IPART Independent Pricing and Regulatory Tribunal | NSW

Assessment of Camden Growth Areas Contributions Plan - Lowes Creek Maryland

Camden Council

Draft Report

September 2023

Local Government »

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders both past and present.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Local Government Committee Members

The Local Government Committee members for this review are:

Deborah Cope, Chair
Sue Weatherley
Tim Moore
Michelle Coco

Enquiries regarding this document should be directed to a staff member:

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Invitation for submissions

IPART invites comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by Tuesday, 24 October 2023

We prefer to receive them electronically via our online submission form.

You can also send comments by mail to:

Assessment of Camden Growth Areas Contributions Plan for Lowes Creek Maryland
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop, Sydney NSW 1240

If you require assistance to make a submission please contact one of the staff members listed above.

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed above.

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The Independent Pricing and Regulatory Tribunal

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1 Executive Summary

Camden Council (the council) submitted the Lowes Creek Maryland Contributions Plan (LCM CP) to IPART to assess in March 2023 (followed by a revised application in May 2023). The council is seeking to levy development contributions above the $30,000 cap per lot/dwelling.

LCM CP forms part of the Camden Growth Areas Contributions Plan, which consists of an overarching document and a technical document with schedules relating to each growth area. This is the first time that IPART is reviewing the LCM CP. However, we have previously assessed the Camden Growth Areas Contributions Plan for Leppington and Leppington North.

We assessed LCM CP against the Department of Planning and Environment's (DPE) Practice Note criteria. We found that the plan meets most of the Practice Note criteria (see Figure 1.1). The reasonable costs and nexus criteria have been partially demonstrated. We have made draft recommendations on how to amend the plan to fully demonstrate these criteria. We have also made some comments about changes that Camden Council has made to the broader Camden Growth Areas Contributions Plan under other matters IPART considers relevant.

Figure 1.1 Summary of our assessment of LCM CP

Essential Works List[a]	Nexus	Reasonable Cost	Reasonable apportionment	Reasonable timeframe	Community consultation	Other matters
Demonstrated	Demonstrated subject to draft recommendation	Demonstrated subject to draft recommendation	Demonstrated	Demonstrated	Demonstrated	Demonstrated subject to draft recommendation

[a] as listed in section 3.2 of the Practice Note

We have made draft recommendations where LCM CP has not completely met the criteria, which are listed below.

We are also seeking comment and clarification from the council on some matters, also listed below.

Draft recommendations

1. Prior to adopting the plan. Camden Council should amend its stormwater work schedule in the LCM CP to list the: 11
   - ancillary stormwater items provided with the transport works 11
   - associated costs of the essential works stormwater items 11

2. Camden Council should ensure that long service levy (which applies to projects that exceed $250,000) is reduced from 0.35% to 0.25%. to reflect the current required rate. 27

3. Camden council should amend the LCM CP to apply an allowance of 5% of land value for land acquisition costs to land across all infrastructure categories in the contributions plan, including open space and community facilities. 41

4. Camden council should update the calculation of plan administration costs (1.5% of works costs) to reflect the updated costs in the plan. 41

5. Prior to adopting the plan, Camden Council should re-issue a new version of the works schedule that reflects the most recent costs for transport items (Collector Road 1, Collector Road 3 and bus stops shown in Table 4.20), as per the revised Mitchell Brandtman quantity surveyor's report 42

6. In its next review of the plan (or within 5 years), Camden Council should review and provide more detailed timing for: 45
   - when land will be acquired 45
   - the delivery of works. 45

7. Camden Council should amend the plan to ensure it reflects the reallocation of stormwater related infrastructure from the transport category. 47

8. We have identified material changes to the Leppington and Leppington North sections of the plan. Camden Council should revert the following sections of the plan to the amendment 1 version: 48
   - dwelling definitions for table 2 48
   - reinstate the section titled "variation to contributions authorised by this plan" (previously section 3.7) 48
   - the annual process for publishing the Land Value Index for Leppington and Leppington North 48

We seek comment from the council on the following:

1. In its response to the Draft Report Camden Council should: 17
   - confirm the proposed widths of the area and costs associated with both the works and land for collector road 3, local road 1 and local road 2 17
   - provide supporting information to demonstrate nexus for the proposed widths, where road specifications differ from the recommendations of the GHD report. 17

2. Camden Council should indicate what is the impact (if any) of reverting the identified material changes to the Camden Growth Areas contributions plan to the amendment 1 version of the document? 48

The total costs proposed in the LCM CP (amendment 3) are around $445 million, but have been reduced due to:

- scope changes to collector and local roads (-$5.6 million)
- changes to land acquisition cost allowances (+$3.3 million)

- a decrease in Long Service Levy allowances (-$195,000)
- a corresponding decrease to plan administration costs (1.5% of works cost)

After implementing these changes, we estimate that the total reasonable cost of works and land in LCM CP will be around **$442 million.**

The corresponding estimated development contribution rate for a detached house is around **$67,500**.[a]

We are seeking feedback on our draft recommendations until 24 October 2023. We have presented the timeline for our assessment of LCM CP in Figure 1.2.

Figure 1.2 Review timeline for LCM CP

[a] Based on a typical occupancy rate of 3.2 people per household.

2 Introduction

The council submitted LCM CP to IPART for assessment in May 2023. It proposes contributions from around $39,000 to $75,000 per residential dwelling.[1]

Because these development contributions are above the $30,000 cap per lot/dwelling, IPART must review LCM CP and provide its assessment to the Minister for Planning and Public Spaces (the Minister). The Minister (or the Minister's nominee) may request the council to make changes to the plan. After the council makes any changes and adopts the plan, the council can levy the uncapped contributions amount. There are currently 3 precincts in the Camden Growth Areas contributions plan:

- Leppington North Precinct
- Leppington Precinct
- Lowes Creek Maryland Precinct (LCM CP).

IPART has previously reviewed and made recommendations to Leppington and Leppington North Contributions precincts in 2018, which are already included in the Camden Growth Areas Contributions Plan.

The Lowes Creek Maryland Contribution Plan (LCM CP) has been included as a third precinct within the Camden Growth Areas Contributions Plan. Our assessment of Camden Growth Areas Contributions Plan has focused on the LCM CP. However, we have noted that Camden Council has made some other changes to the Camden Growth Areas Contributions Plan. Section 4.7.1 discusses this in more detail.

We assessed LCM CP against the Department of Planning and Environment's (DPE) Practice Note criteria:

1. Public amenities and services in the plan are on the **essential works list** as identified within the Practice Note.
2. Public amenities and services are reasonable in terms of **nexus** (i.e. there is a connection between the development and demand created).
3. Development contribution is based on a **reasonable estimate of the cost** of the public amenities and services.
4. Public amenities and services can be provided within a **reasonable timeframe**.
5. Development contribution is based on a **reasonable apportionment** between:
   a. existing and new demand for the public amenities and services, and
   b. different types of development that generate new demand for the public amenities and services (e.g. different types of residential development such as detached dwellings and multi-unit dwellings, and different land uses such as residential, commercial, and industrial).
6. Council has conducted appropriate **community liaison** and publicity in preparing the contributions plan.
7. **Other matters** IPART considers relevant.[2]

Our assessment involved reviewing the contributions plan and supporting documentation, including the works schedule, consultant reports, and correspondence with the council. For more details on our assessment approach, please see our Information Paper.

The remaining sections of this Draft Report provide background information on LCM CP, our assessment of the plan, draft recommendations, and draft recommended contributions rates.

We are seeking feedback on our Draft Report (including our recommendations) until Tuesday, 24 October 2023.

3 The Lowes Creek Maryland Contributions Plan

The Lowes Creek Maryland Contributions Plan (LCM CP) was submitted to IPART in March 2023. The LCM CP is an amendment to the Camden Growth Areas Contributions Plan that was previously reviewed by IPART in 2017, setting out the local infrastructure contributions for the neighbouring suburbs of Leppington and Leppington North.

The LCM plan was then further amended in April 2023 to remove sub-arterial road transport items) that received funding through State Infrastructure Contributions.

In June 2023, IPART submitted a request for information (RFI) to Camden council to clarify certain costs within the plan. In response to this RFI, the council provided more detailed information about the cost of some stormwater infrastructure works that were previously included within transport projects.[3] Scope changes and errors were also identified, resulting in changes to costs for some road items.

In August, the council identified an omission in its calculation of land acquisition costs for open space and community facilities. The council has made an allowance for additional costs associated with acquiring land, such as conveyancing costs and paying compensation to land holders. While the council has made this allowance for land associated with stormwater and transport, it has not done so for land for open space or community facilities. We have made a recommendation to correct this omission.

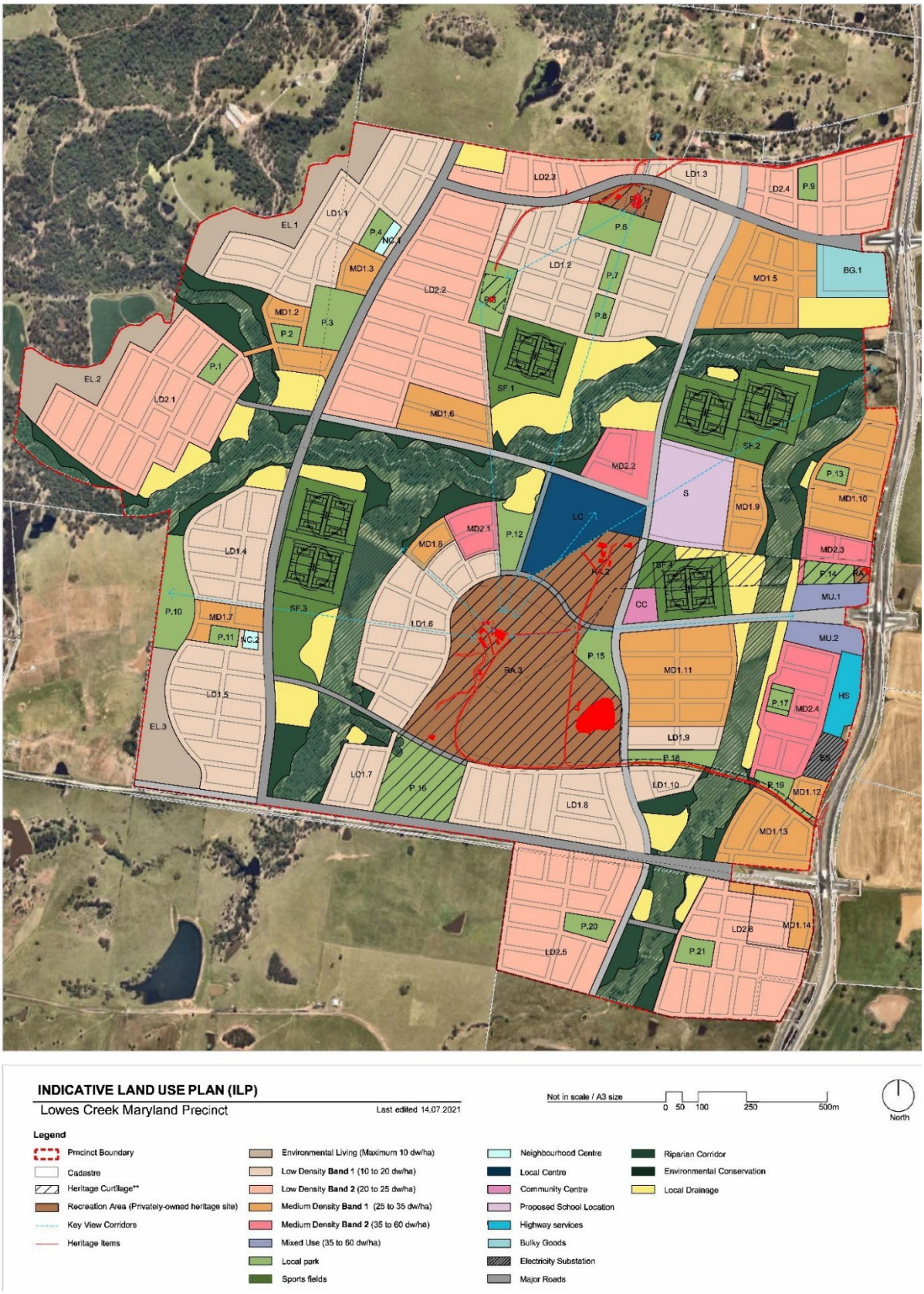
3.1 Overview of development in Lowes Creek Maryland

The Lowes Creek Maryland precinct (the Precinct) is located in Sydney's South West Growth Area approximately 8 kilometres from the future Western Sydney Aerotropolis and 47 kilometres from Parramatta CBD.[4] The area which currently comprises of rural residential and agricultural use,[5] was rezoned on 16 July 2021 to allow additional uses and support increased residential and commercial development.[6] In total the precinct delivers around 265 hectares of net developable area for various uses, including residential, educational, community facility, open space, stormwater management, road network and public infrastructure purposes.[7]

The Precinct is projected to deliver around 7,000 dwellings to support almost 21,000 new residents.[8] It will also include 3.5 hectares of land for purposes such as local and neighbourhood centres, and commercial/retail floor space[9] and around 62 hectares of open space.[10] Figure 3.1 shows the indicative layout plan of the development which illustrates the proposed land use areas within the Precinct.

The Precinct is part of a larger area referred to within the LCM CP as the '*Context Plan Area*'. The Context Plan Area encompasses all the parts of the Bringelly, Lowes Creek and Maryland Precincts that lie to the west of The Northern Road, south of Greendale Road and north of the Oran Park Precinct boundary. A portion of social infrastructure services the broader Context Plan Area.

Figure 3.1 Map of LCM CP Precinct



Source: Camden Council, Camden Growth Areas Contributions Plan Amendment 3 Technical document, page 101.

3.2 Overview of costs proposed in the contributions plan

The council amended the Camden Growth Areas Plan to include the Lowes Creek Maryland Precinct as an additional schedule. The LCM CP proposes around $445 million of development contributions covering the land, works and plan administration items associated with the development in the Lowes Creek Maryland precinct (see Table 3.1).

Appendix A provides a detailed breakdown of costs in the LCM CP.

Table 3.1 Summary of the LCM CP (2023) land and works costs

Infrastructure	Total cost ($ millions)
Open space – land	136.0
Open space – works	96.3
Community facilities - land	1.3
Transport – land	37.1
Transport – works	67.8
Stormwater – land	42.0
Stormwater – works	60.9
Plan administration	3.4
Total	**444.6**

Source: Camden Council, Camden Growth Areas Contributions Plan Amendment 3 Main Document, p 49.

Stormwater works

The plan proposes to deliver around $61 million of stormwater works items in the Precinct.

This includes online, offline and bioretention basins, culverts and gross pollutant traps as well as drainage pipework and pits of various diameters and sizes.

Stormwater infrastructure items and associated costs are summarised in Table 3.1 (above).

Transport works

LCM CP proposes to deliver around $68 million of transport works items within the Precinct.

This includes collector roads, local roads, shared paths, bus shelters, and roundabouts to manage changes to pedestrian and vehicular traffic within the precinct. Transport infrastructure items and associated costs are summarised in Table 3.1 (above).

Open space embellishment

LCM CP proposes around $96 million to embellish local parks and district parks within the area.

The open space embellishment items in LCM CP include landscaping works including playgrounds, sporting fields, amenities, at-grade carparking and fencing. Open space embellishment items and associated costs are summarised in Table 3.1 (above).

Land

LCM CP includes around $216 million in land costs to acquire around 105 hectares of land (shown in Table 3.2). The council has not acquired any of this land to date. Land acquisitions are planned to provide essential stormwater infrastructure, transport infrastructure, open space and community facilities.

Table 3.2 Planned land acquisition LCM CP (2023)

Land required	Area (hectares)	Total cost ($ millions)
Open space – land	61.7	136.0
Community facilities - land	0.9	1.3
Transport – land	12.6	37.1
Stormwater – land	29.7	42.0
Total	**104.9**	**216.3**

Source: Camden Council, Camden Growth Areas Contributions Plan Amendment 3 Technical document, pp 126-128.

Plan administration

LCM CP includes a plan preparation and administration cost of $3.4 million. This is based on 1.5% of the total works cost in the plan.

Indexation

The LCM CP will apply a land value index (LVI) to the cost of all land identified for acquisition in the contributions plan. The LVI does not apply to land which has been acquired and where council is recouping the actual acquisition cost. The cost of land to be recouped by council (i.e. past acquisitions) is proposed to be indexed by CPI.

4 Assessment of LCM CP

This chapter provides our detailed assessment of LCM CP. It includes our assessment of each of the criteria listed in the DPE Practice Note, and our draft recommendations.

We found that LCM CP meets most of the Practice Note criteria. Table 4.1 shows a summary of our assessment of each infrastructure category and issues relating across relevant categories.

Table 4.1 Summary of our assessment of LCM CP (2023)

Criteria	Stormwater	Transport	Open space	Land	Plan administration
Essential works list	Demonstrated	Demonstrated	Demonstrated	Demonstrated	Demonstrated
Nexus	Demonstrated	Partially demonstrated. Seeking clarification about nexus for road specifications that differ from supporting study recommendations	Demonstrated	Partially demonstrated Council to confirm land requirements for amended road specifications	Demonstrated
Reasonable cost	Demonstrated	Demonstrated	Demonstrated	Demonstrated. Land value base rates may be too low.	Demonstrated subject to recommendation
Apportionment	Demonstrated	Demonstrated	Demonstrated	Demonstrated	Demonstrated
Timing	Demonstrated	Demonstrated	Demonstrated	Demonstrated	n/a
Consultation	Demonstrated	Demonstrated.	Demonstrated.	Demonstrated.	Demonstrated.
Other matters	Changes to the broader Camden Growth Areas Contributions Plan.				

4.1 Essential Works List

The items for which council has attached costs in this plan are on the Essential Works List. LCM CP includes a local and district community centre, however only the costs of land acquisition are included in the rates for the plan (consistent with the Essential Works List).

4.1.1 Stormwater

The LCM CP includes around $103 million of stormwater land and works costs comprising:

- 3 online detention basins
- Ancillary stormwater pipework and pits to be constructed within the local road network.
- 13 offline detention basins
- 22 bioretention basins

- Ancillary stormwater works (pits and pipes) to remove water from transport infrastructure.

6 culvert crossings have been included in the transport section. These are considered essential for road function by the council and are therefore considered road infrastructure for the purposes of the plan. A more detailed list of stormwater infrastructure to be provided by the plan is presented in Table A.1 at Appendix A.

These items will collect, transfer and treat stormwater runoff from within the development.

Our assessment is that each of the proposed items is consistent with the 'land and facilities for stormwater management' criteria of the Essential Works List. The items included in the LCM CP's stormwater management costs are outlined in Table 4.2. Land acquisition associated with these items is also included.

Table 4.2 Stormwater infrastructure in CP LCM

Items on the Essential Works List	Items not on the Essential Works List
• Offline and online detention basins • Bioretention basins • Drainage pipework and pits • Land for the above items (29.7 hectares)	N/A

Note: while culvert crossings do serve a stormwater conveyance function, Camden Council has included these within the transport section of certain roads. This is because the roads cannot be constructed without these items.

All items on the stormwater schedule of works are consistent with the Essential Works List. However, important 'ancillary' sub catchment or network infrastructure such as pipework, drain pits or gross pollutants are not listed on the schedule of works. In many cases these appear in the Mitchell Brandtman quantity surveyor's report, in the detailed costings of larger infrastructure items such as roads and basin inlets. For clarity, we consider the schedule of works should be updated to include the ancillary stormwater infrastructure proposed.

Draft recommendation

1. Prior to adopting the plan. Camden Council should amend its stormwater work schedule in the LCM CP to list the:
   - ancillary stormwater items provided with the transport works
   - associated costs of the essential works stormwater items

4.1.2 Transport

The LCM CP includes around $105 million of transport works and associated land. Around $37 million is for land purchases, and $68 million for works.

Table 4.3 shows the proposed transport network for the Lowes Creek Maryland Precinct includes:

- 2 signalised intersections

- 5 roundabouts
- 3 collector roads with 4 culvert crossings
- 3 local roads, 2 with culvert crossings
- bus stops
- cycleway/pedestrian paths with creek crossings

Figure 4.1 shows the proposed transport network for the Lowes Creek Maryland Precinct. The figure also includes three sub-arterial roads and associated intersections which have been removed from the plan after state funding was confirmed for these items.[11]

Three intersections on the Northern Road which provide access to the greater Camden precinct are being provided as part of the Western Sydney Infrastructure Plan and are also not funded by this plan, i.e.:

- Two new sub-arterial road intersections at the northern (Lowes Creek Link Road) and southern (Maryland Link Road) extents of the Precinct
- One new collector road intersection midway between the above mentioned sub-arterial roads providing the main entry to the local centre.

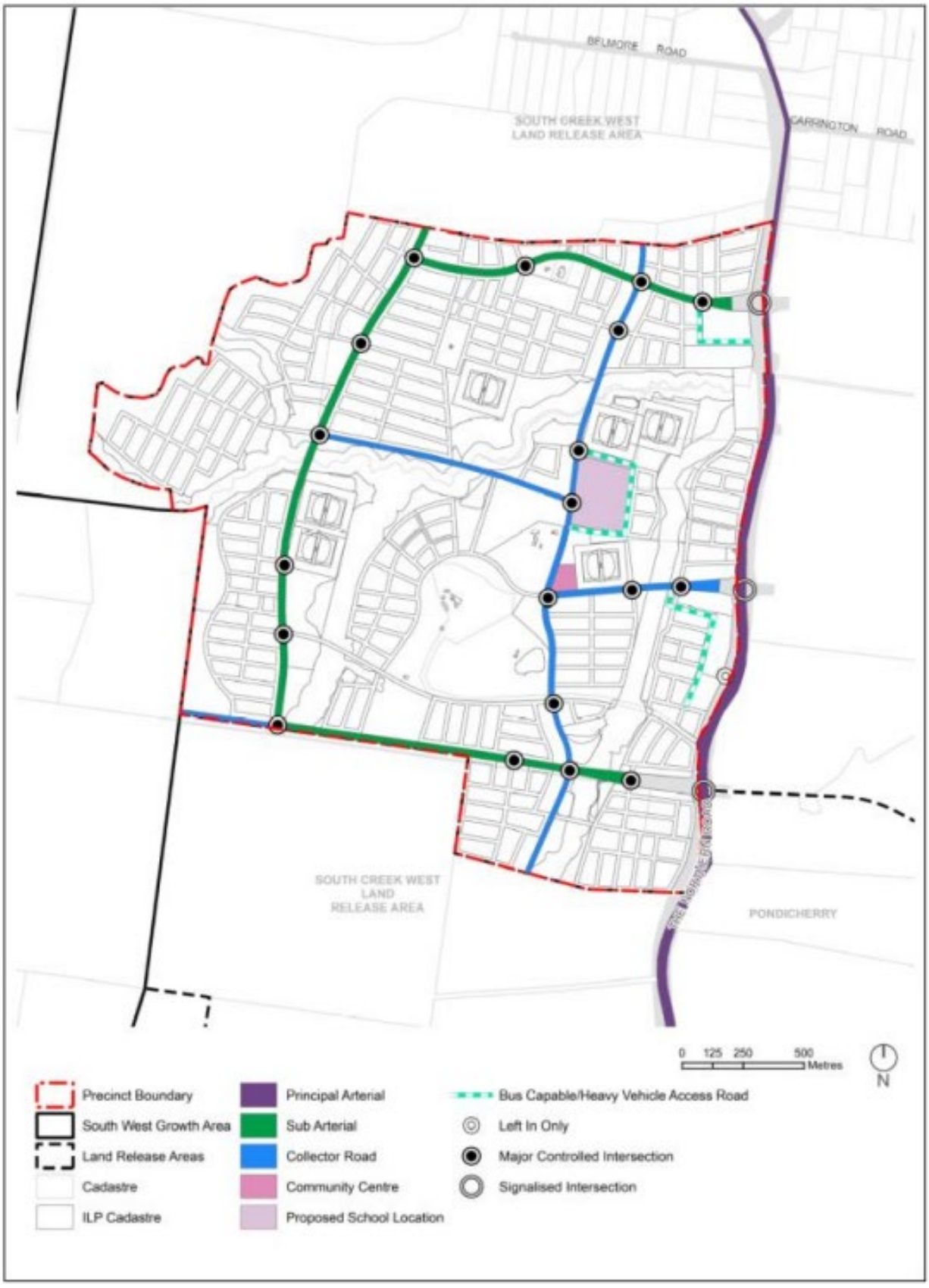
A more detailed list of transport infrastructure to be provided by the plan is presented in Table A.2 at Appendix A.

All proposed transport infrastructure items are consistent with the Essential Works List.

Table 4.3 Transport infrastructure in the LCM CP

Items on the Essential Works List	Items not on the Essential Works List
• Road upgrades and new roads • Roundabouts • Cycleway and pedestrian paths • Signalised intersections • Bus shelters • Land for the above items • Culvert crossings • Land for the above items (12.6 hectares)	N/A

Figure 4.1 Planned transport network within the LCM Precinct



4.1.3 Open space

The LCM CP includes around $96 million of open space in works and $136 million in land costs comprising of:

- 17 local parks (0.5-1.9 hectares)
- 4 district parks (2.6-4.9 hectares)
- 6 double playing fields (5.2-11.3 hectares)
- Carparking facilities that service the recreation area
- Works related to parks such as picnic tables, barbeque facilities, bike paths, play and fitness equipment.

A more detailed list of open space land and embellishments to be provided by the plan is presented in Table A.3 in Appendix A.

Skate and BMX facilities are proposed in the social infrastructure assessment for the precinct. However, the council recognises that these are not base level embellishments as defined in the DPE Practice Note and these facilities were not included within the LCM CP.

The items in Table 4.4 meet the criteria for essential works and base level embellishment as described DPE Practice Note.

Table 4.4 Open space embellishment LCM

Items on the essential works list	Items not on the essential works list
• **Local parks:** playground, picnic tables, bench seats, shade sails, BBQ facilities, • **Multipurpose sporting facility:** playing fields, playgrounds, amenities building, car parking, seating, picnic tables and BBQ • **Land for the above items:** 61.6 hectares	N/A

4.1.4 Land

The council intends to acquire a total of around 104 hectares of land in Lowes Creek Maryland to deliver the planned infrastructure. The breakdown of the land is approximately as follows:

- Social infrastructure: 62 hectares
- Storm water infrastructure: 30 hectares
- Transport infrastructure: 13 hectares
- Community facilities: 1 hectare of land for the Local and District community centre, of which 26% has been apportioned to Lowes Creek Maryland.

No land has yet been acquired by the council.[12] Existing ownership of the Precinct is highly concentrated with six landowners, and a single landowner owning 92% of the site.[13]

4.1.5 Plan administration

A plan administration fee of 1.5% of all works costs is included in the plan. This is used to recover the time and costs associated with preparing and reviewing the contribution plan, including the coordination and negotiation of the works programs, the costs of external consultants commissioned by the council, and the cost of legal services engaged by the council. The council notes that because these costs arise directly as a result of the development in the areas covered by the plan, it is reasonable that the costs associated with preparing and administering this plan be recouped through Section 7.11 contributions.

Plan administration costs are consistent with the Essential Works List.

4.2 Nexus

Currently, Lowes Creek Maryland is a rural area, with a population of 16 people. The redevelopment proposed for the Lowes Creek Maryland precinct includes a maximum of around 7,000 dwellings with a mix of detached dwellings, town houses, low rise apartment buildings and shop top housing, accommodating around 21,000 net additional people. Commercial, and retail development and well as community infrastructure is also proposed for the precinct.

This change to an urban precinct from the existing rural area and the accompanying the change in population, activity and development will generate more demand for infrastructure, which would not be required if the development did not go ahead.

The sections below set out our assessment of nexus for each infrastructure category.

4.2.1 Stormwater

We consider that nexus has been established for the stormwater infrastructure included in LCM CP by the supporting expert studies, that identified the need for augmented capacity of the stormwater infrastructure as a direct result of an increased stormwater volume and pollutant generation of the proposed development.

The stormwater infrastructure needs of the LCM CP were determined based on technical studies that modelled pre- and post-development stormwater flood scenarios, identified flood impacts to the development precinct and prepared concept design of flood and water quality management infrastructure.

The Department of Planning and Environment commissioned Cardno to develop a water cycle management strategy and a water quality strategy to mitigate potential stormwater pollutant impacts and developed a flood evacuation strategy for the Precinct.[14] Storm Consulting and Craig & Rhodes were later engaged by Macarthur Developments, the lead developer in the Precinct, to review and refine the Original Water Cycle Management Strategy and prepare preliminary concept drawings of the site[15].

Both studies undertook flood modelling to ensure that discharges from the Lowes Creek Maryland site do not exceed the pre-development scenario, assess the effectiveness of proposed water quantity, riparian corridor and floodplain management strategies and infrastructure items to meet the council's stormwater quantity and quality objectives. Cardno's September 2018 report assessed the flood risk management approach. Cost estimates for the infrastructure works were prepared by Mitchell Brandtman quantity surveyors.

Table 4.5 lists these technical studies.

Table 4.5 Technical studies for stormwater works in LCM CP

Author	Title	Date
Cardno	*Lowes Creek Maryland Precinct Water Cycle Management Study*	September 2018
Storm Consulting and Craig & Rhodes	*Lowes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum)*	September 2020
Mitchell Brandtman	*Lowes Creek Maryland Park Contribution Plans Benchmark Estimates*	November 2022

Note: Cardno 2018 study was commissioned by the Department of Planning and Environment. Storm Consulting and Craig & Rhodes were engaged by Macarthur Developments (the precinct proponents). Mitchell Brandtman was commissioned by GLN Planning (a consultant working on behalf of Camden Council).

These studies identified that existing stormwater infrastructure needs to be upgraded to cope with future stormwater flows. New urban areas in Lowes Creek Maryland Precinct will increase the volume of stormwater runoff due to increased impervious areas which are also likely to exacerbate flooding issues and erode existing creek systems.

The increased stormwater runoff from urban areas will also increase pollutants in the stormwater runoff and reduce water quality within the surrounding river system, requiring treatment infrastructure prior to runoff discharged into the natural creek system.

Each of the basins recommended within *Lowes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum)* by Storm Consulting and Craig & Rhodes (2020) have been included in the stormwater infrastructure works schedule in the LCM CP.[16] In addition, sub-catchment stormwater infrastructure has been allowed for within the transport infrastructure items. These items provide drainage, conveyance of stormwater from within the catchments to the relevant basins.

4.2.2 Transport

Substantial development of new and upgraded roads is required to support the increase in traffic movements of approximately 21,000 new residents, as well as workers and commercial traffic.

Some transport items were removed in the latest plan amendment due to confirmation of State infrastructure funding being received to cover their costs, on the basis that they served a regional purpose beyond the precinct.

The transport items included in the LCM CP were determined based on a traffic assessment completed by GHD in September 2018 (Table 4.6). GHD was commissioned by Macarthur Developments Pty Ltd on behalf of the Department of Planning and Environment to undertake a traffic and Transport Assessment for the Lowes Creek Maryland Precinct.

The assessment included traffic and transport modelling and consideration of the development characteristics to estimate trip generation rates.[17] The report proposes a road structure for Lowes Creek Maryland to support the new developments in the precinct. The study by GHD indicates that the new development in the Precinct is expected to generate between 6,104–7,034 additional trips during peak periods of road network activity. Volume over capacity ratios were also modelled for several periods over the life of the precinct to determine levels of service delivered by the road network.

A collector road network established in the plan is required to distribute local traffic throughout the subject site that provides access to residential lots and directs vehicles to sub-arterial roads at key intersections on the Northern Road. Local roads are to provide access to residential dwellings. A shared path network is to encourage active transport within the subject site.

We consider that this study demonstrates nexus to service the 20,735 residents as well as the demand generated due to the jobs created in the precinct.

Table 4.6 Technical studies for transport works in LCM CP

Author	Title	Date
GHD	*Lowes Creek Maryland Precinct traffic, transport and access assessment*	September 2018

Note: The technical study was commissioned by the Department of Planning and Environment.

GHD recommended 21-metre-wide road reserves for collector roads in the LCM precinct that are bus and heavy vehicle capable. It also recommended that local roads should be 16 metres wide, with 2 lanes.

The road items proposed in the LCM CP are consistent with GHD's recommendations except for 3 roads.

Information received from the council in June 2023 indicated revised widths of collector road 3 (27 metres wide; 14,721 square metres), local road 1 (17 metres wide; 10,560 square metres) and local road 2 (17 metres wide; 11,856 square metres). The latest information has resulted in some inconsistencies in the CP between the width, land area and cost of these items we have received include conflicting information. We seek clarification from the council on the final specifications of Collector Road 3, Local Road 1 and Local Road 2.

We seek comment from the council on the following:

1. In its response to the Draft Report Camden Council should:
   - confirm the proposed widths of the area and costs associated with both the works and land for collector road 3, local road 1 and local road 2
   - provide supporting information to demonstrate nexus for the proposed widths, where road specifications differ from the recommendations of the GHD report.

4.2.3 Open space

The LCM CP seeks to provide open space to serve the passive and active recreation needs of the incoming residential population of 21,000. This includes parks and sporting fields at the local level.

The open space items proposed in the contributions plan were developed based on the recommendations of the report titled "*Demographic and social infrastructure assessment Lowes Creek Maryland Precinct" by specialist consultant Elton Consulting* (Table 4.7). The study identified a need for 63.5 hectares of open space to serve the then forecast population of 22,441 residents.[18] This was based on a benchmark open space rate of 2.83 hectares per thousand people.[19]

Subsequent workings by the council revised the population forecast downwards to around 21,000 based on updated density assumptions provided by NSW DPIE.[20] While this would reduce the required open space as per the benchmark to around 59 hectares, the council has maintained a higher land requirement for the purposes of the plan at 62 hectares. The provision of open space within the precinct also aims to provide open space within 400 metres of residential properties in the precinct. The council may consider reducing their required land acquisition for open space, however the proposed approach is not unreasonable and we consider that nexus for open space has been demonstrated.

Table 4.7 Technical studies for transport works in LCM CP

Author	Title	Date
Elton	*Demographic and social infrastructure assessment Lowes Creek Maryland Precinct*	August 2018

Note: The technical study was commissioned by the Department of Planning and Environment.

4.2.4 Land

105 hectares of land is required to deliver the proposed infrastructure in the plan, including:

- 61.7 hectares for open space
- 29.7 hectares for stormwater infrastructure
- 12.6 hectares for transport infrastructure
- 0.9 hectares for community facilities

The nexus between these land requirements and the development is set out in sections 4.2.1 to 4.2.3 for stormwater, transport and open space. For land for community facilities, nexus to the development was established by the Demographic and Social Infrastructure Assessment (2018), Elton Consulting. This study establishes that one larger district level community centre and two smaller local community centres should serve the Context Plan Area if the population is between approximately 81,000 and 88,000 people.[21] The council has proposed land of 0.94 hectares for one large community centre which combines the local and district community floorspace for the Lowes Creek Maryland Precinct (1,120 m^2) and the district floorspace for the balance of the Context Plan Area at 755 m^2) for a total facility of 1,875 m^2 gross floor area, located next to a double playing field, and car parking will be co-located at this site.[22] The land that is planned to be acquired has a part nexus to the Lowes Creek Maryland Precinct, since the community facilities will be shared with other precincts.

In section 4.3.3, we identified discrepancies between GHD's 2018 recommended road widths and the contributions plan, which require clarification to demonstrate nexus.

4.2.5 Plan administration

Plan administration includes the activities required to prepare, review and implement the plan. These activities are required to facilitate development and would not be required if the development had not proceeded. The council has outlined the following key activities in its plan administration costs:

- The costs of the council staff time to prepare and review contributions plans, account for contributions receipts and expenditure, and coordinate the implementation of works programs, including involvement in negotiating works-in-kind and material public benefit agreements.
- The costs of consultant studies that are commissioned by the council from time to time to determine the value of land to be acquired, the design and cost of works, as well as to review the development and demand assumptions in the contributions plan.
- The costs of the council engaging the services of legal professionals to provide advice on implementing the plan.[23]

We agree that there is nexus for plan administration activities and this is consistent with our guidance on plan administration.[24]

4.3 Reasonable cost

The total land and works costs proposed by the council in the LCM CP are around $445 million.

Over half the total cost of the LCM CP is open space land and works. Stormwater and transport land and works each make up around a quarter of the total costs of LCM CP.

The sections below discuss each cost category in more detail.

4.3.1 Stormwater

The total proposed cost of providing stormwater infrastructure across land and works is $103 million, which is around 25% of the total plan value. Land costs are $42 million (10% of total CP) while works comprise $61 million (15% of CP). These funds provide a range of infrastructure to manage stormwater quantity and quality including bioretention basins, offline and online basins, pits, pipework and conveyance infrastructure as well as culvert crossings (are included as part of road infrastructure).

In response to a request for information, Camden Council provided updated transport and stormwater costs, which resulted in a transfer of some transport costs to the stormwater infrastructure category. Table 4.8 shows the updated stormwater costs, which now amount to around $109 million. There is a corresponding decrease to transport costs, discussed later in this report.

Table 4.8 Stormwater infrastructure and cost

Stormwater infrastructure	No.	Land required (ha)	Land cost ($m)	Works cost ($m)	Total cost ($m)
Western online detention basin	1	1.4	0.5	5.5	6.0
Offline detention basin	13	9.8	23.3	29.9	53.2
Central online detention basin - upper	1	0.4	0.1	6.1	6.3
Central online detention basin - lower	1	2.4	3.3	3.8	7.1
Bioretention basin	22	5.0	5.3	15.5	20.8
CC1- One culvert crossing - Northwest Tributary - Box Culverts	1	na	na	na	na
CC2-CC4 - Three culvert crossings - West Tributary - Box culverts with pipes, two upstream of proposed online basin and two downstream	1	na	na	na	na
CC5-CC6 - Two culvert crossings - Central Tributary - Box culverts with pipes, upstream of proposed online basin	1	na	na	na	na
Other transport related stormwater infrastructure	na	In road	na	6.3	6.3
Offline and bio-retention basin	na	10.6	9.5	na	9.5
Total		**29.7**	**42.0**	**67.1**	**109.1**

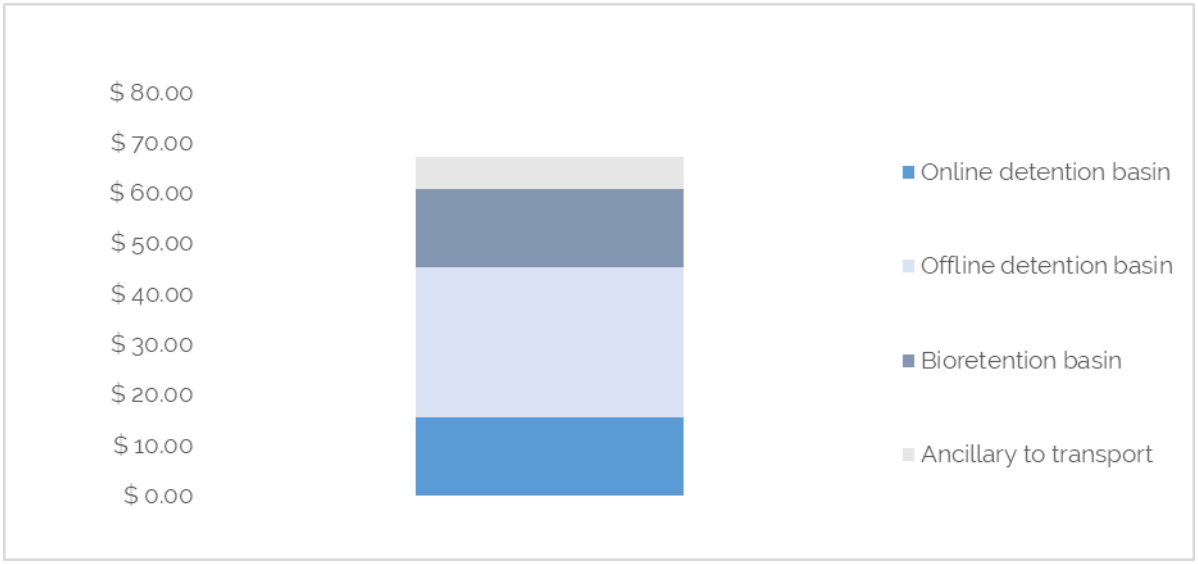
Source: Analysis based on information from Camden Council, Camden Growth Areas Contributions Plan Amendment 3 Technical document, pages 126-128, Response to request for Information 29 June 2023: amended LCM Transport costs with transport and stormwater cost breakdown (spreadsheet).

Our preliminary analysis identified a number of stormwater works items that were costed in the detailed transport works costs. These stormwater items were included within the transport items because the delivery of stormwater conveyance infrastructure such as pipework and pits are often delivered together with the road network.

This type of grouping infrastructure is an efficient strategy for project delivery, but for the purpose of reviewing the plan, we requested that the council separate these costs into works categories. For culvert crossings, the council found that these were better costed within the transport works, as the culvert crossings are required as part of the physical construction of the road over a water course.

Based on the revised categories of costs provided, we commenced our analysis of stormwater costs by considering the categories of stormwater works costs. The breakdown of stormwater works costs in the LCM CP is presented in Figure 4.2.

Figure 4.2 LCM CP proposed stormwater works costs ($million, $2021)



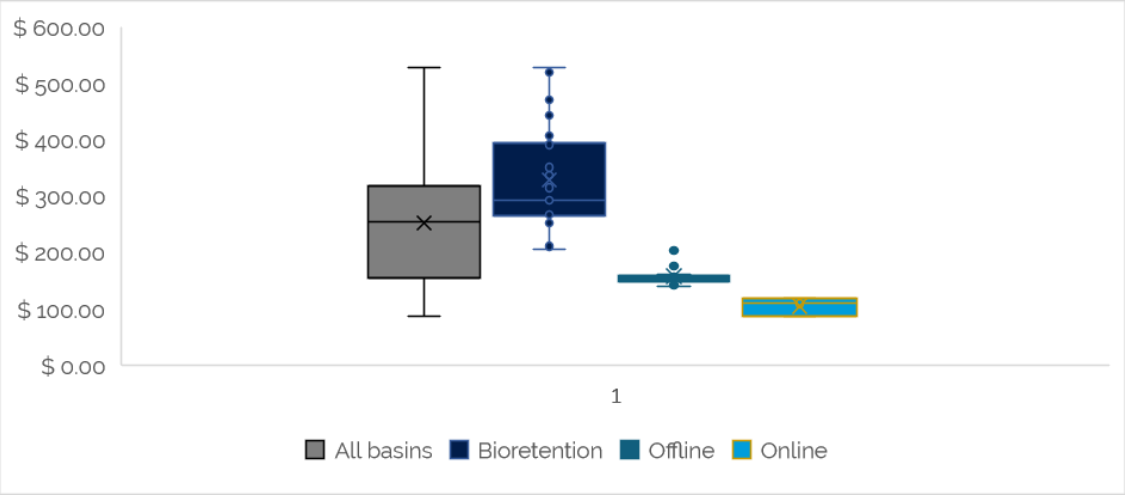
Source: Analysis based on information from Camden Council, Camden Growth Areas Contributions Plan Amendment 3 Technical document, pp 126-128; response to request for Information on 29 June 2023.

Basin costs

The breakdown of stormwater works costs (valued at $67 million) shows the largest driver of costs (around 90%) is the provision of stormwater basins. The LCM CP proposes to deliver 38 stormwater basins for the management of stormwater quality and quantity.

These proposed basins are divided into 3 large online detention basins, 13 offline detention basins and 22 Bioretention basins. We considered the unit rates of the infrastructure basins proposed within the LCM CP to identify the drivers of basin costs (Figure 4.3 below). The analysis confirms a higher average per unit cost rate for bio-retention basins compared to other types of basins, driving the overall average of total basin costs.

Figure 4.3 Distribution of basin construction unit costs by basin type ($ / m²)



Source: Analysis based on information from Camden Council, Camden Growth Areas Contributions Plan Amendment 3 Technical document, pp 126-128, Response to request for information 29 June 2023.

Stormwater basin design and cost is highly dependent on topography and unique site factors and can be difficult to benchmark. Our 2014 benchmarking report did not provide benchmark costs for basins but did provide 2 reference costs for basins of varying complexity. For our preliminary analysis we have compared costs of the LCM CP basins to some of the draft 2014 reference rates.[25] The reference costs were based on a new detention basin, based on a 10-hectare catchment area in inland regional NSW and basic construction methodology based on a surface area between 500m^2 (total depth 2.0m) to 5,000m^2 (total depth 0.5m). The reference costs for detention basins in the 2014 report were $68,425 to $247,250 ($2014) which is equivalent to a cost of $76,598 to $276,783 ($2021) escalated using the relevant PPI to 2021 rates.[26] Based on the scope of the reference projects this could be converted to a rate of between $55 to $153 / m^2 ($2014) for the construction costs of basins (including oncost allowances).

The unit costs of the 16 online and offline detention basins are between $88 to 204 per m^2. The weighted average unit cost of the detention basins within the plan is $133 / m^2.

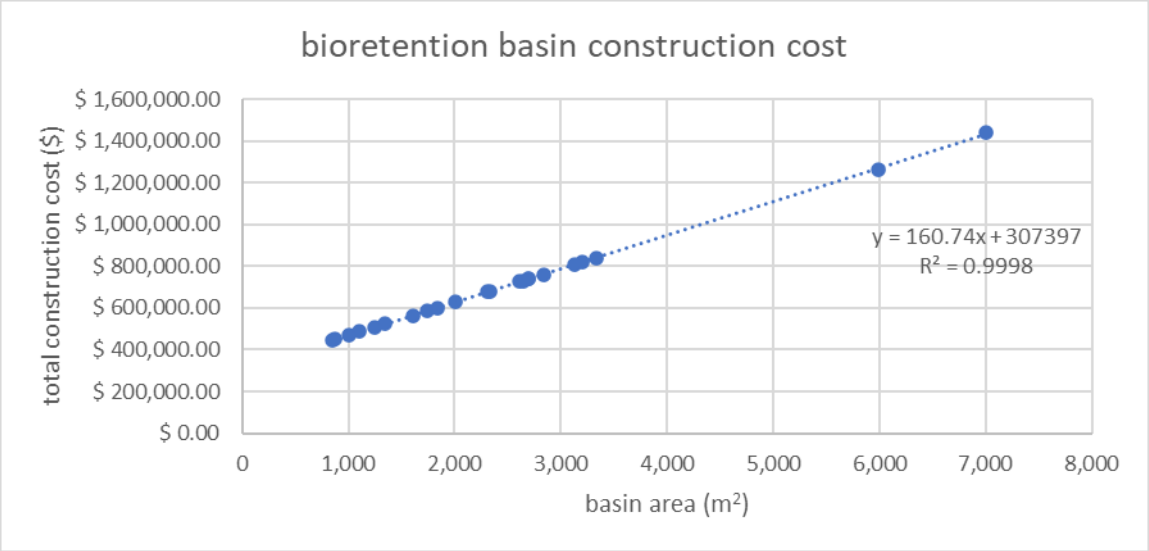
While two offline detention basins fall outside the reference costs range (offline basin 2 and 20) they contain additional filter media. The remaining basin unit costs fall within the reference price range or close to the upper bound of this range.[b] The online and offline detention basins are the largest component of the stormwater works (approximately 68% of total stormwater works costs within the plan). We consider the detention basin costs included within the plan are reasonable.

The 22 bioretention basins proposed within the plan are smaller in scale than the detention basins and have additional landscaping items within the scope. Despite the higher unit rate and number of items, the cost of bioretention basins make up a smaller proportion of total stormwater works costs within the LCM CP at approximately 23%. We reviewed the total costs and unit costs of each of the bioretention basins (Figure 4.4 and Figure 4.5 below).

The total construction costs of bioretention basins increase linearly with basin area (Figure 4.4). The unit rate cost reduces with basin area. The bioretention basin unit rate costs range between $206 to $527 / m^2. The weighted average unit cost of bioretention basins within the plan is $285 / m^2 ($2021).

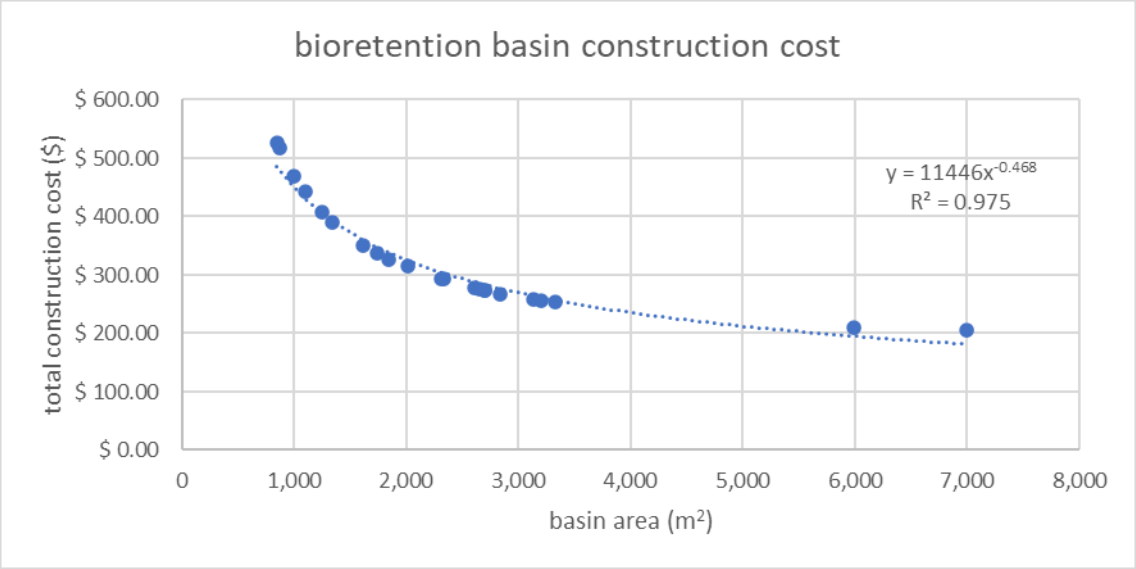
[b] We acknowledge that there are some shortcomings in using reference pricing as a comparator. This includes significant scope and scale differences between the basins included in the plan (which range from 9,000 to over 60,000m^2) and the reference basins. Further, there are site specific aspects of scope which differ including a GPT unit for each basin (excluded within the reference price), converting existing structures to stormwater basins and differing depths. Despite this, comparisons to the reference price provides a useful indication that costs are reasonable, and we do not consider further analysis of the proposed stormwater detention basin costs are beneficial at this stage.

Figure 4.4 Bioretention basin construction costs in the LCM CP



Source: IPART analysis based on supporting information provided with LCM CP application (Mitchell Brandtman report p 72).

Figure 4.5 Bioretention basin unit rate costs ($/m^2) by basin size



Source: IPART analysis based on supporting information provided with LCM CP application (Mitchell Brandtman report p 72).

Each of the figures above indicates that the cost of bioretention basins have some fixed and some variable components. Larger basins have a higher total cost but lower unit rate cost than smaller basins as the fixed component becomes less significant when divided over a larger area.

We also considered the Mitchell Brandtman quantity surveyor's report and the typical scope of bioretention basins used to develop the cost estimates. Table A.4 in Appendix A presents the cost estimate of a typical 1,000m^2 bioretention basin.

Our 2014 benchmarking report did not include benchmarks or reference pricing for bioretention basins. The most similar scope to the basins is a bioretention trench which was benchmarked in 2014 at a rate of $821 / m and contained key scope items of:

- Bioretention trench 3 m wide (W) by 1 m nominal depth (H)
- Geo-fabric liner
- Underdrainage pipe (100 mm diameter)
- Gravel drainage layer
- Filter media
- Sand
- Topsoil and vegetation cover
- Excavation and backfilling but excluding reinstatement of any hard surfacing
- Imported stabilised fill material
- Installation works
- Connection into network[27]

Escalating the benchmark rate to $2021 using the relevant PPI and converting it to a square metre rate, we consider that an equivalent benchmark rate would be approximately $317 / m^2 ($2021).

Of the bioretention basins proposed in the plan, 8 have a unit rate cost above $317 / m2 and 14 are below. All the basins with a higher unit rate are smaller than 1840m^2 and combined have a total construction cost of approximately $4.6 million (equivalent to 7% of the stormwater works costs).

The median and weighted average unit rates of the bioretention basins included within the plan both fall below this rate at $293 / m^2 and $285 / m^2 respectively despite some key scope differences across all bioretention basins.[c]

Accordingly, we have concluded that the proposed costs of the bioretention basins are reasonable.

Drainage infrastructure ancillary to transport

The final component of the stormwater infrastructure is the drainage pipework and pits delivered ancillary to roads items (Table 4.9). This is the smallest driver of stormwater works comprising approximately 10% of total stormwater works costs proposed in the plan. We have considered the assumptions in the Mitchell Brandtman quantity surveyors report and compared the unit rates against the Rawlinson's construction handbook. This is a bottom-up approach used to spot check the reasonableness of individual cost items common to a range of stormwater projects to external cost rates provided in the 2020 Rawlinson's Australian Construction Handbook (see Table 4.10).

[c] A key difference between the scope of the bioretention trench benchmark and the bioretention basins costed within the LCM CP is the inclusion of a GPT and associated maintenance access for each basin. The supporting costing information estimates a cost of approximately $150,000 per basin to include this infrastructure. GPT's for each basin are recommended within the supporting stormwater management strategy reports.

Table 4.9 Typical scope items for drainage infrastructure ancillary to transport works

Description of Work	Quantity	Unit	Rate	Total
Pipework (rates to include excavation and trenching in OTR, supply, bed, place, joint and backfill)				
DN375 RCP Class 2 (assumed smallest size pipe for cross overs)	1,454	m	$ 175.00	$ 254,450.00
DN600 RCP Class 2 (assumed average size pipe for main lineal run)	2,643	m	$ 280.00	$ 740,040.00
Extra over for backfilling with granular fill under roads	590	m^3	$ 50.00	$ 29,498.50
Extra over for excavating in rock	1,056	m^3	$ 70.00	$ 73,920.00
Subsoil drainage to roads (one side of road and allowance for connections)	3,172	m	$ 45.00	$ 142,722.00
Flushing points to subsoils (1 per 80m)	40	each	$ 160.00	$ 6,400.00
Pits (rates to include excavation in OTR, supply, bed, place, grates, step irons, benching and backfill)				
Kerb inlet pit with Class "D" grate and 2.4m Lintel - 1 per 25m of pipework	164	each	$ 3,250.00	$ 533,000.00
Structural design certification of pits	164	each	$ 135.00	$ 22,140.00
Miscellaneous				
CCTV Inspection, testing and Report for Submission to Council	4097	m	$ 8.00	$ 32,776.00

Source: Quantity Surveyor report (Lowes Creek and Maryland Park contribution plan) p 15 (excluding culvert crossings

Table 4.10 Stormwater infrastructure unit cost rates and benchmarks

			Comparison rates				
Stormwater infrastructure	**Units**	**Cost rate (2021$)**	**low range**	**high range**	**Difference to high range**	**Comparison source**	**Comparison (year $)**
		$/unit	$/unit	$/unit	percent		
Class 2 concrete pipe 375mm dia	m	175	200	200	-12.5%	RAC p491	2020
Class 2 concrete pipe 600mm dia	m	280	330	330	-15.2%	RAC p491	2020
Crushed rock/blue metal base course including grading rolling, consolidating	m^2	50	13.75	29.7	68.4%	RAC p222	2020
Excavate over site to reduce levels	m^3	70	75.4	118.5	-40.9%	RAC p212	2020
Multiple types of subsoil drain materials, including FRC, flexible coil and Strip drain	m	45	10.5	130	-65.4%	RAC p497-p499	2020
Flushing points	each	160	Not found	Not found	n/a	n/a	n/a
Grated surface inlet pit with raised pit	No	3250	3957.3	7194.3	-54.8%	2014 benchmark p 165	2014

Source: Analysis based on information from Quantity Surveyor report (Lowes Creek and Maryland Park contribution plan benchmark estimates, Mitchell Brandtman, November 2022), Rawlinson's Australian Construction Handbook 2020 and 2014 IPART benchmark. No escalations applied.

On-costs

All stormwater projects include indirect costs covering preliminaries, overheads and margin, professional fees covering project management and the contracting of surveyors and consultants, fees for environmental approvals, contingency allowances and a 0.35% long service levy.

The percentages of indirect costs as a proportion of total works value are set out for each stormwater project type in Table 4.11.

Table 4.11 Indirect costs proposed for stormwater projects

Stormwater infrastructure	**Preliminaries, Overheads and Margin (%)**	**Design, Professional Fees, Approvals (%)**	**Contingency (%)**	**Long Service Levy (LSL) (%)**
All detention and bio-retention basins	13	13.5	20	0.35

Source: Quantity Surveyor report (Lowes Creek and Maryland Park contribution plan benchmark estimates, Mitchell Brandtman, November 2022), p 17.

The 2014 IPART local infrastructure benchmark costs recommend contingency allowances for projects, as well as rates for indirect costs and margins, including:

- Contingency allowance of 30% for project at the strategic review stage and 20% at the business case stage
- Contractor indirect costs of 20% (as a proportion of direct costs)
- Margin of 10% (as a proportion of direct and indirect costs). [28]

The contingency allowance in the plan is equal to the lower benchmark value of 20. The sum of indirect costs and margins is ~26.5%, which is slightly below the benchmark total.

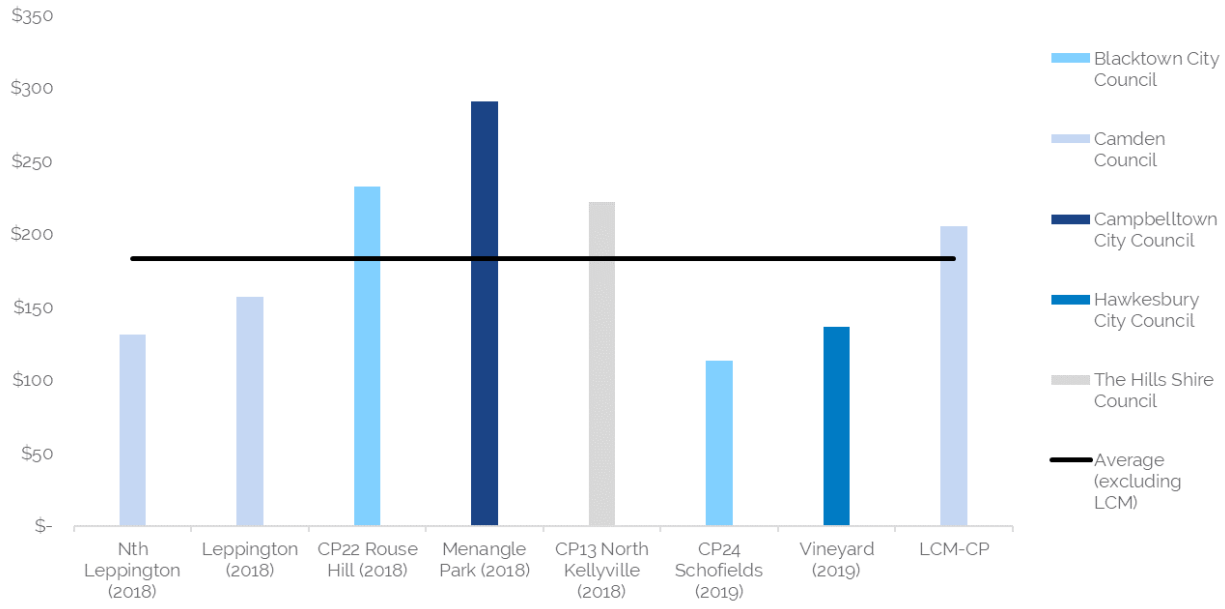
The benchmarks do not include a recommended rate for long service levy (LSL) as the requirement is more recent than the benchmarks. The current rate as required by the NSW Government Long Service Corporation is 0.25% of the cost of building and construction works for projects valued at or over $250,000 (including GST).[29] This is lower than the rate of 0.35% which applied before 31 December 2022 and is currently assumed by this plan. This is likely as a result of time at which the cost estimates were prepared for the quantity surveyor being in November 2022. We have recommended council recalculate its LSL allowance at the reduced rate). We estimate this will reduce the stormwater works cost by $73,481.

Draft recommendation

2. Camden Council should ensure that long service levy (which applies to projects that exceed $250,000) is reduced from 0.35% to 0.25%. to reflect the current required rate.

We have compared the proposed stormwater works costs within the LCM CP to other recent contributions plans we have assessed. On cost per square metre basis, the LCM CP is around 12% higher than the average cost of previously assessed plans at around $205 per square metre compared to around $183 per square metre. The value of stormwater works is around 42% per cent higher than the most recent contributions plan for the neighbouring precincts of Leppington and Leppington North within the same LGA (Figure 4.6).

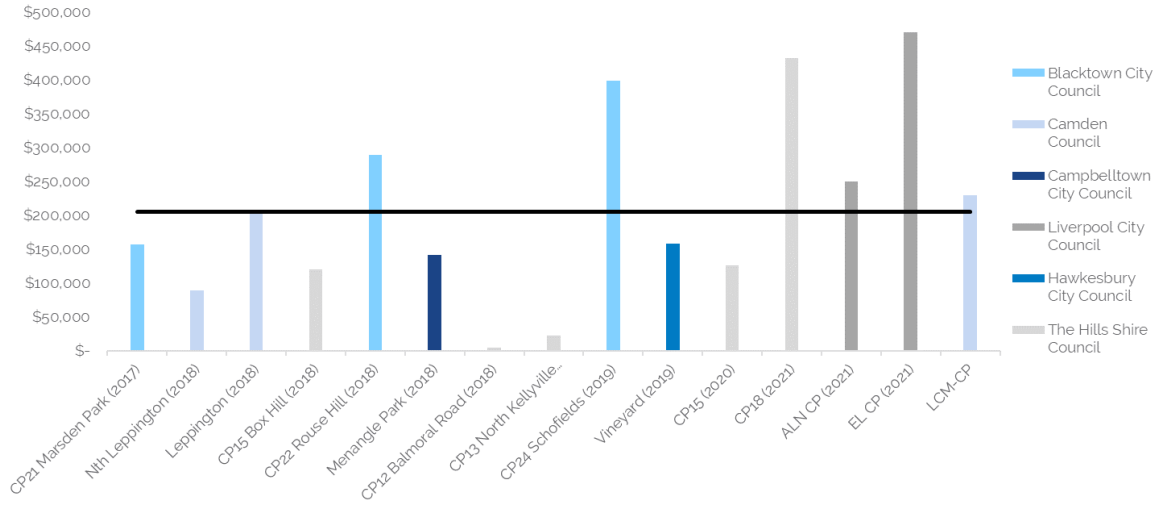
Figure 4.6 Stormwater works unit cost per square metre ($2021)



Source: IPART analysis.

The overall provision of stormwater infrastructure per hectare of NDA is in line with the average per hectare value across a range of previously assessed contributions plans (Figure 4.7)

Figure 4.7 Stormwater works per hectare of net developable area ($2021)



Source: IPART analysis.
Note: EL CP is a proposed CP submitted by Liverpool Council. The review process is not yet complete.

Based on comparisons to other plans, the costs for stormwater infrastructure in the Lowes Creek Maryland plan appear reasonable.

4.3.2 Transport

The total proposed cost of providing transport land and works in the LCM CP is around $105 million. This is around 24% of the total plan value. Land costs are $37 million (8% of total CP) while works costs are around $68 million (15% of CP). The proposed infrastructure projects include new collector roads, new local roads as well as new roundabouts and signalling systems (see Table 4.12). As discussed above, in response to a request for information, Camden Council provided updated transport and stormwater costs, which resulted in a transfer of around $6.3 million of transport costs to the stormwater infrastructure category. Table 4.12 shows the updated transport costs.

Table 4.12 Transport infrastructure and cost

Infrastructure item	Units (no.)	Works cost ($m)
Collector roads	3	29.2
Local roads	3	13.0
Roundabouts	5	2.3
Signalling systems	2	1.5
Cycleway/Pedestrian paths	1	9.9
Bus Stops	15	0.4

Source: Analysis based on information provided by Camden Council.

We have compared the total cost of new local and collector roads (inclusive of contingency costs) on a cost to IPART's Local Infrastructure Benchmark Costs estimates April 2014.[30] Various adjustments have been made to the benchmark costs to make them more comparable to the types of works included in the plan, including:

- escalation of 2014 benchmark values to $2021 using the Producer Price Index (PPI) road and bridge construction
- the inclusion of contingency allowances of 30% as per recommended rates in the 2014 benchmarks[31]
- adjusting for the different road widths recommended by the transport assessment.

The proposed road widths in the LCM CP are not directly comparable with the benchmark rates. To make comparisons, we adjusted the per metre benchmark rates to reflect differences in road width (as specified by the quantity surveyor supporting information) and the benchmark road projects. The per metre unit cost rates for local roads in the LCM CP and the benchmark rates are relatively similar.

While the costs of individual collector road projects may fall either side of the benchmark (some being higher while others being less than the benchmark rate), the per metre cost of collector roads is, on average, below the benchmark rate (Table 4.13). The costs for local roads are likewise similar to the benchmark rate, except for local road 3, which has costs substantially above not only the benchmark rate, but other local road projects included within the plan (a per metre cost rate of $16,679 compared to around $7,600 for other roads).

A driver of the higher cost of local road 3 is the inclusion of a culvert road crossing (valued at $2,050,000) and its smaller road length compared to other local roads. Local roads 1 and 2, while also including culvert crossings, but are longer at between 660 and 741 metres. Local road 3 in contrast is 160 metres long and so the relatively high value of the culvert crossing is spread over a smaller road footprint, driving up the per metre cost rate. Excluding the value of the culvert from local road 3 brings the per metre cost rate down to $3,867 per metre, which is below the benchmark. While culvert crossings are related to stormwater infrastructure, they are considered essential to the function of roads and are therefore included within the cost base of transport. All other stormwater infrastructure that is otherwise attached to roads and transport works but not essential to road function are included separately in stormwater infrastructure costings.

The council has made an allowance of $2.05 million per culvert crossing for each local road, based on an assumed 6 cell culvert including earthworks. Due to the lack of information surrounding the exact specification of these culvert crossings (such as their size and length), they are not comparable with our benchmarks.

Table 4.13 Transport infrastructure unit cost rates and benchmarks

Infrastructure item	LCM CP Unit cost	IPART 2014 benchmark ($2021)	Difference to benchmark (%)
Collector roads			
North/south collector between Precinct boundaries (Eastern side)	$5,315/m	$8,067/m	-34.1
East/west collector mid Precinct from CR.1 past SR2 to MD1.1	$ 8,144/m	$8,067/m	1.0
East/west collector adjoining CR.1 to existing intersection on The Northern Road	$9,419/m	$8,067/m	16.8
Average of collector road rates	$ 7,626/m	$8,067/m	-5.5
Local roads [a]			
Local road (1) from SR.2 to end of P.36 (between Maryland Homestead & Home Farm)	$ 7,629/m	$7,804/m	-2.2
Local road (2) from Eastern Collector Rd (CR.1) to end of P.12 (between Maryland Homestead & local open space)	$ 7,157/m	$7,804/m	-8.3
Local road (3) from Collector Rd (CR.1) to P21 park	$16,679/m	$7,804/m	113.7
Average of local road rates	$1,084/m	$974/m	11.3
Cycleway/Pedestrian paths	$1,084/m	$974/m	11.3
Roundabouts	$442,390	$480,841	-8.0
Bus stops	$25,000	$25,489	-1.9
Signalised intersections	$821,508	$379,362	116.6

a. All local road unit costs include the cost of culverts.

Note IPART 2014 benchmarks have been escalated to 2021 dollars using the PPI road and bridge construction
Source: Quantity Surveyor report (Lowes Creek and Maryland Park contribution plan benchmark estimates, Mitchell Brandtman, November 2022), IPART Local infrastructure Benchmark Costs, April 2014 adjusted as described above.

Other transport infrastructure items which have been benchmarked include the cost rate for shared cycleway/pedestrian path, roundabouts and bus stops, which are similar to benchmark costs. The cost rate for signalised intersections in the LCP CP are double the benchmark rate.

All transport costs in the LCM CP include indirect costs covering preliminaries, overheads and margin, professional fees covering project management and the contracting of surveyors and consultants, fees for environmental approvals, contingency allowances and a 0.35% long service levy. The percentages of indirect costs as a proportion of total works value are set out for each transport project type in Table 4.14.

Table 4.14 LCM CP on-costs applied to transport projects

Transport infrastructure	Preliminaries, Overheads and Margin (%)	Design, Professional Fees, Approvals (%)	Contingency (%)	Long Service Levy (LSL) (%)
Sub-arterial Roads	12.5	10.5	10	0.35
Collector Roads	12.5	10.5	10	0.35
Local Roads	12.5	10.5	10	0.35
Roundabout Intersection Upgrades	12.5	16	15	0.35
3-Way Signalised Intersection Upgrades	12.5	16	15	0.35
4-Way Signalised Intersection Upgrades	12.5	16	15	0.35

Source: Quantity Surveyor report (Lowes Creek and Maryland Park contribution plan benchmark estimates, Mitchell Brandtman, November 2022) p 17.

The 2014 IPART local infrastructure benchmark costs recommend contingency allowances for transport projects, as well as rates for indirect costs and margins, including:

- Contingency allowance of 30% for project at the strategic review stage and 20% at the business case stage
- Contractor indirect costs of 20% (as a proportion of direct costs)
- Margin of 10% (as a proportion of direct and indirect costs) [32]

The contingency allowances applied by the council in the LCM plan range from 10% to 15% and is lower than the recommended benchmark rate of 20% to 30%. The sum of indirect costs and margins within the plan ranges from ~23% to ~28%, which is slightly below the benchmark total. The benchmarks do not include a recommended rate for LSL as they predate these requirements. We consider the application of the LSL is reasonable by note that the current rate has changed to 0.25% of the cost of building and construction works.[d]

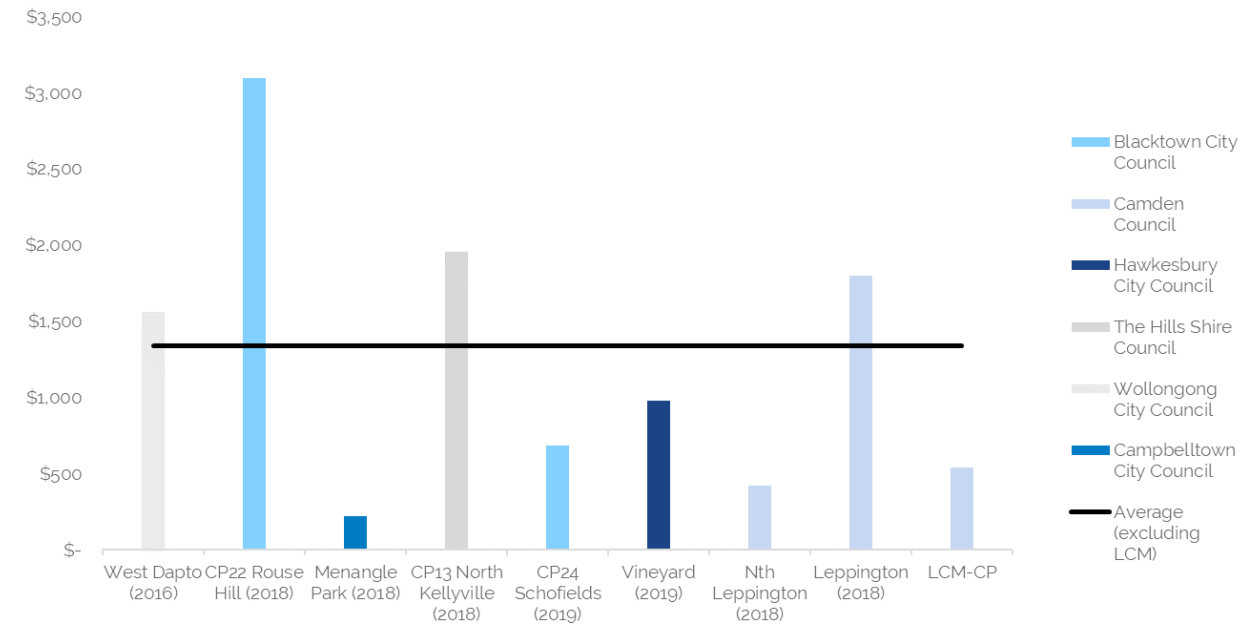
As discussed above, we recommend council recalculate its LSL allowance at the reduced rate We estimate this will reduce the transport works cost by $41,841.

In addition to a "top-down" assessment of costs, we have also performed a "bottom-up" approach to enable spot checking of individual cost items common to a range of transport projects (such as site preparation, road base construction and concrete works) to external cost rates provided in the 2021 Rawlinson's Australian Construction Handbook. Some work items fall close to or below benchmarks, while other items substantially exceed the benchmarks.

We have also compared transport works unit rates (costs of works on a square metre basis) for the LCM CP to other contributions plans we have assessed. On a cost per square metre basis, the LCM CP is substantially below the average unit cost rate (Figure 4.8). To enable the comparison, we escalated costs in previous plans by the ABS Producer Price Indexes (Non-residential building construction, Road and Bridge construction) as well as the Consumer Price Index (CPI).

[d] For projects valued at or over $250,000 (including GST), The rate was previously 0.35% prior to 1 January 2023. Changes are outlined on the NSW Government: Long Service Corporation website.

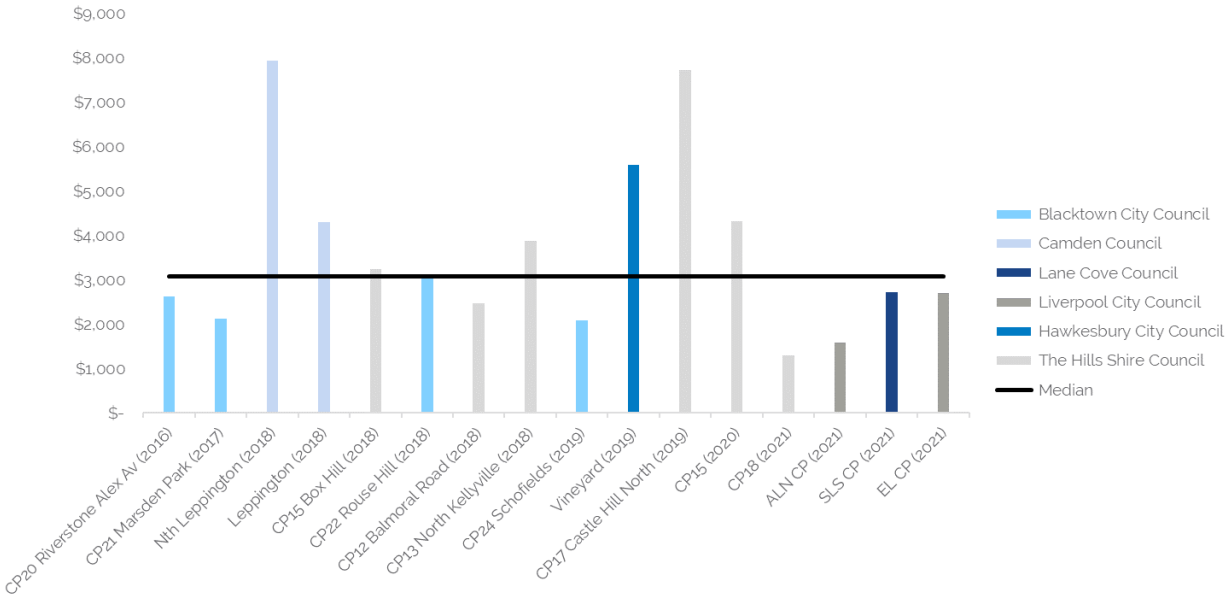
Figure 4.8 Transport works cost per square metre ($2021)



Source: IPART analysis.

We have also compared transport works costs on a per person basis. On this basis, the transport works costs per person for the LCM CP is slightly below the average across previous plans as well as previous Camden contribution plans (Figure 4.9).

Figure 4.9 Transport works per person ($2021)



Note: Note: EL CP is a proposed CP submitted by Liverpool Council. The review process is not yet complete.
Source: IPART analysis.

While no individual cost comparison is definitive, and scope assumptions and differences can be difficult to compare at an early stage of planning, our comparisons to benchmarks, cost handbook rates as well as other plans do not indicate concerns with transport costs and we have concluded they are reasonable.

4.3.3 Open space

The total cost of providing open space across land and works for the Lowes Creek Maryland Precinct is around $232 million. This is around half of the total plan value and the largest cost component of contributions in the plan. Land costs are $136 million (31% of total CP) while works comprise around $96 million (22% of CP). These funds provide a range of infrastructure including local parks, play space, seating space and multipurpose sports fields (see Table 4.15).

We compared open space costs for LCM CP to:

- similar costs for contribution plans that we have previously assessed
- NSW Department of Planning and Environment (DPE)'s benchmarks for passive and open space.
- IPART's 2014 benchmark rates

Open space costs for LCM CP appear to be relatively high compared to other contributions plans that we have previously assessed and IPART's 2014 benchmark rates. However, they are reasonable compared to DPE's benchmarks, and so we have concluded that the proposed costs for open space are reasonable.

Table 4.15 Open space infrastructure and cost

Infrastructure item	Units (No.)	Land required (ha)	Land cost ($m)	Works cost ($m)	Total cost ($m)
Local Park inc. picnic tables & bench seats	12	15	47.7	18.5	66.3
Local Park with large playground inc. shade sail, picnic & BBQ facilities, bench seats	2	5	18.4	7.8	26.2
Local Park with local play space inc. shade sail, picnic table, bench seats	7	9	30.6	14.1	44.7
Multipurpose sports fields/large playground inc. picnic/BBQ, parking facilities	3	27	27.6	45.7	73.3
Multipurpose fields/large playground inc. picnic/BBQ (parking facilities with CC)	1	5	11.7	10.1	21.9
Total	**25**	**61.6**	**136.0**	**96.3**	**232.3**

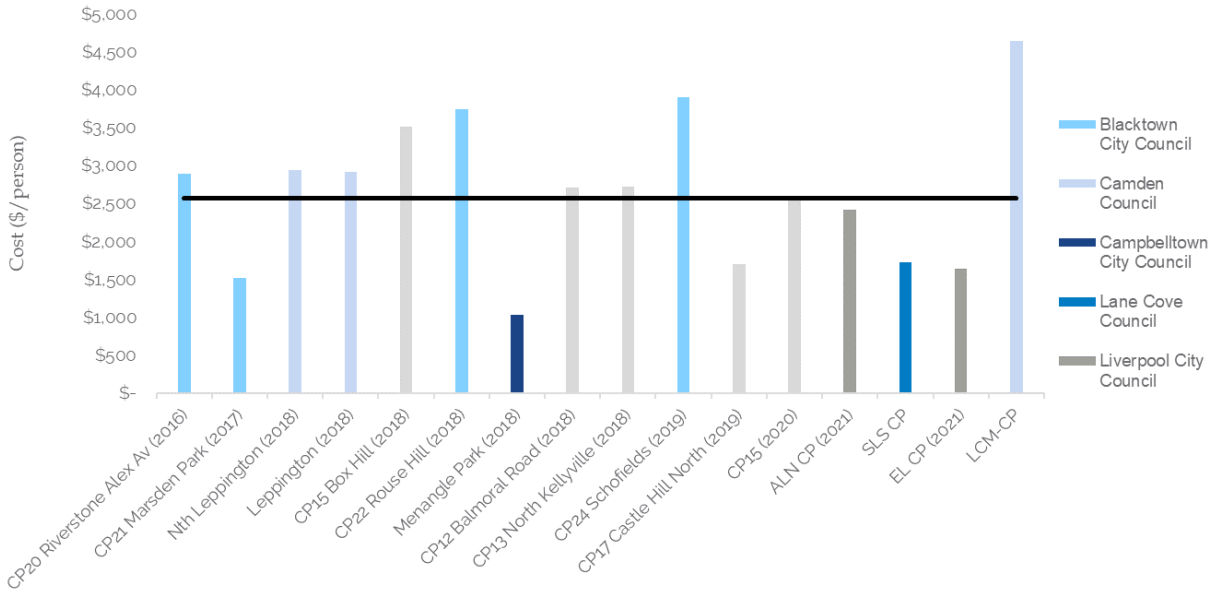
Source: Information provided by Camden Council.

In our analysis of nexus, we found that the amount of open space proposed appears to be slightly higher than the benchmark rate of 2.83 hectares per 1000 people. If reduced, we estimate that the council could also reduce the amount of open space provided by up to 2.9 hectares at around $11 million less than the current plan value proposed. However, previous contributions plans that we have assessed have had a shortage of open space as the plan progressed, and so we are not recommending a reduction in open space costs for LCM CP.

Works costs in the LCM CP were estimated based on consultants reports and the council's previous experience of delivering open space works.

On an open space works per person basis, the LCM CP is around 81% higher than the average cost of previously assessed plans at around $4,600 per person compared to around $2,600 per person. Likewise, the value of open space works is around 59% higher than the most recent contributions plan for the neighbouring precincts of Leppington and Leppington North within the same LGA (Figure 4.10).

Figure 4.10 Open space per person works cost ($2021)



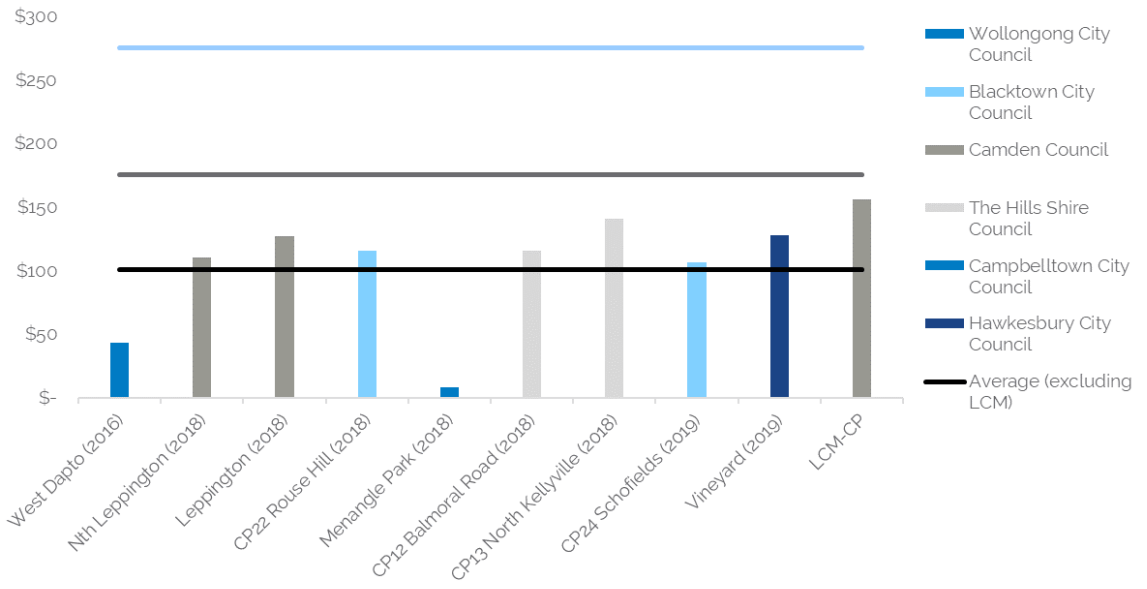
Source: IPART analysis.
Note: EL CP is a proposed CP submitted by Liverpool Council. The review process is not yet complete.

One driver for a higher cost per person is likely due to the higher rate of open space provision within the LCM CP. We have observed that many other CPs have been unable to locate sufficient open space to meet the benchmark rate of 2.83 hectares per 1000 people.

We also compared the per square metre capital embellishment cost rates to other plans we have previously assessed. We found the average embellishment cost for the LCM CP is just over $150 per square metre, (55% higher than the average of embellishment costs in previously assessed plans and 32% higher than the neighbouring Camden precincts of Leppington and Leppington North).

NSW Department of Planning and Environment's Interim Framework presents a benchmark embellishment cost for passive open space between $150-$200 per square metre and $250-$300 for active open space based on delivery of previous open space projects funded by the DPE.[33] The average unit cost for open space projects proposed by the LCM – CP are within these benchmark ranges.

Figure 4.11 Open space works per square metre of open space ($2021)



Source: IPART analysis.

We also compared the costs of individual items of works across parks and sports fields to IPART 2014 benchmark rates (Table 4.16). The range of alignment between cost rate and benchmarks varies. For instance, high value items such as 100 and 200 space carparks in sports fields aligns well to benchmark rates (exceeding the benchmark by 2 to 4.9 per cent). In contrast, items such as lighting and play equipment are significantly higher than the benchmark rate.

A closer comparison of the benchmark items for play equipment reveals a potential scope difference in the types of items included in this plan, which makes comparisons difficult. We have conducted further desktop comparisons to identify pricing of local suppliers. The prices for various play equipment ranges from $5,000 to $10,000 for simple freestanding items (such as swings) to $30,000 to $40,000 for larger items such as climbing racks and slippery slides.[34]

Table 4.16 Open space infrastructure and cost

Infrastructure item	Units (No.)	Cost per unit ($/unit)	IPART 2014 Benchmark adjusted to $2021 ($/unit)	Difference to benchmark (%)
Bulk earthworks allowance	$/m2	12	5	139.0
Allow to maintain existing trees, plant new trees and mulch (areas where minimal works will occur) - 25%	$/m2	35	33	6.0
Paved areas (mix of concrete, unit pavers, stepping stones, crazy pavers and the like)	$/m2	170	165	3.3
Picnic tables	Each	7,500	5,331	40.7
Garbage bins	Each	4,000	5,311	-24.7
Large size equipment	Each	100,000	8,652	1055.8
Medium size equipment	Each	35,000	6,941	404.3
Smaller size equipment	Each	16,500	5,279	212.5
Rubber softfall	$/m2	260	115	125.5
Shade sail to play space areas	$/m2	350	251	39.6
Fencing to perimeter of playground	$/m2	350	383	-8.7
BBQ facilities	Each	18,333	18,275	0.3
Lighting - allowed to paved and rubber soft fall areas	Each	24,000	3,522	581.5
Car park at sports facility (100 spaces)	Each	739,679	705,250	4.9
Car park at sports facility (200 spaces)	Each	1,438,310	1,410,500	2.0
Paved areas (sportsfield)	$/m2	120	165	-27.1

Source: IPART analysis

All open space projects include indirect costs covering preliminaries, overheads and margin, professional fees covering project management and the contracting of surveyors and consultants, fees for environmental approvals, contingency allowances and a 0.35% long service levy. As discussed above this rate is higher than the current requirement which is 0.25% of the cost of building and construction works for projects valued at or over $250,000 (including GST).

We have recommended council recalculate its LSL allowance at the reduced rate (as discussed above). We estimate this will reduce the open space works cost by $79,705.

The percentages of indirect costs as a proportion of total works value are set out for each transport project type in Table 4.17. We found these are consistent with the recommended rates within the benchmarking report.[35]

Table 4.17 Indirect costs for open space projects

Open space embellishment	Preliminaries, Overheads and Margin (%)	Design, Professional Fees, Approvals (%)	Contingency (%)	Long Service Levy (LSL) (%)
Local park	12.5	9.25	10	0.35
Local park play space	12.5	9.25	10	0.35
Sportsfield	12.5	9.25	10	0.35

Source: Quantity Surveyor report (Lowes Creek and Maryland Park contribution plan benchmark estimates, Mitchell Brandtman, November 2022) p 17.

4.3.4 Land

We have concluded that land costs in LCM CP are broadly reasonable, as the council has obtained expert advice on land values and has proposed a reasonable methodology. However, when comparing these land values to information from the Valuer General, we have identified a risk that land has `been undervalued in the LCM CP. In our view, this risk can be mitigated by the council adopting an appropriate land value index and applying it to land not yet acquired in the plan.

Land costs in the LCM CP also include an allowance for acquisition costs, which reflects the activities that councils undertake when purchasing land for a development (including conveyancing costs and compensation payable to land owners). Throughout our assessment, the council proposed some changes to land acquisition costs, which we have concluded are reasonable.

The sections below detail our assessment of these issues.

Approach to estimating land values

The assumed land value rates that inform the costs of land in the plan were estimated by Atlas Urban Economics in January 2021. The study used observations drawn from the analysis of sales data to derive generic values for the land uses defined in the LCM CP. Around 12 recent sales from 2017 to 2020 from the surrounding areas of Leppington and Austral were used to inform average per square metre land value rates for a range of different residential zone types. 6 recent non-residential sales in the surrounding areas were also used to inform non-residential land rates. The assumed average land rates for the LCM precinct are presented in Table 4.18. These land rates by land category flow through to the cost of land required in the LCM works schedule.

Table 4.18 Atlas Urban Economics land value rates for LCM ($2021)

Land category	Land value rate $/m²
Riparian/ Constrained land	30
E4 Env Living	300
R2 Low Density Band 1	400
R2 Low Density Band 2	400
R3 Medium Density Band 1	500
R3 Medium Density Band 2	600
B4 Mixed Use	600
B2 Local Centre	400
B5 Other Commercial	500

Source: Atlas Urban Economics, Lowes Creek Maryland Precinct Generic Value Assessment, January 2021, p 18.

The consultant acknowledges a range of limitations for this study, including:

- Desktop research and analysis was undertaken with no individual site inspection or surveys.
- Analysis of sales evidence having been considered at an aggregate level and does not consider individual site characteristics that impact on value (such as site area, topography, or improvements).
- Analysis of sales evidence shows an average site area of 2ha for residential and non-residential zoned land. Atlas has assumed the generic land value rates assessed for the LCM area would apply to a 2-hectare parcel.
- The assumed zoning is presumed to represent the highest and best use of the land.
- Not all land use categories have sufficient evidence to enable a generic value assessment.[36]

We have compared these land rates to measures of unimproved land value from the Valuer General (Table 4.19). These data include observations on unimproved land value for each lot across NSW. As such, we have estimated the average per square metre rate of land value for the neighbouring precinct of Leppington, whose first recorded values appear in 2018 (at the same time the first contributions plan for the region was assessed). The land value rates from Valuer General data appear much higher than the rates from the consultant report. For instance, low density lots are estimated at an average rate of $904 per square metre compared to $400 per square metre from the Atlas report.

While the Atlas Economics analysis relied on a total of 6 sales observations to inform R2 land values, the Valuer General dataset includes 3,955 R2 land value observations over a similar geography.

Table 4.19 Valuer General unimproved land value — Leppington ($2018)

Land category	Land value rate $/m2
R2	904
R3	741
R5	28
B1	350
B2	417
B3	284
B4	356

Source: Land value information from the NSW Valuer General website.

While there is some indication that land costs may be undervalued in the plan's base rate, we do consider that the proposed costs and method are broadly reasonable. Camden council has acknowledged in response to our request for information in June 2023, that there are differences in the types of lots valued by the Valuer General compared to those more typically available in the LCM precinct and this is likely driving differences in observed land value rates.

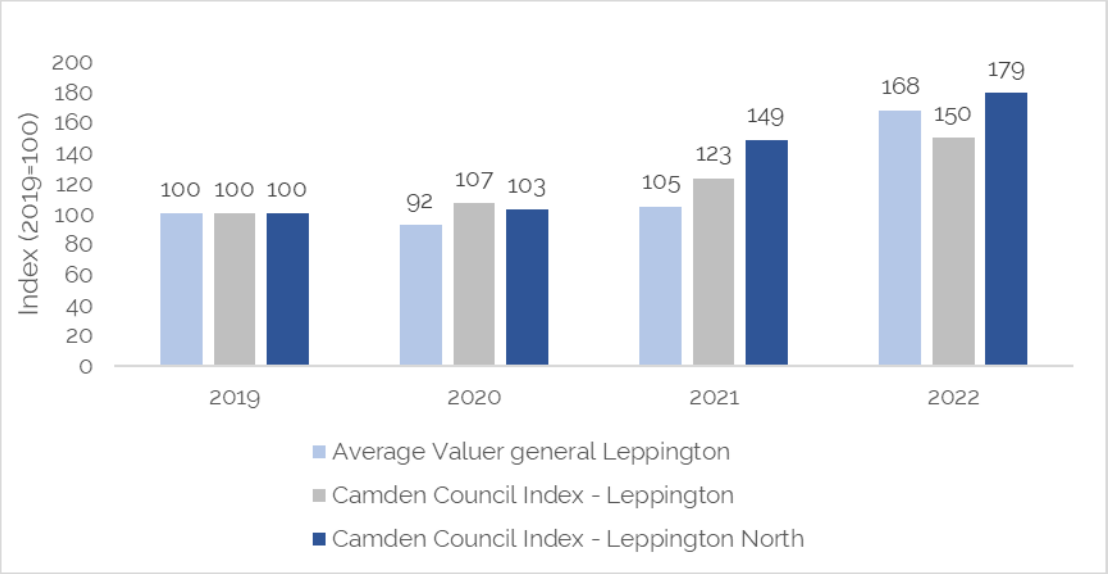
To the extent that land may be over or under valued, this can be corrected using a land value index to adjust land contributions based on a consistent methodology for sales evidence each year.

Approach to indexation

The contributions plan will use a bespoke land value index (LVI) to ensure land contributions keep pace with the escalating the value of land in the precinct. This approach relies on annual land valuations that can be used to inform a percentage change in the value of land for the precinct. This is the same approach currently used in the contributions plan for Leppington and Leppington North. The current LVIs for these precincts are published on the Camden Council website.[37]

We have compared the existing Camden LVIs to the implied percentage change in land values for the Leppington region using Valuer General data. Using a base period of 2019, the Camden LVIs imply a higher rate of growth in land value for 2020 and 2021 compared to Valuer General data. This gap is closed somewhat in 2022 (Figure 4.12).

Figure 4.12 Council Land Value Index compared to Valuer General information



Source: IPART analysis based on information provided by Camden Council and land value information from the NSW Valuer General

We consider that the LVI should only be applied to the land contribution rates based on costs of land not yet acquired. It is unreasonable to apply the LVI to the land contributions rates based on costs of land already acquired, since the value of those acquisitions have already been settled. Any land costs already incurred should be inflated by the ABS issued Consumer Price Index, consistent with the regulation. As the LCM CP is new, no land has yet been acquired. A future review of the plan should ensure that two land contributions are created to ensure the LVI is only applied to contribution rates based on land not yet acquired.

Approach to estimating land acquisition costs

Land costs in the LCM CP include an allowance for land acquisition costs, which covers the cost of

- Conveyancing
- Just terms compensation - Councils may be required to pay just terms compensation under the *Land Acquisition (Just Terms Compensation) Act 1991* when acquiring land for local infrastructure in contributions plans. This includes compensation for matters such as disturbance, legal costs, valuation fees and stamp duty. Where the costs of just terms compensation are likely to be incurred, councils may include these costs in contributions plan.

The council initially proposed an allowance of 10% of land value to reflect these land acquisition activities, based on the Atlas Urban Economics report.

During our assessment of LCM CP, the council notified us that it had applied the 10% allowance for land acquisition costs to land for stormwater and transport, but had omitted it from land for open space and community facilities. The council proposes to apply the 10% allowance for land acquisition costs to *all* land in LCM CP, including land for open space and community facilities. We agree it would be reasonable to allow for land acquisition costs for all land in the contributions plan.

However, since there are relatively few current landowners in the Lowes Creek Maryland development area, our view is that a 10% allowance for land acquisition costs is too high. The allowance for land acquisition costs in previous contributions plans that IPART has assessed has varied, depending on the nature of the land and ownership in the area. We prefer that any just terms compensation costs in contributions plans are based on fixed costs, rather than a percentage of the estimated market value. This is because the components of the likely compensation include mainly fixed costs, and market values can vary significantly, making a percentage approach less accurate.

However, we recognise that in the early stages of development, a percentage-based approach may be reasonable since Camden council has based its estimate on a professional opinion expressed in a valuation report.

We requested more information from the council to justify the 10% allowance for the LCM CP. In response, the council advised us that it considers 5% for land acquisition costs would be a more reasonable estimate and proposes to reduce the allowance to 5% of land value for all land in the LCM CP.

We agree with this approach and recommend that the LCM CP is updated to reflect the lower 5% allowance for land acquisition costs.

Draft recommendation

3. Camden council should amend the LCM CP to apply an allowance of 5% of land value for land acquisition costs to land across all infrastructure categories in the contributions plan, including open space and community facilities.

4.3.5 Plan administration

The plan proposes a plan administration value of $3.3 million consistent with the recommended benchmark rate of 1.5% of the value of works. However, the council should update plan administration costs to reflect the changes to works costs discussed earlier in this report.

Draft recommendation

4. Camden council should update the calculation of plan administration costs (1.5% of works costs) to reflect the updated costs in the plan.

4.3.6 Other / cross category issues

Long service levy

We noted in our review of stormwater construction costs the addition of a 0.35% long service levy. Construction projects greater than $250,000 must pay the levy and it may be reasonable to include it within the costings. However, as of 1 January 2023 there have been some changes in the exemption threshold and a reduction of the rate to 0.25%.[38] These changes should be reflected in the costings.

Preliminary workings from quantity surveyor

The most recent costings of transport items (CR.1, CR.3 and bus stops) are based on a revised Mitchell Brandtman quantity surveyor's report that was provided in response to our request for information in June 2023.[39] These updates have not yet been reflected in the works schedule of the plan. We recommend that Camden Council re-issue a new version of its works schedule that is reflective of the most recent changes to transport costings. In addition to the separation of stormwater and transport costs (recommendation 1 above) the following changes to costs outlined in Table 4.20 should be made in the works schedule:

Table 4.20 Recommended changes to works schedule

Transport item	Unit		Initial proposed cost	Revised work schedule cost
Collector Road 1 North/south collector between Precinct boundaries (Eastern side)	length	2643 m	$19.762,665	$16,577,357
Collector Road 3 East/west collector adjoining CR.1 to SR.4	length	701 m	$10,035,431	$7,667,662
Bus stops	number	15	$400,000	$375,000

Source: Information provided by Camden Council

Draft recommendation

5. Prior to adopting the plan, Camden Council should re-issue a new version of the works schedule that reflects the most recent costs for transport items (Collector Road 1, Collector Road 3 and bus stops shown in Table 4.20), as per the revised Mitchell Brandtman quantity surveyor's report

4.4 Apportionment

Demand for each of the different categories of infrastructure is expected to be relatively consistent across residential development in the Precinct. Non-residential contributions make up around 2% of total contributions, with residential development comprising around of 98% of total contributions.

Demand for transport and stormwater infrastructure is shared between residential and non-residential development. Demand for open space and community facility costs are not shared with non-residential development. We consider this apportionment is reasonable, given non-residential areas do not benefit from open space in comparison to residential development.

The apportionment of development type to transport and stormwater is even across all types of development. Open space and community facilities is split unevenly across residential development, with high and mixed density development contributing more than environmental, low density and medium use development. We consider this is reasonable as high density and mixed-use development per hectare are expected use social infrastructure more, given the higher number of residents per hectare living in these dwellings relative to other residential development types, suggesting that there may be less outdoor space for this group to use within their residence.

4.4.1 Stormwater

The LCM CP apportions 100% of the total cost of stormwater works to the development area. Between development types the stormwater contribution of a development is calculated based on share of Net Developable Area to total.

The change in land use of the precinct from rural to urban means that demand for new stormwater infrastructure arises entirely from within the precinct itself when an area is converted to impervious surfaces through new development. We therefore consider that the Net Developable Area basis for determining stormwater contributions is reasonable and consistent with the impactor pays principle.

4.4.2 Transport

The transport works proposed by the plan are designed to facilitate the increased pedestrian and vehicular traffic within in the area. costs have been 100% apportioned to new development. Demand for each of the different categories of infrastructure is consistent across residential development in the Precinct. Demand for transport infrastructure is also shared with non-residential development. The split between residential and non-residential is 98% and 2% respectively. This reflects the proportions of net developable area that is used for both residential and non-residential development.

The plan delivers local roads and collector roads to improve connectivity within the precinct, which is relatively contained and bordered by rural land. The council has removed infrastructure from the plan that has received State Infrastructure Contribution funding. This includes two sub-arterial roads which provide a benefit to road users beyond the precinct.

4.4.3 Open space

Open space apportionment with the LCM CP is 100% to the precinct and is completely apportioned to the residential population on a per person basis.

The open space proposed in the plan is required to meet the new demand of the residential population within the area. Therefore, we consider the apportionment is reasonable, as the 20,735 residents within the LCM precinct are expected to be the main users of open space.

4.4.4 Community facilities

The proposed community facilities are designed to have a capacity to service a population of 78,814. This is larger than the population of the LCM precinct and will be shared by residents of an area known as the 'Context Plan Area' which includes bordering precincts. The cost of land for the community facilities has been apportioned to the precinct based on the share of population within the LCM precinct compared to the broader Context Plan Area population. The cost of land for community facilities apportioned to the LCM precinct is 26% based on a planned population of 20,735.

4.4.5 Land

The apportionment of land is consistent with works apportionment for each infrastructure type. Land for stormwater, open space and transport works is apportioned 100% to the precinct. Land that relates to community facilities is apportioned at 26% as above.

4.5 Timing

The council has provided indicative timeframes for the delivery of infrastructure that are subject to change. The planned purchase of land is expected to occur between 2022-2026, with works following this. The dates are an indication for the scheduling of works. All dwellings are expected to be delivered over 15 years. We expect that infrastructure delivery for roads and stormwater should be delivered before or in line with the delivery of development within the precinct, while open space may follow delivery of housing should be delivered progressively and in line with the population. The staging and timing of development is variable and subject to change. A more specific timeframe on the delivery of items should be made available as the delivery of the LCM CP progresses.

4.5.1 Stormwater

The timing for the delivery of stormwater is based on the expected staging and progress of development throughout the precinct, with development generally commencing in the eastern portion of the precinct adjacent to The Northern Road and heading in westerly direction over time.

Stormwater land and works are expected to be delivered by 2036. Around 30% of stormwater infrastructure is expected to be delivered by the financial year ending 2026, a further 20% by 2030 and the rest by 2036.

4.5.2 Transport

The provision of roads infrastructure is proposed to be largely delivered early within the life of the LCM CP. Almost 60% of land and works is planned to be delivered by the financial year ending 2026. We consider this profile is reasonable given that transport works enable the delivery of the development and other infrastructure.

4.5.3 Open space

Around 25% of open space expected to be delivered by the financial year ending 2026, a further 45% by 2031 and around 30% by 2036.

4.5.4 Land

The plan includes 103.9 hectares of land, all of which is yet to be acquired. The "indicative scheduling of works" in the works schedule of the plan adopts an approximate time window of 4-5 years at different stages of the plan. This is dependent on the acquisition of the land. There are six landowners to acquire land from, with most of the land required from two significant landowners. The planned timing of the acquisition of the land is between 2022 and 2036. This timeframe should be updated as the contribution plan develops, as the timing of the purchase of land is important for the timing of construction of the works schedule and for the application of LVI.

We consider that the indicative timing of land acquisitions is reasonable at this stage. As the plan progresses, we consider future revisions of the plan should provide a more detailed time frame for land acquisition that also corresponds to a more detailed timeframe for the delivery of works in the contributions plan.

Draft recommendation

6. In its next review of the plan (or within 5 years), Camden Council should review and provide more detailed timing for:
   - when land will be acquired
   - the delivery of works.

4.6 Consultation

IPART must assess if the council has conducted appropriate community liaison and publicity in preparing the LCM CP.

The council exhibited two versions of the LCM CP on public exhibition on two occasions:

- 29 July to 29 August 2022 (previous draft)
- late March to late April 2023 (current draft)

The previous draft, publicly exhibited in July 2022, received one submission. Each item was responded to by the council. A summary of the key comments is shown in Table 4.21.

Table 4.21 Exhibition submissions and Council responses

Stakeholder	Comment	Council response
Maryland Estate Developments	Contingencies ranging from 10-20% are too high and there is a lack of detail relating to contingencies.	IPART allow for contribution plans to collect contingencies for professional fees. IPART to determine the final and appropriate contingencies during the process.
	Suggest removing staging as this is irrelevant at to the administration of the plan	LCM CP has removed staging.
	Cost estimates relating to transport are 25% higher than the cost estimates made by developer.	Costings have been informed by an independent quantity surveyor in October 2021. IPART to review costings.
	Culvert crossings should be moved into stormwater, not included in road costs	Culvert crossing costs have been included in road costs as they are delivered in concurrence with the road upgrade, irrespective of who may deliver them.
	Suggestion to apply embellishment rate per square metre. In Feb 21, IPART's review of embellishment rates identified rates between $43 and $151 per sqm of open space, with most of the plans under $110. Given that no design has been undertaken, we suggest an embellishment rate around $90 per square metre applied across the local parks would be appropriate	Park embellishment works have been estimated by an independent quantity surveyor. The QS report adopts standard rates and equal levels of general embellishment for each park. Prices of embellishment only differ where a park is identified to either have a local play space or large playground including picnic and BBQ facilities. LCM CP will be reviewed by IPART.
	Estimates for sports fields are too high. Double playing fields in the plan are $17.7m whereas recent fields of similar nature have been delivered for under $10m.	Sports fields works have been estimated by an independent quantity surveyor. LCM CP will be reviewed by IPART.
	The sub arterial roads (SR.3 and SR.2) should not be included as part of contribution plan.	Council has requested the Department of Planning and Environment to include sub-arterial roads as part of the SIC framework. Should the state government agree, the roads will be removed from the contribution plan.

Source: Camden Council, Lowes Creek Maryland, 'Response to LCM CP submission'

The council has responded to the submission. Comments about costs were addressed by noting that IPART will review costs. Our assessment of reasonable cost is discussed in section 4.3 of this report.

The revised plan that was publicly exhibited in March 2023 received no submissions from the public.

We accept that there has been reasonable consultation with the public, as the council provided a reasonable timeframe for submissions and transparently published and responded to submissions.

The council have reallocated stormwater related infrastructure from the transport category, into the stormwater category. The overall costs do not change due to a reallocation of costs within categories. However, we recommend that more detail is provided in the stormwater category in the council's final plan.

Draft Recommendation

7. Camden Council should amend the plan to ensure it reflects the reallocation of stormwater related infrastructure from the transport category.

4.7 Any other Matters

4.7.1 Changes to the Camden Growth Areas Contributions Plan

The LCM CP has been included as a third precinct within the Camden Growth Areas Contributions Plan. We reviewed the first two precincts in the plan (Leppington North Precinct and Leppington Precinct) in 2018. We understand the council has chosen to keep all its growth area plans within 1 set of documents for convenience and consistency.

Our review has focused on the parts of the plan relating to the Lowes Creek Maryland Precinct. In amending the Camden Growth Areas Contributions Plan to include the Lowes Creek Maryland Precinct, some incidental changes have been made to the other parts of the plan. While we have not reviewed parts of the plan that relate to Leppington and Leppington North, we compared the changes between amendment 1 to amendment 3 to ensure no changes were made except those allowable without preparing a new plan under clause 215 (5) of the Regulation. Most changes related to renumbering tables, relabelling sections to clarify which precincts they relate to, formatting or other minor typographical changes.

However, we also identified some material changes relating to Leppington and Leppington North:

- Change to the definition of Low Density Dwelling to remove some types of secondary dwellings in Table 2, and corresponding changes to table 4
- Change to the definition of Medium Density Dwelling to remove some types of secondary dwellings in Table 2 and corresponding changes to table 4
- Change to the definition of a High Density Dwelling to include some types of secondary dwellings in Table 2 and corresponding changes to table 4
- Deletion of a section titled "3.7 Variation to contributions authorised by this plan"
- A change to the process for publishing the Land Value Index for Leppington and Leppington North from engaging a valuer on an annual basis to a quarterly basis.

We have not reviewed these changes in detail as they relate to other areas of the contributions plan, but note that they appear to go further than the amendments permitted under the Regulation without review from IPART. With respect to the change to definitions of low, medium and high-density dwellings we note that the changes to the definitions in tables 2 and 4 do not appear to have resulted in a change to the contribution rates tables for Leppington North and Leppington Precincts in Appendix A and B. This has created an inconsistency within the Camden Growth Areas Contributions Plan and could cause confusion for the rates that apply to certain types of secondary dwellings.

We have determined that these changes are not amendments that can be made without IPART review, and the areas of the contributions plan that they relate to are not the subject of IPART's review. We are seeking stakeholder feedback on the likely impact of these changes.

Draft recommendation

8. We have identified material changes to the Leppington and Leppington North sections of the plan. Camden Council should revert the following sections of the plan to the amendment 1 version:
   - dwelling definitions for table 2
   - reinstate the section titled "variation to contributions authorised by this plan" (previously section 3.7)
   - the annual process for publishing the Land Value Index for Leppington and Leppington North

We seek comment from the council on the following:

2. Camden Council should indicate what is the impact (if any) of reverting the identified material changes to the Camden Growth Areas contributions plan to the amendment 1 version of the document?

4.7.2 Assessment against the EPA regulations and requirements

We have determined that LCM CP contains the information required by Clause 212 of the *Environmental Planning and Assessment Regulation 2021* (EPA). This clause requires the inclusion of certain information in a contributions plan for the purpose of establishing scope and location.

A summary of our assessment of CP24 (2022) against the EPA clause is provided in Table 4.22.

Table 4.22 Assessment against EPA regulations and requirements

Subclause	Requirement	Location in CP
1(a)	Purpose of the plan.	Section 1.6 Main document
1(b)	Land to which the plan applies.	Section 1.7 Main document
1(c)	The relationship between the expected types of development in the area to which the plan applies and the demand for additional public amenities and services to meet that development.	Sections C.1, C.2 & C.3 Technical document
1(d)	The formulas to be used for determining the section 7.11 contributions required for different categories of public amenities and services.	Sections 2.1, 2.2 2.3 2.4 & 2.5 Main document
1(e)	The section 7.11 contribution rates for different types of development, as specified in a schedule in the plan.	Appendix C Main document

Subclause	Requirement	Location in CP
1(f)	A map showing the specific public amenities and services proposed to be provided by the council,	Section C.4 Technical document
1(g)	a works schedule that contains an estimate of their cost and staging (whether by reference to dates or thresholds).	Section C.3 Technical document
1(h)	If the plan authorises monetary section 7.11 contributions or section 7.12 levies paid for different purposes to be pooled and applied progressively for those purposes, the priorities for the expenditure of the contributions or levies, particularised by reference to the works schedule.	Section 5.5 Main document
2(b)	If a contributions plan authorises the imposition of a development levy condition, the plan must contain the method, if any, of adjusting the proposed cost of carrying out the development, after being determined by the consent authority, to reflect quarterly or annual variations to readily accessible index figures adopted by the plan between the day of the determination and the day by which the levy must be paid.	Section 5.4 Main document
3	A contributions plan must contain information about the council's policy about the following— (a) the timing of the payment of monetary development contributions, (b) development levies, (c) the imposition of development contribution conditions or development levy conditions that allow deferred or periodic payment.	Sections 4.1, 4.2 & 4.3 Main document
4	A contributions plan that provides for the imposition of development contribution conditions or development levy conditions in relation to the issue of a complying development certificate must provide that monetary payments in accordance with the conditions must be made before the commencement of the building work or subdivision work authorised by the certificate	Section 4.3 Main document
5	In determining the section 7.11 contribution rates or section 7.12 levy percentages for different types of development, the council must take into consideration the conditions that may be imposed under section 4.17 (6)(b) of the Act or section 97 (1)(b) of the Local Government Act 1993.	Section 4.3.3 Main document
6	A contributions plan may authorise monetary development contributions or development levies paid for different purposes to be pooled and applied progressively for the different purposes only if the council is satisfied that the pooling and progressive application will not unreasonably prejudice the carrying into effect, within a reasonable time, of the purposes for which the money was originally paid.	Section 5.5 Main document

5 Draft recommended contributions rates

Our draft recommended total costs and contribution rates for LCM CP are set out in Table 5.1, Table 5.2 and Table 5.3. These recommended costs and contribution rates reflect changes undertaken by the council to the works schedule since the application was submitted. The total costs of the LCM CP (amendment 3) were approximately $445 million, but have been reduced due to scope changes to collector and local roads discussed previously and a reduction of the Long Service Levy.

Table 5.1 Draft recommended total costs for LCM CP (millions, $June 2021)

Category	Cost
Stormwater management	$67.0[a]
Transport	$55.9[a]
Open space	$96.2[a]
Community facility	$0
Plan administration	$3.3[b]
Land	$219.6
Total	**$442.0**

a. Note this figure accounts for our estimates of a reduced Long Service levy at a rate 0.25%.
b. Note that the plan administration is recalculated at 1.5% of the IPART estimated reasonable works cost.

Source: IPART calculations.

Table 5.2 Draft recommended residential contributions rates for LCM CP ($June 2021)

Category	Dwelling houses in Environmental Living (E4)	Dwelling houses in Low Density Residential Band 1 (R2)	Dwelling houses in Low Density Residential Band 2 (R2)	Dwellings in Medium Density Residential Band 1 (R3)	Dwellings in Medium Density Residential Band 2 (R3)	Dwellings in Mixed Use Residential (B4)
Stormwater management	$12,647	$12,647	$10,117	$7,227	$4,216	$4,216
Transport	$10,552	$10,552	$8,441	$6,030	$3,517	$3,517
Open space & community facility	$14,845	$14,845	$14,845	$13,543	$10,670	$10,670
Plan administration	$620	$620	$496	$354	$207	$207
Land	$36,477	$36,477	$33,629	$28,290	$20,731	$20,731
Total	**$75,141**	**$75,141**	**$67,530**	**$55,354**	**$39,340**	**$39,340**

Source: IPART calculations.

Table 5.3 Draft recommended non-residential contributions rates for LCM CP (2023) ($June 2021)

Category	Rate per ha
Stormwater management	$252,943
Transport	$211,042
Open space & community facility	$0
Plan administration	$12,404
Land	$284,728
Total	**$761,117**

Source: IPART calculations.

A Supporting tables

Table A.1 Stormwater infrastructure and associated costs ($millions, $June 2021)

Description of Work	Area (m²)	Cost (Including on costs)
DB1 - Western online detention basin	62,543	$ 5,498,999.73
DB2 - Offline detention basin (inc 3,130m² filter media)	15,191	$ 3,095,199.82
DB4 - Offline detention basin	12,472	$ 1,887,272.32
DB5 - Offline detention basin	12,367	$ 1,939,871.03
DB6 - Offline detention basin	7,965	$ 1,274,628.92
DB7 - Offline detention basin	14,775	$ 2,284,508.22
DB8 - Offline detention basin	9,123	$ 1,420,150.68
DB9 - Offline detention basin	15,701	$ 2,312,408.35
DB11 - Central online detention basin - upper	51,448	$ 6,117,020.92
DB12 - Central online detention basin - lower	34,969	$ 3,817,887.64
DB20 - Offline detention basin (inc 2012m² filter media)	14,912	$ 2,615,589.42
DBI1 - Offline detention basin	23,980	$ 3,402,419.08
DBI2 - Offline detention basin	29,570	$ 4,131,906.51
DBK1 - Offline detention basin	13,950	$ 2,094,102.59
DBK2 - Offline detention basin	11,600	$ 1,796,352.91
DB NT1 - Offline detention basin	10,560	$ 1,664,401.63
B7 - Bioretention basin	2,310	$ 678,696.52
B8 - Bioretention basin	870	$ 451,092.19
NT1 - Bioretention basin	1,612	$ 565,331.60
K1 - Bioretention basin	2,700	$ 738,545.67
K2 - Bioretention basin	3,200	$ 822,012.14
I1 - Bioretention basin	2,700	$ 738,545.67
I2 - Bioretention basin	7,000	$ 1,443,429.03
9 - Bioretention basin	2,610	$ 725,543.02
6 - Bioretention basin	1,250	$ 509,026.90
4 - Bioretention basin	1,740	$ 585,082.12
LC7 - Bioretention basin	1,000	$ 470,069.30
20 - Bioretention basin	2,010	$ 632,850.62
2 - Bioretention basin	3,130	$ 811,298.09
3 - Bioretention basin	850	$ 447,687.54
13 - Bioretention basin	1,840	$ 600,629.40
14 - Bioretention basin	5,990	$ 1,262,108.72
16 - Bioretention basin	2,650	$ 730,965.94
15,18 - Bioretention basin	3,330	$ 841,587.40
19 - Bioretention basin	2,330	$ 682,135.37
CT8 - Bioretention basin	1,100	$ 486,649.79
5 - Bioretention basin	2,840	$ 760,128.03
10 - Bioretention basin	1,340	$ 523,688.34

Description of Work	Area (m²)	Cost (Including on costs)
Drainage pipework and pits ancillary to Collector Road 1	-	$ 2,530,922.61
Drainage pipework and pits ancillary to Collector Road 2	-	$ 1,009,592.37
Drainage pipework and pits ancillary to Collector Road 3	-	$ 1,064,867.40
Drainage pipework and pits ancillary to Local Road 1	-	$ 614,922.48
Drainage pipework and pits ancillary to Local Road 2	-	$ 686,153.10
Drainage pipework and pits ancillary to Local Road 3	-	$ 118,571.00
Drainage pipework and pits ancillary to Intersection I.12		$ 30,577.15
Drainage pipework and pits ancillary to Intersection I.13		$ 37,008.02
Drainage pipework and pits ancillary to Intersection I.14		$ 37,008.02
Drainage pipework and pits ancillary to Intersection I.15		$ 30,577.15
Drainage pipework and pits ancillary to Intersection I.16		$ 30,577.15
Drainage pipework and pits ancillary to Intersection I.17		$ 30,577.15
Drainage pipework and pits ancillary to Intersection I.18		$ 30,577.15
Total cost	**n/a**	**$67,111,753.92**

Source: Camden Council, Camden Growth Areas Contributions Plan Amendment 3 Technical document, C.3 Works Schedules, p 127

Table A.2 Transport infrastructure and associated costs

Description of Work	Area (m²)	Cost ($)
North/south collector between Precinct boundaries (Eastern side) with culvert crossing	55,503	$14,046,434[a]
East/west collector mid Precinct from CR.1 past SR2 to MD1.1 with two culvert crossings	22,050	$8,550,756
East/west collector adjoining CR.1 to existing intersection on The Northern Road including culvert crossing	14,721[b]	$6,602,795[a]
Local road from SR.2 to end of P.36 (between Maryland Homestead & Home Farm) with culvert crossing	10,560	$5,034,934
Local road from Eastern Collector Rd (CR.1) to end of P.12 (between Maryland Homestead & local open space)	11,856	$5,303,233
Local road from Collector Rd (CR.1) to P21 park with culvert crossing	2,560	$2,668,710
Roundabout (collector) between I.11 & I.13	-	$410,003
Signalised CR.1/CR.3 (Collector x 4)	-	$692,362
Signalised CR.1/CR.2 (Collector x 3 + sports leg)	-	$692,362
Roundabout (collector) between I.14 & I.16	-	$410,003
Roundabout (sub-arterial) between I.15 & I.2	-	$410,003
Roundabout (collector) between I.13 and I.18	-	$410,003
Roundabout (collector) on CR.3 near Northern Rd intersection	-	$410,003
Cycleway/Pedestrian path along riparian corridors linking parks, centres & the Northern Rd shared pathway including creek crossings	22,738	$9,850,507
Bus Stops	-	$375,000[a]
Total	**139,988**	**$55,867,109**

Source: LCM Works schedule and cost model (excel workbook: LCM Am 3 Works Schedule March 2023) and response to RFI June 2023

a. These costs were incorrectly listed within the works schedule of amendment 3 of the plan. The RFI of June 2023 corrected these costs.
b. This area appears to be miscalculated, Camden Council to confirm in its response to the Draft Report.

Table A.3 Open space infrastructure and associated costs

Description of Work	Area (m^2)	Cost (Including on costs) $
P.1 - Local Park inc. picnic tables & bench seats	6,975	889,772
P.2 - Local Park inc. picnic tables & bench seats	4,584	577,181
P.3 - Local Park with large playground inc. shade sail, picnic & BBQ facilities, bench seats	25,523	3,659,753
P.4 - Local Park inc. picnic tables & bench seats	6,771	809,613
P.5 - Local Park inc. picnic tables & bench seats	19,414	2,344,880
P.6 - Local Park with large playground inc. shade sail, picnic & BBQ facilities, bench seats	25,681	4,132,052
P.7 - Local Park inc. picnic tables & bench seats	7,681	906,403
P.8 - Local Park inc. picnic tables & bench seats	7,486	885,961
P.9 - Local Park with local playspace inc. shade sail, picnic table, bench seats	6,321	1,291,976
P.10 - Local Park with local playspace inc. shade sail, picnic table, bench seats	31,506	3,517,468
P.11 - Local Park inc. picnic tables & bench seats	5,003	621,583
P.12 - Local Park with local playspace inc. shade sail, picnic table, bench seats	16,242	2,521,926
P.13 - Local Park with local playspace inc. shade sail, picnic table, bench seats	5,019	1,234,730
P.14 - Local Park inc. picnic tables & bench seats	10,257	1,656,564
P.15 - Local Park with local playspace inc. shade sail, picnic table, bench seats	15,714	2,477,749
P.16 - Local Park inc. picnic tables & bench seats	49,216	5,579,766
P.17 - Local Park with local playspace inc. shade sail, picnic table, bench seats	6,218	1,381,989
P.18 - Local Park inc. picnic tables & bench seats	14,735	1,731,552
P.19 - Local Park inc. picnic tables & bench seats	9,706	1,211,538
P.20 - Local Park inc. picnic tables & bench seats	9,344	1,294,355
P.21 - Local park with local playspace inc. shade sail, picnic table, bench seats	9,099	1,712,505
SF.1 - Multipurpose sportsfields/large playground inc. picnic/BBQ, parking facilities	55,316	10,475,929
SF.2 - Multipurpose sportsfields/large playground inc. picnic/BBQ, parking facilities	104,297	17,745,345
SF.3 - Multipurpose sportsfields/large playground inc. picnic/BBQ, parking facilities	112,649	17,485,732
SF.4 - Multipurpose fields/large playground inc. picnic/BBQ (parking facilities with CC)	51,477	10,123,762
P.1 - Local Park inc. picnic tables & bench seats	6,975	889,772
P.2 - Local Park inc. picnic tables & bench seats	4,584	577,181
P.3 - Local Park with large playground inc. shade sail, picnic & BBQ facilities, bench seats	25,523	3,659,753
P.4 - Local Park inc. picnic tables & bench seats	6,771	809,613
P.5 - Local Park inc. picnic tables & bench seats	19,414	2,344,880
P.6 - Local Park with large playground inc. shade sail, picnic & BBQ facilities, bench seats	25,681	4,132,052
Total	**616,234**	**96,270,084**

Source: Camden Council, Camden Growth Areas Contributions Plan Amendment 3 Technical document, C.3 Works Schedules, p 126

Table A.4 Typical bioretention scope and costing

Description of Work	Quantity	Unit	Rate	Total
SITE PREPARATION & EARTHWORKS				
Clearing, grubbing and demolition	1,000	m²	$ 1.25	$ 1,250.00
Provision and maintenance of erosion & sediment control	1,000	m²		
Geofabric lined silt fence including steel dropper posts at 3m centres	20	m	$ 15.00	$ 300.00
Geofabric sediment barrier around inlet and raised pits	2	No	$ 150.00	$ 300.00
Stabilised site access	1	Item	$ 4,500.00	$ 4,500.00
Jute matting	300	m²	$ 10.00	$ 3,000.00
Temporary catch drains	125	m²	$ 40.00	$ 5,000.00
Rubble check dam	75	m²	$ 80.00	$ 6,000.00
Strip topsoil	1,000	m²	$ 2.45	$ 2,450.00
Stockpile topsoil	100	m³	$ 5.80	$ 580.00
Spread and compact 200mm topsoil on batters etc	72	m³	$ 9.00	$ 648.00
Remove excess topsoil from site	24	m³	$ 12.00	$ 288.00
Earthworks - Cut to Fill	220	m³	$ 6.40	$ 1,408.00
Import fill	370	m³	$ 12.00	$ 4,440.00
Trim, grade and compact basin	1,000	m²	$ 3.50	$ 3,500.00
Hydroseeding to disturbed areas	480	m²	$ 1.00	$ 480.00
Soil Treatment - Addition of gypsum for salinity management	1,000	m²	$ 3.75	$ 3,750.00
Re-spread excess material on site including compaction & stabilisation, stripping and replacement of topsoil (assuming 0.75m thickness)	1,560	m³	$ 9.00	$ 14,040.00
Planting/turf including 24 months maintenance	800	m²	$ 22.00	$ 17,600.00
Reinforced turf on weir and spillway (including maintenance for 2 years)	80	m²	$ 45.00	$ 3,600.00
Signage and bollards	1	Item	$ 10,000.00	$ 10,000.00
TOTAL EARTHWORKS				**$ 83,134.00**
STORMWATER DRAINAGE				
Excavate in all classes of material. Supply, bed, lay, joint and backfill stormwater				
DN1050 RRJ RCP Class 3 inlet pipe and outlet pipe from Road Drainage	6	m	$ 600.00	$ 3,600.00
Grated surface inlet pit with raised pit	1	No	$ 6,500.00	$ 6,500.00
Geotextile fabric - non woven polypropylene 2.8mm thick	40	m²	$ 10.00	$ 400.00
Rip Rap - supply, deliver and place scour 250mm DIA rock scabbling	40	m²	$ 140.00	$ 5,600.00
Subsoil Drains including flushing points	100	m	$ 36.00	$ 3,600.00
1050mm dia RCP headwall and associated scour protection	1	No	$ 6,000.00	$ 6,000.00
GPT unit	1	No	$ 120,000.00	$ 120,000.00
Hardstand for GPT maintenance	50	m²	$ 140.00	$ 7,000.00
Maintenance access pavement	220	m²	$ 140.00	$ 30,800.00
Media bed construction	160	m²		
Drainage layer - 200mm	32	m³	$ 220.00	$ 7,040.00
Transition layer - 200mm	32	m³	$ 225.00	$ 7,200.00

Description of Work	Quantity	Unit	Rate	Total
Filter media layer - 400mm	64	m^3	$ 205.00	$ 13,120.00
Raingarden planting	160	m^2	$ 30.00	$ 4,800.00
TOTAL LOW FLOW STORMWATER DRAINAGE				**$ 215,660.00**
SUBTOTAL				**$ 298,794.00**
Preliminaries (8%)	1	Item	$ 24,747.68	$ 24,747.68
Margin (5%)	1	Item	$ 16,704.68	$ 16,704.68
LSL (0.35%)	1	Item	$ 1,227.79	$ 1,227.79
TOTAL [Bioretention] BASIN EXCLUDING FEES, APPROVALS, MANAGEMENT AND CONTINGENCY	**1,000**	**m^2**	**$ 352.00**	**$ 341,474.15**
Delivery Agency and Professional Fees - Pre-planning/Strategic Design (1.5%)	1	Item	$ 5,280.39	$ 5,280.39
Delivery Agency and Professional Fees - Concept Design (3%)	1	Item	$ 10,560.78	$ 10,560.78
Delivery Agency and Professional Fees - Detailed Design (5.5%)	1	Item	$ 19,361.44	$ 19,361.44
Environmental Approvals (1%)	1	Item	$ 3,520.26	$ 3,520.26
Project Management (2.5%)	1	Item	$ 9,768.73	$ 9,768.73
Construction Contingency (20%)	1	Item	$ 80,103.55	$ 80,103.55
Contribution Plan Administration (1.5%)	1	Item		Excluded
TOTAL OFFLINE DETENTION BASIN	**1,000**	**m^2**	**$ 481.00**	**$ 470,069.30**

Source: supporting information provided to IPART with the LCM CP application Mitchell Brandtman report p 28 of Appendix.

Note: There appears to be an error in the supporting information which refers to all basins as 'total offline detention basins', including bioretention basins. We have corrected the apparent error in this table.

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