.2**	**9.3**	**9.4**	**9.6**	**9.7**	**9.8**	**9.9**	**10.0**	**10.1**	**10.2**	**10.3**	**79.5**

Performance Indicators

Discount Rate	4.0%	7.0%	10.0%	0.2%
Net Present Value ($m)	-64.7	-89.3	-101.8	0.0
Benefit Cost Ratio (BCR)	0.68	0.51	0.40	1.00
NPV/$	-0.35	-0.49	-0.56	0.00

Sensitivity Testing

Variation to NPV @ 7%		Variations to No. of Shoppers			
		-30%	-15%	0%	15%
Variation to D+C Costs	-10%	-89.1	-81.5	-74.0	-66.5
	0%	-104.3	-96.8	-89.3	-81.8
	10%	-119.6	-112.1	-104.5	-97.0
	20%	-134.8	-127.3	-119.8	-112.3

Table A1.6 Option 6 – The proposed level of floor space is accommodated on a completely different hypothetical site in an "out of centre" location

Year	PV @	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	7.0%	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
BENEFITS																						
Net Industry Value Add	41.0	-	-	-	4.3	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.7	4.8	4.9	4.9	5.0	5.1	5.1	5.2	5.3	5.3
Benefit to Western Syd Parklands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terminal Value	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.0
TOTAL BENEFITS	**50.1**	**-**	**-**	**-**	**4.3**	**4.3**	**4.4**	**4.4**	**4.5**	**4.6**	**4.6**	**4.7**	**4.7**	**4.8**	**4.9**	**4.9**	**5.0**	**5.1**	**5.1**	**5.2**	**5.3**	**40.3**
COSTS																						
Land	16.0	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Design and Construction	100.2	-	15.4	66.9	-	-	-	-	10.3	36.0	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL COSTS	**116.2**	**16.0**	**15.4**	**66.9**	**-**	**-**	**-**	**-**	**10.3**	**36.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
NET BENEFIT	**-66.1**	**-16.0**	**-15.4**	**-66.9**	**4.3**	**4.3**	**4.4**	**4.4**	**-5.8**	**-31.4**	**4.6**	**4.7**	**4.7**	**4.8**	**4.9**	**4.9**	**5.0**	**5.1**	**5.1**	**5.2**	**5.3**	**40.3**

Performance Indicators

Discount Rate	4.0%	7.0%	10.0%	-1.6%
Net Present Value ($m)	-55.6	-66.1	-70.8	0.0
Benefit Cost Ratio (BCR)	0.56	0.43	0.34	1.00
NPV/$	-0.48	-0.57	-0.61	0.00

Sensitivity Testing

Variation to NPV @ 7%		Variations to No. of Shoppers			
		-30%	-15%	0%	15%
Variation to D+C Costs	-10%	-71.1	-63.6	-56.1	-48.6
	0%	-81.1	-73.6	-66.1	-58.6
	10%	-91.1	-83.6	-76.1	-68.6
	20%	-101.2	-93.7	-86.1	-78.6