



Assessment of Appin Growth Area Contributions Plan 2024

Wollondilly Shire Council

Draft Report

December 2024

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 Tribunal members for this review are:

Carmel Donnelly PSM, Chair
Sue Weatherley
Tim Moore
Kelly Kwan

Enquiries regarding this document should be directed to a staff member:
Isaac Di Matteo (02) 9113 7719
Bronwen Sandland (02) 9113 7710

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 Friday, 24 January 2025

We prefer to receive them electronically via our [online submission form](#).

You can also send comments by mail to:

Assessment of Appin Growth Area Contributions Plan 2024
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop, Sydney NSW 1240

If you require assistance to make a submission (for example, if you would like to make a verbal submission) please contact one of the staff members listed above.

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If you would like further information on making a submission, IPART's [submission policy](#) is available on our website.

The Independent Pricing and Regulatory Tribunal

IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from [IPART's website](#).

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Content warning

Readers – particularly First Nations people – please be aware that section 10.7 (page 52) of this report refers to the Appin Massacre and significant sites connected with this history.

Chair's Foreword

Appin Growth Area Contributions Plan 2024

This report outlines our assessment of Wollondilly Shire Council's Appin Contributions Plan 2024 against the Department of Planning, Housing and Infrastructure's Local Infrastructure Contributions 2019 Practice Note and other relevant guidance. This is the first time we have reviewed the Appin Contributions Plan 2024, and some complex issues have emerged during this review.

As IPART progresses the assessment of the Appin CP, there is a level of uncertainty due to the supporting documentation that is not yet finalised. Primarily, the Development Control Plan (DCP) for the area, which will provide guidance for the design and operation of development within the Wollondilly Local Government Area to achieve the aims and objectives of the [State Environmental Planning Policy \(Precincts—Western Parkland City\) 2021](#). DCPs typically include development controls for urban design, stormwater drainage, landscaping, and parking and access.

Under section 4.15 of the [Environmental Planning and Assessment Act 1979](#), the consent authority is required to take into consideration the relevant provisions of the DCP in determining an application for development in the relevant Local Government Area. While Wollondilly Shire Council does not expect material changes to the Appin Contributions Plan from a DCP coming into effect, there is a risk that the DCP may not accord with development assumptions and expected additional population.

We've carefully considered the merits of delaying our assessment or making recommendations that the CP is not approved until all additional details are known and supporting documentation finalised. However, the impact of delay may increase the risk of a funding gap for the council and ratepayers, if developers have not been required to pay adequate contributions during the early phases of new development.

For this reason, and the fact that the plan is in its conceptual stage, we have decided to proceed with assessing the plan, noting that the next revision of the CP should be able to reflect the DCP.

Subject to the outcome of this consultation and our final assessment, we consider it preferable to recommend reasonable contributions as part of a first version of a contributions plan and to recommend more frequent revisions of the CP as key documents and information become available.

Carmel Donnelly PSM

Tribunal Chairperson

Chair of IPART Local Government Contributions Plans Committee

1 Executive Summary

New development is essential to provide housing for NSW's growing population and more commercial, retail, and industrial space for employment. When development occurs, local councils need to provide additional infrastructure to support both the development and the new community – for example, new roads, stormwater management and open spaces. In NSW, councils can require developers to contribute to the cost of providing that infrastructure.

1.1 IPART's Role

Contributions plans set out the local infrastructure required to meet the demand from new development, and the contributions a council can levy on developers to fund the necessary land and works.^a Currently, a contributions plan that proposes a level of contributions above a threshold of \$30,000 per lot or dwelling in identified greenfield areas and \$20,000 per dwelling in other areas must be submitted to IPART for review.

IPART provides its assessment to the Minister for Planning and Public Spaces about whether the plan complies with the essential works list and other criteria set out in the Infrastructure Contributions Practice Note (2019 Practice Note) published by the Department of Planning, Housing and Infrastructure (DPHI).^b The 2019 Practice Note must be read in conjunction with the Department of Planning and Environment's Development Contributions Practice Notes, July 2005 (2005 Practice Notes) which outline the requirements for local councils in preparing and administering their contributions plans.

1.2 Appin Growth Area Contributions Plan 2024

Wollondilly Shire Council (the council) submitted *Appin Growth Area Contributions Plan 2024* (Appin CP) to IPART for assessment on 28 June 2024.^c The council is seeking to levy contributions above the applicable \$20,000 cap per lot/dwelling. This is the first time that IPART is reviewing the Appin CP.

The Appin CP covers a net developable area of 1,357.7 hectares^d and is projected to deliver 18,650 dwellings for a total population of 55,950 residents over the next 30 plus years. The total cost of the plan is \$1.535 billion with a contribution rate of \$84,933 for an average dwelling.¹

^a Section 7.11 of the *Environment Planning and Assessment Act 1979* allows councils to levy contributions towards the cost of providing local infrastructure.

^b The NSW Department of Planning, Housing and Infrastructure (DPHI), formerly NSW Department of Planning and Environment (DPE). This change took place on 1 January 2024, and this report will refer to DPE/DPHI interchangeably.

^c While the council submitted the Appin CP in June, the version of the publication lodged to IPART for assessment is dated July 2024. When referenced, this report will date the Appin CP as July 2024.

^d There is a typographic error in the Appin CP which incorrectly states the net developable area of the land included. For the Appin CP's net developable area, this report refers to the works schedule for the Appin CP instead, as it contains the correct figure.

1.3 Our draft assessment of the Appin CP

IPART must review the Appin CP and provide its assessment to the Minister for Planning and Public Spaces (Minister). The Minister (or the Minister's nominee) may require the council to make changes to the plan. After the council makes any changes and adopts the plan, the council can levy the contributions rate as calculated under the adopted plan.

We assessed the Appin CP against the 2019 [Practice Note](#) criteria summarised as follows:

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 of the Appin CP involved reviewing the contributions plan and supporting documentation supplied by the council, including the council's application form, the works schedule, strategic studies, and consultant reports.

We also made several requests for further information from the council and conducted a visit to the council and the proposed development site to assist us in assessing the plan.

For more details on our assessment approach, please see our [Information Paper](#).

The remaining sections of this Draft Report provide a background of the Appin CP, our assessment of the plan, and draft recommendations.

1.4 What we found

Our draft finding is that the plan meets most of the 2019 Practice Note criteria, except for reasonable cost (see Figure 1.1). However, in undertaking this draft assessment there is a level of uncertainty as supporting documentation, such as the Development Control Plan (DCP) for the area, is not yet available. Nevertheless, we consider there is sufficient information for our draft assessment, and we have provided draft recommendations on what additional information the council needs to provide before this assessment is finalised.

We have made draft recommendations where the Appin CP has not completely met the criteria, although, this has not resulted in any adjustments to the costs in the work schedule by IPART. This is because we acknowledge that the plan is at an early stage and costs will be subject to change, but we have noted specific areas related to reasonable cost for the council to address.

Figure 1.1 Summary of our draft assessment of the Appin CP

| Essential works list | Nexus | Reasonable cost | Reasonable apportionment | Reasonable timeframe | Community liaison and publicity | Other matters |
|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |
| Demonstrated | Demonstrated subject to recommendation | Seeking further information | Demonstrated subject to recommendation | Demonstrated | Demonstrated | Demonstrated subject to recommendation |

1.5 Draft recommendations

Draft recommendations

| | | |
|----|--|----|
| 1. | Before the council next submits the Appin CP to IPART, that the council reviews the scope and costs of stormwater infrastructure. | 23 |
| 2. | That the council adjust the work schedule to correct the following errors: | 25 |
| | a. adjust the length upgrade of AT1.1.3 | 25 |
| | b. adjust the additional width upgrade of AT1.3.1 | 25 |
| | c. adjust the length and width of AT2.1.1 | 25 |
| | d. adjust the length and additional width upgrades of AT4.2.1 | 25 |
| | e. adjust the length and width of AT4.3.1 | 25 |
| | f. reduce the quantity of bus shelters to be commensurate with the revised lengths of collector roads | 25 |
| 3. | That the council develops tailored rates per square metre for each size and type of open space infrastructure item included in the CP. | 37 |
| 4. | That the council considers the analysis outlined in this Draft Report and revises, embellishment quantities (i.e. amounts of play equipment, etc.), and the scope and cost of open space works. | 37 |
| 5. | That the council consider developing a bespoke Land Value Index (LVI) for the Appin Growth Area, opting for one of the North West Growth Area indexes, or proposing a functional alternative to help ensure that land acquisition costs are as reflective of market value as possible. | 41 |
| 6. | That the council should include a land acquisition allowance for the purposes of land acquisition under the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> . | 41 |
| 7. | That the council update the cost of plan administration to be 1.5% of the revised total works cost. | 42 |

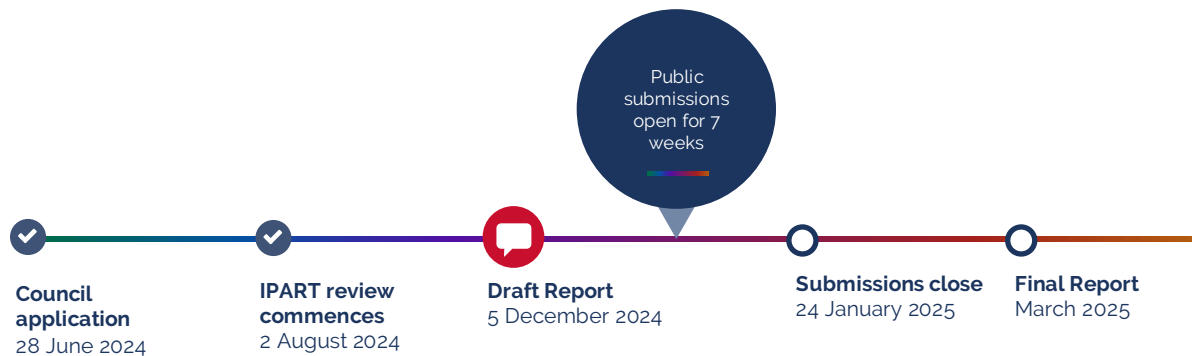
| | | |
|-----|--|----|
| 8. | That the council revise the allocation of commercial land in the Appin CP to be commensurate with an expected additional population of 55,950, and update the apportionment and contribution rates to reflect the revised allocation of commercial land. | 50 |
| 9. | That the council use an ABS PPI to apply to the base contribution rates at the time of payment for each specific category of works, to more accurately reflect movements in the cost of works over time. | 51 |
| 10. | That the council update the plan as and when relevant supporting documentation and actual cost values become available. | 51 |
| 11. | The council should make adjustments for any grant funding received for infrastructure in the plan, following the adoption of the plan. | 51 |

1.6 We want to hear from you

We are seeking feedback on our draft report and recommendations listed above until **24 January 2025**. We have extended the submission window to allow for the December and January holiday periods.

We will consider all the feedback we receive as well as the results of our analysis in forming our final recommendations. We expect to provide our final recommendations to the Minister by March 2025.

Figure 1.2 Review timeline for Appin CP



Have your say

Your input is critical to our review process.

[Submit feedback >>](#)

You can get involved by making a submission.

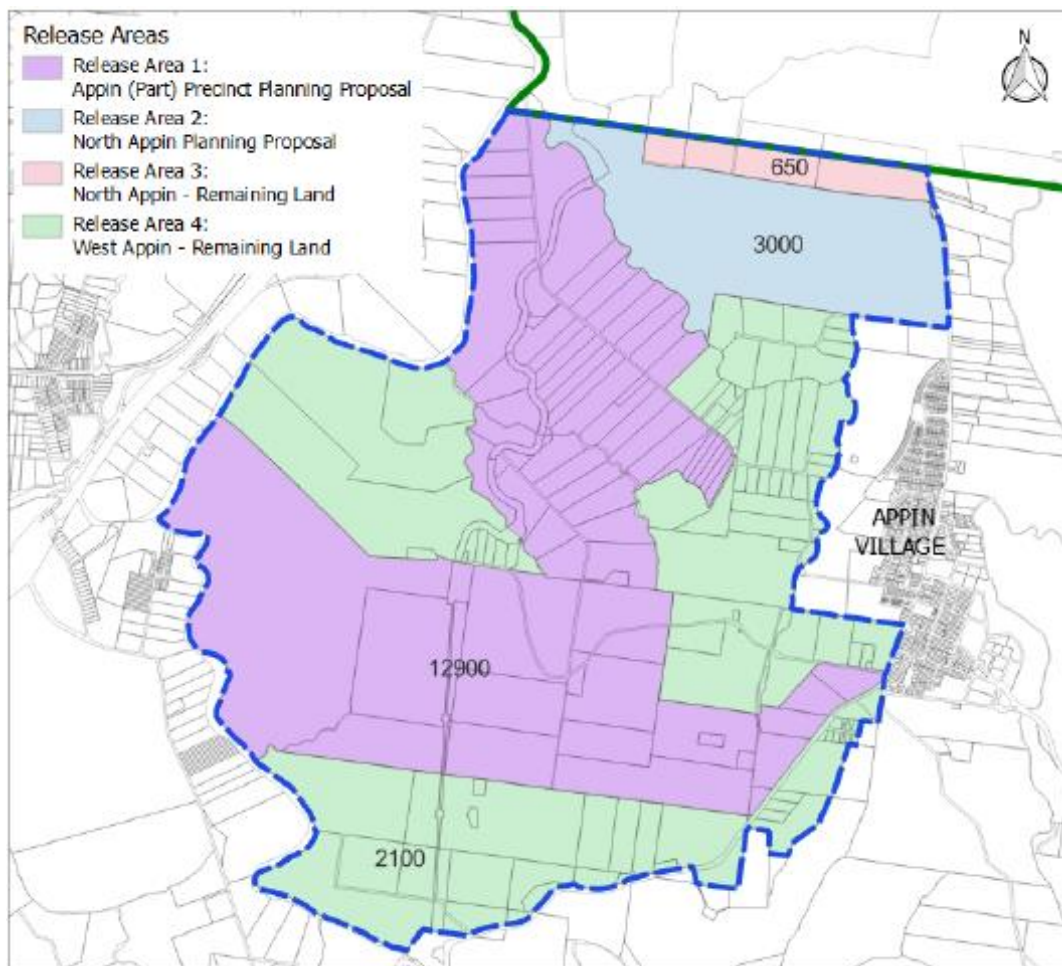
2 Appin Growth Area Contributions Plan 2024

2.1 Appin Growth Area land and development

The Appin CP covers the Appin Growth Area within the Wollondilly local government area (LGA), excluding Appin Township which is already self-sufficient. The Appin Growth Area is part of the Greater Macarthur Growth Area (GMGA), which is cross-LGA and covers several precincts.³

The Appin Growth Area is partitioned into 4 Release Areas and has a net developable area (NDA) of 1,357.7 hectares.⁴ It is located between the Hume Highway and Appin Road, towards the northeast corner of the Wollondilly LGA and is the southernmost land release precinct in the GMGA. The total area of the Growth Area within the Wollondilly LGA covers approximately 2,950 hectares.⁵

Figure 2.1 Map of Appin Growth Area by Release Area



Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, July 2024, p 31.

With the Appin Growth Area rezoned⁶, proposed to be rezoned^{7,8,9}, or planned for urban use^e, the future greenfield development will replace the predominantly rural landscape that is currently used for a range of agricultural purposes. The Appin Growth Area comprises 1,352.6 hectares of residential land and 5.1 hectares of commercial land^f to be developed.

Table 2.1 Proposed land use for development area

| Land use | Total area (hectares) | Total area (%) |
|--------------|-----------------------|----------------|
| Residential | 1,352.6 | 99.6 |
| Commercial | 5.1 | 0.4 |
| Total | 1,357.7 | 100 |

Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, Works Schedule, July 2024.

In terms of the development area, the Appin CP:

- assumes a potential dwelling yield of 18,650, providing homes for a projected population of 55,950 once fully developed, as well as providing local infrastructure
- estimates the creation of around 4,550 jobs, attributable to the non-residential commercial development⁹
- will be implemented over a period extending beyond 30 years, with 83% of development set to be completed by 2051.¹⁰

For the residential development, 80% is anticipated to be low density and 20% is anticipated to be medium density.¹¹ We note that a Development Control Plan (DCP), which defines density areas, is yet to be finalised for the Appin Growth Area. Considering the wider LGA, Wollondilly Shire's current population density is 0.2 persons per hectare. Based on the projected population increase, the density is forecast to rise to 19 persons per hectare.¹² This is derived from the council's occupancy rate assumptions in Table 2.2 below.

Table 2.2 Residential occupancy rate assumptions

| Residential development type | Occupancy rate (per dwelling/lot) |
|--|--|
| Residential subdivision lot | 3.1 persons |
| Dwelling house, dual occupancy, rural workers' dwelling | 3.1 persons |
| Attached dwelling, abutting dwelling, semi-detached dwelling, multi dwelling housing, manor home | 2.6 persons |
| Apartment, residential flat building or shop top housing | 2.2 persons |
| Self-contained dwelling in a seniors housing development | 1.5 persons |
| Secondary dwellings, studio dwellings, boarding houses, group homes, hostels | 1 person per secondary dwelling, 1 person per bed, or 1 person per bedroom, whichever is greater |

Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, July 2024, p 36.

^e There is remaining land within the Appin Growth Area where development is expected to eventuate but are not yet subject to planning proposals. This includes Release Area 3 and areas within Release Area 4, which have been included in the contributions plan (see 3.2.3).

^f Non-residential land volume is not proportionate to the additional population in the Appin CP and is subject to revision (see 10.3 and recommendation 8).

⁹ Estimates of jobs created from commercial development is subject to change following the revision of land allocation.

11 major landowners collectively own over 65% of the land holdings within the Appin Growth Area. The balance of land comprises private, individual landowners, or existing roads and infrastructure.¹³ The council has not yet acquired any of the land required for community facilities, open space and roads.¹⁴

The Appin Growth Area is divided into 4 Release Areas which are each subject to one or more planning proposals, with one or more main developer or landowner. Release Areas 1 and 4 are part of the overarching West Appin Precinct, and Release Areas 2 and 3 are part of the North Appin Precinct that is within the Wollondilly LGA boundary^h.

Table 2.3 Division of Release Areas in the Appin Growth Area

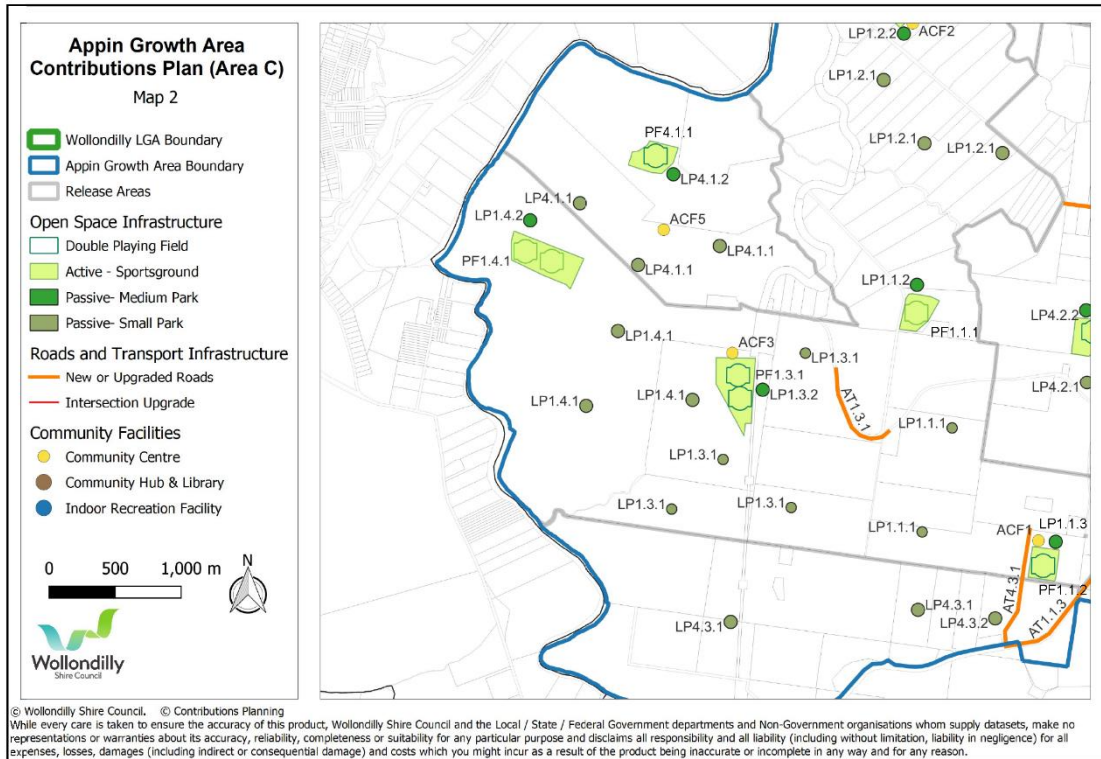
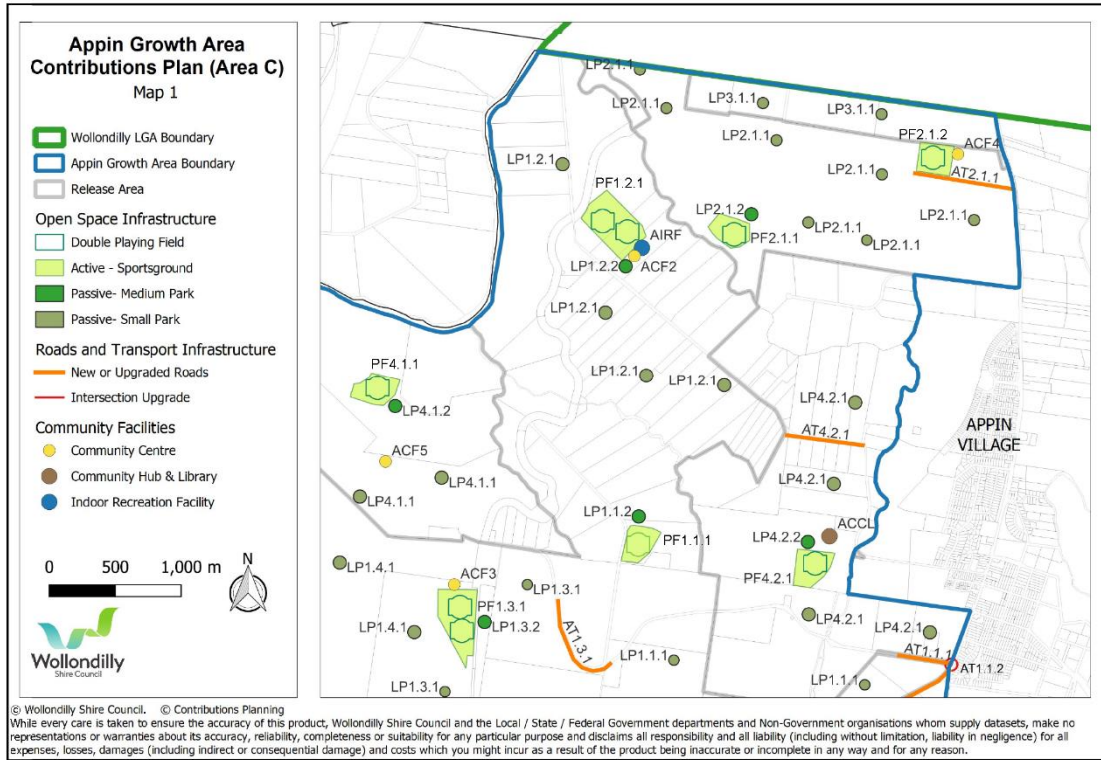
| Precinct/planning proposal | Main developer/landowner |
|---------------------------------|---|
| Release Area 1 | |
| Appin (Part) Precinct | Walker Corporation |
| Release Area 2 | |
| North Appin (Part) Precinct | Ingham Property Group |
| Release Area 3 | |
| North Appin (remaining land) | MIR Group |
| Release Area 4 | |
| Appin (Part) Precinct No. 2 | Walker Corporation |
| Brooks Point Planning Proposal | Appin Farmers Pty Ltd and Auslands Developments Pty Ltd |
| Remaining Release Area 3A | Various |
| Remaining Release Area 4A | MIR Group |
| Release Area 5 | Blight Family |
| Vacant land east of Wilton Road | Various |

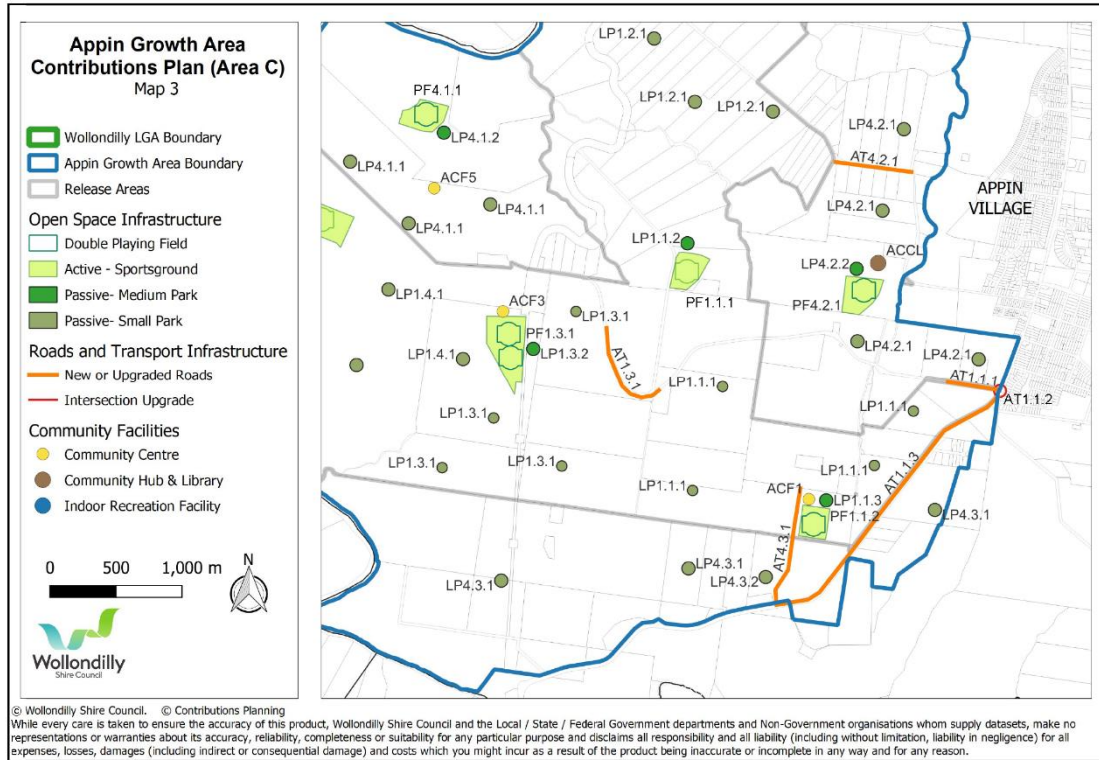
Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, Works Schedule, July 2024.

Figure 2.2 (maps 1-3) shows the indicative planning for transport, open space, and community facilities across the area.

^h Additional North Appin Precinct land is contained within City of Campbelltown.

Figure 2.2 Appin CP infrastructure maps





Source: Wollondilly Shire Council. *Appin Growth Area Contributions Plan 2024*, July 2024, pp 72-74.

2.2 Contents of the Appin CP

To support development in the precinct, the plan levies contributions for infrastructure covering roads and transport, stormwater management, open space, and land for community facilities.

2.2.1 Land and items included

Total cost proposed by the Appin CP is \$1.535 billion, comprised of \$592 million in land costs and \$943 million in works costs.¹⁵

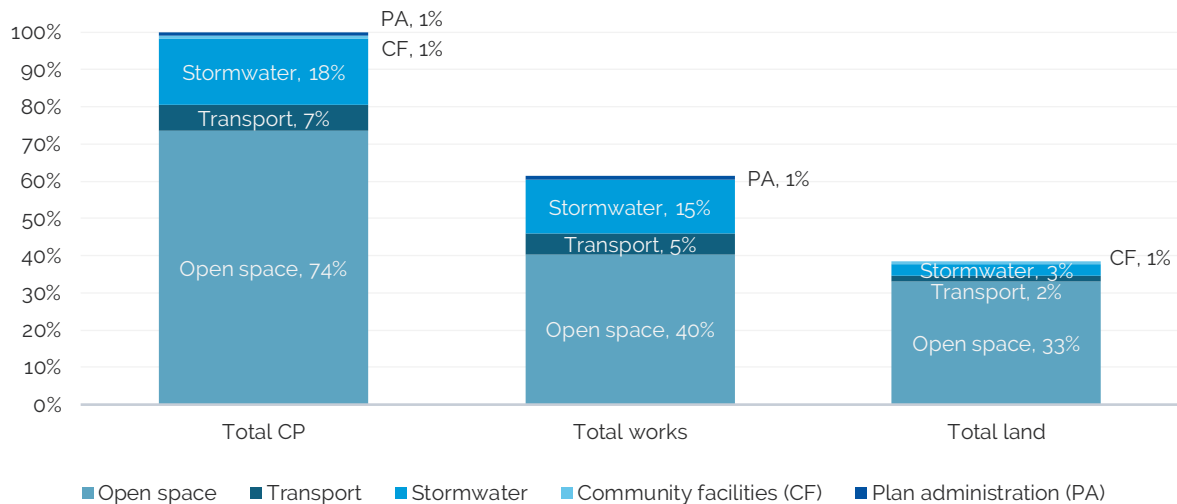
Table 2.4 Total costs of Appin CP (\$millions, December 2023)

| Infrastructure category | Land cost | Works cost | Total cost | % of total cost |
|-------------------------|------------|------------|--------------|-----------------|
| Open space | 510 | 621 | 1,130 | 73.6 |
| Roads and transport | 23 | 84 | 107 | 7.0 |
| Stormwater facilities | 47 | 225 | 272 | 17.7 |
| Community facilities | 13 | - | 13 | 0.8 |
| Plan administration | - | 14 | 14 | 0.9 |
| Total | 592 | 943 | 1,535 | 100 |

Source: Wollondilly Shire Council. *Appin Growth Area Contributions Plan 2024*, July 2024, p 16 and IPART analysis.

Figure 2.3 below displays the proportion of the total costs of the Appin CP from each infrastructure category, the total costs of works and the total costs of land. Overall, works account for around 61% and land accounts for about 39% of the total cost of the Appin CP.

Figure 2.3 Proportion of Appin CP total costs by each infrastructure category



Note: Totals may not equal due to rounding.

Source: IPART analysis and Wollondilly Shire Council, Appin Growth Area Contributions Plan 2024, Works Schedule, July 2024.

Stormwater

The plan proposes to deliver about \$224.9 million worth of stormwater works within the Appin Growth Area. This includes combined basin and raingarden facilities, with other Water Sensitive Urban Design (WSUD) stormwater management included in roads and transport infrastructure. The works are proposed to cover 58 hectares, with the council incurring land acquisition costs of almost \$46.7 million.¹⁶

Table 6.1 contains the full list of stormwater infrastructure items and associated costs.

Transport

The plan proposes to deliver about \$83.6 million worth of roads and transport works within the Growth Area. This includes new collector roads, new local roads, new roundabouts and intersection controls, as well as upgrades to existing roads and roundabouts. The works are proposed to cover 7 kilometres, with the council incurring land acquisition costs of around \$23.2 million.¹⁷

Table 6.2 contains the full list of transport infrastructure items and associated costs.

Open space

The plan proposes to deliver a total of 139 hectares of open space works, which includes approximately 63 hectares of passive open space and 76 hectares of active open space, excluding an additional 20 hectares for a state-led regional park.

Broadly, this includes:

- 47 new local and district parks (small and medium size)
- 12 new double playing fields
- 38 new multipurpose courts
- associated car parks and amenities.¹⁸

The costs to deliver the plan's proposed open space works is around \$620.6 million, with the council incurring land acquisition costs of about \$509.7 million.¹⁹

Table 6.4 contains the full list of open space infrastructure items and associated costs.

Community facilities

The plan proposes to allocate 30 hectares of land for community facilities, with no costs for works included in the contribution rates. This share of land is planned to include community hubs, local multipurpose community centres, and an indoor recreation facility, with the council incurring land acquisition costs amounting to \$12.8 million.²⁰

Table 6.8 contains the full list of land for community facility items and associated costs.

Plan administration

The Appin CP includes a plan management and administration cost of around \$13.9 million.²¹

2.2.2 Proposed contribution rates

The Appin CP intends to levy contributions based on the relevant apportionment of the total costs of land acquisition, works required to service the development, and plan administration.

This council proposes a maximum contribution rate of \$84,933 and a minimum of \$27,417 per dwelling for residential development, and \$298,634 per hectare for commercial development. below sets out the proposed contribution rates for each development type.²²

Table 2.5 Appin CP proposed contribution rates (\$Dec-23)

| Development type | Contribution rate |
|---|-------------------|
| Residential (per lot/dwelling) | |
| Final lot or dwelling house, dual occupancy dwelling, rural workers dwelling | 84,933 |
| Semi-detached or attached dwelling, multi dwelling housing, manor home dwelling | 71,286 |
| Apartment, residential flat building, shop top housing | 60,319 |
| Seniors living self-contained dwelling | 41,126 |
| Secondary dwelling, studio dwelling | 27,417 |
| Commercial (per hectare) | |
| Non-residential development | 298,634 |

Source: Wollondilly Shire Council. *Appin Growth Area Contributions Plan 2024*, July 2024, p 17.

Indexation

The council aims to ensure that the monetary contributions at the time of development consent reflect the indexed cost of the provision of infrastructure included in the Appin CP.

To do so, the plan proposes to regularly adjust contribution rates and amounts by Australian Bureau of Statistics (ABS) Consumer Price Index (CPI) – Sydney All Groups for works cost estimates, and a chosen Land Value Index (LVI), being the Unimproved Land Value Index – Greater Sydney (Greater Capital Sydney), for land values.²³

3 Assessment of Appin Growth Area Contributions Plan 2024

This section provides our draft assessment of the Appin Contributions Plan 2024 submitted by Wollondilly Shire Council. It includes a summary of our draft assessment of the Appin CP against the 2019 Practice Note criteria, broken down by criterion or infrastructure category, and our assessment considerations.

The following sections set out the details of our draft assessment and include our draft recommendations.

3.1 Overview of draft assessment

We assessed the Appin CP against the criteria in the [2019 Practice Note](#). For more details on our assessment approach, please see our [Information Paper](#).

We found that the Appin CP meets most of the Practice Note criteria. In Table 3.1, we present a summary of our draft assessment of each infrastructure category and issues relating across all categories.

Table 3.1 Summary of our draft assessment of the Appin CP

| Criteria | Stormwater | Transport | Open space | Land | Plan administration |
|-----------------------------|--|--|-----------------------------|--|--|
| Essential works list | Criteria met | Criteria met | Criteria met | Criteria met | Criteria met |
| Nexus | Criteria met | Criteria met subject to recommendation | Criteria met | Criteria met | Criteria met |
| Reasonable cost | Criteria met | Criteria met | Seeking further information | Criteria met | Criteria met |
| Apportionment | Criteria met subject to recommendation | Criteria met subject to recommendation | Criteria met | Criteria met | Criteria met subject to recommendation |
| Timing | Criteria met | Criteria met | Criteria met | Criteria met | N/A |
| Community liaison | Criteria met | Criteria met | Criteria met | Criteria met | Criteria met |
| Other Matters | Criteria met | Criteria met | Criteria met | Criteria met subject to recommendation | Criteria met |

3.2 Assessment considerations

3.2.1 Outstanding supporting documentation

There are several key documents that have not yet been prepared or published by the relevant state government agencies, which will be used to inform and support this contributions plan. However, IPART is proceeding to assess the Appin CP on the merits of its current form, given the council's submission.

Having an IPART reviewed contributions plan in place will enable the council to levy contributions above the cap once development commences. The council does not expect material changes to the plan once it receives the supporting documents²⁴, but the council may need to review and amend the plan as development progresses and seek further IPART review.

These key strategies and overarching documents include:

- density areas which are to be included in a Development Control Plan (DCP)
- an updated transport study and strategy for all of Greater Macarthur endorsed by Transport for NSW (TfNSW)
- a stormwater strategy for the whole growth area
- definition of the state infrastructure sequencing and funding strategy
- longer-term regional utilities and servicing plan.²⁵

For further consideration of this supporting documentation, see 10.5.

3.2.2 Site visit

On Monday 23 September 2024, IPART participated in a site visit to the Appin Growth Area, facilitated by the council staff. Site visits provide IPART with an understanding of the development area in the field, and further information was provided to IPART during the site visit.

3.2.3 Planning decisions

We understand that the planning proposal for Appin (Part) Precinct (Release Area 1 shown in purple in Figure 2.1) has been approved, but no development can occur until the Development Control Plan, Precinct Structure Plan and State Planning Agreement are in place. These are expected to be exhibited in 2025. Walker Corporation is responsible for the development of this precinct.

We also understand that the planning proposal for the North Appin (Part) Precinct (Release Area 2 shown in blue in Figure 2.1), which is owned by Ingham Property Group, is also expected to be exhibited in 2025.

There are parts of two additional release areas (around 1,200 dwellings) within the Appin Growth Area which are covered by this CP, but not yet subject to planning proposals (included in both Release Area 3 and 4, shown in green and pink in Figure 2.1).²⁶

During our assessment, we asked the council about their decision to have the CP cover all the release areas rather than making smaller area CPs to cover the areas with more detailed plans. We noted that this approach has been taken with some other councils, such as Penrith City Council, where individual CPs have been developed for each stage of the development.²⁷ The council indicated its preference to maintain a strategic planning approach across the entire Appin Growth Area, including a comprehensive CP for the entire zone.²⁸

We also raised with the council about the timing of the CP being submitted to IPART without various key supporting documents. We indicated that we could consider putting our assessment on hold until the relevant strategies and plans were in place and then resume assessing an updated CP. The council considers that the planning proposals are not likely to result in any material changes on the CP, and preferred that the assessment be progressed without delay (see 10.5).²⁹

4 Essential works list

4.1 Stormwater

We consider the stormwater items proposed in the Appin CP meet the essential works list criteria for land and facilities for stormwater management in the [2019 Practice Note](#).³⁰

Table 4.1 Stormwater items

| Considered as essential works | Not considered as essential works |
|---------------------------------|-----------------------------------|
| Land for stormwater management | N/A |
| Combined raingardens and basins | |

Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, Works Schedule, July 2024.

4.2 Transport

We consider the transport items proposed in the Appin CP meet the essential works list criteria for land and facilities for transport in the [2019 Practice Note](#).³¹

Table 4.2 Transport items

| Considered as essential works | Not considered as essential works |
|------------------------------------|-----------------------------------|
| Land for transport items | N/A |
| Upgrades to existing roads | |
| Upgrades to existing intersections | |
| New local roads | |
| New collector roads | |
| New signalised intersections | |
| New roundabouts | |
| Bus shelters | |

Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, Works Schedule, July 2024.

4.3 Open space

The 2019 Practice Note allows contributions to be collected for base level embellishments for open space. Base level embellishment of open space is considered to be those works required to bring the open space up to a level where the site is secure and suitable for passive or active recreation.³² While not all the planning approvals have been provided for the Appin CP, we would expect that the embellishments included in open space works will broadly meet this criterion.

However, there are embellishments included that are not specifically categorised as base level embellishment under the current Practice Note, such as fitness stations, bike racks and signage.

In our 2019 Review of the essential works list, nexus, efficient design and benchmark costs for local infrastructure, our [Draft Report](#) noted:

It is difficult to define base level embellishment of open space without considering the circumstances and context in which it is being delivered. What is base level can differ between communities and their specific characteristics and needs, which change over time.³³

We have also considered this definition of base level embellishment and nexus (see 5.3), and that the council has identified current community needs in the Appin Growth Area in the design of its open space. We also note that recent contributions plans assessed by IPART have included fitness stations, bike racks, and signage in their open space works, which we have considered to be reasonable.^{34:35:36:37}

Overall, we consider the open space items proposed in the Appin CP meet the essential works list criteria for land for open space and base level embellishment in the [2019 Practice Note](#).³⁸

Table 4.3 Open space embellishment items

| Base level embellishment items | Items that exceed base level |
|--|------------------------------|
| Passive open space | |
| Basic landscaping (turfing, paved areas, etc.) | N/A |
| Bulk earthworks (site regrading) | |
| Basic amenities access | |
| Play equipment | |
| Car parking | |
| Soft fall | |
| Steel posts and mesh | |
| Extra over mesh access gate | |
| Shade sails | |
| BBQ facilities | |
| Picnic tables | |
| Picnic shelters | |
| Lighting | |
| Seating areas | |
| Water bubblers | |
| Garbage bins | |
| Active open space | |
| Basic landscaping (sportsground turfing, irrigation, etc.) | N/A |
| Bulk earthworks (site regrading) | |
| Multipurpose courts | |
| Amenities building | |
| Car parking | |
| Cricket nets | |
| Seating areas | |
| Portable spectator seats | |
| Lighting | |

| Base level embellishment items | Items that exceed base level |
|--------------------------------|------------------------------|
| Water bubblers | |
| Garbage bins | |
| Perimeter fencing | |
| Cord mesh fencing | |

Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, Works Schedule, July 2024.

4.4 Community facilities

The Appin CP includes the land for community facilities and excludes the works. We consider the land proposed is in accordance with the essential works list criterion for community services in the [2019 Practice Note](#).³⁹

4.5 Plan administration

The council has included plan administration costs in the Appin CP. We consider that these proposed plan management and administration costs is consistent with the essential works list.⁴⁰

5 Nexus

5.1 Stormwater

Although a detailed stormwater strategy has not been developed for Appin CP's release areas and stormwater catchment areas, the council has defined the infrastructure requirements for stormwater management using studies included in proponents' planning proposals. These include:

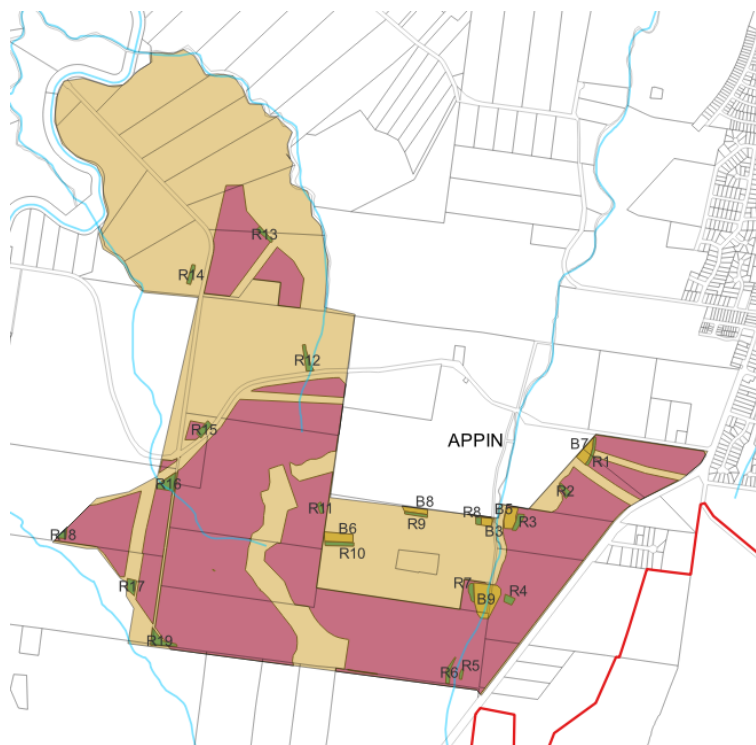
- *Water Cycle Management Strategy Report – Appin (Part) Precinct* (October 2022) by J. Wyndham Prince prepared for Walker Corporation
- *Water Cycle Management Strategy & Flood Modelling Report – North Appin Planning Proposal* (June 2023) by Craig & Rhodes prepared for Ingham Property Group.

These studies refer to and are informed by the council and state government's stormwater guidelines.⁴¹⁻⁴²⁻⁴³⁻⁴⁴ The council has used these reports to extrapolate the stormwater requirements for the whole Appin Growth Area.⁴⁵

The council used GIS software to determine the total area required for the basins and raingardens indicatively mapped in J. Wyndham Prince's study for Appin (Part) Precinct (see Figure 5.1). This resulted in approximately 8.06 hectares.

The council then divided this figure by the NDA for this precinct (183.2 hectares), arriving at 4.4% of the NDA to be allocated for stormwater infrastructure. Noting that this study was based on density assumptions of 10 dwellings per hectare, however density across the Growth Area could vary.

Figure 5.1 Appin (Part) Precinct map of basins and raingardens

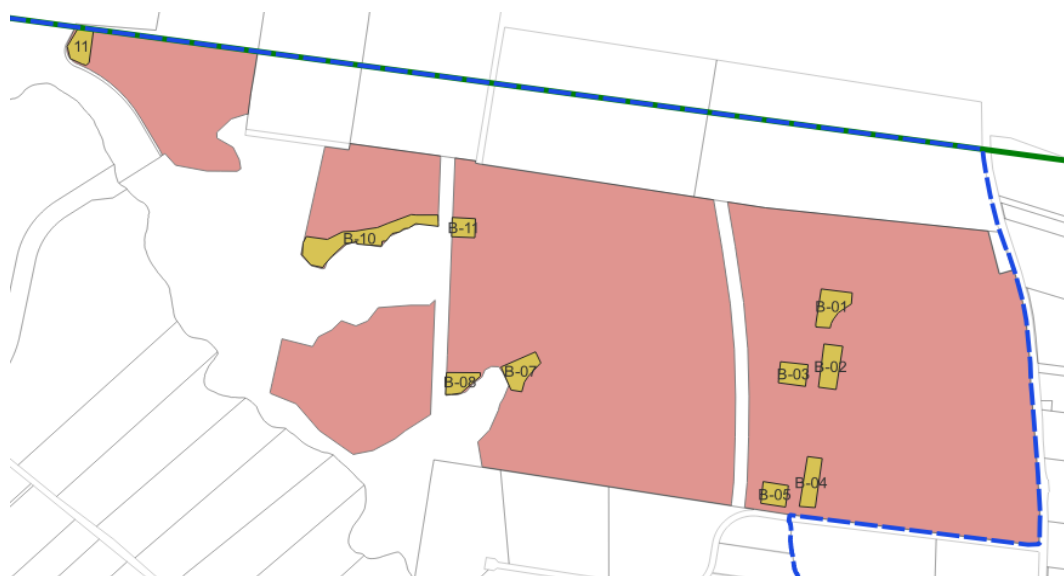


Note: R1-19 locates the raingardens and B3-9 locates the basins that council has georeferenced based on J. Wyndham Prince's indicative layout.

Source: Wollondilly Shire Council, Stormwater Lands & Works Calculation, Tab - 1 - APP1 - Areas survey.

The same process was applied to Craig & Rhodes' report for the North Appin planning proposal (see Figure 5.2), which resulted in around 8.72 hectares (3.9% of the NDA of 223 hectares).

Figure 5.2 North Appin (Part) Precinct map of basins



Note: B-01-11 locates the basins that council has georeferenced based on Craig & Rhodes' indicative detention basin layout.

Source: Wollondilly Shire Council, Stormwater Lands & Works Calculation, Tab - 2 - North Appin - PP.

The council also factored in the benchmark included in Craig & Rhodes' report of 450 square metres of bioretention per hectare.⁴⁶ This converts to an allocation of 4.5% of a total NDA.

The council then averaged the percentages, which concluded an allocation of 4.3% of the whole Appin Growth Area NDA (1,358 hectares, see Figure 5.3) and equates to 58.4 hectares. The council has included this calculation in the plan to demonstrate nexus between future development and stormwater requirements, in order to collect contributions for stormwater infrastructure. This allocation of land for stormwater management infrastructure is comparable to Wollongong City Council's West Dapto CP, which is a similar greenfield development of 1,452 hectares that does not have a stormwater master plan, where 35 hectares has been allocated.⁴⁷

Box 1 shows the formula that the council has used to decide the allocation of stormwater management infrastructure for the Appin Growth Area.

Box 1 The council's stormwater calculation formula

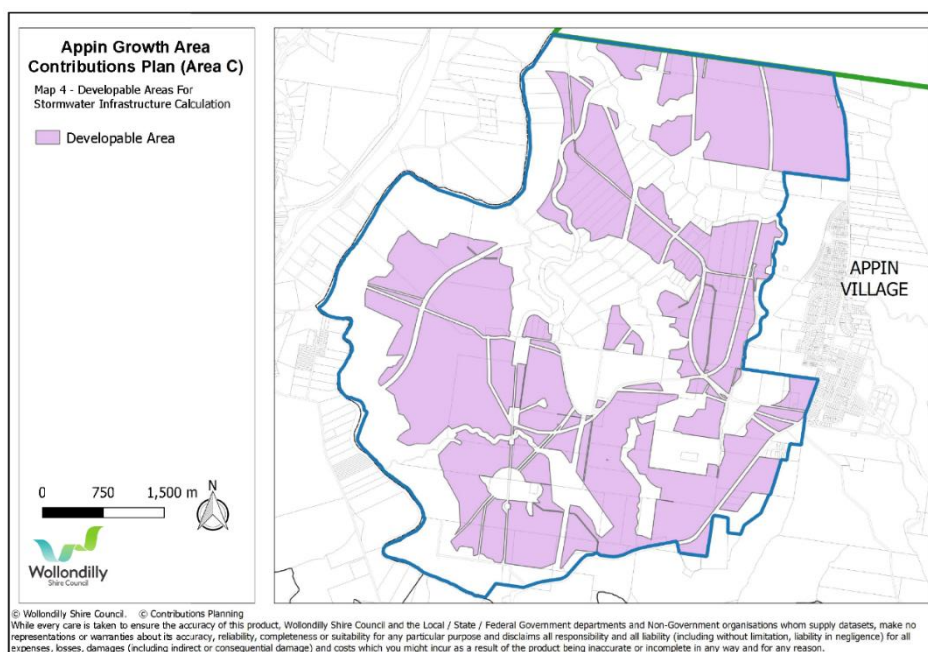
$$\left(\frac{\left(\frac{x_a}{y_a} \right) + \left(\frac{x_b}{y_b} \right) + d}{n} \right) * y_c = \left(\frac{\left(\frac{8.06}{183.2} \right) + \left(\frac{8.72}{223} \right) + 4.5\%}{3} \right) * 1358 = 58.4 \text{ hectares}$$

Where:

- subscript *a* refers to Appin (Part) Precinct
- subscript *b* refers to North Appin (Part) Precinct
- subscript *c* refers to the Appin Growth Area
- *x* is the council's determined land required for stormwater through georeferencing of the precinct being referred to
- *y* is total NDA of the precinct being referred to
- *d* is Craig & Rhodes' bioretention per square metre benchmark
- *n* is the count of percentages available.

Source: Wollondilly Shire Council, Stormwater Land & Works Calculation.

Figure 5.3 Developable area for stormwater infrastructure management



Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, July 2024, p 75.

A stormwater masterplan has not yet been developed. Until a masterplan is available, the council's stormwater allocation will continue to rely on the estimated land percentage required for basins and raingardens (4.3%) based on the studies contained within proponents' planning proposals. Given the early stage of the Appin CP, we consider the stormwater studies currently available to the council are sufficient to establish nexus, until a stormwater master plan is developed.

We do, however, recommend that the council reviews the scope and costs of stormwater infrastructure prior to its next review of the Appin CP.

Draft recommendation

1. Before the council next submits the Appin CP to IPART, that the council reviews the scope and costs of stormwater infrastructure.

5.2 Transport

The council expects many of the Appin Growth Area's higher order roads to be state-led and funded.⁴⁸ The council also plans to secure the delivery of local and collector roads (or segments of such) through conditions of development consent where possible. This is consistent with the [2019 Practice Note](#) and IPART guidance on the inclusion of roads in contribution plans⁴⁹, however there are no development consents in place yet due to the stage that the planning process is currently at for the area.

Roads and transport items which are not negotiated through development consent or provided by the state will need to be facilitated by the council. The council has identified the cases where development consent conditions are not achievable and has included these items in the plan. This includes a series of new internal collector roads, additional lane upgrades to existing roads, and intersection controls. Reasons for doing so includes roads fronting non-developable land in certain sections and fragmented ownership making it impractical to condition to only one developer.⁵⁰

For establishing nexus between these works and the imminent development, the council has relied upon:

- *Appin and North Appin Strategic Transport Assessment* (October 2022) by WSP
- *Appin and North Appin Precincts Indicative Plan* (October 2022) by Urbis
- *North Appin (Part) Precinct Strategic Transport Assessment* (June 2022) by Urbis
- *Greater Macarthur Strategic Transport Infrastructure Study* (December 2017) by Jacobs
- *Proposed State Infrastructure Contributions (SIC) Greater Macarthur* (November 2018) from then NSW DPE
- *Greater Macarthur Growth Area Structure Plan* (November 2022) from then NSW DPE.

The existing road network in Appin is limited in scope and mostly comprises rural roads, which is not capable of supporting increased traffic volumes and loads. The various supporting materials cover the transport needs across the Appin Growth Area precincts as a result of the new development, taking into consideration the State Government structure plan for the GMGA, analysis of traffic modelling data, capacity for current road network upgrades, stakeholder consultation, and conceptual designs.⁵¹⁻⁵²⁻⁵³⁻⁵⁴

The council notes that at the time of preparation of the Appin CP, updated traffic modelling for the Greater Macarthur Transport Network Plan (GMTNP) is being prepared by TfNSW.⁵⁵ This will become the basis of further traffic and transport modelling for planning proposals in the GMGA, including Appin.ⁱ

Overall, the supporting transport assessments and planning instruments clearly demonstrate the connection that the roads and transport works have to the new development. The works covered by the Appin CP would not have been required if development was not to occur, as this infrastructure will be built to support the change in expected traffic movements from largely rural precincts to urban.

ⁱ Additionally, TfNSW are in the process of updating their [Transport Management and Accessibility Plan Guidelines](#) to replace the current guidelines, which were last updated in 2002.

5.2.1 Corrections to transport items in the works schedule

To support our analysis of nexus, we requested information from the council as to how the lengths and widths of roads in the works schedule were determined. The council advised that GIS software was used to analyse the required local infrastructure against the published structure plan and the proponent's planning proposals' structure plans.⁵⁶ The council also used the Wilton Growth Area DCP to inform the widths of road items.⁵⁷

Following our request for information, the council discovered errors in the works schedule and noted that refinement of the roads and transport infrastructure in the Appin CP works schedule will be required. The council has informed IPART of the errors, and our recommendations set out the necessary corrections for the council to apply. We note that there are no new or additional infrastructure items added, only that the parameters of the already included items have changed. This will also alter the costs and contribution rates of the Appin CP, given the changes in quantity of land acquisition and costs for works at a per metre rate.

Once the corrections have been applied, we expect that we would consider that nexus to service the additional 55,950 residents, as well as the demand generated due to the jobs created in the area, is reasonably established.

Draft recommendation

2. That the council adjust the work schedule to correct the following errors:
 - a. adjust the length upgrade of AT1.1.3
 - b. adjust the additional width upgrade of AT1.3.1
 - c. adjust the length and width of AT2.1.1
 - d. adjust the length and additional width upgrades of AT4.2.1
 - e. adjust the length and width of AT4.3.1
 - f. reduce the quantity of bus shelters to be commensurate with the revised lengths of collector roads

5.3 Open space

The residential development in the Appin Growth Area will result in demand for a range of open space to meet the future population needs. The council has relied on a range of documents and planning instruments to establish nexus for open space requirements in the Appin Growth Area:

- Wilton community needs study (December 2023) by Cred Consulting^j
- State Environmental Planning Policy (SEPP) and proposed amendment to the SEPP^{58,59}
- various council resolutions^{60,61,62}
- council dedication of land policy⁶³

^j While titled as a study for Wilton, the study area includes both Wilton Growth Area and Appin Growth Area within the Wollondilly LGA.

- planning proposals for precincts within the Appin Growth Area^{64,65,66,67}
- structure and indicative plans for precincts within the Appin Growth Area^{68,69}
- common benchmark of 2.83 hectares of open space per 1,000 people to validate provision.

Cred's community needs study recommends provision benchmarks for the various types of active and passive open space, as well as planning considerations such as park size, proximity to housing, and co-location of sporting facilities.⁷⁰ Cred's study also refers to multiple other sources to derive provision benchmarks for public open space, including City of Parramatta's *Community Infrastructure Strategy*⁷¹ and the Government Architect NSW's *Draft Greener Places Design Guide*⁷².

The council has also considered the open space provision quantity requirements outlined by the amended SEPP and proposed SEPP amendments, the council's policy against the use of constrained land for open space, and the planning proposals, structure plans and land holdings boundaries for open space locations.

Additionally, the council considered Cred's recommendation to cluster active and passive open space for "combined activation".⁷³ Recent planning guidelines from the NSW Government endorses the co-location or layering of complementary recreation opportunities⁷⁴, which is reflected in the council's passive and active open space placement across the Growth Area. As noted in the analysis of open space essential works (see 4.3), the council includes embellishment that is consistent with community expectations.

Overall, the council has referenced the community needs study in the design, provision quantity, and placement of open space within the Appin Growth Area, while satisfying the various planning policy instruments.

We note that the community needs study includes Appin Township in its calculations and considerations. From this study, the council has extrapolated the ratios and benchmarks that applied to a greater amount of estimated population (68,919) to a now lesser forecasted population (55,950), which excludes Appin Township and reflects the assumptions contained in the plan.⁷⁵ We consider this approach reasonable.

We consider that the council has established nexus for the provision and level of embellishment of open space in the Appin CP.

5.4 Community facilities

The residential development in the Appin Growth Area will result in demand for a range of community facilities to meet the future population needs. Similar to open space, the council has relied on the *Wilton community needs study* (December 2023) by Cred Consulting to establish nexus for community services land requirements in the Appin Growth Area.

It outlines the expected types of social infrastructure required to meet the needs of residents, which includes indoor recreational facilities, a district level library, function and conference centres, youth and senior spaces, cultural facilities, and local community centres.⁷⁶ It also recommends provision benchmarks for social and recreation facilities, as well as considerations for land dedication in respect to accessibility for new residents. For example, indicative land locations to be within walking distance to future precincts or other infrastructure, such as schools.⁷⁷

As noted above for open space nexus, the community needs study includes Appin Township in its calculations and considerations. The council has extrapolated the ratios and benchmarks that applied to a greater amount of estimated population (68,919) to a now lesser forecasted population (55,950) which excludes Appin Township and reflects the assumptions in the plan.⁷⁸ We consider this approach to be reasonable.

We consider nexus for the land area required by council for community facilities to be established.

5.5 Plan administration

The Appin CP includes costs for plan preparation and administration activities that are necessary for the facilitation of the contributions plan. The council notes that the preparation and administration of contributions plans incurs substantial costs.

- The costs of council staff time to prepare and review contributions plans, account for contributions receipts and expenditure, and coordinate the implementation of works programs.
- The costs of consultant studies that are commissioned by the council from time to time, in order 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 planning, engineering, surveyor, design, accounting, audit and legal professionals to provide advice on implementing the plan.⁷⁹

We consider 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, and that nexus is established.

6 Reasonable cost

6.1 Stormwater

The total cost of providing stormwater infrastructure is \$271.6 million, which equates to 17.7% of the total plan value. Land costs are \$46.7 million (3% of total CP) and works comprise \$224.9 million (14.6% of total CP). These funds provide combined basin and raingarden facilities, with other WSUD stormwater management included in roads and transport infrastructure (see Table 6.1).

Table 6.1 Stormwater works items and costs in Appin CP (\$Dec-23)

| ID | Item description | Cost |
|--------------|--|--------------------|
| STW | Combined basin and raingarden facilities | 224,887,107 |
| Total | | 224,887,107 |

Note: The council did not split STW out into individual items in the works schedule.

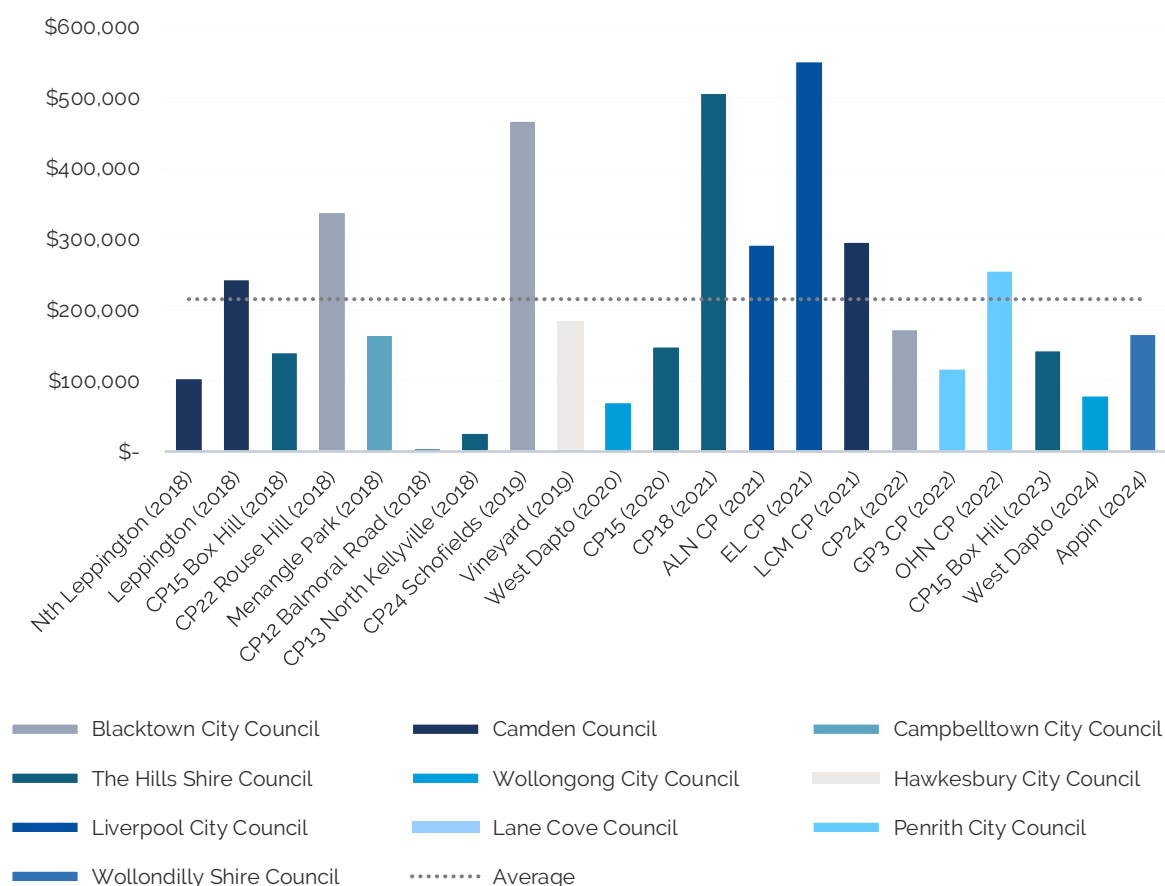
Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, July 2024, p 68.

Construction costs for combined basin and raingarden facilities is \$290 per square metre, which is estimated by quantity surveyor Altus Group.⁸⁰ This is reasonable when assessed against IPART benchmarks, indexed to the base date of the plan.⁸¹

Included in its submission to the council's exhibition of the plan, Walker Corporation engaged consultant WT Partnership to peer review Altus Group's stormwater costs for the Appin Growth Area.⁸² The peer review presents conflicting cost estimates for combined basin and raingarden facilities, forecasting lower costs than those included in the CP. Due to the incompleteness of stormwater planning and given that the plan's cost is reasonable against IPART benchmarks, we consider the costs provided by the council are reasonable for stormwater despite the difference to the peer review costs.

To place these costs within a broader context, we have compared the proposed stormwater works costs within the Appin CP to other recent contributions plans we have assessed. On a cost per hectare of net developable catchment area basis, the Appin CP is 23% lower than the average cost of previously assessed plans, at \$165,602 compared to \$215,322 (Figure 6.1).

Figure 6.1 Stormwater works costs per hectare of net developable catchment area (\$Dec23)



Note: Past contributions plans have been indexed to the base date of the Appin CP (December 2023).

Source: IPART analysis.

6.2 Transport

The total cost of providing transport infrastructure is \$106.8 million, which equates to only 7% of the total plan value. Land costs are \$23.2 million (1.5% of total CP) while works comprise \$83.6 million (5.4% of total CP). These funds provide a range of infrastructure, including new collector roads, new local roads, new roundabouts and intersection controls, as well as upgrades to existing roads and roundabouts (see Table 6.2).

Table 6.2 Transport works items and costs in Appin CP (\$Dec-23)

| ID | Item description | Cost |
|---------|--|------------|
| AT1.1.1 | Brooks Point Road, 19.8m new local road with WSDU stormwater treatment | 4,936,701 |
| AT1.1.2 | Brooks Point Rd & Appin Road Intersection Upgrade, signalised intersection | 2,488,308 |
| AT1.1.3 | Wilton Road Upgrade (to collector road), upgrade to collector road | 23,298,076 |
| AT1.3.1 | Brooks Point Road Upgrade – Transit Corridor Link, upgrade to collector road | 8,741,173 |
| AT2.1.1 | New Collector Road - North Appin, 22.8m wide collector road | 34,391,881 |
| AT4.2.1 | Macquariedale Road Upgrade between corridors, upgrade to collector road | 7,965,270 |

| ID | Item description | Cost |
|--------------|--|-------------------|
| ATR4.2.2 | Roundabout along Macquariedale Road ^a - Stage 3, 2 lane roundabout - in greenfield area (with no traffic) | 1,276,614 |
| AT4.3.1 | New Collector Road - South Appin, 22.8m wide collector road | 22,927,920 |
| ABS1.1 | Bus Shelters ^a , every 400m | 752,970 |
| Total | | 83,568,912 |

a. These items are not identified on the infrastructure maps provided by council (noted in the work schedule).

Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, July 2024, p 67.

The transport works that are included in the plan have higher than usual costs, with costs provided by Altus Group's quantity surveyor report.⁸³ This view is informed by Walker Corporation's submission to the council's draft plan exhibition, where GLN Planning acted for Walker and referred to WT Partnership's peer review of Altus Group's cost estimates.⁸⁴ Analysis that we have conducted using IPART benchmarks, indexed to the base date of the plan, has also indicated lesser costs. Our benchmarks found similar estimates to that included in the peer review, with the latter shown in Table 6.3 below.

Table 6.3 Transport works costs unit rates comparison

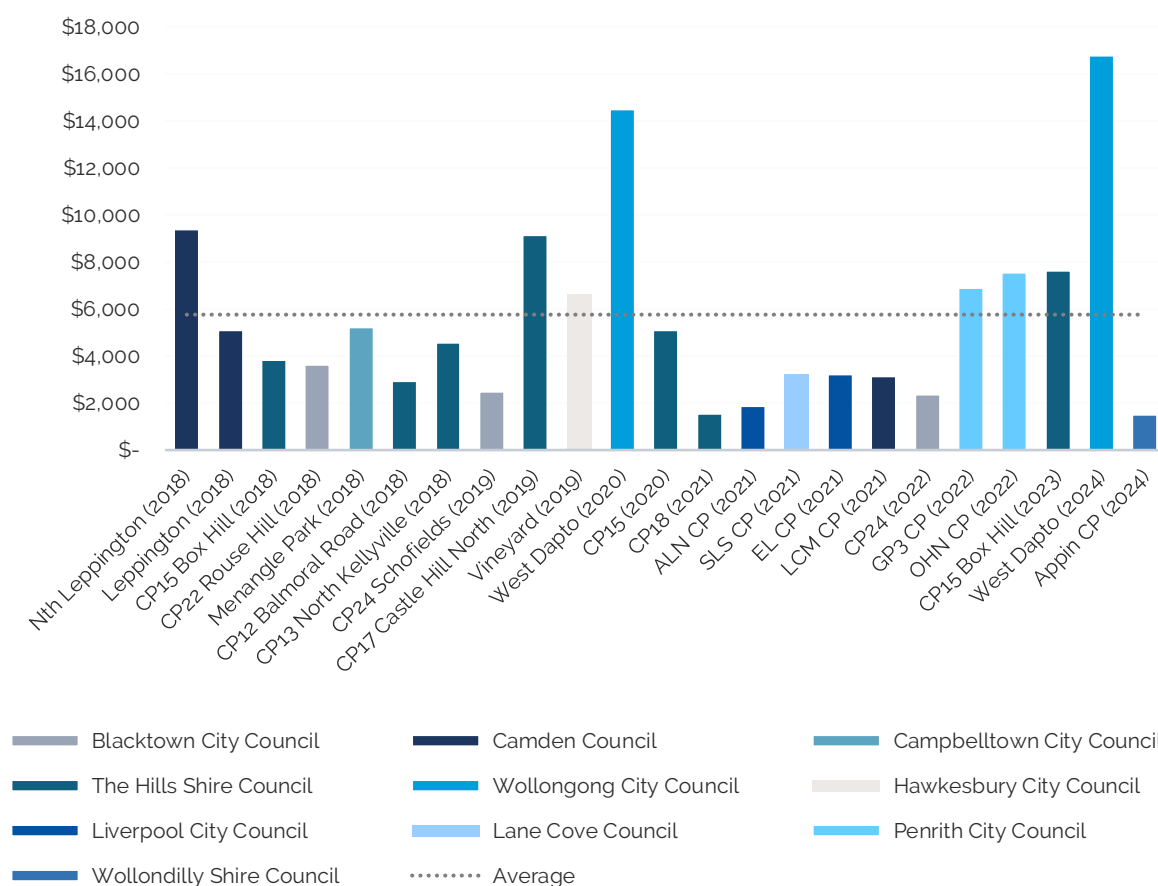
| Description | Unit | Altus Group estimate (\$) | Peer review estimate (\$) | Variance (%) |
|--|-------------------|---------------------------|---------------------------|--------------|
| 19.8m new local road with WSDU stormwater treatment | \$/m ² | 459 | 396 | -14 |
| 22.8m wide collector road | \$/m ² | 493 | 393 | -20 |
| Upgrade to collector road | \$/m ² | 295 | 390 | 30 |
| Signalised intersection (2 lanes) – 4-way intersection | \$/unit | 1,805,000 | 1,113,800 | -38 |
| 4 leg – single lane roundabout – in urban renewal | \$/unit | 754,000 | 521,200 | -31 |
| 2.5m wide concrete pathway/share way only | \$/m ² | 490 | 367 | -25 |
| Bus shelter | \$/unit | 31,000 | 33,388 | 8 |

Source: GLN Planning, *Walker submission Draft Appin Growth Area CP*, May 2024, p 14.

Regarding the cost comparisons to IPART benchmarks, the difference in costs could be driven by the fact that the road projects include scope exclusions such as line-marking, while the benchmark costings do not. In addition, the road works includes costs for substantial Water Sensitive Urban Design (WSUD) stormwater management infrastructure that aligns with the council's WSUD guidelines. As for the peer review variance, the council considers that Walker Corporation's consultants have based their comparative costings on Wilton Growth Area estimates⁸⁵, which the council has found to be considerably under the projected actual cost of works as per recent VPA discussions in Wilton with developers.⁸⁶

To place these costs within a broader context, we have compared the costs of transport works on a per person of total additional population basis to other contributions plans we have assessed. On this measure, the Appin CP is substantially below the average cost per person of previously assessed plans (26% of the average, see Figure 6.2).

Figure 6.2 Transport works costs per person of total forecasted population (\$Dec23)



Note: Past contributions plans have been indexed to the base date of the Appin CP (December 2023).

Source: IPART analysis.

With all factors considered, we consider that the costs for transport works in the Appin CP appear to be reasonable at this early stage of planning and development.

6.3 Open space

Open space costs in the Appin CP consists of a total \$1.13 billion, with land acquisition costing \$509.7 million (33.2% of total CP value) and works costing \$620.5 million (40.4% of CP). Both works and land encompass 73.6% of the total cost to be met by Appin Growth Area development contributions.

Table 6.4 Open space works items and costs in Appin CP (\$Dec-23)

| ID | Item description | Cost |
|---------|--|------------|
| LP11.1a | Local open spaces with play space – 3 x 4,000 sqm each | 10,847,029 |
| LP11.1b | Local open space with play space and fitness station – 1 x 4,000 sqm | 4,105,375 |
| LP12.1a | Local open spaces with play space – 3 x 3,000 sqm each | 8,248,359 |
| LP12.1b | Local open space with play space and fitness station – 1 x 3,000 sqm | 3,079,031 |

| ID | Item description | Cost |
|--------------|---|--------------------|
| LP1.3.1a | Local open spaces with play space – 3 x 3,000 sqm each | 8,248,359 |
| LP1.3.1b | Local open space with play space and fitness station – 1 x 3,000 sqm | 3,079,031 |
| LP1.4.1a | Local open spaces with play space – 2 x 3,000sqm each | 5,498,906 |
| LP1.4.1b | Local open space with play space and fitness station – 1 x 3,400 sqm | 4,105,375 |
| LP2.1.1a | Local open spaces with play space – 3 x 5,000 sqm each | 13,558,786 |
| LP2.1.1b | Local open spaces, no play space – 3 x 5,000 sqm each | 8,786,354 |
| LP2.1.1c | Local open space with play space and fitness station – 1 x 5,000 sqm | 5,082,440 |
| LP3.1.1 | Local open spaces with play space – 2 x 5,000 sqm each | 9,164,844 |
| LP4.1.1 | Local open spaces with play space – 3 x 3,000 sqm each | 8,248,359 |
| LP4.2.1a | Local open spaces with play space – 2 x 4,000 sqm each | 7,331,875 |
| LP4.2.1b | Local open spaces, no play space – 2 x 4,000 sqm each | 4,713,945 |
| LP4.3.1a | Local open spaces with play space – 2 x 5,000 sqm each | 13,558,786 |
| LP4.3.1b | Local open space, no play space – 1 x 5,000 sqm each | 8,786,354 |
| LP4.3.2 | Local open space with play space – 1 x 5,000 sqm each | 4,582,422 |
| LP1.1.2 | Medium local open space – 1 x 40,100 sqm | 36,247,156 |
| LP1.1.3 | Medium local open space – 1 x 40,000 sqm | 36,156,764 |
| LP1.2.2 | Medium local open spaces – 2 x 40,000 sqm each | 72,313,528 |
| LP1.3.2 | Medium local open spaces – 2 x 40,000 sqm each | 72,313,528 |
| LP1.4.2 | Medium local open spaces – 2 x 35,000 sqm each | 63,274,337 |
| LP2.1.2 | Medium local open spaces – 2x 49,600 sqm each | 89,668,774 |
| LP4.1.2 | Medium local open space – 1 x 20,000 sqm each | 18,078,382 |
| LP4.2.2 | Medium local open space – 1 x 50,000 sqm each | 45,195,955 |
| PF1.1.1 | Active open space, 1 double playing field and multipurpose courts on low density residential land – 65,000 sqm total | 46,993,512 |
| PF1.1.2 | Active open space, 1 double playing field and multipurpose courts on medium density residential land – 65,000 sqm total | 50,243,512 |
| PF1.2.1 | Active open space, 2 double playing fields and multipurpose courts on medium density residential land – 135,000 sqm total | 104,351,910 |
| PF1.3.1 | Active open space, 2 double playing fields and multipurpose courts on medium density residential land – 130,000 sqm total | 97,942,479 |
| PF1.4.1 | Active open space, 2 double playing fields and multipurpose courts on low density residential land – 130,900 sqm total | 94,637,704 |
| PF2.1.1 | Active open space, 1 double playing field and multipurpose courts on low density residential land – 63,300 sqm total | 45,764,451 |
| PF2.1.2 | Active open space, 1 double playing field and multipurpose courts on medium density residential land – 60,000 sqm total | 45,204,221 |
| PF4.1.1 | Active open space, 1 double playing field and multipurpose courts on low density residential land – 60,000 sqm total | 42,204,221 |
| PF4.2.1 | Active open space, 1 double playing field and multipurpose courts on medium density residential land – 50,000 sqm total | 38,648,856 |
| Total | | 620,539,918 |

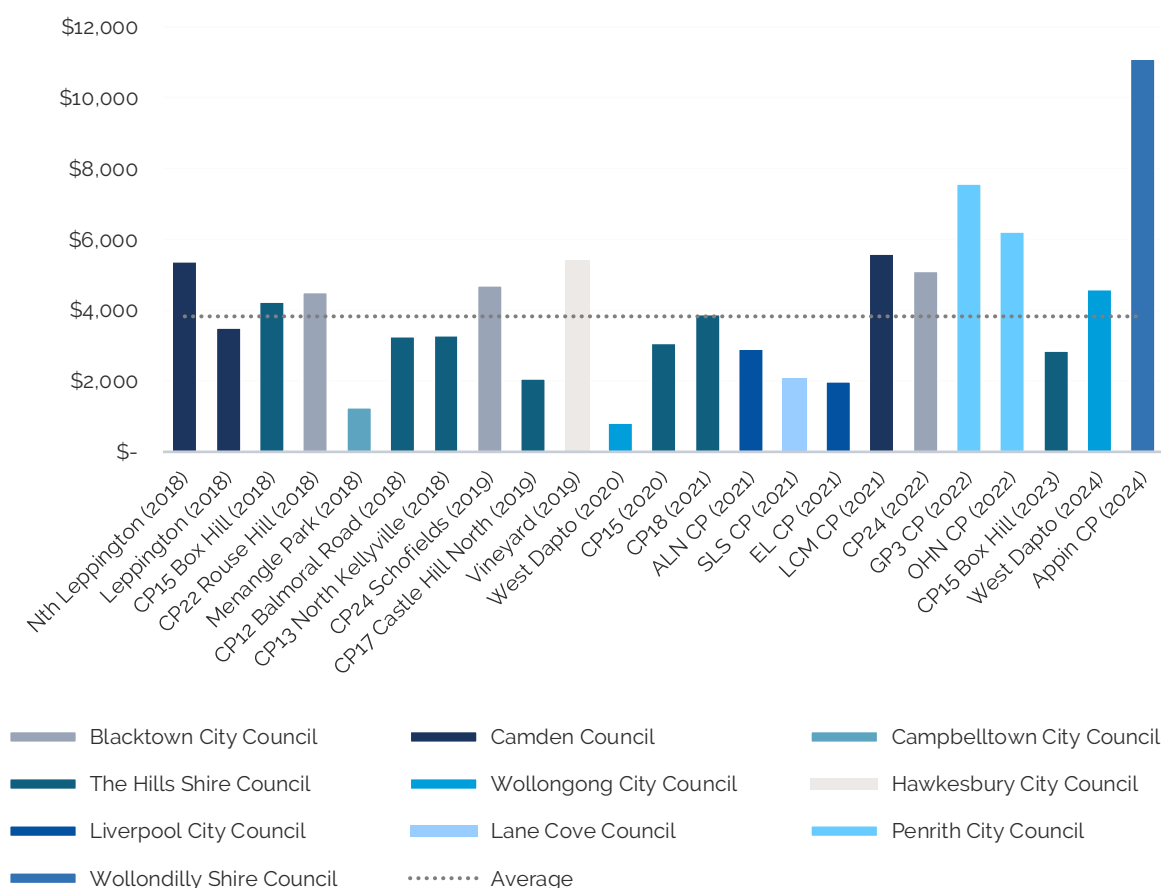
Note: All passive open space items (i.e. "local" open space, ID LP1.1.1a to LP4.2.2) is on low density residential land. The first digit in the item's ID refers to the release area, e.g. LP1.1.1a is for Release Area 1 and LP2.1.1a is for Release Area 2.

Source: Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 66.

6.3.1 Detailed analysis of open space costs

Embellishment works costs are informed by a quantity and cost estimation report prepared by Altus Group.⁸⁷ At an aggregate level, works costs are substantially above recent CPs assessed by IPART (see Figure 6.3). Specifically, open space works costs are about 190% greater than the average of previously assessed CPs.

Figure 6.3 Open space works costs per person of total forecasted population (\$Dec23)



Note: Past contributions plans have been indexed to the base date of the Appin CP (December 2023).

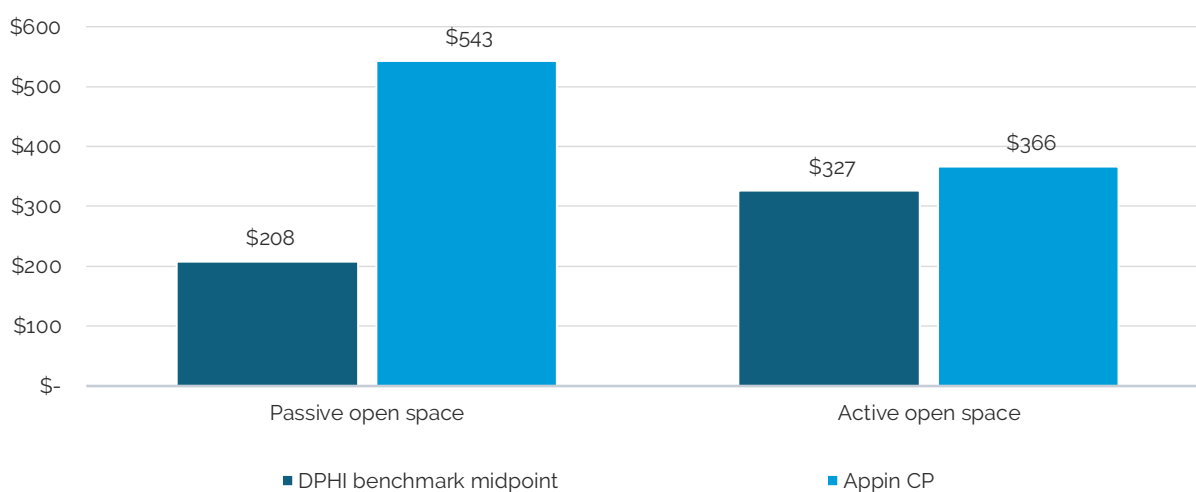
Source: IPART analysis.

In addition, DPHI have produced benchmarks for open space embellishment costs, with indexed capital expenditure ranges of:

- \$178 to \$238 per square metre for passive open space
- \$297 to \$357 per square metre for active open space.⁸⁸

Shown in Figure 6.4, the Appin CP exceeds the midpoint of each range, particularly for passive open space.

Figure 6.4 Open space works costs per square metre of open space (\$Dec2023)



Note: Appin CP has 63 hectares allocated for passive open space (excluding a 20-hectare regional park, which is a state government open space provision) and 76 hectares allocated for active open space. DPHI's benchmarks have been indexed from 2022 dollars to base date of the Appin CP (December 2023).

Source: IPART analysis and DPHI, *Framework for Valuing Green Infrastructure and Public Spaces*, October 2023, p 21.

Walker Corporation's submission to the council's exhibited draft plan also included peer review of the Appin CP's open space works cost estimates, which concluded lower rates.⁸⁹ The council has indicated that the costs contained in Walker's peer review are reflective of anticipated costs for works in the wider Wollondilly LGA, which the council has determined to be far less than actual costs as projects have progressed from concept to construction.⁹⁰ Hence, the council are attempting to curb underquoting the costs in the Appin CP.

Given around a third of land acquisition costs for the Appin CP is attributable to open space, it is worth noting that Walker's submission also included a peer review of AEC Group's land valuation. Similar to transport and open space works, the peer reviewed land valuation concluded on reduced land rates to be appropriate for the Appin Growth Area.⁹¹

Following these peer reviews and the council's exhibition period, the next iteration of the draft CP that was submitted to IPART included a decrease to open space costs from \$1.54 billion to \$1.13 billion. We note that this reduction was primarily due to the adoption of dwelling caps for West Appin and North Appin precincts in the refined CP, rather than the peer reviews commissioned by Walker.⁹² However, after these cost reductions, certain works and land rates in the Appin CP remain higher than those in each peer review report.

In terms of land, with approximately 82 hectares of low-density residential land that the plan proposes to acquire for open space, adopting the peer-reviewed rate of \$325 per square metre would result in cost saving of almost \$24 million (see Table 6.5). This has a small effect on contribution rates. On balance, we have deemed the land valuation for the plan to be reasonable based on AEC's land valuation methodology and comparative analysis to Valuer General land rates (see 6.4.2).

Table 6.5 Land valuation comparison table (\$/sqm)

| Land category | Council rates | Peer reviewed rates | Variance |
|------------------------------------|---------------|---------------------|----------|
| Low density residential | 350 | 325 | -25 |
| Medium density residential | 400 | 400 | 0 |
| Rural residential | 95 | 80 | -15 |
| Retail and civic centre | 410 | 500 | 90 |
| Mixed use commercial & residential | 425 | 425 | 0 |
| Other enterprise or employment | 350 | 250 | -100 |
| Constrained | 80 | 80 | 0 |

Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, July 2024, p 41 and Lunney Watt & Associates, *Appin Precinct – Land Acquisition Budget for Contributions Plan*, p 13.

In terms of works, we undertook line-by-line cost analysis for each item of open space works and found approximately \$200 million that could be deducted from the total open space works cost. This was derived using IPART's published 2014⁹³ and draft 2021⁹⁴ benchmark costs of local infrastructure items, respectively indexed by CPI Sydney All Groups to December 2023 (base period of the CP). Many items greatly exceed the benchmarks and similar items in recently assessed CPs.

Table 6.6 below demonstrates the per square metre cost, as determined by the council, for the different types of passive and active open space, and the revised per square metre rate derived from our line-by-line analysis.

Table 6.6 Open space embellishment works costs rates summary (\$/sqm)

| Item description | Council rates summary | IPART revised rates summary ^a | IPART rates less council rates |
|--|-----------------------|--|--------------------------------|
| Park with play space, 5,000m ² | 417 | 273 | (144) |
| Low embellishment park without play space, 5,000m ² | 174 | 155 | (18) |
| Park with play space and fitness station, 5,000m ² | 493 | 297 | (195) |
| 1 double playing field and 4 multipurpose courts, 50,000m ² | 266 | 191 | (75) |
| 2 double playing fields and 8 multipurpose courts, 100,000m ² | 281 | 188 | (93) |

a. IPART analysis is approximate.

Note: The council based their open space works costs on the above 'Council rates' per type of passive or active open space by multiplying the base rate for each item based on the square metres of the proposed open space to define the works costs, i.e. the cost of a 3,000 square metre park with play space equalling \$417 multiplied by 3,000.

Source: IPART analysis and Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, Works Schedule, July 2024.

Additionally, we compared the rates applied to open space items against that of West Dapto (2024), which covers a similar expanse of greenfield land and scope of works.⁹⁵ This included indexing the West Dapto CP to align with the base date of the Appin CP and excluding all miscellaneous costs; all costs for both plans in this analysis are represented without design, on-costs, contingencies, or fees. While comparable in conditions and size, given the unique differences between the works, these open space items are not an exact 1:1 comparison. Only a handful of comparable items were included in the analysis, but an initial assessment of additional comparable items indicated that the results would be much of the same.

The findings were that for passive open space in particular, the Appin CP is between 148% and 367% more than that of the West Dapto plan on a cost per square metre basis (Table 6.7). Active open space is between 8% and 33% more than West Dapto on a cost per square metre basis.

Table 6.7 Comparison of cost per square metre between Appin CP and West Dapto CP

| OS Item Appin | Cost per m ² | OS Item West Dapto | Cost per m ² | Difference | Brief Description |
|---------------|-------------------------|--------------------|-------------------------|------------|--|
| LP1.1.1a | \$419.84 | OS07 | \$120.16 | 349% | Both parks in low density residential area with some playing fields |
| LP1.3.1b | \$492.78 | OS14 | \$134.03 | 367% | Same as above |
| LP3.1.1 | \$418.84 | OS25 | \$120.16 | 349% | Same as above |
| LP4.3.1b | \$174.31 | OS02 | \$117.37 | 148% | Both items that largely consist of passive open space with little embellishment. WD costs are partially based on actuals from delivery |
| PF1.4.1 | \$282.02 | OS10 | \$252.14 | 12% | District level items of comparable size that both include 2 multipurpose playing fields and multipurpose courts |
| PF1.3.1 | \$267.22 | OS23 | \$247.20 | 8% | Same as above |
| PF1.2.1 | \$282.02 | OS01 | \$212.45 | 33% | Same as above |

Source: IPART analysis, Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, Works Schedule, July 2024 and Wollongong City Council, *West Dapto Development Contributions Plan 2024*, Works Schedule & Financial Model.

6.3.2 Concerns with open space costs

Our main concern is with the council's method outlined in Table 6.6, where cost rates for open space are founded in fixed dimensions of an open space item. For example, a rate of \$417 for parks with play space is based on a 5,000 square metre example of this item, but then applied to various sizes across the works schedule, including 3,000 and 4,000 square metres. While this is usual practice for councils when at the concept stage of a contributions plan, given the high costs, itemising each open space item in their works schedule would provide a more accurate square metre rate. That is, where a 5,000 square metre park with play space contains two play spaces, for example, a 3,000 square metre version may only contain one. Therefore, the higher rate is not applicable to smaller sized item. This same principle applies to all the rates for open space items that the council has calculated. Developing rates for open space items of different dimensions will help to ensure that development contributions are more indicative of anticipated costs, even at this conceptual phase.

Separate to the council's summary rates, we are concerned with the overall disparity between open space works costs for recent plans that IPART has assessed and the Appin CP. Many of these recent plans are also greenfield developments with either a similar scale of expected additional population or NDA. Referring to Figure 6.3, it is clear that the Appin CP is broadly outside a reasonable cost range, also far exceeding the average.

However, we do acknowledge that the council has taken the effort to deviate from possibly high costs estimated by Altus Group, by applying costs from recent tenders in the Wollondilly LGA for like open space embellishment works.⁹⁶⁻⁹⁷ For example, turfed areas – a common item across all passive open space items – has a unit rate of \$106 per square metre in the quantity surveyor report, while a unit rate of \$54 per square metre is included in the council's works schedule. Similarly, one unit of play equipment and installation is estimated at \$396,900 by Altus Group but reduced to \$200,000 in the council's work schedule.⁹⁸⁻⁹⁹

We also appreciate that Voluntary Planning Agreements (VPAs) may be entered with the major developers in the Appin Growth Area, wherein instances of economies of scale could be achieved by developers to reduce works costs in favour of levied contributions at the amount stipulated in the plan.

On balance, we do not consider the costs for open space works in the Appin CP to be reasonable. For draft recommendations 3 and 4 on open space costs, we request that the council provide IPART with all cost and scope revisions to be considered for our Final Report. This should include any resulting changes to the Appin CP's total costs and contribution rates.

Draft recommendations



3. That the council develops tailored rates per square metre for each size and type of open space infrastructure item included in the CP.

4. That the council considers the analysis outlined in this Draft Report and revises, embellishment quantities (i.e. amounts of play equipment, etc.), and the scope and cost of open space works.

6.4 Land

6.4.1 Land for community facilities

The council has included the land acquisition costs for community facilities and excluded the construction costs in the developer contributions for Appin Growth Area. Land for community facilities amounts to a total of about \$12.8 million (0.8% of total CP value).

We consider that the costs for community facilities land in the Appin CP are reasonable.

Table 6.8 Community facilities land area and costs in Appin CP

| ID | Item description | Land area (m ²) | Cost of land (\$) |
|--------------|--|-----------------------------|-------------------|
| ACCL | Community hub with a branch library, community facility and cultural spaces | 13,000 | 5,525,000 |
| ACF1 | Local multi-purpose community centre 1 | 1,400 | 595,000 |
| ACF2 | Local multi-purpose community centre 2 | 1,400 | 595,000 |
| ACF3 | Local multi-purpose community centre 3 | 1,400 | 595,000 |
| ACF4 | Local multi-purpose community centre 4 | 1,400 | 595,000 |
| ACF5 | Local multi-purpose community centre 5 | 1,400 | 595,000 |
| AIRF | Indoor recreation facility (wet and dry) co-located with other open space facilities or ovals in Appin | 10,000 | 4,250,000 |
| Total | | 30,000 | 12,750,000 |

Source: Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, July 2024, p 69.

6.4.2 Land valuation

The Appin CP includes \$592.4 million (38.6% of total CP value) to acquire roughly 206.8 hectares of land. This comprises 139.4 hectares of land required for open space, 58.4 hectares for stormwater, approximately 6.1 hectares for transport, and 3 hectares for community facilities. The council has not yet acquired any land.

The land rates adopted in the Appin CP are shown in Table 6.9 below, informed by AEC Group's *Land Valuation Report – Appin Growth Area Developer Contributions Plan* (September 2023).

Table 6.9 Summary of assessed land rates (\$/sqm)

| Land classification | Ascribed land rate |
|--|--------------------|
| Residential land | |
| R2/R5 Low density residential land (15-25 dwellings per hectare) | 350 |
| R3 Medium density residential land (25-44 dwellings per hectare) | 400 |
| RU2 Rural residential lands (suitable for large-lot rural residential housing) | 95 |
| Retail and civic centre land | |
| E1 Local centres, general rate | 410 |
| Mixed use commercial and residential land | |
| MU1 Mixed use (45 dwellings per hectare) | 425 |
| Other enterprise or employment land | |
| E4/B5 Commercial and industrial suitable land | 350 |
| Constrained land | |
| Significant slope | 80 |
| Environmental value | 80 |
| Riparian corridor | 80 |
| Habitat corridor | 80 |
| Bushfire prevention restrictions | 80 |
| Flood prone land (1% AEP) | 80 |

Source: AEC Group, *Land Valuation Report Appin Growth Area Developer Contributions Plan*, 12 September 2023, p 3.

AEC undertook a direct comparison approach to value the varying land types across the Appin Growth Area, factoring in site specific properties such as topography, location, site shape, and access and availability of services/infrastructure.¹⁰⁰ In addition, AEC also noted that the report was undertaken in accordance with IPART's land costs guidance.¹⁰¹

We analysed land values in the Wollondilly local government area to compare with the land rates determined by AEC, sourced from the NSW Valuer General.¹⁰² There were limitations in doing so, including that the wider LGA includes land that has greater or lesser underlying land value to Appin, such as locations closer to Blue Mountains and the anticipated Western Sydney Aerotropolis for the former and undeveloped land parcels further along the fringe for the latter. In addition, there was very limited data available on land observations of certain zoning types, such as E1 and MU1, which disallows a robust degree of confidence in comparative analysis. Lastly, the land values available for the Wollondilly LGA were only as recent as 1 July 2023, which does not accommodate the rapid movements in land values across the Greater Sydney region since then to the current date.

The land rates ascribed by AEC appear to be within a reasonable range when considering both the land valuation report itself and the Valuer General information.

6.4.3 Land value index

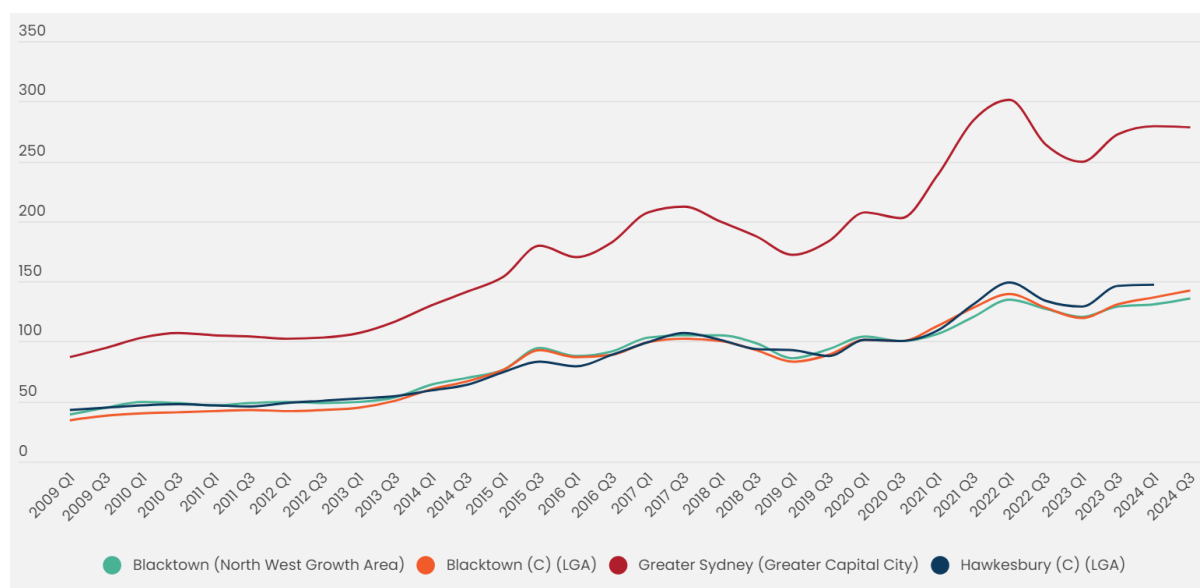
The council intends to regularly adjust monetary contribution rates in the plan and monetary contribution amounts in development consents using the Unimproved Land Value Index (LVI) – Greater Sydney (Greater Capital City) published by CoreLogic.¹⁰³ The cost of land yet to be acquired in the Appin CP makes up over a third of total costs in the plan, so we are conscious of the potential impact that a LVI may have on the change in contribution rates.

'Unimproved land value' is the estimated value of the underlying land which a property is built upon, excluding any improvements on the land, such as the dwelling itself and other structures (e.g. swimming pools, carports, etc.). This is distinct from the market value of the property, which accounts for both improvements and unimproved land. CoreLogic's measure has been used by other councils in the absence of other usable or available LVIs.^k Notably, Blacktown City Council's engagement of CoreLogic to produce and publish the quarterly Unimproved LVI for the North West Growth Area.¹⁰⁴

Figure 6.5 below displays the index over time across a few areas that are visualised on CoreLogic's site. For 2024, the Greater Sydney index remains considerably higher than the Blacktown (North West Growth Area), Blacktown (LGA), and Hawkesbury (LGA) indexes. Table 6.10 shows the LVI figures and also includes additional North West Growth Areas, whereby Greater Sydney's 2024 Q3 LVI greatly exceeds the 2024 Q3 and Q2 LVIs for the other areas.¹⁰⁵

^k The Australian Bureau of Statistics ceased publishing updated issues of the [Residential Property Price Indexes: Eight Capital Cities](#) in 2021, which was commonly used in the past as a land value index for contributions plans.

Figure 6.5 CoreLogic Unimproved LVI, 2009 Q1 to 2024 Q3



Source: CoreLogic, [Land Value Index](#), 2024 Q3.

Table 6.10 Publicly available Unimproved LVIs, 2024 Q3

| Location | Unimproved LVI |
|--|--------------------|
| Greater Sydney (Greater Capital City) | 278.7 |
| Blacktown (North West Growth Area) | 135.4 |
| Blacktown (LGA) | 142.3 |
| Hawkesbury (LGA) | 150.0 ^a |
| Hawkesbury (North West Growth Area) | 166.4 ^a |
| Hawkesbury, The Hills Shire (North West Growth Area) | 188.7 ^a |

a. 2024 Q2 used for this figure. CoreLogic have not visualised or publicly referenced the 2024 Q3 Unimproved Land Value Index for these areas on their site at time of analysis.

Source: CoreLogic, [Land Value Index](#), 2024 Q2 and 2024 Q3.

The North West Growth Area included by CoreLogic covers about 10,000 hectares of land to be home to around 250,000 people once developed, with 12 of the 16 precincts located within Blacktown City Council.¹⁰⁶ While the Appin Growth Area is not of the same scale, it covers a large, greenfield region that could be comparable to the land in the North West Growth Areas, i.e., undeveloped land along the Outer Sydney Orbital corridor.

Following this assumption, a limitation of the council's use of the Greater Sydney LVI is that, through regular indexation of the Appin CP, the underlying land values could be inflated beyond what would be a reasonable reflection of the unimproved capital value in the Appin Growth Area. This could cause contributions to grow to a stage which may make elements of the development economically unviable, which could, in turn, contribute to the ballooning of eventual housing costs.

We are aware that this is a known obstacle for councils, particularly those outside of Greater Sydney. This is something that we are considering more broadly, including options that are more appropriate or price reflective, such as the formulation of a bespoke LVI. However, there is a likely disparity between underlying land values within the whole of Greater Sydney and the Wollondilly LGA, or even the wider GMGA. This would cause the use of the council's chosen index to have a material impact on contributions over time given the scale of land in the Appin CP.

While we support the use of CoreLogic's Unimproved LVI and the hedonic model that it is underpinned by¹, we do not consider the council's use of CoreLogic's Unimproved Land Value Index – Greater Sydney (Greater Capital City) for indexing contributions for land to be reasonable.

Draft recommendation

- 5. That the council consider developing a bespoke Land Value Index (LVI) for the Appin Growth Area, opting for one of the North West Growth Area indexes, or proposing a functional alternative to help ensure that land acquisition costs are as reflective of market value as possible.

6.4.4 Land acquisition allowance

The council has not applied a land acquisition allowance for meeting costs for heads of compensation under the *Land Acquisition (Just Terms Compensation) Act 1991 (NSW)*. Given the plan is in its early stages and will have a long lifetime, the inclusion of a land acquisition allowance could help to ensure more accurate estimates for land acquisition costs. We encourage the council to review the adoption of a land acquisition allowance for the Appin CP prior to its next submission to IPART.

The council has not included costs associated with the processes that are involved in the acquisition of land. Although likely to be a very minor change to the overall cost of the plan, the council should consider the implementation of costs for the processes of land acquisition.

Draft recommendation

- 6. That the council should include a land acquisition allowance for the purposes of land acquisition under the *Land Acquisition (Just Terms Compensation) Act 1991*.

¹ The pricing of a good in a hedonic model is determined by the characteristics of both the good and its surrounding environment.

6.5 Plan administration

Total administration costs are \$13,934,940, which is 1.5% of total works costs. This is in line with our benchmarks and previously assessed plans.

We note that if the costs of open space works are reduced following our recommendations, we also recommend that the plan administration costs be reduced to 1.5% of the new reduced total costs of works.

Draft recommendation

7. That the council update the cost of plan administration to be 1.5% of the revised total works cost.

6.6 Other

6.6.1 On-costs and contingency allowances

Across the works costs for all infrastructure categories in the plan, the council has applied IPART's recommended on-cost, contingency, and long service levy percentages.¹⁰⁷⁻¹⁰⁸

7 Apportionment

7.1 Stormwater

The Appin CP apportions 100% of the cost of stormwater infrastructure to the development area based on share of NDA.¹⁰⁹ The change in the precinct's land use from rural to urban means that demand for new stormwater infrastructure arises entirely from within the precinct itself. Further, stormwater is generated by the proportion of area that is converted to impervious surfaces within the development area. Therefore, NDA is the best approximation of share of stormwater generation rather than a population-based apportionment.

The need to provide the stormwater management infrastructure included in the CP is generated by both the residential and non-residential development of the Appin Growth Area. Costs have been apportioned between residential and non-residential land uses, where 99.60% is attributed to residential and 0.40% to non-residential development.¹¹⁰ This level of apportionment is in proportion with the total quantity of NDA used by each development type.

We consider that this apportionment approach is reasonable, as it preserves the impactor pays principle^m. However, we note that our recommendation for non-residential land allocation will mean that the apportionment of stormwater costs will need to be revised using this same approach (see 10.3 and recommendation 8).

7.2 Transport

Since the provision of transport is to support the increased demand from future occupants within the area, costs have been 100% apportioned to new development. Demand for transport infrastructure is also shared with non-residential development, and the split between residential and non-residential is 99.60% and 0.40% respectively.¹¹¹ This reflects the proportions of NDA for both residential and non-residential development.

While, in principle, existing residents receive a benefit from new road infrastructure, the entirety of Appin currently comprises about 3,000 people¹¹² and is adequately serviced by the existing road network. The works contained in the plan have established reasonable nexus to the additional population, and so the share between existing and new users is immaterial to any apportionment consideration.

Likewise, any benefits of new transport infrastructure that is contained in the Appin CP to neighbouring precincts or the broader road network is limited. The plan delivers local roads, collector roads, and intersection controls to improve connectivity and accessibility within the Appin Growth Area, which is itself relatively contained and bordered by rural land.

^m The 'impactor pays' principle requires that costs are allocated to the party which created the costs or the need to incur the costs.

We consider that this apportionment approach is reasonable. However, we are recommending that the council revise the allocation of commercial land in the Appin CP to correspond with the change in forecast population and this will mean that the apportionment of transport costs will need to be revised using this same approach (see 10.3 and recommendation 8).

7.3 Open space

Open space apportionment to the Appin CP is 100%, with it wholly apportioned to residential development.¹¹³

Since the Appin Growth Area will move precincts from rural to urban, the increase in open space is required to meet the new demand within the area. Therefore, 100% apportionment to the Appin Growth Area is reasonable.

We also consider it reasonable that open space is apportioned wholly to the residential development, as the expected 55,950 residents within the precinct will be the users of the new open space in the precinct.

7.4 Community facilities

Costs for land acquisition for community facilities is apportioned entirely to the Appin Growth Area, and 100% to residential development.¹¹⁴ Since the precincts will move from rural to urban, the increase in community services is required to meet the new demand generated wholly from within the area.

Therefore, it is appropriate that 100% of the cost of providing the land required for community facilities is apportioned to residential development, as the 55,950 future residents will be the main recipients.

7.5 Plan administration

As these costs are generated by both the residential and non-residential development, it is therefore appropriate that the costs be apportioned between the separate land uses. Apportionment is currently attributed as 99.60% to residential and 0.40% to non-residential.¹¹⁵

We consider that this apportionment approach is reasonable. However, we note that our recommendation for non-residential land allocation will mean that the apportionment of plan administration costs will need to be revised using this same approach (see 10.3 and recommendation 8).

8 Timing

8.1 Stormwater

The council's work schedule timed the delivery of stormwater infrastructure to be 'as development occurs', without further detail. We requested further information from the council around staging estimates for stormwater works, and the council noted that it would be unreasonable to time the delivery to the number of lots at this stage. This is because different types and sizes of infrastructure will be required for each stormwater catchment area.

The council also stated that once stormwater management reports for the whole of the Growth Area are prepared, the Appin CP could relate the infrastructure to the stormwater sub-catchment areas.¹¹⁶

We consider the council's reasoning for limited detail around delivery timing for stormwater to be reasonable and note recommendation 10 in section 10.5 and section 10.2.

8.2 Transport

Similar to stormwater, the council's work schedule timed the delivery of transport works to be 'as development occurs', without further detail. We requested further information from the council around staging estimates for roads and transport works. The council noted that due to the difference in population forecast between the planning proposals and the draft CP as a result of adopting the dwelling cap for West Appin in the CP, it would be unreasonable to tie the delivery of roads and transport infrastructure to the delivery timeline proposed in the planning proposals for Appin (Part) Precinct and North Appin.¹¹⁷

In addition, the Transport Management and Accessibility Plans (TMAPs) for the area are yet to be endorsed and publicly exhibited. The council notes that once the TMAPs are finalised and endorsed by the relevant government agencies, it could apply the advised timing included in this documentation for roads and transport infrastructure to the Appin CP.

We consider the council's approach to be reasonable and note recommendation 10 in 10.5.

8.3 Open space

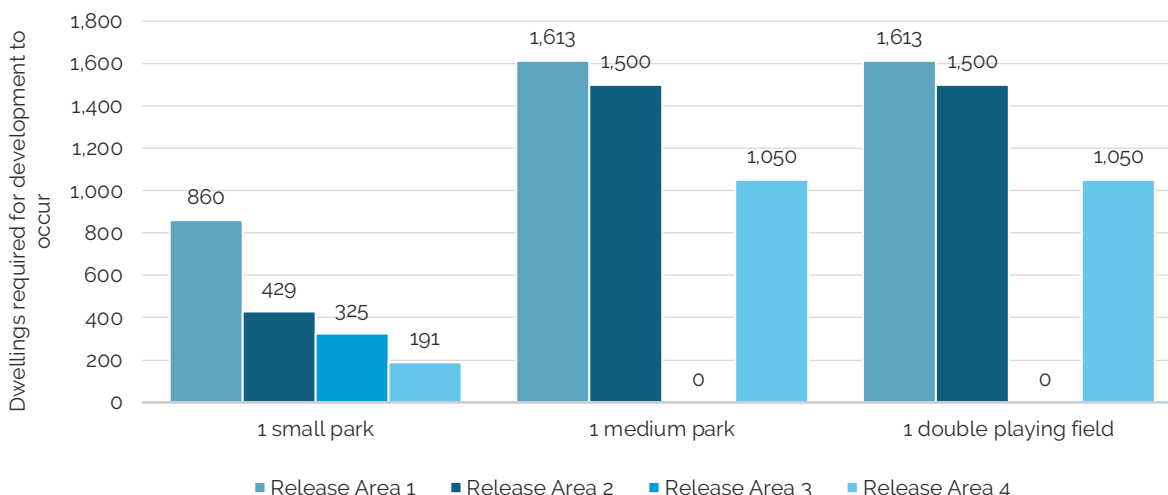
The council's estimated timing affirms that passive and active open space would be made available for new residents in line with open space provision requirements outlined by Cred Consulting's supporting study (see Figure 8.1).¹¹⁸

For example, delivery of a single double playing field for every 5,000 people¹¹⁹ broadly aligns with the council's averageⁿ staging of one double playing field for every 1,388 dwellings with assumed population growth of around 3 people per dwelling.

ⁿ Average based on 1 double playing field per dwelling count for Release 1, 2, and 4 (excluding Release Area 3 where no double playing fields are planned).

This open space delivery staging has been validated and we consider it to be reasonable.

Figure 8.1 Delivery staging for open space provision



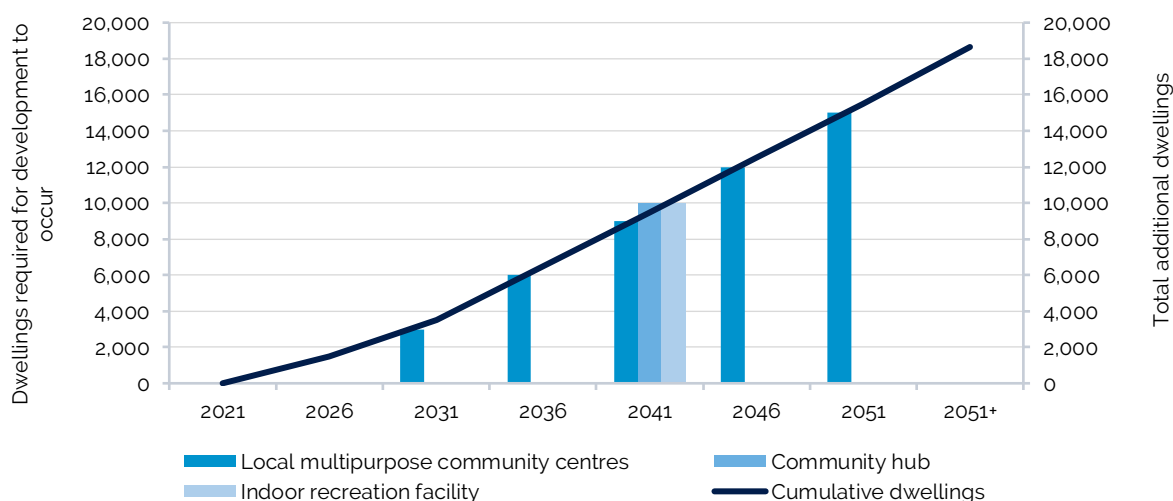
Source: IPART analysis and Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, Works Schedule.

8.4 Community facilities

The council has provided an indicative timeline for community services to come online for new residents, in line with the community services provision requirements outlined by the Cred Consulting's supporting study (see Figure 8.2).¹²⁰ Local multipurpose community centres are expected to be made available for every 3,000 dwellings (5 in total), and the community hub and indoor recreation facility is prioritised for the 10,000 dwellings mark.

This open space delivery staging has been validated and we consider it to be reasonable.

Figure 8.2 Delivery staging for community facilities provision



Source: IPART analysis and Wollondilly Shire Council, *Appin Growth Area Contributions Plan 2024*, Works Schedule.

9 Community liaison and publicity

The council placed the Appin CP on public exhibition from 2 April 2024 to 10 May 2024, which was extended to be 10 days more than the 28-day mandatory period.¹²¹ Local TV station, WIN News Illawarra, reported on the draft plan going to exhibition on 27 March 2024.¹²²

During this 38-day period, 3 printed copies of the draft plan were available for community consultation:

- one in the council's front counter
- one in Picton library
- one on the Dilly Wanderer (a free mobile community information service run throughout Wollondilly Shire which visits 16 villages, including Appin, Bargo, Buxton, Bingara Gorge, Camden Park, Douglas Park, Menangle, Oakdale, The Oaks, Picton, Tharawal, Tahmoor, Thirlmere, Warragamba, Wilton, and Yanderra).¹²³

Throughout the exhibition period, the Have Your Say page was visited 394 times, with documents downloaded 340 times. During the 38-day exhibition period, 15 submissions were received from:

- government agencies
- developers and their consultants
- an industry group
- community members.¹²⁴

The council notes that refinements were made to the contributions plan after considering the submissions received during its exhibition period.¹²⁵ Relevant takeaways from the submissions are:

- general sensitivity regarding housing urgency and the desire for development contributions to not impinge on an already financially strained industry
- more than one developer submission made mention of the open space allocation, calling for a reduction to reduce contribution rates.

In addition, the council held community engagement events on two occasions:

- a drop-in information session with the Appin community on 6 May 2024, with representatives from various government agencies and Walker Corporation present
- a community forum on 18 June, where the post-exhibition plan was discussed by the community with senior council staff present to respond to their queries.¹²⁶

We accept that there has been reasonable community liaison and publicity. The council has provided a reasonable timeframe for submissions, responded to submissions received, and provided ample opportunity for community consultation in the form of engagement events and making printed copies of the plan available.

The council has outlined that they will take into consideration the Minister recommendations regarding any requirements for further exhibition of the plan.¹²⁷

10 Other matters

10.1 Risk that transport items are not delivered as expected

In its current form, the CP includes very few transport works. As noted above (see 5.2), the council expects majority of transport works to be facilitated by developers through development consent conditions and by the state government.

The council has stated that it expects that the state government will facilitate around 95% of the transport infrastructure that will be required by the additional population. The council also confirmed that no commitments (in the form of Voluntary Planning Agreements/conditions of development consent, works-in-kind, or state government grants) have been made by either the developers or the state government for transport works.¹²⁸

Given the lack of certainty about the facilitation of additional transport items that are not included in the CP, there is a risk that the council will have to provide the infrastructure required without levying the costs. The council has not included any state documents or plans (from TfNSW or DPHI) that indicate a commitment to fund and manage the construction of transport infrastructure in the Appin Growth Area.

Additionally, the council has resolved that it does not intend to levy contributions for a major transport item, Broughton Pass Bridge, given its significant costs which are estimated to be close to half a billion dollars.¹²⁹ The council states that higher order roads are proposed to be funded through state contributions, such as Housing and Productivity Contributions, which has replaced proposed Special Infrastructure Contributions (SIC) for Greater Macarthur.¹³⁰ This may not be sufficient to meet the monetary amount required by the council for Broughton Pass Bridge. The risk that a replacement link for Broughton pass may fall through the gaps in the provision of infrastructure for the Appin Growth Area is known to the council.¹³¹

The council has not provided development consent to any proponents in the Appin release areas, so the details of any conditions are not yet known. IPART are also not aware of the contents of a state voluntary planning agreement that was applied for by council.^o

Overall, there is a risk that the developing parties are not aligned regarding the costs and staging of transport items that are essential to the development. This could lead to transport items not being developed as expected and may mean council will need to fund the infrastructure without levying sufficient contributions. If this were to occur, the council could revise the plan to include these additional costs and have it reviewed again by IPART following an exhibition period.

^o Applications have closed for DPHI's *State Voluntary Planning Agreement Funding Program – Round 4*, with Wollondilly Shire Council being considered for \$21.64 million worth of funds for eligible infrastructure (which includes provision of transport).

10.2 No stormwater strategy for the Appin Growth Area

As discussed above (see 5.1 and recommendation 1), the Appin Growth Area is without a comprehensive stormwater master plan. While we do consider nexus for stormwater management infrastructure to be established, it would be prudent for the council to consider the benefit of preparing a more comprehensive stormwater strategy for the area. This could be through the engagement of a consultant with proficiency in this area.

In addition, flood studies have not been undertaken for parts of the CP area outside of Appin (Part) Precinct and North Appin (Part) Precinct. This encompasses an estimated total development area of 2,750 dwellings that has not received flood frequency analyses, flow estimates, flood depth mapping, or other associated investigations and risks that would be reported by technical flood studies.

10.3 Disproportionate non-residential land volume

The 5.1 hectares of commercial land allocated in the plan is informed by Urbis' *Retail and Employment Study* (October 2022), commissioned by developer Walker Corporation. This land use is calculated by a retail floorspace demand and timing analysis based on gradual population growth.¹³² However, this population forecast included by Urbis applies to a greater area than the Appin CP covers. The council has maintained the size of commercial land determined in this report for the Appin CP.

Figure 10.1 Urbis retail floorspace analysis

| Appin and North Appin – Population and Indicative Retail Floorspace Timing | | | | | | | | | |
|--|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Population | 2022 | 2026 | 2030 | 2034 | 2038 | 2042 | 2046 | 2050 | 2054 |
| Primary | 3,118 | 6,398 | 21,905 | 37,412 | 52,919 | 65,307 | 68,322 | 68,322 | 68,322 |
| Secondary North | 506 | 506 | 506 | 506 | 506 | 2,444 | 8,409 | 14,373 | 20,337 |
| Secondary West | 1,916 | 1,916 | 1,916 | 1,916 | 1,916 | 1,916 | 1,916 | 1,916 | 1,916 |
| Total | 5,540 | 8,820 | 24,327 | 39,834 | 55,341 | 69,667 | 78,647 | 84,611 | 90,575 |
| Retail (Sq.m) | 2022 | 2026 | 2030 | 2034 | 2038 | 2042 | 2046 | 2050 | 2054 |
| Discount Department Store | 0 | 0 | 0 | 0 | 0 | 7,000 | 7,000 | 7,000 | 7,000 |
| Supermarket | 0 | 0 | 3,750 | 7,750 | 10,000 | 15,500 | 17,000 | 20,000 | 20,000 |
| Mini Majors and Retail Specialties | 0 | 0 | 1,875 | 4,064 | 5,189 | 11,661 | 12,411 | 13,911 | 13,911 |
| Non-retail & Ancillary* | 0 | 0 | 625 | 2,375 | 2,750 | 6,151 | 6,401 | 6,901 | 6,901 |
| Total Centre | 0 | 0 | 6,250 | 14,189 | 17,939 | 40,311 | 42,811 | 47,811 | 47,811 |
| Other Floorspace** | 0 | 0 | 1,250 | 1,250 | 2,000 | 2,000 | 2,500 | 3,500 | 3,500 |

*Includes centre based non-retail such as medical centre, gym, bank, post office etc.
**Includes non-centre and non-retail based uses such as urban services, mechanics, showrooms etc

Source: Urbis, *Appin and North Appin Precincts – Retail and Employment Study*, October 2022, p 21.

As in Figure 10.1 above, the study determining retail floorspace for Appin and North Appin – “... based on the trade area population forecast” – reaches a 30-year population growth of 90,575, which does not equal the expected population of 55,950 as determined in the Appin CP. Urbis’ analysis makes it clear that the determined square metres of retail floorspace is relative to the population growth.

Therefore, we recommend that the council revise the allocation of commercial land to be commensurate with the expected population outlined in the contributions plan. This is to prevent developers from being over-levied on a per hectare basis if a greater than required amount of commercial land has been determined in the plan.

As a result, this would alter apportionment, and in turn the contribution rate split between residential and non-residential, for transport, stormwater, and plan administration. We have noted this in the apportionment section for each applicable infrastructure category. Apportionment to the trade area population outside the plan's catchment area will also be necessary.

For draft recommendation 8 on disproportionate non-residential land volume, we request that the council provide IPART with apportionment revisions to be considered for our Final Report. This should include any resulting changes to the Appin CP's total costs and contribution rates.

Draft recommendation

8. That the council revise the allocation of commercial land in the Appin CP to be commensurate with an expected additional population of 55,950, and update the apportionment and contribution rates to reflect the revised allocation of commercial land.

10.4 Indexation

We acknowledge the challenge of land value indexation that councils face amidst an economic climate of unpredictable land prices and little availability of usable land value indexes. However, as noted earlier (see 6.4.3 and recommendation 5), we do not consider the council's decision to use CoreLogic's Greater Sydney Unimproved LVI to be reasonable.

Regarding the indexation of works and administration costs, we consider it reasonable for councils to use CPI Sydney All Groups in all contexts, which the council has elected for in the Appin CP.

However, the CPI might not track the change in prices for works as closely as other indexes. Generally, we consider using an ABS Producer Price Index (PPI) to be the better alternative for each specific category of works.¹³³ Table 10.1 shows our recommended indexes for roads, stormwater management works, and open space embellishment. Other councils have also opted to use these indexes in past contributions plans to more accurately reflect movements in the cost of works over time, and lessen the risk of funding shortfalls.

Table 10.1 PPIs for indexing contributions towards works costs

| Works category | Producer Price Index |
|-----------------------|--|
| Roads | ABS PPI 3101 Road and Bridge Construction Index for NSW |
| Stormwater management | ABS PPI 3101 Road and Bridge Construction Index for NSW |
| Open space | ABS PPI 3020 Non-Residential Building Construction Index for NSW |

Source: IPART, *Indexation of contribution rates*, 26 July 2019, p 4 and IPART, *Typical scopes and benchmark costs of local infrastructure*, 12 November 2021, p 6.

Draft recommendation

- 9. That the council use an ABS PPI to apply to the base contribution rates at the time of payment for each specific category of works, to more accurately reflect movements in the cost of works over time.

10.5 Future updates to the plan

Given the various supporting documentation that was not available to the council at the time of preparing the Appin CP, the plan should be updated regularly when the documentation is developed. This is of particular importance for the DCP, as it may have implications for density and dwelling yield.

Additionally, given no development has occurred yet and all costs covered in the plan are entirely based on estimates, the plan should be updated regularly as and when actual cost values become available.

Draft recommendation

- 10. That the council update the plan as and when relevant supporting documentation and actual cost values become available.

10.6 Grant funding

In recent reviews of contribution plans we have considered the possibility of the council receiving grants for items included in the CP following the adoption of the CP. To account for this possibility, we have recommended in other plans that the council review costs and make adjustments for any grant funding received following the adoption of the plan. Councils can reduce the total cost of the CP without needing to seek a further review by IPART.

We intend to apply this approach to all CPs to ensure that any grant funding that is received after the CP is adopted prompts the council to reduce the rebates accordingly.

Draft recommendation

- 11. The council should make adjustments for any grant funding received for infrastructure in the plan, following the adoption of the plan.

Content in the next section may be culturally sensitive.

Aboriginal and Torres Strait Islander peoples are respectfully advised that the next section contains material referencing significant sites related to the Appin Massacre that may be confronting and distressing.

10.7 Appin Massacre Cultural Landscape

The Appin massacre of 1816 was one of the earliest frontier conflicts between First Nations people and European settlers, where Dharawal and Gundungurra people were massacred by the British military.¹³⁴

Within the Appin Growth Area, 113 hectares of land is listed in the State Heritage register as the Appin Massacre Cultural Landscape.¹³⁵ This land is adjacent to, but not included in, the Appin CP and the council does not currently consider it appropriate to include the Appin Massacre Cultural Landscape as part of the open space provision in the Appin CP.¹³⁶

The Appin Massacre Cultural Landscape was jointly nominated for listing on the State Heritage Register by the Aboriginal Cultural Heritage Advisory Committee and the Heritage Council of NSW. It was listed on the State Heritage Register in November 2022.¹³⁷

We note that consultation with First Nations people is required to ensure appropriate protection of the Appin Massacre Cultural Landscape, and to determine future ownership, management, use, and access. We also note that there will be an ongoing requirement for resources to maintain the site.

While the development defined in the Appin CP does not include the Appin Massacre Cultural Landscape, we note the proximity of this land is important context for the CP and the development included in the CP may impact the adjacent sites.

10.8 Appin's koala habitat

Appin is surrounded and connected with prime koala habitat that supports Greater Sydney's only disease-free koala colony. There has been community opposition¹³⁸ and publicity^{139,140} on the rezoning of Appin and projected housing development that may impact the environmentally sensitive land and, in turn, koala prosperity.

There has also been active involvement from the state government in the conservation of koala habitats. In 2019, a parliamentary inquiry was established to inquire into and report on koala populations and habitat in New South Wales. The committee's final report was published in mid-2020¹⁴¹ and the government's response was tabled in early 2021¹⁴². State government has committed funding for biodiversity protection amid western and south-western Sydney's housing development needs¹⁴³, and is also reviewing the NSW Koala Strategy¹⁴⁴.

The council has excluded protected koala corridors land in the Appin CP, as well as land that does not have biodiversity approval under the *Biodiversity Conservation Act 2016 (NSW)* and *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Avoided and excluded land as per the Cumberland Plain Conservation Plan (CPCP) is also excluded from the Appin CP. DPHI's CPCP team reviewed the council's draft plan and had no comments that relate to the CPCP or its planning controls.¹⁴⁵ The council also advocates for the protection of the region's koalas and their habitat through the [Wollondilly Koala Conservation Project](#).

10.9 Assessment against clause 212 of the EP&A Regulation

We have determined that the Appin CP contains the information required by clause 212 of the EP&A Regulation.¹⁴⁶ 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 the Appin CP against the EP&A Regulation is provided in Table 10.2.

Table 10.2 Assessment against clause 212 of the EP&A Regulation

| Subsection | Requirement | Location in plan |
|------------|--|--|
| 1(a) | Purpose of the plan. | Section 2.6 |
| 1(b) | Land to which the plan applies. | Section 2.2 |
| 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 7.1.4, 7.3.1, 7.4.1, 7.5.1, 7.6.1 |
| 1(d) | The formulas to be used for determining the section 7.11 contributions required for different categories of public amenities and services. | Section 3.2 |
| 1(e) | The section 7.11 contribution rates for different types of development, as specified in a schedule in the plan. | Section 3.1 |
| 1(f) | A map showing the specific public amenities and services proposed to be provided by the council. | Section 9 |
| 1(g) | A works schedule that contains an estimate of their cost and staging (whether by reference to dates or thresholds). | Section 8 |
| 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 6.4 |
| 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 6.2 |
| 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, 5.1, 5.2, 5.3, 5.4 |
| 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 | Section 4.4 |

| Subsection | Requirement | Location in plan |
|------------|--|-----------------------|
| | with the conditions must be made before the commencement of the building work or subdivision work authorised by the certificate | |
| 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. | Sections 4.4.2, 4.4.3 |
| 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 6.4 |

- ¹ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, pp 10, 34-38.
- ² NSW Department of Planning, Housing and Infrastructure, [Practice Note – Local Infrastructure Contributions](#), January 2019, pp 14-16.
- ³ NSW Department of Planning, Housing and Infrastructure, [Greater Macarthur Growth Area](#), accessed October 2024.
- ⁴ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), Works Schedule, July 2024.
- ⁵ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 62.
- ⁶ [State Environmental Planning Policy \(Precincts–Western Parkland City\) 2021](#) (NSW), s 10, accessed October 2024.
- ⁷ NSW Department of Planning, Housing and Infrastructure, [North Appin](#), accessed October 2024.
- ⁸ Walker Corporation, [Planning proposal to rezone the Appin \(part 2\) precinct for urban development](#), 23 November 2023.
- ⁹ Appin Farmers Pty Ltd and Auslands Developments Pty Ltd, [Planning Proposal – 10 and 20 Brooks Point Road, Appin](#), 11 September 2023.
- ¹⁰ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, pp 34-38.
- ¹¹ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 35.
- ¹² Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 36.
- ¹³ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 30.
- ¹⁴ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, pp 66-69.
- ¹⁵ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 16.
- ¹⁶ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, pp 9, 68.
- ¹⁷ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, pp 9, 67.
- ¹⁸ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 9.
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- ²¹ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 70.
- ²² Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 17.
- ²³ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, pp 24-25.
- ²⁴ Online meeting with IPART and Wollondilly Shire Council, 11 September 2024.
- ²⁵ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 33.
- ²⁶ Wollondilly Shire Council, [Appin Growth Area Contributions Plan 2024](#), July 2024, p 31.
- ²⁷ Penrith City Council, [Glenmore Park Stage 1, 2, and 3 Development Contributions Plans](#).
- ²⁸ Online meeting with IPART and Wollondilly Shire Council, 11 September 2024.
- ²⁹ Online meeting with IPART and Wollondilly Shire Council, 11 September 2024.
- ³⁰ NSW Department of Planning, Housing and Infrastructure, [Practice Note – Local Infrastructure Contributions](#), January 2019, p 15.
- ³¹ NSW Department of Planning, Housing and Infrastructure, [Practice Note – Local Infrastructure Contributions](#), January 2019, p 15.
- ³² NSW Department of Planning, Housing and Infrastructure, [Practice Note – Local Infrastructure Contributions](#), January 2019, p 15.
- ³³ IPART, [Review of the essential works list, nexus, efficient design and benchmark costs for local infrastructure](#), Draft Report, October 2021, p 23
- ³⁴ IPART, [Assessment of Orchard Hills North Contributions Plan](#), Final Report, September 2024, pp 12-13.
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- ³⁷ IPART, [Assessment of Contributions Plan Austral and Leppington North](#), Final Report, July 2023, pp 13-14.
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- ³⁹ NSW Department of Planning, Housing and Infrastructure, [Practice Note – Local Infrastructure Contributions](#), January 2019, p 14.

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- ⁴⁷ Wollongong City Council, *West Dapto Development Contributions Plan 2024*, October 2023.
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- ⁴⁹ IPART, *Inclusion of roads in contributions plans*, 18 April 2019.
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- ⁵⁴ Urbis, *Appin & North Appin Precincts Indicative Plan*, October 2022.
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- ⁵⁶ Wollondilly Shire Council, response to IPART's RFI regarding the Appin CP, 28 October 2024.
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- ⁶¹ Wollondilly Shire Council, *Ordinary Council Meeting Minutes 12 December 2023*, Council Resolution No. 363/2023, p 19.
- ⁶² Wollondilly Shire Council, *Ordinary Council Meeting Minutes 23 April 2024*, Council Resolution No. 107/2024, p 15.
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- ⁸² WT Partnership, *Draft Appin Growth Area Contributions Plan 2024 – Independent Cost Peer Review*, 9 May 2024, p 10.
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