

Independent Pricing and Regulatory Tribunal

Assessment of The Hills Shire Council's Section 94 Contributions Plan No 15

Box Hill Precinct

Local Government — Assessment March 2016



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Independent Pricing and Regulatory Tribunal of New South Wales

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1 | Executive Summary

1.1 Introduction

The NSW Government has asked the Independent Pricing and Regulatory Tribunal (IPART) to review contributions plans that have been prepared by councils under section 94 of the *Environmental Planning and Assessment Act* 1979 (EP&A Act), and which propose contribution rates above a capped amount.¹

A contributions plan is a public document which sets out a council's policy for the assessment, collection, expenditure and administration of development contributions in a specified development area. The contributions plan identifies the relationship between the expected types of development and the demand for additional public amenities and services created by that development.

A council must prepare a contributions plan before it can impose a condition of development consent that the developer must contribute towards the cost of providing public amenities and services.

The Hills Shire Council (THSC) originally submitted *Contributions Plan No* 15 – *Box Hill Precinct* (CP15) to IPART for assessment in August 2014. In December 2014, IPART reported to the Minister recommending a number of alterations to the contributions plan.² THSC accepted some of IPART's recommendations and also made some other material changes to the contributions plan. This resulted in THSC submitting an amended version of the draft contributions plan to IPART on 26 June 2015. This report relates to this amended contributions plan.

THSC estimates that the maximum residential contribution payable under the proposed contributions plan is around \$48,375 per lot.³ This is above the maximum contribution cap of \$30,000 per lot set by the Government that applies to the contributions plan.⁴

¹ See our Terms of Reference in Appendix B.

² IPART, Assessment of The Hills Shire Council's Section 94 Contribution Plan No.15 – Box Hill Precinct, December 2014.

³ THSC Contributions Plan No. 15 Box Hill Precinct (June 2015) (attachment 2), p 6. This is for a freestanding house.

⁴ Minister for Planning and Infrastructure, *Environmental Planning and Assessment (Local Infrastructure Contributions) Direction 2012, 21 August 2012, sch 2, cl 15.*

The council submitted this amended plan (dated 26 June 2015) for IPART to review to enable it to seek alternative funding sources to fund the gap between development contributions and infrastructure costs in the plan. IPART is required to assess the contributions plan and report our findings to the Minister for Planning and the council (see Box 1.1).

Box 1.1 IPART's role in reviewing contributions plans

In 2010, the NSW Government introduced caps on the amount of section 94 development contributions that councils can collect. Unless the Minister for Planning exempts the development area,^a councils can levy development contributions to a maximum of:

- ▼ \$30,000 per dwelling or residential lot in greenfield areas
- ▼ \$20,000 per dwelling or residential lot in all other areas.

The NSW Government also gave IPART the function of reviewing certain plans with contribution rates above the relevant cap. Our terms of reference are in Appendix B of this report.

The NSW Government provides funding for councils where the cost of delivering essential infrastructure is greater than the amount the council can collect from capped contributions. Councils can also apply for a special rate variation to meet the funding shortfall that results from the imposition of caps. Councils must have their plans reviewed by IPART to be eligible for government funding or to apply for a special rate variation.

Since October 2011, IPART has assessed six contributions plans from The Hills Shire Council and Blacktown City Council. Reports on these contributions plans were presented to the Minister for Planning and the councils, and are available on our website.

a The Minister for Planning exempted all developments where, as of August 2010, the amount of development that had already occurred exceeded 25% of the potential number of lots.

1.2 How does IPART assess a contributions plan?

IPART assesses plans in accordance with the criteria set out in the *Revised Local Development Contributions Practice Note: For the assessment of Local Contributions Plans by IPART.*⁵ The criteria require us to assess whether:

- the public amenities and public services in the plan are on the essential works list
- the proposed public amenities and public services are reasonable in terms of nexus
- the proposed development contribution is based on a reasonable estimate of the cost of the proposed public amenities and public services

⁵ Department of Planning & Infrastructure, *Revised Local Development Contributions Practice Note: For the assessment of Local Contributions Plans by IPART,* February 2014 (Practice Note).

- the proposed public amenities and public services can be provided within a reasonable timeframe
- the proposed development contribution is based on a reasonable apportionment of costs
- the council has conducted appropriate community liaison and publicity in preparing the contributions plan, and
- the plan complies with other matters IPART considers relevant.

We have based our assessment of CP15 on information provided by the council and have consulted with the Department of Planning and Environment (DP&E) and stormwater engineering consultants on specific matters relating to:

- the land acquisition schedule for infrastructure
- the infrastructure to be funded from Special Infrastructure Contributions (SIC) rather than from local development contributions⁶
- whether land purchased primarily for stormwater purposes can also fulfil a role as either passive or active open space, and
- whether any properties can be excluded from a development contribution and if so, who bears the cost of that exemption.

Following our assessment, the Minister for Planning will consider our recommendations and may request the council to amend the contributions plan.

1.3 Overview of CP15

The Box Hill Precinct is located within the North West Growth Centre, in The Hills Shire local government area (LGA). The amended CP15 as presented by THSC indicates that the precinct comprises around 964 hectares of land, of which 729 hectares is the net developable area (NDA). The NDA includes:

- 613.6 hectares of residential land, which is expected to accommodate an additional 30,687 residents (in 10,224 dwellings).⁷
- ▼ 115.4 hectares of non-residential land, which is expected to accommodate 17,789 jobs.

The council prepared CP15 for both the Box Hill and Box Hill Industrial Precincts. The contributions plan combines the two precincts and together, these precincts are referred to as the Box Hill Precinct (or the Precinct) throughout this report.

⁶ The Special Infrastructure Contribution levy (SIC) exists in designated growth areas to recover 50% of the cost of some of the NSW Government infrastructure for the area, such as emergency services and limited transport infrastructure.

⁷ THSC Contributions Plan No. 15 Box Hill Precinct (June 2015) (attachment 2) p 20. The current population of Box Hill precinct is 934 residents. CP15 will help cater for an additional 30,687 residents. When full developed, Box Hill precinct will have a population of 31,621 people.

1.3.1 Land and works costs in CP15

The total cost of implementing the plan is estimated by THSC to be \$411.2 million; comprising 27.9% for land acquisition, 71.0% for the construction of facilities and 1.1% for plan preparation and administration (see Table 1.1).

Open space embellishment costs account for the highest costs in CP15 (\$107.2 million or 26.1%), followed closely by transport works costs (\$107.0 million or 26.0%). The costs in CP15 are expressed in 2013-14 dollars.⁸

(\$2013-14)			
	Works	Land	Total
Transport	106,994,382	11,392,336	118,386,718
Stormwater	77,883,294	30,388,358	108,271,652

107,225,244

72,970,357

180,195,601

411,235,515

4,381,544

Table 1.1CP15 council's proposed total cost of land and facilities
(\$2013-14)

Source: CP15, p 4 and IPART calculations.

Open space

Total cost

Administration costs

1.3.2 Net Present Value model to determine contributions in CP15

THSC uses a net present value (NPV) model to calculate development contributions in CP15. The NPV model accounts for the time difference between the costs the council incurs in constructing infrastructure and the receipt of development contributions. IPART has previously reviewed three contributions plans from THSC which also used an NPV methodology to calculate the contributions payable by developers.⁹

It should be noted that the costs displayed in Table 1.1 are the costs if all land purchases and works for CP15 were carried out in the first year. These costs are greater than costs in the NPV model due to the impact of discounting expenditure for land or works that are staged in future years.

We have assessed the assumptions in the NPV model under the reasonable cost criterion in section 3.3.8.

⁸ All costs in this report are also expressed in 2013-14 dollars.

⁹ IPART, Assessment of The Hills Shire Council's Contributions Plan No 13 – North Kellyville Precinct, October 2011 and IPART, Assessment of The Hills Shire Council's Contributions Plan No 12 – Balmoral Road Release Area, October 2011 and Assessment of The Hills Shire Council's Contributions Plan No 16– Box Hill North Precinct, September 2015.

1.3.3 Allocation of cost between residential and commercial developments

THSC has allocated the NPV of the transport and stormwater costs of the precinct between residential and commercial developments based on the ratio of the net developable area (NDA) of each sector. This is a reasonable approach as NDA is the only available measure that is common to both the residential and non-residential sectors.

In the case of open space, all the expenditure has been allocated to residential use. This is because residential population numbers are the sole driver of open space demand.

1.3.4 Contribution rates for residential developments

The proposed contribution rates for the different types of residential development in the Precinct are shown in Table 1.2. Most of the residential development will be low density detached dwellings. The contribution rate for these properties is significantly above the \$30,000 contributions cap.

	KCPa	SPC ^b
Per Person	\$14,228	\$11,112
Dwelling House	\$48,375	\$37,779
Integrated Housing	\$38,415	\$30,001
Seniors Housing / Boarding House Rooms	\$21,342	\$16,667
MULTI RESIDENTIAL		
4 Bedroom	\$44,106	\$34,446
3 Bedroom	\$35,570	\$27,779
2 Bedroom	\$25,610	\$20,001
1 Bedroom	\$24,187	\$18,890

Table 1.2Contribution rates by residential dwelling type (\$2013-14)

a Killarney Chain of Ponds Catchment.

b Second Ponds Creek Catchment.

Note: Cost apportionment for residential developments is done on a per person basis. However, the contribution charges for residential properties are levied on dwelling types. The per person charge is multiplied by the average occupancy rates from ABS 2011 Census Data to arrive at a per dwelling charge. **Source:** CP15. Section 1.

1.3.5 Contribution rates for non-residential development

Non-residential development accounts for 115.4 hectares or 15.8% of NDA in the Box Hill Precinct.¹⁰

After costs have been allocated between residential and commercial developments, cost apportionment within commercial developments has been conducted by THSC on the basis of gross floor area (GFA). This is a reasonable basis for apportionment as multi-level non-residential developments will generally put a larger demand on transport costs than a single story development with the same NDA would.

Table 1.3 shows the proposed contribution rates for non-residential land. Non-residential developments do not pay contributions for open space infrastructure.

 Table 1.3
 THSC proposed non-residential contribution rates (\$2013-14)

	Killarney Chain of Ponds	Second Ponds Creek
Per sq m (GFA)	\$85.09	\$67.80
Courses CD15 Conting 1		

Source: CP15, Section 1.

1.4 Summary of our assessment

1.4.1 Indoor recreation facility

Overall, we found most of the infrastructure included in the plan is reasonable. However, we found that the open space works for the indoor recreation facility are not on the Essential Works List (EWL) and should be excluded.

Further, even if the indoor recreation facility, at a cost of \$18.18 million, was included within the EWL, we consider that this facility would be likely to service a much wider community than that within the Box Hill Precinct and therefore the costs should be apportioned across all the beneficiaries.

We note that there are no indoor recreation facilities in close proximity to either Box Hill or Rouse Hill and THSC may still wish to provide this facility but it would need to be funded through sources other than development contributions, such as general rates revenue. There may also be an opportunity for private enterprise to construct such a facility.

We recommend removing the cost of the indoor recreation facility from the contribution plan. This would reduce the cost of essential works in the contribution plan by \$18.18 million.

¹⁰ CP15, Section 3.2.

1.4.2 Environmental works

The Department of Planning and Environment's (DPE) Practice Note requires that environmental works be excluded from the EWL unless they serve a dual purpose.¹¹

IPART interprets these instructions in the Practice Note to mean that all reasonable costs associated with movement of stormwater and the mitigation of flooding are incorporated in the EWL. Further, some water treatment strategies, to the extent that they serve a dual purpose, are also included in the EWL.

Water treatment strategies will all fall along a spectrum of dual purpose between stormwater and environmental works. This ranges from being predominately stormwater such as gross pollutant traps, which don't just help to prevent clogging of the stormwater system and therefore mitigate flooding, but also reduce pollution of downstream waterways, through to artificial wetlands, which are almost entirely for water treatment and therefore predominately for environmental purpose.

To assess the point along that spectrum of water treatment strategies at which dual purpose stormwater/environmental works become predominately environmental and therefore exceed the EWL for stormwater works, we are guided by the Growth Centre Development Code.¹² The Code places water treatment strategies into three categories, primary, secondary and tertiary.

- Primary strategies include gross pollutant traps, litter trash racks and sediment traps.
- Secondary strategies include constructed ponds, extended detention basins and sand filters.
- Tertiary strategies include constructed wetlands and bio-retention basins.

For this assessment of CP15 and going forward, in assessing what stormwater treatment works we will assess as being included on the EWL and therefore subject to funding under a contribution plan, we will include primary treatment strategies as listed in the Growth Development Code, and we will exclude secondary and tertiary strategies from the EWL.

¹¹ Department of Planning and Infrastructure, Revised Local Development Contributions Practice Note - For the assessment of Local Contributions Plans by IPART, February 2014 pp 8-10.

¹² Growth Centres Commission, Growth Centres Development Code October 2006, Table B2, p B18.

As a consequence, we recommend the exclusion of the incremental cost of installing raingardens.¹³ This recommendation reduces the cost of essential works in the contribution plan by \$11.46 million. We assessed the remaining \$96.8 million of stormwater works as essential works.

1.4.3 Open space

In this assessment of THSC's amended CP15, we considered further the ability to use land initially provided for other purposes, such as stormwater, to also be used as passive open space. This potential dual use of land seeks to ensure the most efficient use of resources.

The Urbis report recommended the provision of 70.12 hectares of open space. This comprised 38.12 hectares of active open space and 32.00 hectares of passive open space.

THSC propose the provision of only 62.60 hectares of open space in CP15. This is comprises 50.44 hectares of active open space and 12.16 hectares of passive open space. The apparent under provision of open space by THSC compared to the Urbis report has been the basis for THSC to propose the inclusion of an indoor recreation facility in lieu of the extra 7.52 hectares of open space.

However, IPART's investigations show that all 44.27 hectares of stormwater land included in CP15 is suitable as passive open space without further embellishment costs. This allows for a significant reduction in the amount of single purpose open space land that is required.

We also assess that the contribution plan submitted for assessment has 12.32 hectares of active open space in excess of what Urbis recommended as necessary.

Whilst we consider that the quantum and location of the dual use stormwater land means that all 12.16 hectares of single use passive open space proposed in the contribution plan could be removed, whilst still meeting the guidelines on residential proximity to local parks, nonetheless we have decided to include three single purpose local parks totalling 2.20 hectares in our assessment of essential works.

This means that we assess 9.96 hectares of single use open space in the contribution plan as being in excess of the base amount, should be removed.

¹³ Raingardens may be considered valuable by the community in much the same way as council swimming pools and libraries. However, as with swimming pools and libraries, they are to be funded from sources other than development contributions, such as general rates.

In removing the excess open space land to be purchased there are also savings on the embellishment costs of that land. In summary our recommendation sees the following amounts removed from the cost of essential works for CP15:

- \$14.42 million for 12.32 hectares excess active open space
- \$11.65 million for 9.96 hectares of excess passive open space
- \$24.41 million for 12.32 hectares of excess active open space embellishment, and
- \$5.98 million for 9.96 hectares of excess passive open space embellishment.

In total, our recommendations will allow for a total of 84.59 hectares of open space to be provided in the precinct and an essential works cost reduction totalling \$56.46 million dollars for open space provision.

1.4.4 Development contributions: exemptions and exclusions

THSC proposes to provide exemptions from development contributions for state schools and disabled housing providers. The NDA of the exempted land is 33.64 hectares. We have investigated the provision of exemptions, from development contributions, to schools and other land uses. We have found that there are no Section 94E exemptions current for schools or disabled housing.¹⁴ Therefore, we recommend that this 33.64 hectares of land be included within the NDA for CP15. This will raise the NDA of CP15 from 729 hectares to 763 hectares.

This recommendation will not lower planned expenditures for CP15, but these costs will be spread over a greater NDA and therefore the contribution rate for all developments will fall by approximately 4.4%.

We note however, THSC's claim that the Department of Education can provide its own development approval and frequently declines to pay development contributions. If this occurs, then effectively the broader Hills Shire ratepayers would pay the Department of Education's development contribution. There are two options for the Minister to consider:

- 1. The Minister ensures the Department of Education pays the appropriate development contribution. This would be IPART's preferred option.
- 2. The Minister issues a Section 94E exemption for the Department of Education which will enable IPART to recommend these costs be borne by the developers and LIGS funding in each contribution plan area.

¹⁴ The Minister for Planning may exempt properties from time to time from paying development contributions to councils. There are currently no section 94E (*Environmental Planning and Assessment Act 1979*) directions relating to schools or disabled housing or churches or state or commonwealth properties. There can, however, be some confusion with Special Infrastructure Charges (SICs), which are a developer charge levied by the NSW Government to fund 50% of some State Government services in the designated growth areas. All schools and churches are exempted from paying SICs.

If a Section 94E exemption is given for State schools, then a policy decision is also required to ascertain whether a proportional Section 94E exemption is also provided to local diocesan Catholic schools that also predominately draw students from within the local precinct and reduce the need for additional state schools.

1.4.5 Double counting of Catholic schools development contributions

THSC has excluded a proposed Catholic school's NDA (8.13 ha) in determining the cost apportionment for CP15. Therefore, the cost that would otherwise be apportioned to the proposed Catholic school is being borne by all other developers in the precinct. This is the same issue as mentioned for State schools and disabled housing.

However, in this case, THSC intends to charge the Catholic Education Office a development contribution when it approves a development application. This will be a non-residential contribution based on GFA. This would have the effect of THSC over-recovering development contributions in CP15 by the amount of the development contribution from the school.

We recommend that 8.13 hectares of land be included back in the NDA of CP15. THSC agrees that the Catholic school NDA has been omitted in error and that it will be remedied.

This recommendation will not lower planned expenditures for CP15, but these costs will be spread over a greater NDA and therefore the contribution rate for all developments will fall by approximately a further 1.1%.

1.4.6 Transport infrastructure contingencies

IPART considers that AECOM has provided THSC detailed plans for the transport infrastructure in the precinct. This means that the costs are known with a higher degree of certainty than at the strategic review stage. However, THSC has employed a contingency allowance of 30% for a number of transport infrastructure items which we consider is only appropriate at the strategic review stage.

We recommend reducing the contingency allowance for these items to 20% consistent with our benchmarking study.¹⁵ Reducing the remaining transport infrastructure contingencies to 20% will reduce the total cost of CP15 by \$3.97 million.

¹⁵ IPART, Local Infrastructure Benchmark Cost – costing infrastructure in Local Infrastructure Plans – Final Report, April 2014, pp 54-59.

1.4.7 Transport infrastructure costings

For five specific streets in the precinct THSC's June 2015 application chose to use high level benchmark costs of \$26.21 million instead of the specific costs recommend by the consultants, AECOM.

AECOM recommended base costs of \$6.71 million, to which IPART has added a contingency allowance of 20% and a design and planning allowance of 15%, giving a total allowance of 35%. When added to the base cost of \$6.71 million, yields an efficient cost for these five roads of \$9.06 million.

After consultation, THSC submitted a revised cost of \$24.70 million which is informed by THSC's current tender rates for works.

We recommend the removal of \$17.15 million of transport infrastructure costs based on AECOM's estimate of base costs and IPART's standard rate of allowances.

1.4.8 Escalation rate for development contributions

Development contributions are revenue received by councils that compensate them for the costs they have incurred in providing infrastructure for a particular development precinct. The intention is that councils receive no more or no less in revenue than the costs they incur.

Our Technical Paper provides advice on calculating contribution rates using a net present value (NPV) model.¹⁶ We have not commented in this paper or elsewhere previously, on the scale of the escalation rate for contribution rates. We are now recommending that it be the same as the discount rate, rather than the council's escalation rate of 2.50% per annum.

This will have the effect of lowering the real value of development contributions in the early years when little infrastructure will have been provided, and increasing the real value of development contributions in the later years when the precinct infrastructure is largely in place.

A major benefit of this recommendation is that councils will be protected from development delays. If developers are slow in developing land, their contribution charge will increase annually at the same rate as the council's opportunity cost of funds (borrowing cost) thus removing the council's risk in this area.¹⁷

¹⁶ IPART, Modelling local development contributions in a present value framework - Technical Paper, February 2016.

¹⁷ Assuming all blocks in the precinct eventually get development approval.

Through discussions and correspondence with THSC on this matter we note that THSC agrees that the methodology will neutralise any financial risk for the council from development delay or advancement. However, THSC wishes to pay down borrowings as soon as possible, and therefore, for this CP15 application will leave the escalation rate at 2.5% per annum.

1.4.9 IPART's assessment of CP15

IPART's assessment of CP15 against each of the criteria is summarised in Table 1.4. The full list of our findings and recommendations is in Appendix A.

Criteria	Assessment	
1. Essential works	 All land and facilities are on the Essential Works List (EWL) except for: Works for the indoor recreation facility (\$18.18m), which exceed the definition of base level open space embellishment. The land acquisition for the centre can remain in CP15. Raingarden embellishment (\$11.46m). 	
2. Nexus	 There is reasonable nexus between all infrastructure items in CP15 development in the Precinct with the exception of: The open space land in excess of the minimum level comprising 12.32 ha (\$14.42m) for excess active and 9.96 ha (\$11.65m) for excess passive open space. Open space embellishment cost reductions from avoided excess land comprising \$24.41m for active and \$5.98m for passive avoid embellishment. 	
3. Reasonable costs	 Where THSC has used independent advice to support the costing of infrastructure and the valuation of land, we consider this approach to be reasonable. However, we recommend that THSC revise the following costs in CP15: Some transport cost estimates based on IPART's Benchmark Report should be replaced with recent, site-specific estimates from the AECOM Report. This will reduce costs by \$17.15m. Council has used a 30% contingency allowance for some transport infrastructure that it already has detailed plans for. We recommend this contingency allowance be reduced to 20%. This will reduce costs by \$3.97m. We found the council's Net Present Value (NPV) model assumptions are reasonable and generally consistent with our previous recommendations for CP12 (Balmoral Road) and CP13 (North Kellyville). We recommend the escalation rate for the development contributions be set at the same level as the discount rate and the NPV model be re-run. This will result in a lower initial contribution rate, but a higher contribution rate in later years. 	
4. Reasonable timeframe	 We consider that THSC's proposed timing of land acquisition and works in CP15 is reasonable. It proposes to: acquire all land for infrastructure by 2021-22. staged stormwater, transport and open space infrastructure delivery over 25 years (from 2016-17). 	

Table 1.4 Summary of IPART's assessment of CP15

Criteria	Assessment			
5. Reasonable apportionment	 THSC has apportioned all infrastructure costs between residential and non-residential development based on NDA. THSC has in turn apportioned the costs within residential developments on a per person basis and within non-residential developments on a GFA basis. We consider this is reasonable. THSC has provided an exemption from development contributions for public schools and disabled housing providers. There is no section 94E Ministerial direction requiring this. As such, it is at council's discretion. Currently, this exempted land NDA has been excluded from the assessable land. This would result in all other developments paying for these exemptions. THSC should include the exempted land NDA for cost apportionment purposes. This will ensure that other developments are not paying more than their fair share. Similarly, THSC has excluded the NDA of a proposed Catholic school from the total precinct NDA for cost allocation. However, THSC intends to charge the Catholic school a development contribution. This would lead to an over-recovery of development contributions from all developers. To avoid this we recommend THSC include the NDA for the proposed Catholic school in the total precinct NDA for cost allocation purposes. THSC has advised IPART that it will include the Catholic school NDA into the total NDA. 			
6. Appropriate community liaison	 THSC exhibited the draft CP15 during August/September 2012 and responded to various issues raised in the four submissions it received. There were subsequent changes to CP15 initiated by THSC, with some resulting from IPART's recommendations of its review of CP15 in December 2014. THSC publicly exhibited the amended CP15 between 17 March 2015 and 24 April 2015. IPART has viewed the stakeholder submissions resulting from the public exhibition and has analysed a number of the issues raised. We consider the consultation has been open, transparent and adequate. 			

1.5 The impact of our recommendations

We consider the total reasonable cost of essential works in CP15 should be approximately \$304.02 million, which is around \$107.22 million (or 26.1%) less than the cost of the contributions plan submitted to IPART. The \$107.22 million adjustment comprises:

- the removal of \$18.18 million in the cost of works within open space costs for the indoor recreation facility
- the removal of \$11.46 million of raingarden costs that are for environmental and tertiary stormwater purposes, which exceed the requirements of the EWL
- ▼ the removal of \$26.07 million of open space land purchases above the Urbis recommendation
- ▼ the removal of \$30.39 million of open space land embellishment costs from dual use of stormwater land
- ▼ reducing all remaining transport contingencies set at 30% to 20%, which reduces costs by \$3.97 million, and

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 the reduction of \$17.15 million from the use of the AECOM Report's base cost estimates for some new main roads, road upgrades, and roundabouts rather than estimates from IPART's Benchmark Report.

Table 1.5 shows the net impact of our recommendations on the reasonable cost of essential works in CP15.

Component		Cost in CP15	Adjustments		IPART assessed reasonable cost
Transport	Land	11,392,336			11,392,336
	Works	106,994,382	-17,150,158	Revise costs using AECOM estimates	85,873,800
			-3,970,423	Reduce contingencies	
Stormwater	Land	30,388,358			30,388,358
	Works	77,883,294			66,423,294
			-11,460,000	Raingarden embellishment	
Open space	Land	72,970,357			46,899,831
			-26,070,526	Reduce excess land [22.28ha @ \$117.01/m ²]	
	Works	107,225,244	-18,176,340	Remove indoor rec. facility	58,660,287
			-30,388,617	Remove embellishment of excess open space	
Admin Costs		4,381,544			4,381,544
Total		411,235,515	-107,216,065	Reduce cost for above items	304,019,450

Table 1.5Total cost of CP15 and IPART's assessment of the total
reasonable cost of essential works for CP15 (\$2013-14)

Note: Administration costs will be lower than reported in this table when all the essential works cost reductions have been made. See section 3.3.7 for more details.

Source: CP15, Section 1 and IPART calculations.

1.5.1 Impact on contribution rates

Table 1.6 shows the impact of our recommendations on the proposed residential contribution rates for the Killarney Chain of Ponds and the Second Ponds Creek catchments in CP15. In assessing the adjustments to the contribution rates, we have not taken into account our recommended change in the escalation rate for development contributions.

For all dwelling types, the contributions payable per lot would be lower, particularly in the early years, if our recommended amendments to CP15 are applied.

01 13		
	Proposed contribution rates in CP15	IPART assessed adjustments
KCP Catchment		
Dwelling House	\$48,375	-\$13,335
Integrated Housing	\$38,415	-\$10,589
Seniors Housing	\$21,342	-\$5,883
MULTI RESIDENTIAL		
4 Bedroom	\$44,106	-\$12,158
3 Bedroom	\$35,570	-\$9,805
2 Bedroom	\$25,610	-\$7,060
1 Bedroom	\$24,187	-\$6,667
SPC Catchment		
Dwelling House	\$37,779	-\$10,414
Integrated Housing	\$30,001	-\$8,270
Seniors Housing	\$16,667	-\$4,594
MULTI RESIDENTIAL		
4 Bedroom	\$34,446	-\$9,495
3 Bedroom	\$27,779	-\$7,657
2 Bedroom	\$20,001	-\$5,513
1 Bedroom	\$18,890	-\$5,207

Table 1.6 Impact of our recommendations on proposed contribution rates in CP15

Note: Our adjustments are based on an average 26.1% reduction in total costs. Also, when we add exempted and excluded properties NDA to the precinct NDA, we get a further decrease in the contribution rates for residential developments of approximately 5.4%. This is reflected in the table. Because we have deducted all the savings proportionately from residential and commercial/industrial developments, and, given that the open space savings will fall entirely to residential developments, this will mean that the savings are likely to be greater than shown in this table. The final figures will also vary when THSC has made adjustments following some of our unquantified recommendations and recalculated the contribution rates. **Source:** IPART calculations based on CP15.

For non-residential development, our recommendations would reduce the contribution rate by the amounts shown in Table 1.7.

Table 1.7Impact on non-residential development contributions
(\$2013-14 per sqm GFA)

	CP15 proposed contribution rates	IPART assessed adjustments
KCP Catchment	\$85.09	-\$22.18
SPC Catchment	\$67.80	-\$17.68

Note: Our adjustments are based on an average 26.1% reduction in total costs. We have deducted all the savings proportionately from residential and commercial/industrial developments. Given that the open space savings will fall entirely to residential developments this will mean that the savings in this table are likely to be marginal lower than quoted. We have not included the reduction in the non-residential contribution rate as a result of an increase in precinct NDA. This is because the vast majority of that change will flow to residential customers. The final figures will vary when THSC has made adjustments following some of our unquantified recommendations and then recalculates the allocation between residential and non-residential developments and recalculated individual contribution rates.

Source: IPART calculations based on CP15.

1.6 Structure of this report

The remainder of this report explains our assessment in more detail:

- Chapter 2 summarises the amended CP15 as presented by THSC
- Chapter 3 explains our assessment of CP15 against the criteria in the Practice Note.

The appendices present our full set of findings and recommendations and provide the relevant supporting information for our assessment:

- Appendix A is a list of our findings and recommendations for each assessment criterion.
- Appendix B is the Terms of Reference.
- Appendix C is the assessment of CP15 against the information requirements in Clause 27 of the *Environmental Planning and Assessment Regulation* 2000.
- ▼ Appendix D is the Glossary.

2 Summary of Contributions Plan No 15

The Hills Shire Council (THSC) prepared CP15 for the Box Hill and Box Hill Industrial Precincts. The contributions plan combines the two precincts and is referred to as the Box Hill Precinct (or the Precinct) throughout this report.

The Box Hill Precinct contains around 964 hectares of land and is located within the North West Growth Centre.¹⁸ The Precinct will contain a mixture of residential, commercial and industrial uses but the majority of development will be residential. The residential component is expected to accommodate an additional 30,687 residents in 10,224 dwellings (located over 613.6 hectares of NDA).¹⁹

The Precinct will also contain 115.4 hectares of non-residential NDA, comprising:

- 69.4 hectares of land zoned for business park
- 26.9 hectares of land zoned for enterprise corridor uses
- 6.1 hectares of land zoned for light industrial uses, and
- 13.0 hectares of land zoned for commercial uses in a local centre.

The Precinct is expected to accommodate 17,789 jobs once it is fully developed.²⁰

2.1 Status of the plan

THSC publicly exhibited the draft CP15 between 7 August 2012 and 7 September 2012, and adopted the plan in July 2014 (almost two years later). THSC made significant changes to the cost of CP15 between public exhibition and adoption.

¹⁸ THSC email correspondence 10 September 2015. THSC Contributions Plan No. 15 Box Hill Precinct (June 2015) (attachment 2) p 20. The current population of Box Hill precinct is 934 residents. CP15 will help cater for an additional 30,687 residents. When fully developed, Box Hill precinct will have a population of 31,621 people.

¹⁹ CP15, Section 1 and Table 2.

²⁰ CP15, Section 3.2 and Table 11.

The council submitted the adopted post-exhibition version of its contributions plan to IPART for assessment in August 2014. Following our assessment, the Minister for Planning considered our recommendations and asked the council to amend the adopted contributions plan.²¹ The council made some but not all of the changes recommended and re-exhibited the amended CP15 between 17 March and 24 April 2015.²² The draft amended plan was resubmitted to IPART for assessment on 26 June 2015.

2.2 Box Hill precinct

Box Hill Precinct is located within the North West Growth Centre (see Figure 2.1) within The Hills Shire LGA.



Figure 2.1 Location of Box Hill Precinct in the North West Growth Centre

Source: http://growthcentres.planning.nsw.gov.au/PriorityGrowthAreas/NorthWestPriorityGrowthArea.aspx, accessed 18 March 2016.

²¹ The plan had already been adopted by THSC in July 2014.

²² THSC email correspondence 10 September 2015 and IPART calculations.

2.3 Future development within the precinct

The Indicative Layout Plan for the Box Hill Precinct shows the anticipated mix of land uses in the precinct (Figure 2.2). Residential-zoned land accounts for 84.2% of the net developable area. The remainder of the developable area will be for non-residential uses such as business parks, light industrial and commercial uses.



Figure 2.2 Box Hill precinct – final indicative layout plan

Note: The Box Hill Industrial area is marginally different from this plan photo as approximately 25 ha has been rezoned residential to accommodate an additional 290 dwellings in this area compared to the plan originally exhibited. (THSC *Application for assessment of a revised section 94 development contributions plan* 1 May 2015 p5, CP15 Section 3.2, and IPART calculations.)

Source:http://growthcentres.planning.nsw.gov.au/PriorityGrowthAreas/NorthWestPriorityGrowthArea/BoxHillBo xHillIndustrial.aspx, accessed 18 March 2016.

Table 2.1 shows the land use mix for the Precinct based on the final indicative layout plan.

•	· · ·		
RESIDENTIAL			
R1 - General Residential	2.81		
R2 - Low Density Residential	457.41		
R3 - Medium Density Residential	124.67		
R4 - High Density Residential	28.72		
Total Residential Land			613.61
NON-RESIDENTIAL			
B2 - Local Centre	13.00		
B6 - Enterprise Corridor	26.93		
B7 - Business Park	69.40		
IN2 - Light Industrial	6.05		
Total Non-Residential		115.39	
Current NDA in CP15			728.99
THSC EXEMPTED PROPERTIES			
Disabled Housing	15.31		
State Primary School	7.68		
State School (proposed)	7.22		
State School (proposed)	3.43		
Total Exempted Properties		33.64	
			762.63
EXCLUDED LAND			
Catholic School	8.13	8.13	
Total Net Developable Area (NDA)			770.76
NON DEVELOPABLE LAND			
E2 - Environmental Conservation	65.66		
RE1 - Public Recreation	62.31		
RE2 - Private Recreation	2.66		
SP2 - Roads (including Footpaths)	18.34		
SP2 - Drainage	44.35		
SP2 - Pumping Station	0.16		
		193.47	
Total Area CP15			964.23 ^a

Table 2.1 Box Hill precinct – land use mix (hectares)

^a There is a minor discrepancy between the total area of CP15 quotes as 975.1 hectares in the following report (Department of Planning and Infrastructure, *Box Hill and Box Hill Industrial Precinct Plan – Post-exhibitions Planning Report*, December 2012, p 9.) and the figure in the above table. THSC confirm that these figures of 964.23 hectares is the accurate surveyed area.

Source: Email - Addendum to CP 15 from THSC - 10 September 2015 and IPART calculations.

THSC estimates that it will take 25 years to fully develop the Precinct.23

2.4 Land and facilities in CP15

CP15 outlines the infrastructure that THSC will provide, including transport, stormwater and open space infrastructure. In assessing the plan, we have adopted standard terminology for the various categories of infrastructure (see Table 2.2).

Terminology used in CP15	
Transport and traffic	
Water management	
Open space	
Administration	
	Transport and traffic Water management Open space

Table 2.2 Terminology used in this report and CP15

The total cost of land and facilities in CP15 is around \$411.2 million, including administration costs. A breakdown of these costs is provided in Table 2.3.

	Works	Land	Total
Transport	106,994,382	11,392,336	118,386,718
Stormwater	77,883,294	30,388,358	108,271,652
Open space	107,225,244	72,970,357	180,195,601
Administration costs			4,381,544
Total cost			411,235,515

 Table 2.3
 CP15 - Total cost of land and facilities (\$2013-14)

Note: CP15 does not include land for community services. **Source:** CP15, Section 1 and IPART calculations.

The costs in Table 2.3 assume that the council purchased all the land and conducted all the work in the first year of the plan. However, council will develop the precinct over 25 years. The council's NPV model shows the present value of these costs which takes account of the expected timing of land purchases and construction over the 25 years.²⁴

²³ CP15, Section 2.20.

²⁴ CP15, Section 2.20 and Table 16.

2 Summary of Contributions Plan No 15

2.5 Contribution rates in CP15

The residential share of total contribution plan costs is apportioned on a per person basis amongst residential developments. This rate is shown in the first row of Table 2.4. Residential rates are split between two catchments, the Killarney Chain of Ponds catchment (KCP) and the Second Ponds Creek catchment (SPC). However, the cost of stormwater infrastructure has been separately identified by THSC and allocated to the two catchments.

The transport, open space and administration costs are also apportioned on a per person basis across the two catchments. It is the difference in the stormwater cost between the catchments that accounts for the difference in the per person rate.

Whilst the cost apportionment within residential developments is conducted on a per person basis, the contribution charge levied on residential developers is charged on a per property basis. This is achieved by multiplying the per person cost by the average number of persons per residential property type.²⁵ These deemed occupancy numbers are displayed in Table 2.5 below along with THSC's CP15 population projection.

Table 2.4 shows for example the per person charge in KCP is \$14,228. This is multiplied by the assumed occupancy rates for different dwelling types in Table 2.5 to determine the charge. In Table 2.5 a house has an average occupancy of 3.4 persons. We multiply 3.4 times \$14,228 to get the KCP Dwelling house charge in this table of \$48,375.

	KCPa	SPC ^b
Per Person	\$14,228	\$11,112
Dwelling House	\$48,375	\$37,779
Integrated Housing	\$38,415	\$30,001
Seniors Housing / Boarding House Rooms	\$21,342	\$16,667
MULTI RESIDENTIAL		
4 Bedroom	\$44,106	\$34,446
3 Bedroom	\$35,570	\$27,779
2 Bedroom	\$25,610	\$20,001
1 Bedroom	\$24,187	\$18,890

Table 2.4THSC proposed contribution rates by residential dwelling type
(\$2013-14)

a Killarney Chain of Ponds Catchment.

b Second Ponds Creek Catchment.

Note: Cost apportionment for residential developments are on a per person basis. However, the contribution charges for residential properties are levied on dwelling types.

Source: CP15, Section 1.

²⁵ CP15, Table 4.

Residential Dwelling Type	Estimated number of Dwellings	Deemed Occupancy	Total Estimated Population
Dwelling House	6,967	3.4	23,686
Integrated Housing	1,024	2.7	2,765
Seniors Housing	309	1.5	463
Multi Dwelling Housing	891	2.8	2,495
Residential Unit Dwellings	841	1.85	1,555
Large Lot Sub-divisions	193	3.4	657
Total Residents			31,621
Current Residents			(934)
Net Resident Increase CP15			30,687

Table 2.5	Average occupancies and expected population CP1	5
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Note: Numbers may not add due to rounding.

Source: CP15, Table 4, which in turn references the Australian Bureau of Statistics 2011 Census.

For non-residential development, the proposed contribution rates are shown in Table 2.6.

Table 2.6	Proposed non-residential	contribution rates	(\$2013-14)) in CP15
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	Killarney Chain of Ponds	Second Ponds Creek
Per sq m (GFA)	\$85.09	\$67.80

Source: CP15, Section 1.

THSC intends for the proposed contribution rates shown in Table 2.5 and Table 2.6 to rise by CPI each year of the life of CP15.²⁶

2.6 Responsibility for local infrastructure

Infrastructure within the Precinct will be provided by developers, Roads and Maritime Services (RMS), Sydney Water and the THSC:

- All local infrastructure (eg, subdivisional roads), which can be included in conditions attached to development consents, will be provided by developers.²⁷
- Five major intersections along Windsor Road will be provided by RMS and the cost of these works are excluded from CP15.
- Sydney Water will provide water and wastewater infrastructure within the Precinct, and stormwater infrastructure for the Seconds Ponds Creek catchment.²⁸

²⁶ CP15 Section 2.20 (Revenue Projections).

²⁷ CP15, Section 3.5.1.

²⁸ CP15 Application Form, Criterion 4, p 1.

2 Summary of Contributions Plan No 15

 The major local infrastructure in CP15 will be provided by THSC or as worksin-kind by developers, in accordance with the contributions plan. This includes local roads, footpaths, stormwater infrastructure, playing fields, parks and open space.²⁹

There is no infrastructure for community facilities in CP15. The council proposes to negotiate with developers through the development application process for the provision of these facilities.³⁰

²⁹ CP15, Section 3.5.1.

 $^{^{30}\;}$ The Hills Shire Council, Response to IPART queries, 1 October 2014, p 17.

3 Assessment of Contributions Plan No 15

We assessed THSC's application for a review of *Contributions Plan No 15 – Box Hill Precinct* (CP15) against the criteria in the Practice Note. We based our assessment on the contents of the plan, the council's application and supporting documentation, and responses to our information requests. This chapter summarises our assessment of the contributions plan against the criteria.

3.1 Criterion 1: Essential Works List

IPART Finding

- 1 All infrastructure items in CP15 are on the Essential Works List except for:
 - the works for the indoor recreation facility in Park 5, which exceeds the definition of base level embellishment, and
 - expenditure on raingardens, which is a tertiary stormwater treatment strategy and that we assess to be outside the EWL.

Recommendations

- 1 THSC removes the works for the indoor recreation facility (\$18,176,340) from the cost of essential works in CP15.
- 2 THSC removes the marginal cost of the raingardens (\$11,460,000) from the cost of essential works in CP15.

We assessed whether the public amenities and services included in the contributions plan are on the Essential Works List (EWL) (see Box 3.1). CP15 contains land and works expenditure for transport, open space and stormwater infrastructure. No community facilities have been included in CP15.

3 Assessment of Contributions Plan No 15

Box 3.1 Essential Works List

The Essential Works List includes:

- land and facilities for transport (eg, road works, traffic management and pedestrian and cycle facilities), but not car parking
- land and facilities for stormwater management
- ▼ land for open space (eg, parks and sporting facilities), including base level embellishment (see below)
- land for community services (eg, childcare centres and libraries), and
- the cost of plan preparation and administration.

For the purposes of assessing land for open space, base level embellishment may include:

- site regrading
- utilities servicing
- basic landscaping (turfing, asphalt^a and other synthetic playing surfaces, planting, paths)
- drainage and irrigation
- basic park structures and equipment (park furniture, toilet facilities and changerooms, shade structures and play equipment)
- security lighting and local sportsfield floodlighting, and
- sportsfields, tennis courts, netball courts and basketball courts (outdoor only).

Base level embellishment does not include infrastructure such as skate parks and BMX tracks.

a Asphalt includes at-grade carparks to the extent that they service the recreation area only and does not include multi-storey carparks.

Source: Department of Planning & Environment, Revised Local Development Contributions Plan Practice Note, February 2014, pp 8-9.

Table 3.1 summarises our assessment of infrastructure in CP15 against the EWL.

Works category	Included on the Essential Works List	Not included on the Essential Works List
Transport	Road upgrades and new roads	
	Signalised intersections	
	Roundabouts	
	Bridges	
	Bus stops	
	Cycleways	
	All land for transport infrastructure	
Stormwater	Basins, and drainage structures	Raingardens
	Culverts	
	Gross pollutant traps	
	All land for stormwater infrastructure	
Dis Cou	Local parks	Works for indoor
	District parks with playing fields, tennis	recreation facility in
	courts, netball courts, amenities	Park 5
	buildings and related base level embellishment	
	All land for open space infrastructure	
Administration costs	Administration costs	

Table 3.1Summary of IPART's assessment of infrastructure in CP15
against the Essential Works List

Our further analysis of certain open space items is outlined below.

3.1.1 Indoor recreation facility

This indoor recreation facility, which is included in open space works in CP15, does not meet the criteria for base level embellishment of open space (see Box 3.1). Base level embellishment is considered to be those works required to bring open space up to a level where the site is secure and suitable for passive and active recreation. It includes items such as basic park structures and outdoor sports fields.

We consider the indoor recreation facility is a high level embellishment item that exceeds the definition of base level embellishment. THSC should remove the cost of the indoor recreation facility (\$18.18 million) from the cost of essential works in CP15.

Further, our investigations revealed that there are no indoor sports facilities in the Box Hill or Rouse Hill precincts nor in the northern section of Kellyville. As such, even if the indoor recreation facility were on the EWL, it costs would need to be apportioned across a much wider community than just the Box Hill Precinct. 3 Assessment of Contributions Plan No 15

Our recommendation does not mean that THSC should not provide the indoor sports facility: but that funding must be from alternative sources such as council's general fund or an opportunity may exist for the facility to be developed by a commercial enterprise.

3.1.2 Raingardens

Since THSC submitted its amended CP15 we have consulted with DPE on the intent of some sections of the Practice Note.³¹ In particular:

The acquisition of land and the undertaking of works for environmental purposes eg, bushland regeneration or riparian corridors are not defined as essential works for the purpose of this Practice Note.

The only exception to this is where it can be demonstrated that the land and/or works in question serve a dual purpose with one or more of the categories of works that meet the definition of essential infrastructure. ... In this situation, only the component of land and/or works that serves the dual purpose can be considered as essential works.³²

IPART interprets these instructions in the Practice Note that all reasonable costs associated with movement of stormwater and the mitigation of flooding are incorporated in the EWL. Further, some water treatment strategies, to the extent that they serve a dual purpose, are also included in the EWL.

Water treatment strategies will all fall along a spectrum of dual purpose between stormwater and environmental works. This ranges from being predominately stormwater such as gross pollutant traps, which don't just help to prevent clogging of the stormwater system and therefore mitigate flooding, but also reduce pollution of downstream waterways, through to artificial wetlands, which are almost entirely a water treatment and therefore predominately for environmental purpose.

To assess the point along that spectrum of water treatment strategies at which dual purpose stormwater/environmental becomes predominately environmental and therefore exceeds the EWL for stormwater works, we are guided by the Growth Centre Development Code.³³ The Code places water treatment strategies into three categories, primary, secondary and tertiary.

- Primary strategies include gross pollutant traps, litter trash racks and sediment traps.
- Secondary strategies include constructed ponds, extended detention basins and sand filters.

³¹ Department of Planning & Infrastructure, Revised Local Development Contributions Plan Practice Note, February 2014.

³² Department of Planning & Infrastructure, *Revised Local Development Contributions Plan Practice Note*, February 2014, Section 3.4.2.4, p 10.

³³ Growth Centres Commission, Growth Centres Development Code October 2006, Table B2, p B18.

Tertiary strategies include constructed wetlands and bio-retention basins.

For this assessment of CP15 and going forward, in assessing what stormwater treatment works we will assess as being included on the EWL and therefore subject to funding under a contribution plan, we will include primary treatment strategies as listed in the Growth Development Code, and we will exclude secondary and tertiary strategies from the EWL.

The raingardens in CP15 fall into the category of tertiary water treatment, which we consider, should be excluded from the costs of EWL in the plan.

We have however, included all the stormwater land purchases and the majority of the other construction costs. We have also included primary level water treatment works such as gross pollutant traps. The total cost of stormwater land and works that we recommend for inclusion is approximately \$100 million.

Not all worthwhile council projects are included in the EWL

Exclusion of costs from the contribution plan does not mean the works should not be provided. Consultants often provide a detailed plan based on industry best practice. Best practice may often be in excess of base level embellishment. The Practice Note and the EWL ensure that developers, and the Government through LIGS funding, only pay for base level embellishment. There are many other examples of expenditure that councils undertake that are valuable to the community but are also excluded from the EWL such as: libraries, civic centres, swimming pools, clinics and senior citizen centres.

Calculating the raingarden costs to be excluded

The CP15 works schedule does not break raingarden costs down to the level we require for our analysis. We have therefore used JW Prince's³⁴ detailed costing of one raingarden to allow us to calculate an estimate of the cost for separately identified raingardens. We have then used these costs to produce an estimate for those raingarden costs that are not disaggregated from total stormwater costs.

Many of the costs of the raingarden, including earthworks and gross pollutant traps, would still be incurred even if there was no tree and shrub planting in the raingardens. However, two of the major costs would be avoided, namely, the additional cost of the special media in the raingardens and the related planting costs.

³⁴ Source: JW Prince, Box Hill/Box Hill Industrial Precinct Water Cycle Management Post Re-exhibition Strategy Report, November 2012.

3 Assessment of Contributions Plan No 15

Based on advice from consultant engineers, JW Prince, we have allowed onethird of the special media cost of the raingardens. This is JW Prince's estimate of the ratio of costs between the raingarden media and standard media for stormwater purposes.³⁵ We have also excluded the tree planting costs associated with the raingarden, but have added in the cost of turfing the raingarden area.³⁶

In summary, IPART estimates that removing the cost of raingardens will reduce the costs of the EWL in the plan by \$11.46 million.

3.2 Criterion 2: Nexus

IPART Finding

- 2 All infrastructure items in CP15 satisfy the nexus criterion except for:
 - the provision of land for open space above the minimum recommended level, and
 - the embellishment cost of that excess open space above the minimum recommended level.

Recommendations

- 3 THSC removes the \$26.07 million of costs for 22.28 hectares of excess open space comprising:
 - \$14.42 million for 12.32 hectares of excess active open space, and
 - \$11.65 million for 9.96 hectares of excess passive open space.
- 4 THSC removes the \$30.39 million of costs for 22.28 hectares of excess open space embellishment comprising:
 - \$24.41 million for 12.32 hectares of excess active open space embellishment, and
 - \$5.98 million for 9.96 hectares of excess passive open space embellishment.

IPART must advise whether there is nexus between the demand arising from new development in the area to which the plan applies and the kinds of public amenities and public services identified in the plan. Nexus ensures that there is a connection between the infrastructure included in the contributions plan and increased demand for facilities generated by the anticipated development.

³⁵ Raingarden media is quoted at \$180m². Source: JW Prince, Box Hill/Box Hill Industrial Precinct Water Cycle Management Post Re-exhibition Strategy Report, November 2012 (last page – preliminary cost estimates).

³⁶ Raingarden planting is quoted at \$45m² whilst basin lower surface turf is quoted at \$15m². Source: JW Prince, Box Hill/Box Hill Industrial Precinct Water Cycle Management Post Re-exhibition Strategy Report, November 2012 (last page – preliminary cost estimates).
THSC used the technical studies listed in the Table 3.2 to assist in determining the types and quantity of public amenities and public services that are required to be included in CP15. The council also provided us with additional information to explain the differences between the infrastructure in CP15 and the technical studies.

Essential works category	Reports
Transport	 GHD, Box Hill and Box Hill Industrial Precincts – Transport and Access Study, February 2011
	 AECOM, Boundary Road Strategic Concept Design Study, February 2013
	 AECOM, Traffic Management and Open Design Strategic Design, January 2014
Open space	 Urbis, Demographics and Social Infrastructure Assessment: Box Hill and Box Hill Industrial Precincts, February 2011
	 AECOM, Traffic Management and Open Design Strategic Design, January 2014
Stormwater	 J. Wyndham Price (JWP), Box Hill/Box Hill Industrial Precinct Water Cycle Management Strategy Report, February 2011
	 JWP, Box Hill/Box Hill Industrial Precinct Water Cycle Management Post Exhibition Strategy Report, June 2012
	 JWP, Box Hill/Box Hill Industrial Precinct Water Cycle Management Post Re-exhibition Strategy Report, November 2012

 Table 3.2
 Technical studies relied on by THSC to establish nexus in CP15

Source: CP15, Supporting Material Section 4.

For transport and stormwater infrastructure, we consider that these supporting studies demonstrate reasonable nexus between the land and facilities in CP15 and the expected development in the Box Hill Precinct.

3.2.1 Open space

IPART Finding

3 CP15 contains 12.32 hectares of excess active open space and 9.96 hectares of excess passive open space.

Our assessment of the provision of open space is summarised in Figure 3.1 below, which shows the open space land in CP15:

- As recommended by the consultants Urbis.
- As proposed by THSC.
- IPART's assessment of THSC proposed open space.
- IPART's assessment of open space land that is reasonable to include in the EWL.

These numbers are discussed in detail in the following sections of this chapter.



Figure 3.1 IPART's assessment of open space in CP15

Data sources: (1)THSC CP15, (2) Urbis. *Demographics and Social Infrastructure Assessment: Box Hill and Box Hill Industrial Precincts*, February 2011, p 88. (3) IPART calculations.

Urbis recommended open space CP15

The Urbis study, that was commissioned by DPE to provide guidance on the required level of open space in CP15, recommended provision of 70.12 hectares. This comprised 32.00 hectares of passive open space and 38.12 hectares of active open space. The Urbis recommendations are detailed in Table 3.3.

Passive	Formal Local Parks	8
	Informal space in linear parks, riparian zones or drainage easements	24
Passive open spa	ace sub-total	32.00
Active	Local sports fields (mix of soccer, union, league and AFL)	24
	District sports fields	6
	Hockey Field (additional to district sports fields)	3
	Netball / basketball	1
	Tennis Centre (district)	2
	Baseball / softball	1
	Children's playground	1.12
Active open space	e sub-total	38.12
Total		70.12

Table 3.3 Urbis Study Open Space Recommendation for CP15 (ha)

Source: Urbis, Demographics and Social Infrastructure Assessment: Box Hill and Box Hill Industrial Precincts, February 2011, p 88.

THSC proposed open space in CP15

THSC has proposed open space provision in CP15 of 62.60 hectares. This comprises active open space of 50.44 hectares and passive open space of 12.16 hectares. These proposed areas are detailed in Table 3.4.

Table 3.4	THSC proposed open space provision in CP15 by item
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	Item	Description	Area (ha)
Passive	Local Parks	Local Park	12.16
Active	BHPF01	Park 1 - South of Future Road	5.17
	BHPF02	Park 2 - West of Mt Carmel Road	5.76
	BHPF03	Park 3 - Central Area	10.10
	BHPF04	Park 4 - East of Terry Road	5.80
	BHPF05	Park 5 - District Park - West of Nelson Road	15.60
	BHPF06	Park 6 - North of The Water Lane Water	8.00
Active S	Sub -Total		50.44
Open Sp	ace Total		62.60

Note: Total varies by 0.01 hectares due to rounding of components. **Source:** CP15, Table 16.

Dual use stormwater land

However, THSC did not take into account the dual use capacity of the stormwater land totalling 44.27 hectares.³⁷ This is discussed below in our assessment of the open space required in CP15.

Existing open space in the Precinct

THSC indicated there is one existing local park (Turnbull Reserve) within the Precinct. This local park covers around 0.7 hectares of land and serves the existing population of 934 residents.³⁸

As our assessment of CP15 is required to consider the additional open space land required to cater for the *additional* 30,687³⁹ residents expected to move into the precinct, no further consideration is given to this 0.7 hectares.

IPART considers that there is an oversupply of open space land in CP15 of 22.28 hectares. This consists of:

- ▼ 12.32 hectares of excess active open space, and
- 9.96 hectares of excess passive open space.

³⁷ "Work Schedule" workbook "land acquisition" tab of supporting spreadsheets.

³⁸ THSC, *Council Business Papers* – 22 July 2014, pp 194-195 and THSC, Response to IPART queries, 3 October 2014. The Urbis Study also identifies Turnbull Reserve as existing local open space in the Precinct, p 65.

³⁹ CP15, Table 4.

The following sections detail these findings.

Active open space

The Urbis study recommended 38.12 hectares of active open space.⁴⁰ However, THSC has proposed providing 50.44 hectares. We assess that CP15 contains 12.32 hectares of excess active open space and the value of this excess land should be excluded. THSC may still provide active open space in excess of 38.12 hectares, but the additional cost must be funded from a source other than development contributions.

Passive open space

Urbis recommend 32.00 hectares of passive open space whereas THSC has identified the provision of 12.16 hectares in CP15. However, our research indicates that with the removal of the raingardens from the stormwater land, all 44.27 hectares⁴¹ would be available and suitable as passive open space.⁴²

We have been advised by the stormwater water consultants for the precinct, JW Prince, that no further embellishment is necessary for the stormwater land to be used as passive open space.⁴³

Therefore, all 32.00 hectares of the required passive open space can be accommodated as dual purpose land on stormwater land. This means that the 12.16 hectares of passive open space proposed by THSC could be removed from the contribution plan. However, THSC raised the issue of proximity to local parks and cited guidelines that recommend that most residences be within 400 metres of local parks.⁴⁴ THSC states that this requirement would not be meet without the provision of three additional local parks totalling 2.20 hectares. These parks being⁴⁵:

- ▼ BHLP03 = 0.76 hectares
- ▼ BHLP06 = 0.86 hectares, and
- ▼ BHLP07 = 0.58 hectares.

⁴⁰ See Table 3.3. This includes 1.12 hectares for a dedicated children's playground.

⁴¹ "Work Schedule" workbook "land acquisition" tab of supporting spreadsheets.

⁴² We note that that THSC has submitted that the cost of embellishing land to passive open space is on average \$60 m²("Work Schedule" workbook "work sch" tab of supporting spreadsheets) and, from the same source we have calculated the average cost embellishing stormwater land is \$150 m².

⁴³ Email correspondence from JW Prince, 9 February 2016.

⁴⁴ Growth Centres Commission, *Growth Centres Development Code*, October 2006, p B79.

⁴⁵ CP15, Table 16 and email correspondence THSC 21 January 2016.

Whilst we consider the guidelines could be met with a 400 metre distance to active as well as passive open space, nonetheless, on this occasion we have decided to assess the three parks mentioned as being included on the EWL. Therefore, the total amount of excess passive open space to be removed is 9.96 hectares (12.16ha – 2.20ha).

This will mean a total passive open space in CP15 of 46.47 hectares. This is 14.47 hectares in excess of what was recommended by Urbis⁴⁶ but is the minimum that can be provided given:

- THSC's understanding of the requirements for a 400 metre nexus.
- All the 44.27 hectares of stormwater land is available for passive open space given its necessary embellishment for stormwater purposes.

Value of excess open space to be removed

The value of the excess open space to be removed from CP15 has two components namely:

- land costs, and
- land embellishment costs.

Excess open space land costs

We have calculated the value of the excess open space land to be removed as \$26.07 million.

We have arrived at this figure by first estimating per square metre value of land in the precinct by calculating the weighted average cost of the land. Table 3.5 shows that the weighted average cost on land in the precinct using THSC's forecast land values is \$117 per square metre.

Table 3.5Open space land values and distribution (\$2013-14)

\$/m ²	\$30	\$35	\$150	\$175	\$225	Total
Hectares	16.6	5.2	18.8	20.3	0.6	61.4 ª
% of total hectares	27%	8%	31%	33%	1%	100%
Weight average (\$/sqm)						\$117.01

Note: The data in this table comes from THSC workbook CP15 Works Schedule-Nov 2014-Working Folder. The variation of 0.8 hectares in open space purchases compared to the total area of submitted CP15 application is due to the exclusion of 0.7 hectares of existing park space and a small rounding discrepancy. **Source:** CP15 Works Schedule-Nov 2014-Working Folder-Land Acquisition. IPART calculations.

⁴⁶ See Table 3.3.

As discussed above we assess that there is a total of 22.24 excess of open space in CP15 comprising:

- 12.28 hectares of excess active open space, and
- 9.96 hectares of excess passive open space.

We then applied the weighted average cost of land to these excess open space land areas to arrive at a total of \$26.07 million. This is broken down in Table 3.6.

Table 3.6Excess land costs (\$2013-14)

	Area (ha)	Embellishment Cost (\$m²)	Aggregate Cost
Active Open Space	12.28	\$117.01	\$14,416,018
Passive Open Space	9.96	\$117.01	\$11,654,508
Total Land Cost Reduction			\$26,070,526

Source: IPART calculations.

Embellishment cost savings

The advice IPART received from JW Prince in relation to the stormwater land was, that as result of the substantial earthworks, grading and grassing, all the stormwater land is suitable for passive open space without any additional cost.⁴⁷

This being the case, there are also excess embellishment costs to be removed commensurate with the excess land removed. This amounts to \$30.31 million as shown in Table 3.7.

 Table 3.7
 Excess land embellishment costs (\$2013-14)

	Area (ha)	Embellishment Cost (\$m ²)	Aggregate Cost
Active Open Space	12.32	198.15	\$24,412,617
Passive Open Space	9.96	60.00	\$5,976,000
Total Embellishment Reduct	tion		\$30,388,617

Source: "Work Schedule" workbook "work sch" tab of supporting spreadsheets and IPART calculations.

⁴⁷ Email correspondence from JW Prince, 9 February 2016. Also note the capital embellishment costs from THSC CP15 Works Schedule spreadsheet submitted June 2015 for the various land uses are, Active open space = \$198/m², Passive open space = \$60/m² and stormwater land = \$150/m². Also note IPART has adjusted the stormwater embellishment costs down after removing the raingarden costs.

3.2.2 Transport

IPART Finding

4 There is reasonable nexus between transport infrastructure items in CP15 and the expected development in the Box Hill Precinct.

CP15 includes transport facilities and land for the main road network, intersection and roundabout works, and public transport locations. Specifically, the transport infrastructure in CP15 includes:

- five new main roads
- five proposed roads to be upgraded
- four bridges
- 15 signalised intersections
- eight roundabouts
- 20 bus stops, and
- ▼ 12.2km of cycleways.⁴⁸

In total, around 5.7 hectares of land will be acquired for new roads and widening of roads. The majority of transport infrastructure will be located within the Precinct, except for the Edwards Road bridge over Smalls Creek.⁴⁹

CP15 excludes transport facilities and land for local roads (ie, subdivisional roads), asset relocation, water management devices, footpaths and street tree plantings. The provision of facilities and land for these items will be undertaken directly by developers under conditions of consent.⁵⁰

Five major intersections along Windsor Road will be provided by the Roads and Maritime Services (RMS) and these works will not be included in CP15.

Consistency with technical studies

We have analysed the transport infrastructure contained in CP15 against the technical studies, as well as additional information provided by THSC. We consider the transport infrastructure is broadly consistent with the technical studies and the needs of the development within the Precinct. However, we discuss our findings relating to transport infrastructure costs in Section 3.3.3.

⁴⁸ CP15, Table 16.

⁴⁹ Email confirmation from THSC 11 March 2016.

⁵⁰ CP15, Section 3.5.1.

3.2.3 Stormwater

IPART Finding

5 There is reasonable nexus between the stormwater infrastructure in CP15 and the expected development in the Box Hill Precinct.

CP15 divides the Box Hill Precinct into two catchments for stormwater infrastructure - Second Ponds Creek Catchment and Killarney Chain of Ponds Catchment. The stormwater infrastructure to be provided in the Precinct includes:

- nine basins, with integrated raingardens and drainage structures
- nine separate raingardens
- ▼ seven culvert crossings, and
- ▼ three gross pollutant traps.⁵¹

The majority of land in the Second Chain of Ponds Catchment is located in the Rouse Hill Development Area for which Sydney Water is responsible for stormwater management.⁵² This has resulted in much lower stormwater infrastructure costs in this catchment than if the council was responsible for stormwater management.

Consistency with technical studies

THSC adopted many of the recommendations from the JWP Studies, primarily the June 2012 version, for stormwater infrastructure for the Box Hill Precinct.

3.3 Criterion 3: Reasonable costs

IPART is required to advise whether the proposed development contributions are based on a *reasonable* estimate of the cost of the proposed public amenities and public services.

Reasonable costs may be based on estimates that have been provided by consultants or the council's experience. They should be comparable to the costs required to deliver similar land and facilities in other areas.

⁵¹ CP15, Table 16.

⁵² JWP Study, November 2012, Appendix D.

3.3.1 Summary of our assessment of costing approaches

THSC has used a number of resources to estimate capital costs, including IPART's Benchmark Report, recent tender prices, and cost estimates contained in technical studies.⁵³ The council estimated land costs based on independent land valuers' advice.

Where THSC has used independent advice to cost infrastructure and value land, we consider this approach is reasonable. However, we have concerns with the selective use of costs from IPART's Benchmark Report in CP15.

We consider that the recommendations and cost estimates contained in IPART's Benchmark Report should not replace detailed and site-specific cost estimates when these are available.

THSC has applied costs from IPART's Benchmark Report to some transport infrastructure items when it already had recent site-specific estimates from a quantity surveyor for most of the items. In one instance, THSC has chosen to use the cost of roundabouts from IPART's Benchmark Report, when the AECOM Report (2014) provides much more detailed and location-specific cost estimates.

The council also applied the contingency allowances based on the highest risks for open space and transport infrastructure that were recommended in IPART's Benchmark Report.⁵⁴ In the case of transport infrastructure, THSC has detailed design plans particularly for the main roads, yet has used the Benchmark report for costs and applied a 30% contingency.

We recommend that THSC amends these cost estimates in CP15 to those in the AECOM report and reduce the contingencies for these items of transport infrastructure to 20%.⁵⁵

CP15 is based on a Net Present Value (NPV) model which calculates development contributions. THSC uses a nominal approach in its NPV model, which involves using a nominal discount rate and forecasting inflation in costs and revenues over time (to calculate nominal cash flows). CP15's NPV model contains a number of assumptions which impact on the costs in the plan. These assumptions include how the plan calculates the nominal discount rate and how costs and revenues are forecast to nominal values. Our assessment of the assumptions in the NPV model is discussed in section 3.3.8.

⁵³ IPART, Local Infrastructure Benchmark Cost – costing infrastructure in Local Infrastructure Plan – Final Report, April 2014. The NSW Government asked IPART to provide advice about benchmark costs for local infrastructure. The Local Infrastructure Benchmark Cost – Final Report was to form part of the package of reforms to the planning system. The benchmark report has not been endorsed by the NSW Government and is intended to be used as a guide only.

⁵⁴ See section 3.3.6.

⁵⁵ IPART, Local Infrastructure Benchmark Costs – costing infrastructure in Local Infrastructure Plan -Final Report, April 2014, p 51.

3.3.2 Cost of land

IPART Finding

6 THSC's approach to costing land using an independent valuer is reasonable.

The cost of land to be acquired in CP15 is estimated to be \$114.8 million or around 27.9% of the total cost of CP15.⁵⁶ The calculation of land costs are based on land value rates (on a \$ per m² basis) from an independent land valuer.⁵⁷

Apart from some existing council assets (ie, roads), all the land in the CP15 works schedule is land still to be acquired.⁵⁸

Transport land

CP15 includes 8.69 hectares for transport infrastructure.⁵⁹ This includes land for new roads, road upgrades and intersection works.

THSC is responsible for the land acquisition of sections of Terry Road (BHRU01 and BHRU02A) and The Water Lane (BHRU08B and BHRU09), where the works are identified to be funded through the Special Infrastructure Contributions (SIC) collected by the State Government.⁶⁰ The land acquisition maps from the Growth Centres SEPP identify the council as the acquisition authority. The capital costs for these roads are not included in CP15 and will be funded through the SIC.

Stormwater land

CP15 includes 44.27 hectares of land to be acquired for stormwater infrastructure.⁶¹ Based on the method of valuation, using advice from an independent land valuer, we consider the costs for land identified in CP15 are reasonable.

Open space land

CP15 includes 61.44 hectares of land to be acquired for open space.⁶² However, the council has not taken into account stormwater land that will also serve a dual function as open space recreation. We are satisfied that the per hectare value of the land to be acquired is reasonable. Our findings regarding the quantity of open space land are discussed in Section 3.2.1.

⁵⁶ CP15 Section 1.

⁵⁷ CP15 (2014) Application Form, Criterion 3, p 3.

⁵⁸ CP15 Works Schedule.

⁵⁹ Email from THSC 11 March 2016.

 $^{^{60}}$ $\,$ The Hills Shire Council, Response to IPART queries, 3 October 2014.

⁶¹ CP15 Works Schedule.

⁶² CP15 Works Schedule. Note that there is 62.6 hectares of open space in total in CP15. The difference is the existing park (Turnbull Reserve) in the precinct. Source: CP15 Section 3.4.3 and email correspondence from THSC 11 March 2016.

Our assessment of land costs

We consider THSC's approach to costing land is reasonable. The use of an independent valuer is consistent with how land has previously been costed in CP12 (Balmoral Road) and CP13 (North Kellyville). This approach is also consistent with the recommendation in IPART's Benchmark Report for land value estimates to be based on a valuation by a registered valuer.⁶³

3.3.3 Cost of transport infrastructure

IPART Finding

7 THSC's approach to estimating the cost of transport infrastructure is reasonable, except for the costs for some new main roads, road upgrades and roundabouts which are based on IPART's Benchmark Report. THSC should use the AECOM Report cost estimates for these items as they are more detailed and locationspecific.

Recommendation

5 THSC uses the base cost estimates for the new main roads, road upgrades and roundabouts in CP15 recommended in the AECOM Report (January 2014) to ensure that the costs are based on site-specific considerations. THSC should also use the IPART recommended contingencies and allowance for these works. This will reduce the cost of essential works in CP15 by \$17,150,158.

THSC estimated costs for transport infrastructure in CP15 using a combination of methods including:

- ▼ AECOM's Report (January 2014)
- ▼ IPART's Benchmark Report, and
- council's tender base rates.

⁶³ IPART, Local Infrastructure Benchmark Costs – costing infrastructure in Local Infrastructure Plan -Final Report, April 2014, p 78.

Cost assessment of new roads and road upgrades

This is the same issue that was raised in detail in our December 2014 Assessment.

THSC used the cost for a 4-lane sub-arterial road from IPART's Benchmark Report for all new roads and three of the five road upgrades for existing roads (BHRU02B, BHRU06B and BHRU08A).⁶⁴ THSC stated that it used the benchmark costs rather than the costs in the AECOM report because AECOM excluded several important costs that the council risks bearing during construction (such as service and utility relocation and rock excavation).⁶⁵

We do not consider it is reasonable for THSC to apply the benchmark costs to all of the new roads, and three of the five road upgrades, where there are more detailed cost estimates available in the AECOM Report.⁶⁶

- The AECOM Report provides more detailed designs and cost estimates for two new roads and three road upgrades. These designs and cost estimates appear to take site-specific factors into account, whereas the costs from IPART's Benchmark Report represent a median cost across NSW.
- Whilst the AECOM Report excluded several costs, the IPART benchmark base costs for roads also excluded the same items on the basis that they were accounted for by the allowances for contingencies, design fees and other oncosts. For example:
 - Services relocation, rock excavation and removal of contaminated waste are not included in the base cost rate for the benchmark costs as it was considered that the contingency allowance should cover such risks.⁶⁷
 - Authority fees and charges, council administration fees, archaeological investigations and professional fees are now accounted for by the 15% allowance for project management and design fees.⁶⁸

⁶⁴ CP15 Works Schedule.

⁶⁵ The Hills Shire Council, Fact check of IPART's draft report, 20 November 2014. The AECOM Report (p 3) excluded GST, professional fees, escalation of costs beyond January 2014, rock excavation, services relocations, removal of contaminated/hazardous waste, authority fees and charges, council administration costs, property and land acquisition, archaeological investigations and findings.

⁶⁶ AECOM, Traffic Management and Open Design Strategic Design, January 2014, Appendix C.1, pp 3-4, 6-7 and 10.

⁶⁷ Evans & Peck, Response to IPART queries, 20 November 2014 and IPART Benchmark Report, pp 114, 125 and 131.

⁶⁸ For example, see IPART, Assessment of Blacktown City Council's Draft Section 94 Contributions Plan No 24 – Schofields Precinct, p 44 and Blacktown City Council, Application for assessment of a section 94 Development Contributions Plan, Blacktown City Council Section 94 Contributions Plan No 24 – Schofields Precinct, 13 December 2013, pp 17-19.

For the five transport infrastructure items in question, THSC had originally submitted costs of \$26.2 million.⁶⁹ Subsequently, the council has revised its estimate of the costs for the 5 roads to \$24.7 million.⁷⁰ THSC state that this revised figure is based on recent tender rates.

The AECOM recommended base costs were \$6.71 million. To this figure IPART applied a 15% project management and design fee allowance and a 20% contingency allowance. This gives a total efficient cost of \$9.06 million.⁷¹

Whilst IPART stands by its recommendations that the appropriate total contingencies and allowance is 35% (20% contingencies + 15% design and project management) if a 56% total allowance and contingency was applied to AECOM base costs of \$6.71 million, the total efficient cost would still only be \$10.47 million. The above information is tabulated in Table 3.8.

		Total contingencies and allowances	
Valuation source	Amount	35% (IPART Recommended)	56%
THSC June 2015 Application	26.2	N/A	N/A
THSC Jan 2016 Revision	24.7	N/A	N/A
AECOM Base Amount	6.71	9.06	10.47

Table 3.8 Transport Infrastructure (5 roads) Valuation (\$ million)

We maintain that the efficient cost for the 5 roads, based on AECOM's estimate of base costs and IPART's standard rate of allowances, is \$9.06 million. Therefore, we recommend the removal of \$17.15 million (\$26.2 million – \$9.06 million) of transport infrastructure costs.

Cost assessment for the Boundary Road bridge

The cost of the Boundary Road bridge, identified as BR-BRU in CP15, is based on an estimate contained in the *Boundary Road Strategic Concept Design Study*.⁷² The study includes detailed design and cost estimates for the Boundary Road bridge and we consider the cost in CP15 is reasonable.

⁶⁹ CP15 Works Schedule.

⁷⁰ Email correspondence from THSC, Response to Draft Final Report, 5 January 2016.

⁷¹ THSC has noted that AECOM recommends contingencies and allowances totalling 56% and that this would give an efficient cost of \$14.2 million. (Source: email correspondence from THSC, Response to Draft Final Report, 5 January 2016.) However there may be some double counting involved as the figure of \$14.2 million is the same to one decimal place as applying 56% contingencies and allowances to our estimate of the reasonable costs of \$9.06 million (instead of \$6.71 million), as the \$9.06 million figure already contains contingencies and allowances.

⁷² AECOM, Boundary Road Strategic Concept Design Study, February 2013.

Cost assessment of the Annangrove Road upgrade

THSC has costed the Annangrove Road upgrade using preliminary in-house engineering advice. The cost of the Annangrove Road upgrade is apportioned equally between CP15 and *Contributions Plan No 11 – Annangrove Road Light Industry* (CP11).

The engineering advice provides a breakdown of the Annangrove Road upgrade by sub items and determines the cost using a "bottom up" approach (ie, building up the cost). We consider this approach is reasonable.

The cost estimate includes a 10% contingency allowance and costs for service relocations. We consider this is reasonable.

Cost assessment of other transport infrastructure items

We also found THSC's approach to costing the remaining transport infrastructure items in CP15 is reasonable. This includes:

- all signalised intersections based on AECOM Report cost estimates
- bridges based on AECOM Report cost estimates
- the Edwards Road bridge over Smalls Creek based on the costs contained in CP13 (North Kellyville), which has 66% of capital costs apportioned to CP15 and 34% of capital costs and all land costs apportioned to CP13
- ▼ bus stops based on the cost from IPART's Benchmark Report (these provide reasonable estimates of the costs of these works where location-specific estimates are not available), and
- cycleways based on the council's tender rates.

3.3.4 Cost of stormwater infrastructure

IPART Finding

8 THSC's use of the JW Prince Study and updated AECOM cost estimates for stormwater infrastructure is reasonable.

Cost of stormwater infrastructure in CP15

CP15 includes around \$77.9 million in capital costs for stormwater infrastructure. The majority of stormwater infrastructure items are based on cost estimates from the JWP Study (November 2012). Stormwater infrastructure costs are split between the two catchments, with the Killarney Chain of Ponds Catchment containing \$76.9 million worth of works and the Second Ponds Creek Catchment containing \$1.0 million worth of works.⁷³

⁷³ CP15 Section 1.

Cost assessment of stormwater infrastructure

We consider that THSC's approach to cost stormwater infrastructure is reasonable.

Although there were minor cost and design differences for some basins between CP15 and the technical studies, THSC provided updated AECOM cost estimates to explain the differences.⁷⁴

3.3.5 Cost of open space embellishment

IPART Finding

9 THSC's use of the AECOM Report's cost estimates for Parks 1 to 6 is reasonable.

Cost assessment of open space embellishment

For Parks 1 to 6 (containing active open space), THSC's use of the AECOM Report's cost per square meter is reasonable. However, as discussed in Section 3.2.1 there is currently an oversupply of active open space land in CP15.

3.3.6 Contingency allowances

IPART Findings

- 10 THSC's contingency allowance for some transport infrastructure of 30%, which is based on IPART's recommended allowances for this category at the Strategic Review project stage, does not align with the reduced risk suggested by the detailed designs and cost estimates in the technical studies.
- 11 The contingency allowance of 15% for stormwater infrastructure, based on cost estimates in the JWP Study (November 2012), is reasonable.

Recommendation

- 6 Given the reduced risk associated with the availability of detailed designs and cost estimates, THSC reduces the contingency allowance for:
 - Those transport infrastructure projects with contingencies listed at 30% to 20%. This will reduce the cost of essential transport works in CP15 by \$3,970,423.

⁷⁴ The Hills Shire Council, Response to IPART queries, 1 October 2014, pp 15-16.

3 Assessment of Contributions Plan No 15

Transport and open space

For transport infrastructure, THSC has added a 30% contingency to the base cost for many of the transport infrastructure items.⁷⁵ These rates are based on the recommended contingency allowances for the Strategic Review stage from IPART's Benchmark Report.

In that report, we recommended that councils at the Strategic Review stage should apply a 30% contingency allowance for transport infrastructure to reflect the risk at the Strategic Review stage. We recommended that the transport contingency allowance be reduced to 20% once the project had progressed to the Business Case stage. The lower contingency reflects the lower risk at the Business Case stage. Box 3.2 explains the basis for our recommended contingency allowances and the definitions of the relevant planning stages.

⁷⁵ This excludes the Boundary Road and Annangrove Road upgrades, and Edwards Road bridge over Smalls Creek. The base cost rate for the Boundary Road already includes the contingency allowance. The Annangrove Road upgrade includes a contingency allowance of 10%. The Edwards Road bridge includes a contingency allowance of 15%. Source: The Hills Shire Council, Response to IPART queries, 4 November 2014 and CP15 Works Schedule.

Box 3.2 Basis for IPART's recommended contingency allowances in the Local Infrastructure Benchmark Costs report

In IPART's Benchmark Report, we considered contingencies which would address the most likely outcomes at the Strategic Review and the Business Case stages. The stages were defined as follows:

- Strategic Review stage: Specified the general requirements for infrastructure and investigated options to achieve the desired outcome, for example, the size of a park and the associated embellishments to be provided to meet the needs of the development.
- ▼ **Business Case stage:** Undertaken detailed planning and design of a preferred option to the point where tenders could be called for its delivery. This includes:
 - detailed planning documents such as environmental approvals, land acquisition schedules and community consultation outcomes, for example, studies showing the exact land to be acquired and whether there are any site constraints in delivering the infrastructure, and
 - preliminary designs and quantity estimates for the infrastructure, for example, engineering drawings as well as a bill of quantities based on adjusted historical costs.

As the council progresses from the Strategic Review to the Business Case Gateway process, it will be able to transfer some of the risk provisions from the contingency allowance to the base cost estimate as those risks materialise. This ensures that the base costs do not 'double count' provisions for risk events that have been previously included in the contingency allowance for the infrastructure delivery.

After these two gateways, councils will have more accurate information to estimate infrastructure costs, and would be unlikely to use IPART's benchmark costs.

Source: IPART's IPART, Local Infrastructure Benchmark Cost – costing infrastructure in Local Infrastructure Plans – Final Report, April 2014, pp 54-59.

In IPART's Benchmark Report, we also recommended that councils should carefully consider the stage of the planning process and the information that they have available to them. In particular, councils should:

- take account of the development phase and particular risks of the project
- target the most likely outcome, and
- avoid double-counting of risk events.⁷⁶

⁷⁶ IPART, Local Infrastructure Benchmark Cost – costing infrastructure in Local Infrastructure Plans – Final Report, April 2014, p 59.

THSC advised IPART that it applied the contingency allowances at the Strategic Review stage because the designs it has prepared are of a preliminary and strategic nature only.⁷⁷

However, we consider that there is evidence in the technical studies that THSC has moved beyond the Strategic Review stage for the transport and open space infrastructure categories. We note that the most recent AECOM Report commissioned for traffic management and open space infrastructure by THSC (January 2014) stated that AECOM was engaged to "further refine the design of essential infrastructure" and "provide the council with suitable graphic site plans and accompanying opinions of probable cost".⁷⁸ Further, the council has prepared detailed land acquisition schedules and quantity surveyor estimates of costs for open space and transport infrastructure.

In addition, the council has not undertaken any specific risk assessment of the infrastructure and site requirements to warrant a higher contingency amount.

For these reasons, we consider that the contingency allowances should be reduced from 30% to 20% for all transport infrastructure. This would reduce the cost of transport infrastructure by \$3.97 million.⁷⁹

Stormwater

THSC has not applied a separate contingency allowance to stormwater. This is because the cost estimates contained in the JWP Studies included a 15% contingency allowance. We consider this approach is reasonable as it is informed by site-specific assessments.

3.3.7 Administration costs

IPART Finding

12 The inclusion of administration costs in CP15, based on the allowance of 1.5% of capital works costs, is reasonable.

Recommendation

7 The council recalculates the administration charge using 1.5% of the reduced costs of CP15 recommended in this assessment.

⁷⁷ The Hills Shire Council, Response to IPART queries, 1 October 2014, pp 14-15.

⁷⁸ AECOM, Traffic Management & Open Space Strategic Design – Box Hill and Box Hill Industrial Precinct, January 2014, p 6.

⁷⁹ This reduction does not include the impact of reducing base costs from our recommendations to use AECOM costs.

CP15 includes around \$4.4 million for plan administration costs, which is based on IPART's Benchmark Report recommendation of a 1.5% allowance of the value of capital works.⁸⁰ IPART considers THSC approach of applying 1.5% of capital works value as administration cost is reasonable. However, we note that when THSC applies the reductions in capital expenditure recommended in this assessment the quantum of the administration costs should be reduced accordingly. THSC has advised that should the Minister adopt IPART's recommendations, THSC will amend the administration costs accordingly.

3.3.8 The NPV model

IPART Finding

- 13 THSC's NPV model assumptions to determine the contributions in CP15 are reasonable, including the application of:
 - the 20-day average of the 10-year NSW Treasury bond yield to determine the nominal discount rate
 - the long term historical average of the ABS Established House Price Index (Sydney) to escalate land costs
 - the long term historical average of the Producer Price Index (Non-Residential Building Construction) to escalate works costs, and
 - the midpoint of the Reserve Bank of Australia's target range for CPI to escalate administration costs and revenues.

Recommendation

8 THSC considers escalating the contribution rate in the NPV model at the council's assumed cost of capital, which is the same as the discount rate currently applied in the NPV model.

CP15 uses a Net Present Value (NPV) model to calculate development contributions. IPART has previously reviewed three contributions plans from THSC which also used an NPV methodology to calculate the contributions payable by developers.⁸¹ The NPV model accounts for the time difference between the costs the council incurs in constructing infrastructure and the receipt of development contributions. The NPV model operates by discounting future receipts and payments to present values through use of a discount rate, based on the cost of funds. The formula used by THSC is displayed in Box 3.3.

⁸⁰ CP15 Section 1.

⁸¹ IPART, Assessment of The Hills Shire Council's Contributions Plan No 13, October 2011. IPART, Assessment of The Hills Shire Council's Contributions Plan No 12, October 2011 and Assessment of The Hills Shire Council's Contributions Plan No 16– Box Hill North Precinct, September 2015.

Box 3.3 Formula for calculating the NPV of contribution rates under CP15

PV(Costs) = PV(Revenue)

$$PV(\cos ts) = N_1 * DC + \frac{N_2 * DC}{(1+r)} + \dots + \frac{N_t * DC}{(1+r)^{t-1}}$$

Where: N (i)	 No. of people in year (i)
DC	= development contribution (\$ in year 1 of CP)
r	= discount rate (%)
t	= time in years

Note: Our correction to (t-1) compared with "t" in CP15. **Source:** CP15 Section 2.20.

We note that the council has used nominal values in its NPV model. We recognise that the Technical Paper allows the use of nominal values, provided that the escalation rates are realistic and consistently applied.⁸²

3.3.9 Assumptions used in CP15's NPV model

The assumptions used in CP15's NPV model include the following:

- The use of a nominal discount rate of 4.5% based on the 20-day average of the 10-year NSW Treasury Corporation bond yield.
- The use of nominal estimates of costs and revenues instead of real estimates (nominal approach). This requires the use of escalation assumptions to forecast costs and revenues to nominal values before discounting them to present values. CP15's assumptions on forecasting costs and revenues are as follows:
 - Land costs are escalated based on the council's forecast of the ABS Established House Price Index (Sydney).
 - Works costs are escalated based on the council's forecast of the ABS Producer Price Index (PPI) (Non-residential Building Construction).
 - Administration costs and revenues are escalated using the midpoint of the Reserve Bank of Australia's target range for CPI.

⁸² IPART, Modelling local development contributions in a present value framework - Technical Paper, February 2016, p2.

3.3.10 Our assessment of the assumptions used in the NPV model

The nominal discount rate

In accordance with the recommendations in IPART's 2012 NPV Technical Paper, CP15 uses a 20-day average of the NSW Treasury 10-year bond yields as the basis of its discount rate (based on March 2014 data).⁸³ However, we have updated this technical paper⁸⁴ and now propose that the discount rate be calculated as the midpoint of the 10-year Commonwealth bond rate and the Corporate A bond rate. To this we also suggest adding a 12.5 basis point (0.125%) as a debt raising margin.

Under our updated approach, the Commonwealth rate and the Corporate A rate are themselves both taken to be the average of their respective 10-year averages and 2-month averages. It would be preferable if THSC calculated the discount rate using IPART's updated methodology in future contribution plans. It is open to THSC to recalculate CP15 contribution rates using this methodology.

Land acquisition costs

We consider that it is reasonable for THSC to use the ABS Established House Price Index (Sydney) to forecast land costs in the NPV model. In our past reviews of THSC's plans, we recommended that land costs be escalated using a land value index based on NSW Land and Property Information (LPI) land value data.⁸⁵ However, we consider that without a readily available land value index, it is reasonable that CP15 escalates land costs using the ABS Established House Price Index (Sydney). This is because:

- movements in NSW Land and Property Information (LPI) land value data and the ABS Established House Price Index (Sydney) closely align with one another from 1999 to 2012, and
- it could be difficult for the council to construct a land value index based on NSW Land and Property Information (LPI) land value data.

In IPART's Benchmark Report, we recommended that a land value index be prepared by the NSW Valuer General, and if it becomes available, it be used by councils to escalate land acquisition costs.⁸⁶ At this stage, it remains uncertain as to whether such an index will be developed.

⁸³ IPART, Modelling local development contributions, Selection of a discount rate for councils that use an NPV methodology - Final Technical Paper, (NPV Technical Paper), February 2016.

⁸⁴ IPART, Modelling local development contributions in a present value framework - Technical Paper, February 2016.

⁸⁵ IPART, Assessment of The Hills Shire Council's Contributions Plan No 12 – Balmoral Road Release Area, October 2011, p 46 and IPART, Assessment of The Hills Shire Council's Contributions Plan No 13 – North Kellyville Precinct, October 2011, p 39.

⁸⁶ IPART, Local Infrastructure Benchmark Cost – costing infrastructure in Local Infrastructure Plans – Final Report, April 2014, p 85.

Revenue

CP15 uses the midpoint of the Reserve Bank of Australia (RBA) target range for consumer price inflation (2.5%) for its revenue forecasts. The use of 2.5% CPI (All Groups) is consistent with the approach in CP12 (Balmoral Road), CP13 (North Kellyville) and CP16 (Box Hill North).⁸⁷

However, not using an escalation rate that is equal to the council's cost of funds (discount rate) for development contributions leads to a revenue risk for THSC and distorts the price signal to developers by providing an incentive to delay development.

Removing development delay risk

If council were to set the escalation rate for development contributions at its cost of funds (discount rate), it will remove the revenue risk it faces from delayed development and reduce the price incentive for developers to delay construction.⁸⁸

Notwithstanding that councils are allowed to apply CPI escalation to the contribution rates, we would prefer if council reconsidered its NPV formula in line with a more standard approach as displayed in Box 3.4. The approach in Box 3.4 is the same as what we recommend in our current technical paper.⁸⁹

Box 3.4 THSC NPV model formula

 $PV(Costs) = PV(Revenue) = H_0 \times DC + \frac{H_1 \times DC \times (1+i)^1}{(1+r)^1} + \frac{H_2 \times DC(1+i)^2}{(1+r)^2} + \dots + \frac{H_n \times D(1+i)^n}{(1+r)^n}$

Where:

 $H_n =$ Number of hectares developed in year *n*

DC = The development contribution

i = r

r = the time value of money which has been determined to be the midpoint of the 10-year Commonwealth bond rate and the Corporate A bond rate plus a debt raising margin. The Commonwealth rate and the Corporate A rate are themselves both taken to be the average of their respective 10-year averages and 2-month averages.

⁸⁷ IPART, Assessment of The Hills Shire Council's Contributions Plan No 12 – Balmoral Road Release Area, October 2011, p 46 and IPART, Assessment of The Hills Shire Council's Contributions Plan No 13 – North Kellyville Precinct, October 2011, p 39.

⁸⁸ Assuming all blocks in the precinct eventually receive development approval.

⁸⁹ IPART, Modelling local development contributions in a present value framework - Technical Paper, February 2016, p 5.

The formula in Box 3.4 provides for a real contribution escalation rate that can be set at the same level as the council's opportunity cost of capital (discount rate). In the formula above this would see i = r.

This approach is symmetrical in council realising its required revenue. If development happens to occur earlier than expected, the lowering of real revenue will be completely offset by a lowering in the councils' total cost of funds for CP15. THSC agrees that this approach does remove development delay risk from the contribution plan.

However, THSC states that its objective is to pay down debt as quickly as possible and prefers to maintain the current escalation rate of 2.5% and receive more money in the early years, rather than the later years of the plan.

As the use of the NPV model and selection of contribution rates is currently a voluntary matter for the councils, this matter needs no further action.

3.4 Criterion 4: Timing

IPART Finding

14 The 25-year time frame for CP15 is consistent with the time frame for the provision of water and sewerage infrastructure and is considered reasonable.

3.4.1 Timing of infrastructure delivery

Table 3.9 shows the proposed timing of land acquisitions and works for each infrastructure category in the Box Hill Precinct. THSC's strategy is to acquire the land for all infrastructure by 2021-22. It will commence the infrastructure works in 2016-17, with overlapping staging of infrastructure for stormwater, transport and open space. Embellishment for all open space will be carried out over the long-term, with completion planned for 2037-38.

By 2037-38, all infrastructure works should have been completed in the Precinct. Table 3.9 charts the staging of infrastructure provision and the estimated rate of development.

Infrastructure category	Timing
Transport	THSC will acquire all of the land for transport infrastructure within the first eight years of development (by 2021-22). Transport infrastructure will be provided over ten years (from 2018-19 to 2027-28).
Open space	THSC will acquire all of the land for open space within the first seven years of development (by 2020-21). Open space infrastructure will be provided from 2019-20 to 2037-38.
Stormwater	 THSC will acquire all of the land for stormwater infrastructure within the first eight years of development (by 2021-22). Stormwater infrastructure will be provided in the: KCP Catchment over 10 years from 2016-17. SPC Catchment over three years from 2025-26.

Table 3.9 Expected timing of land acquisition and infrastructure delivery in CP15

Note: THSC has assumed year 1 to be 2014-15 in its timeframe assumptions and modelling of contributions. **Source:** CP15, p 54.

3.4.2 Development timeframe

The development path assumed in CP15 is over a 25-year timeframe. We consider this is reasonable.

Figure 3.2 Proposed expenditure per year (2013-14 to 2036-37), by infrastructure category (\$m) and development timeframe



Data source: CP15 Table 17, and IPART calculations.

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3.5 Criterion 5: Apportionment

Apportionment refers to the share of the relevant costs of public amenities and services that is borne by the future development. The concept of apportionment is based on ensuring that developers pay only for the portion of demand that results from their new development. While nexus is about establishing a relationship between the development and demand for infrastructure, apportionment is about quantifying the extent of the relationship by ensuring that costs are shared appropriately between new and existing developments.

Apportionment should take into account and quantify:

- the demand generated by different types of development covered by a contributions plan, including residents in new dwellings, workers in new workplaces and visitors in tourist accommodation
- the capacity of existing infrastructure
- the proportional needs of the existing population, if any, and
- demand for infrastructure in the plan arising from existing or expected development outside the development area.

IPART must advise whether costs have been divided equitably between those who will benefit from the infrastructure. Costs can be apportioned between:

- existing and new development
- different residential development densities
- residential and non-residential uses, and
- demand from development within and outside the precinct.

We found that most of the costs have been reasonably apportioned in CP15 to the expected development within the Box Hill Precinct. However, we consider that the apportionment of some costs should be revised:

- Council has voluntarily chosen to exempt 33.64 hectares of land from paying a development contribution.⁹⁰ In doing so council has apportioned the cost to other developers. As discussed in section 3.5.3, these 33.64 hectares should be included in the precinct NDA, which will lower development contributions.
- Similarly, THSC should include the 8.13 hectares of land for a proposed Catholic primary school site in the total precinct NDA for cost allocation purposes.⁹¹ This matter is discussed in more detail in section 3.5.4 and THSC has recognised this error and will address it.

⁹⁰ This comprises 15.31 hectares of proposed disabled housing, along with 18.33 hectares of planned and potential State School sites. Source: THSC Email correspondence 10 September 2015.

⁹¹ THSC Email correspondence 10 September 2015.

3.5.1 How infrastructure costs are apportioned in CP15

Table 3.10 summarises how infrastructure costs are apportioned in CP15. This includes consideration of:

- existing population
- ▼ infrastructure needs, including infrastructure outside the precinct but required for the precinct (eg, access bridges), and
- apportionment between the new development and an offsite development area.

Infrastructure	Does it service the existing development?	How is it apportioned?	What is the apportionment catchment size?	Any offsite infrastructure or apportionment to offsite development area?
Transport	No	To all new development	729.0 ha	Yes, CP15 includes: Edwards Road bridge over Smalls Creek (shared with CP13 North Kellyville)
				Annangrove Road upgrade (shared with CP11 Annangrove Road Light Industry)
Stormwater	No	To all new development	Two separate catchments: Killarney Chain-of- Ponds (635.4 ha) Second Ponds Creek (55.5 ha)	No
Open space	No	To residential development only	647.7 ha	No
Administration	No	To all new development	729.0 ha	No

Table 3.10 How infrastructure costs in are apportioned CP15

Source: Assessment of The Hills Shire Council's Section 94 Contributions Plan No15, December 2014, p 55. and email from THSC 10 September 2015.

3.5.2 Exclusion of existing residential areas in the Box Hill Precinct

IPART Finding

15 THSC's approach to apportioning the cost of infrastructure in CP15 to new development only is reasonable.

THSC has not apportioned any costs in the plan to existing development in the Precinct (some 934 residents) and has granted a credit of 450m² to existing dwellings. This means that the developer can gain a credit against contributions payable when redeveloping existing sites (eg, subdivision).

We consider that the exclusion of the existing developed area in the apportionment calculations is reasonable. The infrastructure in the plan is based on the expected needs of future development in the Precinct and the technical studies have considered the existing demand and capacity of existing infrastructure in assessing new infrastructure requirements.

3.5.3 Apportionment of exempted development costs

IPART Finding

16 THSC has not included all the developable land within CP15 in its calculations for cost allocation purposes.

From time to time the Minister for Planning may issue a section 94E direction exempting certain development types from paying development contributions to councils.⁹² Where this occurs the council has no option, and it is reasonable for this area of land to be excluded from the NDA of the contribution plan for cost allocation purposes. This spreads the cost across the rest of the development in that plan.

There are four planned or proposed school sites in CP15. This includes a planned 7.68 hectare site for a state primary school; and another 7.22 hectare and 3.43 hectare for two other proposed state primary schools, which is yet to be rezoned; Lastly, there is a 8.13 hectare site for a proposed Catholic school.⁹³

Council intends to exempt the three State school sites totalling 18.33 hectares from development contributions. Council has also identified 15.31 hectares of disabled housing that it intends to exempt from development contributions.⁹⁴

However, there are currently no section 94E directions in relation to any developments such as schools, aged housing, disabled housing or other similar developments.

As such, council is at liberty to charge the developers of these sites or not. In these circumstances, we consider that council should bear the cost of these voluntary exemptions and not pass the cost onto other developers.

⁹² Environmental Planning and Assessment Act 1979 (Section 94E-Directions by the Minister).

⁹³ Email correspondence from THSC, Response to Draft Final Report, 5 January 2016.

⁹⁴ THSC Email correspondence 10 September 2015.

Including this developable land will result in an increase of the NDA for cost allocation purposes and therefore, all other things being equal, the contribution rate for all developers will be lower than would otherwise be the case. This recommendation is estimated to reduce the contribution rates by approximately 4.4%.⁹⁵

Recommendation

9 THSC should include all land it intends to exempt voluntarily from development contributions in the total NDA of CP15 for cost allocation purposes.

3.5.4 Exclusion of proposed Catholic school site from the precinct NDA

IPART Finding

17 THSC has not included in CP15 the area of proposed Catholic school site within the total precinct NDA for cost allocation purposes.

In contrast to the two state school sites, THSC has not provided an exemption for the proposed Catholic school site and will require a development contribution from the Catholic Education Office in the event that a development application for the use is approved. However, THSC has excluded the 8.13 hectares in the total precinct NDA of CP15 for cost allocation purposes.

The cost of CP15 attributable to the proposed Catholic school (8.13 ha) is currently spread across all other developers. However, when the Catholic school is eventually developed, the Catholic Education Office will be charged a development contribution.

All other things being equal, this will mean that THSC will over recover development contributions in CP15 by the amount of development contributions it levies on the Catholic school site. Including the Catholic school site's 8.13 hectares in the total precinct NDA will reduce development contributions on average by a further 1.1%%.

Recommendation

10 THSC should include the 8.13 hectares of the proposed Catholic school site in the total precinct NDA for cost allocation purposes. This will lower the development contribution to all sites in CP15 and avoid over-recovery of development contributions. THSC has acknowledged that this is an error and will rectify it.

⁹⁵ The NDA will rise from 728.99 hectares to 762.63 hectares when the exempted properties are included back into the NDA.

⁹⁶ The NDA of the Precinct will rise from 762.6 hectares (including exempted properties) to 770.8 hectares when the Catholic school site is included.

3.5.5 Transport

IPART Finding

18 THSC's approach to apportioning the cost of transport infrastructure is reasonable.

The demand for transport infrastructure is driven by the expected residential (30,687 residents) and non-residential population (17,789 jobs) within the Precinct. Therefore, the costs for transport infrastructure are apportioned between both residential and non-residential development.⁹⁷

CP15 apportions transport infrastructure costs between residential and non-residential development based on net developable area (NDA).

There are two items that have been apportioned between the Box Hill Precinct and other Precincts:

- Annangrove Road upgrade (including a signalised intersection) at The Water Lane, with 50% of the capital costs apportioned to CP11, and
- the bridge at Edwards Road over Smalls Creek, with 34% of the cost of works apportioned to CP13 (North Kellyville).

Assessment of transport infrastructure in the Precinct

We consider it is reasonable for transport infrastructure costs to be apportioned on per hectare of NDA between residential and non-residential land (ie, across 729.0 hectares of NDA in the Precinct).

The demand for transport infrastructure is driven by both residential and nonresidential development. Therefore, it is reasonable for total transport costs to be first divided between these broad categories of development based on the respective shares of NDA in the Precinct.

Once the costs have been allocated to residential and non-residential sectors, these allocated costs are then apportioned within these groups.

Residential costs are allocated on a per person basis and then multiplied by the deemed dwelling type occupation rates (Table 2.5). This enables the contribution plan to arrive at a cost apportionment per residential property type.

⁹⁷ CP15 Table 4 and Table 11.

For non-residential properties, the cost apportionment within this group is on a gross floor area (GFA) basis. The NDA of a non-residential property only considers the surface level or land area. It does not make allowance for the ratio of floor area to open space, nor does it consider the difference in infrastructure demand between a single level and a multi-story non-residential development on the same land area. The number of persons using the transport infrastructure to and from any non-residential site is more likely to be determined by the GFA rather than the NDA. Therefore, IPART considers non-residential apportionment for transport based on GFA is reasonable.

Assessment of Edwards Road bridge over Smalls Creek undergoing further analysis

Council has apportioned the costs of the Edwards Road bridge over Smalls Creek between CP15 and CP13⁹⁸ (North Kellyville) based on the relative share of the incoming residents between both Precincts.⁹⁹

Both the council and IPART received submissions from a stakeholder with land in the Box Hill precinct who was of the view that this bridge was primarily for the benefit of North Kellyville residents to access major transport routes and commercial centres through the Box Hill precinct. On this basis, the stakeholder considered that a far greater proportion of the costs should be allocated to North Kellyville (CP13) and a lower proportion to Box Hill (CP15).

IPART has investigated the matter further with THSC and is satisfied that in relation to:

- Access to commercial centres the shopping centres in both North Kellyville and Box Hill have similar utility. The large regional shopping centre is at Rouse Hill and neither Box Hill nor Kellyville residents need to pass through the other precinct to access it.
- Access to major transport routes Box Hill and North Kellyville neither overlap to the north and south or to the east and west. It is therefore impractical for North Kellyville residents to drive through Box Hill to access major transport routes.
- The bridge is a relatively small two lane bridge that is load limited. It is not designed as a major thoroughfare and only as two-way access for visiting between the two precincts.

IPART considers that the apportionment based on the relative expected population numbers is reasonable.

⁹⁸ The Hills Shire Council's Contributions Plan No 13 – North Kellyville Precinct.

⁹⁹ Box Hill population 30,687 and North Kellyville population 15,563.

3 Assessment of Contributions Plan No 15

Assessment of Annangrove Road upgrade

The cost of the Annangrove Road upgrade is apportioned evenly between CP15 and *Contributions Plan No 11 – Annangrove Road Light Industrial Area* (CP11). THSC provided preliminary engineering advice on how the road upgrade was costed.¹⁰⁰

This apportionment approach for the Annangrove Road upgrade has been contained in CP11 since it was prepared in 2003. The 50:50 approach reflects the fact that the population of both precincts will use the road as it directly bisects the Box Hill Precinct and the Annangrove Road Light Industrial Area.

We note that the relative amount of floor space for employment purposes is also split fairly evenly between the precincts, with around 60% of floor space to CP15 and 40% to CP11.¹⁰¹ However, a significant portion of the floor space in the Box Hill Precinct is located in the business park near Windsor Road and in the centre of the Precinct. As a result, workers are less likely to generate trips along this road. In contrast, employment land in the Annangrove Road Light Industrial area is concentrated along or near Annangrove Road.

For these reasons, we consider that the apportionment of 50% of the costs in CP15 is reasonable.

3.5.6 Stormwater

IPART Finding

19 THSC's approach to apportioning the cost of stormwater infrastructure is reasonable.

The need for stormwater infrastructure is driven by both residential and non-residential land uses. The Precinct is divided into two catchments (see Figure 3.3) for stormwater infrastructure:

- ▼ Killarney Chain of Ponds Catchment (larger catchment 635.35 hectares), and
- Second Ponds Creek Catchment (smaller catchment 55.45 hectares).

THSC has split the Precinct into these two catchments to apportion stormwater infrastructure costs. This is because modelling shows runoff in the Seconds Ponds Creek Catchment will be discharged and serviced offsite, and will require a separate stormwater infrastructure network compared with the runoff to the Killarney Chain of Ponds Catchment.

¹⁰⁰ THSC, Response to IPART queries, 4 November 2014.

¹⁰¹ The total leasable floorspace area is 781,061m² in the Box Hill Precinct and 494,336m² in the *Annangrove Light Industrial Area Contribution Plan* 11, p 19.



Figure 3.3 Stormwater catchments in the Box Hill Precinct

Source: The Hills Shire Council, Contributions Plan No 15 - Box Hill Precinct, August 2014, p 49.

Assessment of stormwater infrastructure apportionment

Stormwater infrastructure design is largely dictated by the size of the catchment area and the rate of run-off. We consider it reasonable to apportion stormwater costs between residential and non-residential developments on a per hectare of NDA basis.

THSC then apportions these costs within the two groups using different methods.

Residential

Once costs have been allocated to the residential sector, they are apportioned within this sector on a per person basis. Whilst land size is an important determinant of stormwater run-off there are a number of other factors such as the ratio of natural to imperious surface and onsite storage and retention.

Both transport and open space costs have been allocated on a per person basis. Both sets of infrastructure generate stormwater run-off, which is proportional to the number of people in the precinct and therefore the size of the infrastructure.

However, in the case of stormwater one person in a unit has a smaller surface area footprint than a person in a detached house. On this basis, an area based charge may be better if there were the same number of people per dwelling type.

However, development contributions are levied per dwelling and this charge is directly affected by the deemed number of people per dwelling. Houses are assumed to have 3.4 occupants whilst every unit, including 3 bedroom units, are levied using an average of 1.85 occupants.¹⁰²

IPART's role is to assess whether the allocation of costs is reasonable. We consider that a reasonable case can be made for allocating stormwater costs either on the basis of NDA or per person. We find THSC approach for residential developments reasonable.

Non-Residential

Whilst the allocation of stormwater costs to non-residential developments is on a NDA basis, council has apportioned costs within the non-residential sector on a GFA basis. The GFA approach is consistent with the cost allocation for transport.

However, on the face of it an eight storey building on a 1,000m² block would generate the same run-off as a single storey building on a 1,000m² block. On this basis, it may be more cost reflective to allocate non-residential stormwater costs on a NDA basis.

There are similar complicating factors around natural and impervious surface areas and the amount of on-site capture and reuse. THSC has stated that it is very difficult and somewhat arbitrary to have two or more different cost apportionment methods for the one sector. IPART has examined this assertion and agrees.

Given this, it is a matter of choosing the best overall method for allocating both transport and stormwater costs to non-residential developments.

¹⁰² See Table 2.5.

IPART considers that either GFA or NDA are reasonable for non-residential developments.

We also consider that the apportionment of stormwater costs in accordance with the two catchments is reasonable. The catchments reflect different stormwater infrastructure needs to accommodate the different water flows in the Precinct, as identified in the JWP Study.

3.5.7 Open space

IPART Finding

20 THSC's approach to apportioning the cost of open space to residential developments and on a per person basis is reasonable.

THSC apportioned the cost of open space on a per person basis to residential developments. This per person allocation is then multiplied by the deemed occupancy rate for the particular dwelling to arrive at the open space component of the development contribution.

Assessment of open space apportionment

The provision of open space land is governed by a number of factors including the number of residents. The Urbis study recommends 70.12 hectares of open space. We consider that, with the exception of the indoor recreation facility, the open space is for the amenity of residents within Box Hill. We therefore find the apportionment of open space costs reasonable.

3.5.8 Administration costs

IPART Finding

21 THSC's approach to allocating administration costs between residential and nonresidential development on a NDA basis is reasonable. Then apportionment between residential developments on a per person basis and the apportionment between non-residential developments on a GFA basis is also reasonable.

Assessment of administration costs apportionment

We consider that THSC's approach is reasonable, and consistent with its approach for apportioning other costs.

3.6 Criterion 6: Consultation

IPART Findings

- 22 THSC conducted appropriate community liaison and publicity in preparation of CP15 in 2012.
- 23 Council amended CP15 significantly both before and following its assessment by IPART. It re-exhibited the contribution plan between March and April 2015. IPART considers this to be the appropriate level of consultation.

IPART must assess whether the council has conducted appropriate community liaison and publicity in preparing the contributions plan.

3.6.1 Our assessment of THSC's consultation for CP15

The Draft Contributions Plan was exhibited from 7 August to 7 September 2012. THSC also wrote to 368 property owners to notify them about the exhibition of the contributions plan, which was available to view on the council's website.¹⁰³

During the exhibition period, THSC received four submissions, with three from the public and one from Roads and Maritime Services (RMS).¹⁰⁴ The submissions raised a number of issues, including:

- the zoning changes that occurred during the Precinct Planning process
- what land is included in the NDA calculation for the Precinct
- the use of works-in-kind agreements, and
- the inclusion or exclusion of specific items from CP15.

THSC provided adequate feedback and incorporated comments from the submissions into CP15. This included clarifying that:

- two sections of Mount Carmel Road (BHRN01B and BHRN02) are classified as a sub-arterial road, and
- Windsor Road and Mount Carmel Road intersection (BHT02) will be funded by the RMS on the 'Location of Facilities' maps in CP15.¹⁰⁵

IPART assessed the CP15 application in December 2014. We commented that there were a number of significant cost and scale changes since the original exhibition of the plan in 2012. IPART recommended that THSC re-exhibit CP15. The council exhibited the amended CP15 between 17 March and 24 April 2015.

¹⁰³ THSC, Ordinary Meeting of Council – 22 July 2014, pp 185-186.

¹⁰⁴ THSC, Ordinary Meeting of Council – 22 July 2014, pp 186-193.

¹⁰⁵ THSC, Ordinary Meeting of Council – 22 July 2014, p 192.
There were two substantive submissions received. The first submission centred on cost allocation between CP15 (Box Hill) and other adjoining precincts. THSC's has considered this submission and reaffirmed its position on apportionment. IPART has examined this submission and is satisfied that the council's approach is reasonable.

The second substantive submission was from the Catholic Education Office. It raised a number of related issues but the primary focus was to seek an exemption from development contributions for its proposed school site (8.13 ha). The submission proposed that it should be treated the same as NSW Government schools, which it believed were given exemptions.

THSC considered this submission but decided not to provide the Catholic Education Office with an exemption.

IPART investigated this matter and finds that THSC has no obligation to provide an exemption to the Catholic Education Office or indeed to NSW Government Schools. This investigation did however reveal an anomaly in the exclusion of the proposed Catholic school site NDA from the total NDA for cost allocation. We have commented and made recommendations on this in section 3.5.4.

The investigation also revealed that the council had or would voluntarily provide exemptions for other developments totalling 33.64 hectares. THSC has spread these costs over all the other developments. We have commented and made recommendations on this in section 3.5.3.

Appendices

A List of Findings and Recommendations

Criterion 1: Essential Works

Finding

1	All infrastructure items in CP15 are on the Essential Works List except for:	25
	 the works for the indoor recreation facility in Park 5, which exceeds the definition of base level embellishment, and 	25
	 expenditure on raingardens, which is a tertiary stormwater treatment strategy and that we assess to be outside the EWL. 	25
Rec	commendations	
1	THSC removes the works for the indoor recreation facility (\$18,176,340) from the cost of essential works in CP15.	25
2	THSC removes the marginal cost of the raingardens (\$11,460,000) from the cost of essential works in CP15.	25
Crit	erion 2: Nexus	
Find	dings	
2	All infrastructure items in CP15 satisfy the nexus criterion except for:	30
	 the provision of land for open space above the minimum recommended level, and 	30
	 the embellishment cost of that excess open space above the minimum recommended level. 	30
3	CP15 contains 12.32 hectares of excess active open space and 9.96 hectares of excess passive open space.	31
4	There is reasonable nexus between transport infrastructure items in CP15 and the expected development in the Box Hill Precinct.	37

A List of Findings and Recommendations

5	There is reasonable nexus between the stormwater infrastructure in CP15 and the expected development in the Box Hill Precinct.	38
Re	commendations	
3	THSC removes the \$26.07 million of costs for 22.28 hectares of excess open space comprising:	30
	 \$14.42 million for 12.32 hectares of excess active open space, and 	30
	 \$11.65 million for 9.96 hectares of excess passive open space. 	30
4	THSC removes the \$30.39 million of costs for 22.28 hectares of excess open space embellishment comprising:	30
	 \$24.41 million for 12.32 hectares of excess active open space embellishment, and 	30
	 \$5.98 million for 9.96 hectares of excess passive open space embellishment. 	30
Cri	terion 3: Reasonable costs	
Fin	ding	
6	THSC's approach to costing land using an independent valuer is reasonable.	40
7	THSC's approach to estimating the cost of transport infrastructure is reasonable, except for the costs for some new main roads, road upgrades and roundabouts which are based on IPART's Benchmark Report. THSC should use the AECOM Report cost estimates for these items as they are more detailed and location-specific.	41
8	THSC's use of the JW Prince Study and updated AECOM cost estimates for stormwater infrastructure is reasonable.	44
9	THSC's use of the AECOM Report's cost estimates for Parks 1 to 6 is reasonable.	45
10	THSC's contingency allowance for some transport infrastructure of 30%, which is based on IPART's recommended allowances for this category at the Strategic Review project stage, does not align with the reduced risk suggested by the detailed designs and cost estimates in the technical studies.	. 45
11	The contingency allowance of 15% for stormwater infrastructure, based on cost estimates in the JWP Study (November 2012), is reasonable.	45
12	The inclusion of administration costs in CP15, based on the allowance of 1.5% of capital works costs, is reasonable.	48

13	THSC's NPV model assumptions to determine the contributions in CP15 are reasonable, including the application of:	49
	 the 20-day average of the 10-year NSW Treasury bond yield to determine the nominal discount rate 	49
	 the long term historical average of the ABS Established House Price Index (Sydney) to escalate land costs 	49
	 the long term historical average of the Producer Price Index (Non- Residential Building Construction) to escalate works costs, and 	49
	 the midpoint of the Reserve Bank of Australia's target range for CPI to escalate administration costs and revenues. 	49
Rec	commendations	
5	THSC uses the base cost estimates for the new main roads, road upgrades and roundabouts in CP15 recommended in the AECOM Report (January 2014) to ensure that the costs are based on site-specific considerations. THSC should also use the IPART recommended contingencies and allowance for these works. This will reduce the cost of essential works in CP15 by \$17,150,158.	
6	Given the reduced risk associated with the availability of detailed designs and cost estimates, THSC reduces the contingency allowance for:	45
	 Those transport infrastructure projects with contingencies listed at 30% to 20%. This will reduce the cost of essential transport works in CP15 by \$3,970,423. 	45
7	The council recalculates the administration charge using 1.5% of the reduced costs of CP15 recommended in this assessment.	48
8	THSC considers escalating the contribution rate in the NPV model at the council's assumed cost of capital, which is the same as the discount rate currently applied in the NPV model.	49

Criterion 4: Timing

Finding

14 The 25-year time frame for CP15 is consistent with the time frame for the provision of water and sewerage infrastructure and is considered reasonable. 53

Criterion 5: Apportionment

Findings

15	THSC's approach to apportioning the cost of infrastructure in CP15 to new development only is reasonable.	57
16	THSC has not included all the developable land within CP15 in its calculations for cost allocation purposes.	58
17	THSC has not included in CP15 the area of proposed Catholic school site within the total precinct NDA for cost allocation purposes.	59
18	THSC's approach to apportioning the cost of transport infrastructure is reasonable.	60
19	THSC's approach to apportioning the cost of stormwater infrastructure is reasonable.	62
20	THSC's approach to apportioning the cost of open space to residential developments and on a per person basis is reasonable.	65
21	THSC's approach to allocating administration costs between residential and non-residential development on a NDA basis is reasonable. Then apportionment between residential developments on a per person basis and the apportionment between non-residential developments on a GFA basis is also reasonable.	65
Rec	commendations	
9	THSC should include all land it intends to exempt voluntarily from development contributions in the total NDA of CP15 for cost allocation purposes.	59
10	THSC should include the 8.13 hectares of the proposed Catholic school site in the total precinct NDA for cost allocation purposes. This will lower the development contribution to all sites in CP15 and avoid over-recovery of development contributions. THSC has acknowledged that this is an error and will rectify it.	59
Crit	terion 6: Consultation	
Find	dings	
22	THSC conducted appropriate community liaison and publicity in preparation of CP15 in 2012.	66
23	Council amended CP15 significantly both before and following its assessment	

Council amended CP15 significantly both before and following its assessment
 by IPART. It re-exhibited the contribution plan between March and April
 2015. IPART considers this to be the appropriate level of consultation.

B | Terms of Reference

Premier of New South Wales RECEIVED 3 0 SEP 2010 OCT 2010 Mr Rod Sims Chairperson Independent Pricing and Regulatory Tribunal PO Box Q290 QVB POST OFFICE NSW 1230 Dear Mr Sims 001 I am writing about the Independent Pricing and Regulatory Tribunal undertaking work to: develop and publish a local government cost index and a productivity factor: assist with the preparation of revised contributions plan guidelines, and to assess and report on reviewable contributions plans against the guidelines and Environmental Planning and Assessment Regulation 2000; and prepare an annual report on the operation of functions delegated to it under the Local Government Act 1993 and assistance it provides to the Minister for Planning and councils under the Environmental Planning and Assessment Regulation 2000. Please find enclosed references under section 9 of the Independent Pricing and Regulatory Tribunal Act 1992 for the Tribunal to undertake this work. If your officers wish to discuss this matter, they should contact Mr Tim Hurst, Executive Director, Infrastructure, Environment and Economic Development Policy, Department of Premier and Cabinet on (02) 9228 5493. Yours sincerely Kristina Keneally MP

Premier

C Assessment of CP15 against the information requirements in Clause 27 of the EP&A Regulation

Sub-clause Location in **CP15** Purpose of the plan. Section 2.4 1(a) 1(b) Land to which the plan applies. Figure 1 1(c) The relationship between the expected types of development in the area to Part C which the plan applies and the demand for additional public amenities and services to meet that development. 1(d) The formulas to be used for determining the section 94 contributions Section 2.20 required for different categories of public amenities and services. 1(e) The section 94 contribution rates for different types of development, as Part A specified in a schedule in the plan. The council's policy concerning the timing of the payment of monetary Sections 2.8 1(g) section 94 contributions, section 94A levies and the imposition of section to 2.12 94 conditions or section 94A conditions that allow deferred or periodic payment. 1(h) A map showing the specific public amenities and services proposed to be Figure 6 and provided by the council, supported by a works schedule that contains an Works estimate of their cost and staging (whether by reference to dates or Schedule thresholds). Table 16 1(i) If the plan authorises monetary section 94 contributions or section 94A Section 2.18. levies paid for different purposes to be pooled and applied progressively for Works those purposes, the priorities for the expenditure of the contributions or Schedule and levies, particularised by reference to the works schedule. Table 17 1A Despite subclause (1) (g), a contributions plan made after the Section 2.14 commencement of this subclause that makes provision for the imposition of conditions under section 94 or 94A of the Act in relation to the issue of a complying development certificate must provide that the payment of monetary section 94 contributions and section 94A levies in accordance with those conditions is to be made before the commencement of any building work or subdivision work authorised by the certificate. 2 In determining the section 94 contribution rates or section 94A levy Sections 2.8 percentages for different types of development, the council must take into to 2.16 consideration the conditions that may be imposed under section 80A (6)(b) (generally) of the Act or section 97 (1) (b) of the Local Government Act 1993. 3 A contributions plan must not contain a provision that authorises monetary N/A section 94 contributions or section 94A levies paid for different purposes to be pooled and applied progressively for those purposes unless the council is satisfied that the pooling and progressive application of the money paid will not unreasonably prejudice the carrying into effect, within a reasonable

Table C.1Assessment of CP15 against the information requirements in
Clause 27 of the EP&A Regulation

time, of the purposes for which the money was originally paid.

D Glossary

ABS	Australian Bureau of Statistics
Apportionment	The division of the costs equitably between all those who will benefit from the infrastructure, including any existing population. Full cost recovery from contributions should only occur where the infrastructure is provided to meet the demand from new development only.
Base level embellishment	 Base level embellishment of open space is considered to be those works required to bring the open space up to a level where the site is secure and suitable for passive or active recreation. This may include: site regrading utilities servicing basic landscaping (turfing, asphalt and other synthetic playing surfaces, planting, paths) drainage and irrigation basic park structures and equipment (park furniture, toilet facilities and change rooms, shade structures and play equipment) security lighting and local sportsfield floodlighting sportsfields, tennis courts, netball courts, basketball courts (outdoor only)
Condition of development consent	Conditions imposed by a consent authority (eg, council) when approving an application for development.
Contributions cap	The maximum contribution payable by a developer for local infrastructure per residential lot or lot.
Contribution charge	The rate used to calculate the total contributions payable by the developer for different infrastructure categories.

Contributions plan	A plan that a council uses to impose a contribution on new development to help fund the cost of providing new local infrastructure and services to support that development.
CP11	The Hills Shire Council, Section 94 Contributions Plan No 11 – Annangrove Light Industrial Area
CP12	The Hills Shire Council, Section 94 Contributions Plan No 12 – Balmoral Road Release Area
CP13	The Hills Shire Council, Section 94 Contributions Plan No 13 – North Kellyville Precinct
CPI	Consumer Price Index
DP&E	Department of Planning and Environment
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
Essential Works List	The following public amenities or public services are considered essential works:
	- land for open space (for example, parks and sporting facilities) including base level embellishment
	- land for community services (for example, childcare centres and libraries)
	 land and facilities for transport (for example, road works, traffic management and pedestrian and cyclist facilities), but not including carparking
	 land and facilities for stormwater management
	 the costs of plan preparation and administration.
GFA	Gross Floor Area
Greenfield	Undeveloped land that is suitable for urban development, usually located in the fringe areas of existing urban development and requiring significant provision of new infrastructure and services to facilitate development.
Growth Centres Development Code	Growth Centres Commission, <i>Growth Centres Development Code</i> , October 2006.
Growth Centres SEPP	State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Indicative Layout Plan	A plan illustrating the broad land uses, main road pattern, infrastructure requirements, urban connections, activity centres, landscape corridors and stormwater management measures for a precinct.
IPART	Independent Pricing and Regulatory Tribunal
IPART's Benchmark report	IPART, Local Infrastructure Benchmark Costs - Costing Infrastructure in Local Infrastructure Plans - Final Report, April 2014.
Net Developable Area (NDA)	The land occupied by development, including internal streets plus half the width of any adjoining access roads that provide vehicular access, but excluding public open space indicated on the Precinct Plan and other non-residential and non-industrial zoned land.
Nexus	The connection between the demand created by the new development, and the public facilities provided, which is assessed to ensure that equity exists for those funding the facilities.
North West Growth Centre	A group of 16 greenfield development precincts in north west Sydney across 3 local government areas – The Hills Shire Council, Blacktown City Council and Hawkesbury Council.
Plan administration costs	Plan administration costs are those costs directly associated with the preparation and administration of the contributions plan. These costs represent the costs to a council of project
	managing the plan in much the same way as the project management costs that are incorporated into the cost estimates for individual infrastructure items within a plan. Plan administration costs may include:
	managing the plan in much the same way as the project management costs that are incorporated into the cost estimates for individual infrastructure items within a plan.

Precinct Planning	Precinct planning coordinates the planning and delivery of water, wastewater, recycled water, power, roads, transport and other services in time to service new communities in Sydney's Growth Centres.
	Precinct planning involves detailed investigations into appropriate land use options, physical environment constraints and infrastructure requirements.
Reasonableness	Relates to nexus and apportionment criteria.
Riparian	The riparian area is defined as the part of the landscape adjoining rivers and streams that has a direct influence on the water and aquatic ecosystems within them. It includes the stream banks and a strip of land of variable width along the banks.
RMS	Roads and Maritime Services
Section 94 contributions	 Section 94 contributions are imposed by way of a condition of development consent or complying development, and can be satisfied by: dedication of land monetary contribution
	 material public benefit
	- a combination of some or all of the above.
SEPP	State Environmental Planning Policy
SIC	State Infrastructure Contributions
Terms of Reference	Refer to the Terms of Reference received by IPART from the Premier of NSW on 30 September 2010 outlining IPART's role to assist with the preparation of revised contributions plan guidelines, and to assess and report on reviewable contributions plans against the guidelines and EP&A Regulation.
Works-in-kind	The construction or provision of the whole or part of a public facility that is identified in a works schedule in a contributions plan.