



# ***West Schofields Precinct***

*Exhibition Discussion  
Paper*

*August 2018*

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#### Acknowledgement of Country

We acknowledge the Indigenous traditional custodians of the land within which the West Schofields Precinct is located, and we pay our respects to Elders past, present and future.

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***Executive Summary***

This Exhibition Discussion Paper outlines the masterplanning process for the development of the Indicative Layout Plan (ILP) for the West Schofields Precinct (the precinct). It also details the proposed amendments to *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* under which the precinct is proposed to be rezoned for urban uses.

The Department of Planning and Environment (the Department) has been working with Blacktown City Council (Council) to develop the ILP for the precinct which is located in Sydney's North West Growth Area (NWGA). The purpose of the ILP is to identify opportunities for urban development to support housing, and to plan for the infrastructure needs to support this growth. Located approximately 40 km north west of the Sydney CBD, the precinct is in the Blacktown Local Government Area (LGA) and is zoned for rural purposes under Blacktown Local Environmental Plan 2015 (Blacktown LEP 2015).

The 'Greater Sydney Region Plan' (Region Plan) sets a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters. The Region Plan specifically notes the need to provide for new neighbourhoods, industry and urban services, and biodiversity protection in the NWGA.

The precinct aims to provide housing, open space, green links, a local centre, a potential school and biodiversity and heritage protection.

The precinct was released by the Minister for Planning in two stages. The 'part' precinct, south of Schofields Road (South Street) was released in August 2016 under the Precinct Acceleration Protocol (PAP). CSR Limited is the majority landowner and PAP proponent. The 'balance' of the precinct, north of Schofields Road was released in May 2017 to enable the masterplanning of the precinct to occur holistically.

The Department as part of precinct planning has undertaken detailed investigations to identify suitable urban land uses taking into consideration the opportunities and limitation of the precinct which include: Bells and Eastern Creeks, potential flooding impacts, existing native vegetation, Indigenous and non-Indigenous heritage, Schofields Road, a future transport corridor, major services easements and landfill sites.

A draft ILP and associated development controls for the precinct are now exhibited for public comment.

## **Green Spaces**

Open space planning within the precinct is looking to provide the future residents with local parks and sporting fields for active uses. Precinct planning is providing 42.7 ha of open space consisting of four double playing fields and parks spread throughout the precinct.

In addition to the local needs, it is proposed to provide eight double playing fields and passive open space in the north east of the precinct to meet out-of-precinct needs. Five double fields are to address a shortfall for the Riverstone and Alex Avenue precincts and three are to provide fields for the greater NWGA.

The natural assets of the precinct – Bells and Eastern Creeks, areas of existing native vegetation and areas of Aboriginal and non-Indigenous heritage significance plus proposed open space, pedestrian and cycle linkages present the opportunity to establish a 'Green Grid' in the precinct. See **Section 2.2** of this paper.

## **Infrastructure Delivery and Development Staging**

*Water* - Water is currently supplied to the precinct from the Rouse Hill and Minchinbury water supply systems. The current capacity does not have the ability to serve the precinct once rezoned. There is sufficient existing storage capacity within the Minchinbury supply zone to ultimately supply the precinct. However, new trunk mains will be required to be extended from the existing system to service the precinct. A new main is proposed to be

delivered along the upgraded Schofields Road in 2018/19. Once this main is commissioned it could provide a connection point to the new development for both the southern and northern parts of the precinct.

*Wastewater* - the precinct is divided into three catchments. Wastewater from the precinct is proposed to be ultimately transferred to the existing Riverstone wastewater treatment plant in three different ways: transfer to sewer pumping station 1173 (located in Marsden Park Industrial Precinct), transfer to the existing Riverstone carrier and transfer to a future pumping station (SPS 'B'). See **Section 2.4** of this paper.

Significant infrastructure is required to service those parts of the precinct that will transfer to the existing Riverstone carrier and SPS 'B'. Sydney Water has estimated infrastructure may be constructed in 3-6 years' time, subject to funding. The southern part of the precinct will likely be serviced first and may require an interim solution ahead of the new main required to connect to the Riverstone carrier.

*Electricity* - the ultimate servicing strategy for the precinct will see the western part of the precinct supplied via the South Marsden Park zone substation and the eastern part supplied via the Schofields zone substation. To meet ultimate load requirements, an additional 3-5 feeders will need to be extended from both zone substations.

The northern part of the precinct will require additional feeders to be extended by Endeavour Energy. Endeavour Energy has advised that there will be some initial spare network capacity (approximately 250-500 dwellings) from the Schofields zone substation which could serve the southern part of the precinct. However, this spare capacity is on a 'first come, first served' basis so this capacity may be utilised by adjacent development outside the precinct. If the spare capacity is used by initial development within the southern part of the precinct, the initial feeders could be required from the Schofields zone substation by 2021.

### **Residential Densities and Development of Land Below Probable Maximum Flood**

The precinct proposes approximately 4,500 dwellings. Of that, a maximum of 2,000 dwellings will be permitted on land above the 1:100 chance per year flood level but below the Probable Maximum Flood level (PMF).

The PMF is an indication of the largest flood that could conceivably occur in an area. It is a measure used to identify the risks to life and property should a major flood event occur in the Hawkesbury Nepean Valley, which includes land in the precinct.

The Department has worked with Infrastructure NSW, Roads and Maritime Services and the State Emergency Service to establish a planning framework and evacuation strategy to support planning within the floodplain. This work is led by the Hawkesbury-Nepean Valley Flood Management Directorate.

For this precinct the number of dwellings will be restricted below the PMF to ensure future residents can safely evacuate the precinct in a major flood event.

Overall, the precinct will be capped at an approximate 4,500 dwellings to ensure the provision of infrastructure can meet the needs of the future population. See **Section 2.1** of this paper.

Controls will be included to ensure flood risk and resilience are considered for development between the 1:100 chance per year flood level and the PMF, including evacuation capacities and routes, mitigation of property damages and appropriate dwelling densities. In addition, notation of planning certificates for land within the precinct will identify land between the 1:100 chance per year flood level and the PMF.

### **Exhibition material**

A number of documents have been placed on exhibition to allow the community and stakeholders to provide feedback to the proposed precinct plan for the precinct.

The exhibition package includes:

- a draft ILP (Figure 4) illustrating the plan for development of land within the precinct
- a draft Development Control Plan
- an Exhibition Discussion Paper (this document)
- technical studies prepared to inform the draft precinct plan.

Blacktown City Council will prepare and exhibit a draft Local Contributions Plan to fund local infrastructure including local roads, drainage infrastructure and open space.



***Part 1 – The West  
Schofields Precinct***

## 1.1 The West Schofields Precinct

The West Schofields Precinct (the precinct) is located in the North West Growth Area (NWGA) which comes under *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (Growth Centres SEPP) and is found in the Blacktown Local Government Area (LGA). The precinct is one of 16 precincts in the NWGA, the majority of which have been rezoned. See Figure 1.

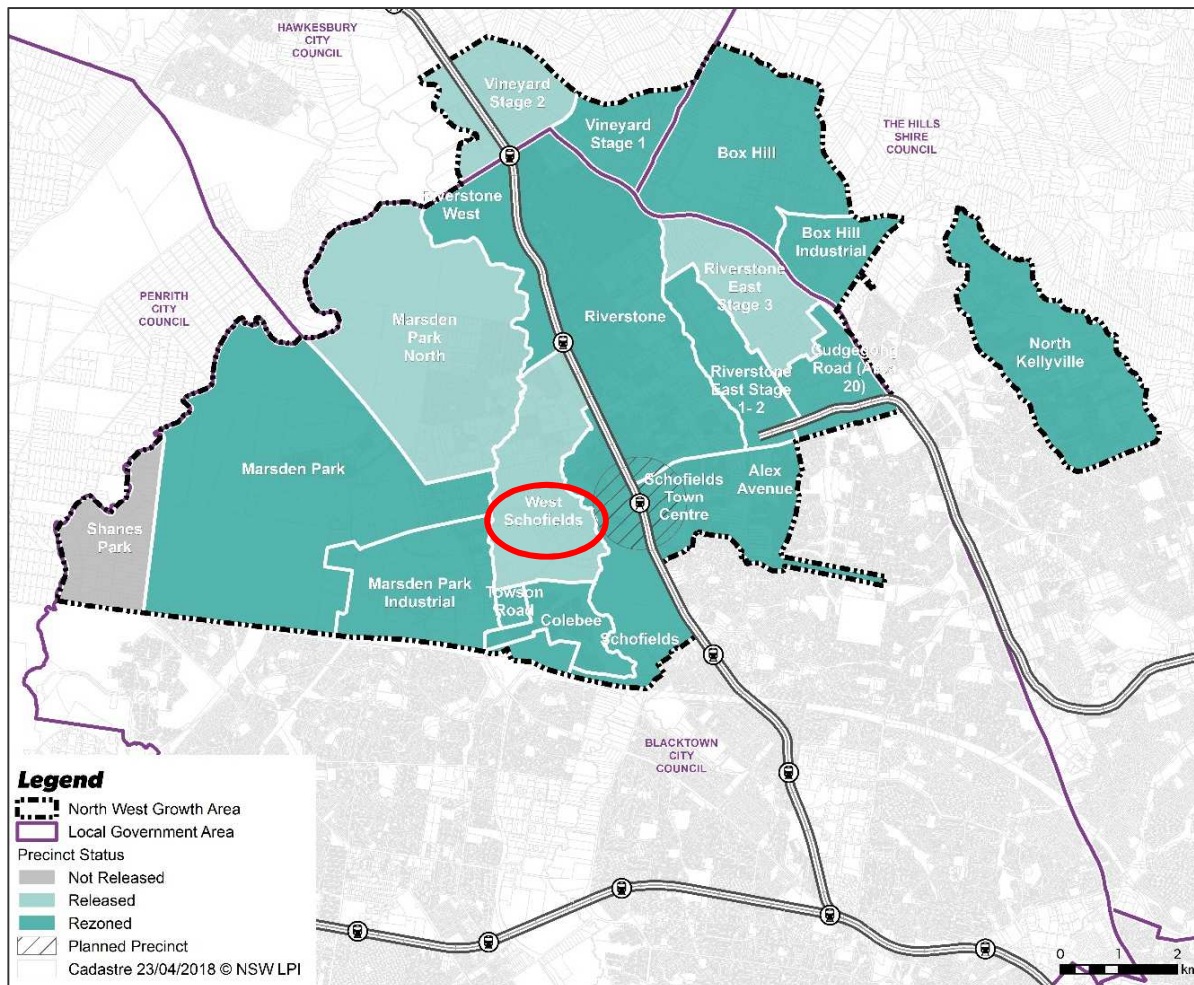


Figure 1 - North West Growth Area

### 1.1.1 Precinct release

The precinct was released by the Minister for Planning in two stages. The 'part' precinct, south of Schofields Road (South Street) was released in August 2016 under the Precinct Acceleration Protocol (PAP). CSR Limited is the majority landowner and PAP proponent. This means CSR Limited has signed up to forward fund all planning costs to prepare the draft precinct plan for the part precinct, which includes land owned by others apart from CSR. The 'balance' of the precinct, north of Schofields Road was released in May 2017 to enable the masterplanning of the precinct to occur holistically. See Figure 2.

The Townson Road Precinct is located within the West Schofields Precinct as shown in Figure 2. It was rezoned by Blacktown City Council (Council) in December 2016 to allow for approximately 336 dwellings.

Masterplanning for the northern and southern parts of the precinct has occurred jointly, while the consideration of open space and discussions of total potential dwelling numbers has included the Townson Road area.

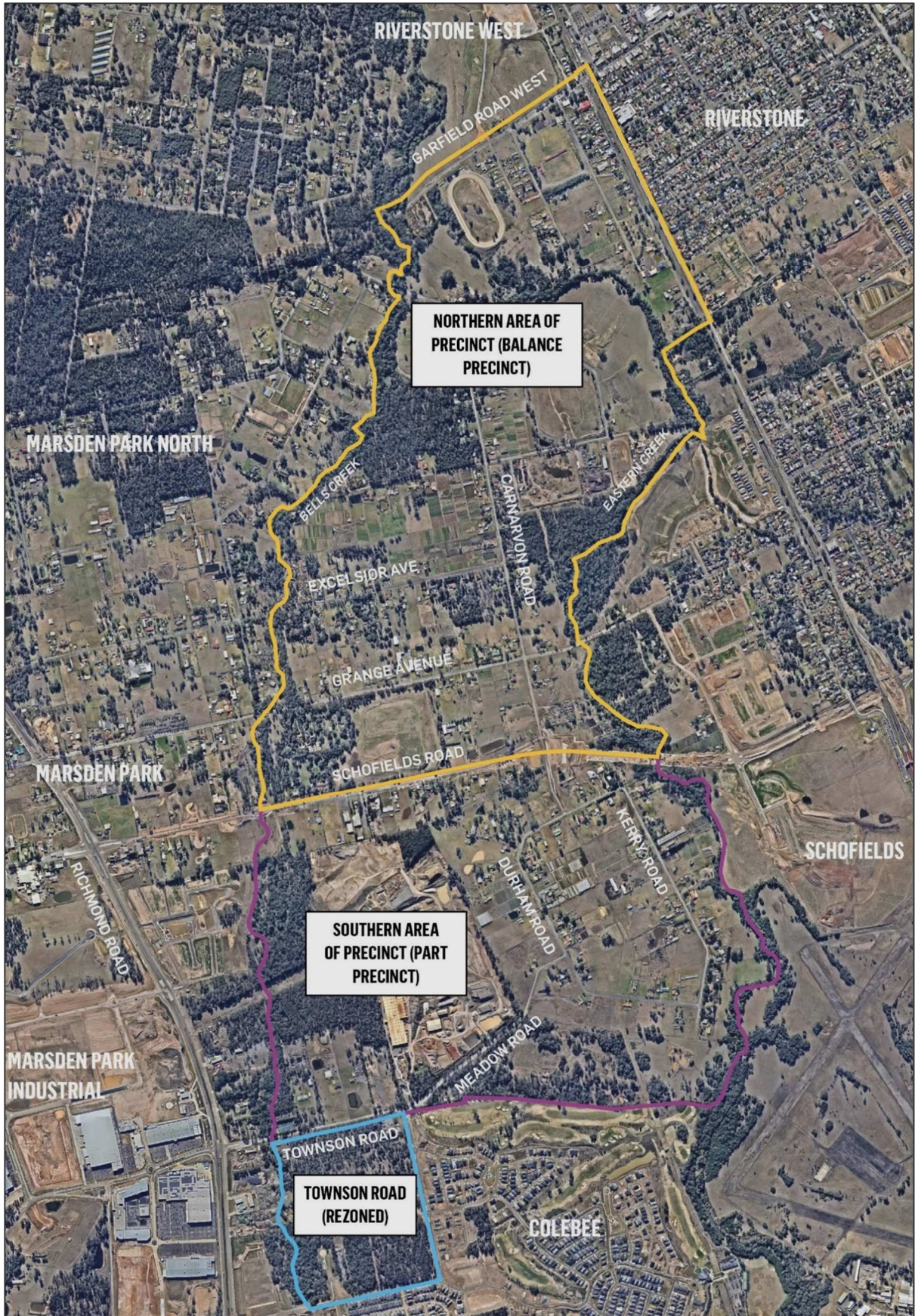


Figure 2 - West Schofields Precinct

## 1.2 Precinct Context and Constraints

### 1.2.1 Location

The precinct is located in the south west of the NWGA, approximately 40 km northwest of the Sydney CBD, 18 km from Parramatta CBD and 7 km from Windsor. It is one of several precincts in the NWGA that are in the Blacktown LGA, as shown in Figure 1. The precinct adjoins the Marsden Park North and Riverstone West Precincts to the north, Schofields and Riverstone Precincts to the east, Marsden Park and Marsden Park Industrial Precincts to the west and the Colebee Precinct to the south.

### 1.2.2 Precinct Overview

The precinct is bordered by Garfield Road to the north, Railway Terrace and Eastern Creek to the east, Townson Road and Stonecutters Ridge Golf Course to the south, and Bells Creek to the west (as shown in Figure 2). As noted, the Townson Road area has already been rezoned.

The precinct is approximately 576 hectares (ha) in size, there are approximately 300 land owners and 573 existing dwellings. Precinct planning has taken into account the character of the precinct due to its flood prone nature, industrial land surrounding the area, and its close proximity to rezoned areas such as the Schofields, Marsden Park and the Marsden Park Industrial Precincts.

### 1.2.3 Existing Conditions

The precinct is defined by the alignment of Eastern Creek and Bells Creek on its eastern and western boundaries, respectively with the two creeks meeting in the north of the precinct. The existing roads of Railway Terrace and Garfield Road West are the far northern and north eastern boundaries. Eastern Creek forms the remainder of the eastern boundary. The western boundary is Bells Creek and in some areas, runs partway through existing lots that slope westward towards and into the Bells Creek floodplain. Stonecutters Ridge Golf Course, Victory Road and Alderton Drive form the southern boundaries around the existing Townson Road rezoned area. The precinct is heavily flood affected due to the presence of the creeks and the precinct's location within the Hawkesbury-Nepean Valley.

Schofields Road (South Street), which bisects the precinct, is a sub-arterial east-west road that is currently being upgraded to meet the 1:100 chance per year flood event. Stage 3 – Vernon Road to Richmond Road is currently under construction by Roads and Maritime Services (RMS) with work expected to be completed by mid-2018. Blacktown Local Environmental Plan 2015 (Blacktown LEP 2015) is the principal planning instrument currently applying to the precinct with the primary zone being RU4 Primary Production Small Lot.

The precinct is predominantly characterised by rural residential properties, low intensity agriculture such as market gardens, poultry sheds, and a mushroom grower, commercial activities and rural industries. The CSR quarry and brick works is located in the southern part of the precinct and there are also three former landfill sites across the whole precinct.

The precinct contains patches of vegetation typical of four communities being Cumberland Plain Woodland, Cooks River/Castlereagh Ironbark Forest, Alluvial Woodland and Shale Plains Woodland. Areas of remnant existing native vegetation (ENV) are located throughout the precinct. There is one main ridgeline through the precinct, aligned north-south with Victory Road on the eastern edge of the Townson Road area, heading north along the western edge of the existing CSR quarry and through the middle of the Grange Avenue landfill site. This flat ridgeline affords long distance views to the Blue Mountains.

One high voltage electricity transmission easement traverses the precinct, from north-east to south-west and a high pressure gas and oil pipeline (Sydney to Newcastle) easement traverses the precinct in a north-south alignment on the eastern side of the precinct. See Figure 3.

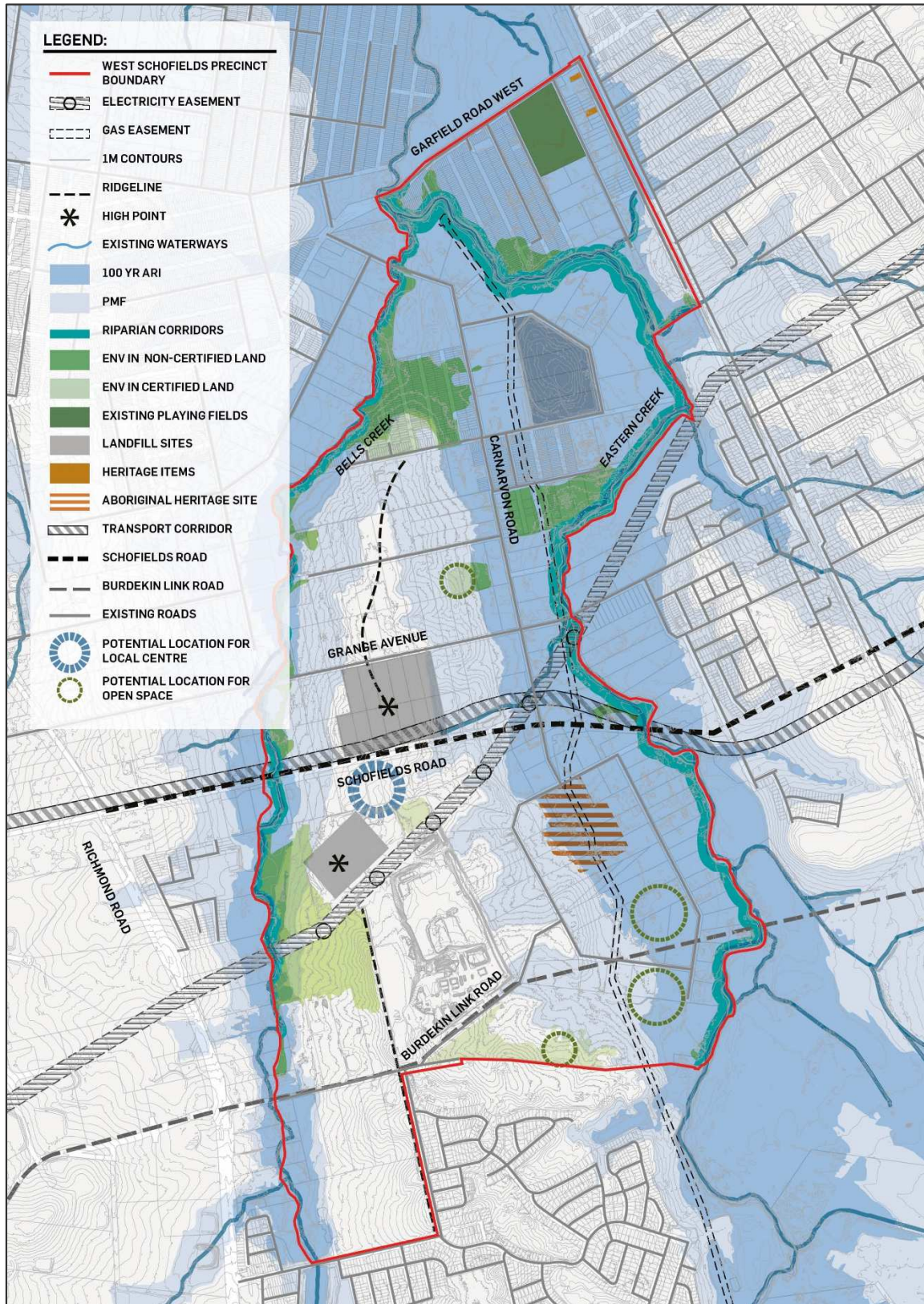


Figure 3 - Precinct context and constraints

## 1.3 Masterplanning Approach

### 1.3.1 Landscape Character

A central ridgeline traverses the southern half of the precinct with the land falling north-west and east towards Bells Creek and Eastern Creek respectively. A significant feature of the landscape character of the precinct are the areas of mature native trees, particularly adjoining the Bells and Eastern creek lines. These creek lines also predominantly form the boundaries to the precinct and therefore the vegetation provides a visual enclosure and containment from within and to the precinct. These areas support significant remnant vegetation and wildlife habitat that contributes to the conservation and recreation value of the wider area. In addition to this, the existing vegetation on the southern boundary of the precinct has high quality landscape features and completes enclosure of the precinct. The most dominant landscape character of the precinct is the existing rural residential settlement areas and the remaining landscape character is generally absent of any high-quality landscape features.

### 1.3.2 Visual Assessment

The precinct is well integrated into the landscape with riparian vegetation, areas of mature trees and tree belts along paddock boundaries inhibiting views into the precinct. The most suitable land for development is the land above the probable maximum flood level (PMF). The southern half of the precinct has the largest land area above the PMF.

Developing the area below the PMF but above the 1:100 chance per year flood level and providing a substantial landscape edge treatment to the creeks would be respectful of the cultural and biodiversity values along the creek line, and would present no visual intrusion into the existing or future landscape character. The existing mature trees within and on the borders of the precinct will provide a landscape setting to the proposed development and with additional vegetation and open spaces included within the design, would assist in assimilating housing and provide a sensitive edge transition between the riparian corridors and the built form.

The proposed development of the precinct will have a limited impact on views towards the precinct from the surrounding landscape. Furthermore, it will be seen in the context of the existing built up edge of Riverstone to the north and Colebee to the south.

### 1.3.3 Masterplanning Vision

Planning for the precinct responds to the need for new and diverse housing in Sydney that is well connected to major centres and employment, protects natural assets and encourages sustainable living. Consideration of the surrounding context, history and natural environment has informed the precinct planning process.

The precinct will consist of a mix of housing types that allows greater choice for different household types. The precinct will predominantly be accommodated with low density housing. Medium density housing is located around the local centre to optimise convenient living near retail, proposed community facilities and transport links. The housing density and location within the precinct has been heavily dominated by the potential flood impacts on the precinct. The precinct is affected by the 1:100 chance per flood level and the PMF and the location of housing and the road layout will ensure future residents can evacuate safely in the event of a major flood event.

Items and places of significant heritage value, particularly Aboriginal heritage have been integrated into the planning of the precinct and protected through a sensitive design approach.

The local centre is in a visually prominent and accessible location on Schofields Road and will support retail, commercial services, and a proposed community facility to promote community interaction. The distribution of both

active and passive open space uses supports connections to and throughout the precinct and to destination areas including the local centre, potential school and green corridors along Eastern and Bells Creeks. Provision of additional active open space to service the whole of the NWGA in the north east of the precinct is co-located with existing playing fields and provides connectivity across Eastern Creek.

Direct road connections to the nearby Schofields Railway Station and the Sydney Metro Northwest line at Cudgegong Road Station will ensure regional public transport accessibility. Allowance has also been made for a transport corridor to link the Sydney Metro Northwest through to Marsden Park. This will be shown as a map overlay running east-west through the precinct, north of Schofields Road and require concurrence from Transport for NSW (TfNSW) for any development applications on land within the corridor. A safe and permeable street network will promote accessibility, connectivity and social interaction. The provision of cycleways and pedestrian connections as well as public transport connections to surrounding centres and open space areas will promote a community that is less dependent on private vehicle use.

Please refer to the Indicative Layout Plan (ILP) at Figure 4.

Refer to:

- *West Schofields Landscape and Visual Appraisal Report (Urbis May 2018)*

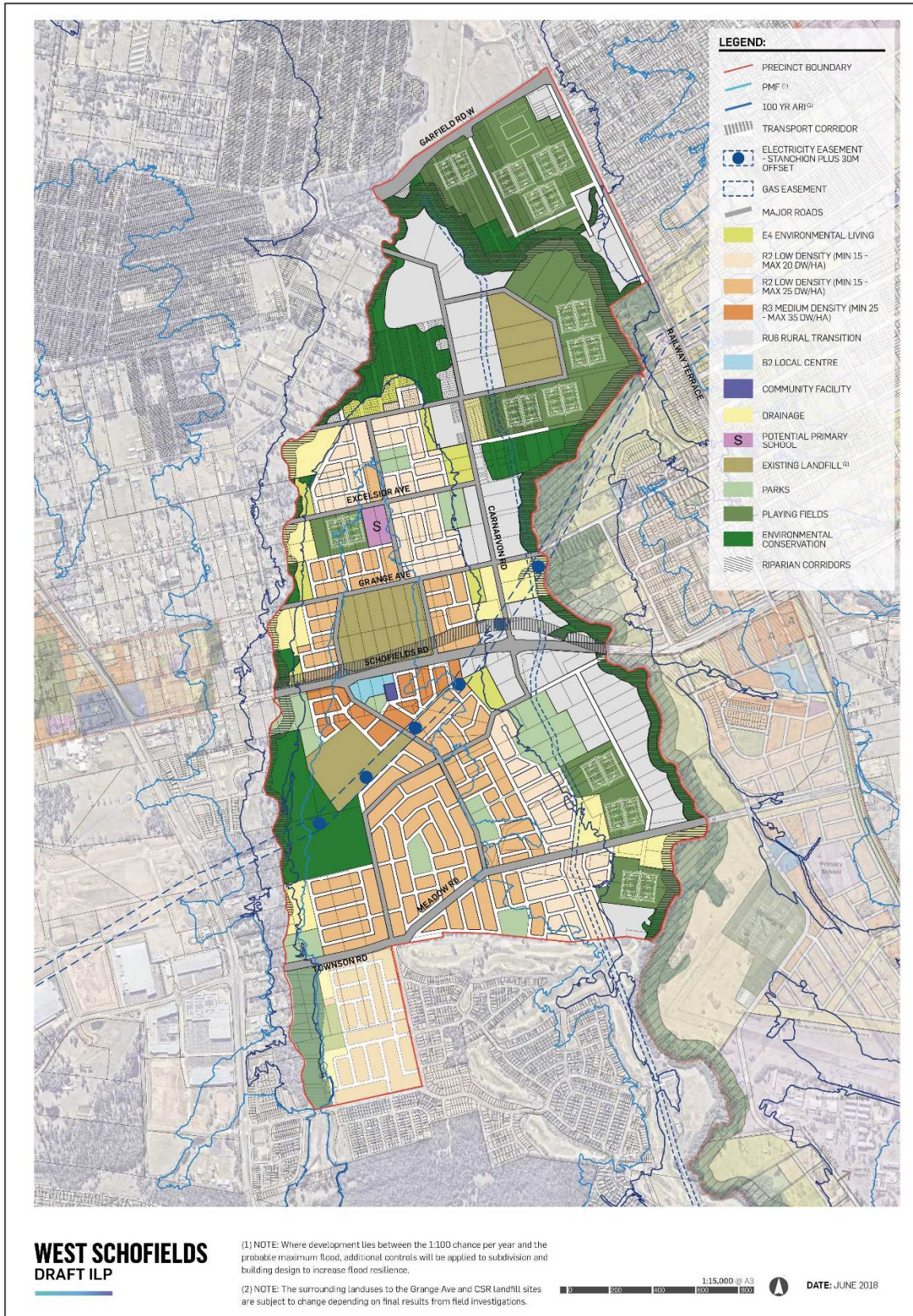


Figure 4 - Indicative Layout Plan

## 1.4 Precinct Summary

Planning controls for the precinct will support approximately 4,500 new dwellings. This could equate to an approximate population of 14,400 people. Table 1 summarises the key land use and development outcomes proposed for the precinct.

**Table 1 - Land use outcomes for the West Schofields Precinct**

Development parameters	Area (ha)	Dwellings	Population (based on 3.2 people per dwelling, rounded)
Rural transition zone	100.9	82 (existing dwellings to remain if precinct fully developed as per ILP)	262
Very low density residential	13.2	69	221
Low density residential (min. 15 – max. 20 dw/ha)	173.7 (total for both low density areas)	1394	4,461
Low density residential (min. 15 – max. 25 dw/ha)	See above	2463	7,882
Medium density residential (min. 25 – max. 35 dw/ha)	12.0	419	1,341
Village centre, including community facility	2.3	67	214
Planned public open space for West Schofields residents consisting of:	42.7 ha		
Four double playing fields	19.1 ha		
Local parks	23.6 ha		
Open space planned for out of precinct needs	66.2 ha		
Drainage and water management	44.7 ha		
Potential primary school (land area included under Low Density Residential)	2.0 ha		
Environmental conservation land	95.9 ha		
Landfill sites	24.8		
<b>Maximum total dwelling capacity</b> (includes 82 existing dwellings and 336 dwellings in Townson Rd)		<b>4,494</b>	
<b>Estimated total population</b>			<b>14,381</b>

## 1.5 Consultation

An integral part of precinct planning involves consultation with landowners, the community and stakeholders. The Department of Planning and Environment (DPE) held landowner information sessions in April/ May 2016 and newsletters were released in August 2016 and May 2017. DPE also wrote to all landowners in August 2017 advising of the alignment of the transport corridor as confirmed by TfNSW.

Consultation with relevant stakeholders throughout the precinct planning process have included:

- Council
- Department of Education
- Department of Primary Industries
- Endeavour Energy
- Environmental Protection Authority (EPA)
- Fire and Rescue NSW
- Infrastructure NSW (INSW)
- Jemena
- Office of Environment and Heritage (OEH)
- Office of the Government Architect
- RMS
- State Emergency Services (SES)
- Sydney Water
- Transgrid
- TfNSW



***Part 2 – Discussion of  
issues and masterplanning  
outcomes***

## 2.1 Residential Density and Zones

The total maximum number of dwellings proposed for the precinct (approximately 4,500) and their location have depended on a number of factors. One of the two main factors is to ensure the infrastructure required by the future population, eg parks and playing fields, essential services (sewer, water and electricity) and road capacity is planned for accordingly to meet that population. The other factor relates to the potential flooding impacts that could occur in the precinct.

No new residential development will be allowed below the 1:100 chance per year flood level and the total number of dwellings between the 1:100 chance per year flood level and the PMF will be capped at 2,000 dwellings. This is to ensure a planned maximum number of people residing within the precinct but particularly in the area that could be directly affected by a major flood event and the capacity of the regional road network to support an evacuation. The remainder of the dwellings in the precinct (approximately 2,500) will be located above the PMF level.

The maximum total number of dwellings proposed for this precinct will occur via density capping, as was similarly applied to the Vineyard (Stage 1) Precinct. Three density bands are proposed (see Figure 5) :

- R2 Low Density Residential zone with a minimum 15 dwellings per hectare and a maximum 20 dwellings per hectare (dw/ha) on land between the 1:100 chance per year flood level and the PMF
- R2 Low Density Residential zone with a minimum 15 dw/ha and a maximum 25 dw/ha above the PMF
- R3 Medium Density Residential zone with a minimum 25 dw/ha and a maximum 35 dw/ha above the PMF.

There is also land proposed to be zoned E4 Environmental Living. This is land that is partially below the 1:100 chance per year flood level and will have a minimum subdivision lot size specific to its location (from 500 – 1,200m<sup>2</sup>). This will ensure a dwelling house can be accommodated on the same lot above the 1:100 chance per year flood level. See Figure 6 for a suggested subdivision layout.

The density cap will ensure the sufficient provision of infrastructure and ensure the future residents can safely evacuate the precinct in a major flood event.

### 2.1.1 Proposed Residential Zonings

The three residential zones and their housing types proposed are listed below. For further detail on what other uses are proposed to be permissible in each zone, please see Attachment A of this report.

- E4 Environmental Living – a zone that is for land partially affected by the 1:100 chance per year flood line so very low residential densities are proposed. Single dwelling houses will only be permissible. Rural uses will no longer be permissible.
- R2 Low Density Residential – boarding houses, dual occupancies (attached or detached), dwelling houses (single), group homes, secondary dwellings, semi-detached dwellings, senior housing, shop-top housing and studio dwellings.
- R3 Medium Density Residential – attached dwellings (contains three or more dwellings, eg townhouses), boarding houses, dual occupancies (attached or detached), dwelling houses (single), group homes, multi-dwelling housing (contains three or more dwellings attached or not attached), residential flat buildings (eg apartments), semi-detached dwellings (dwelling on its own lot of land and attached to one other dwelling), seniors housing, shop-top housing and studio dwellings.

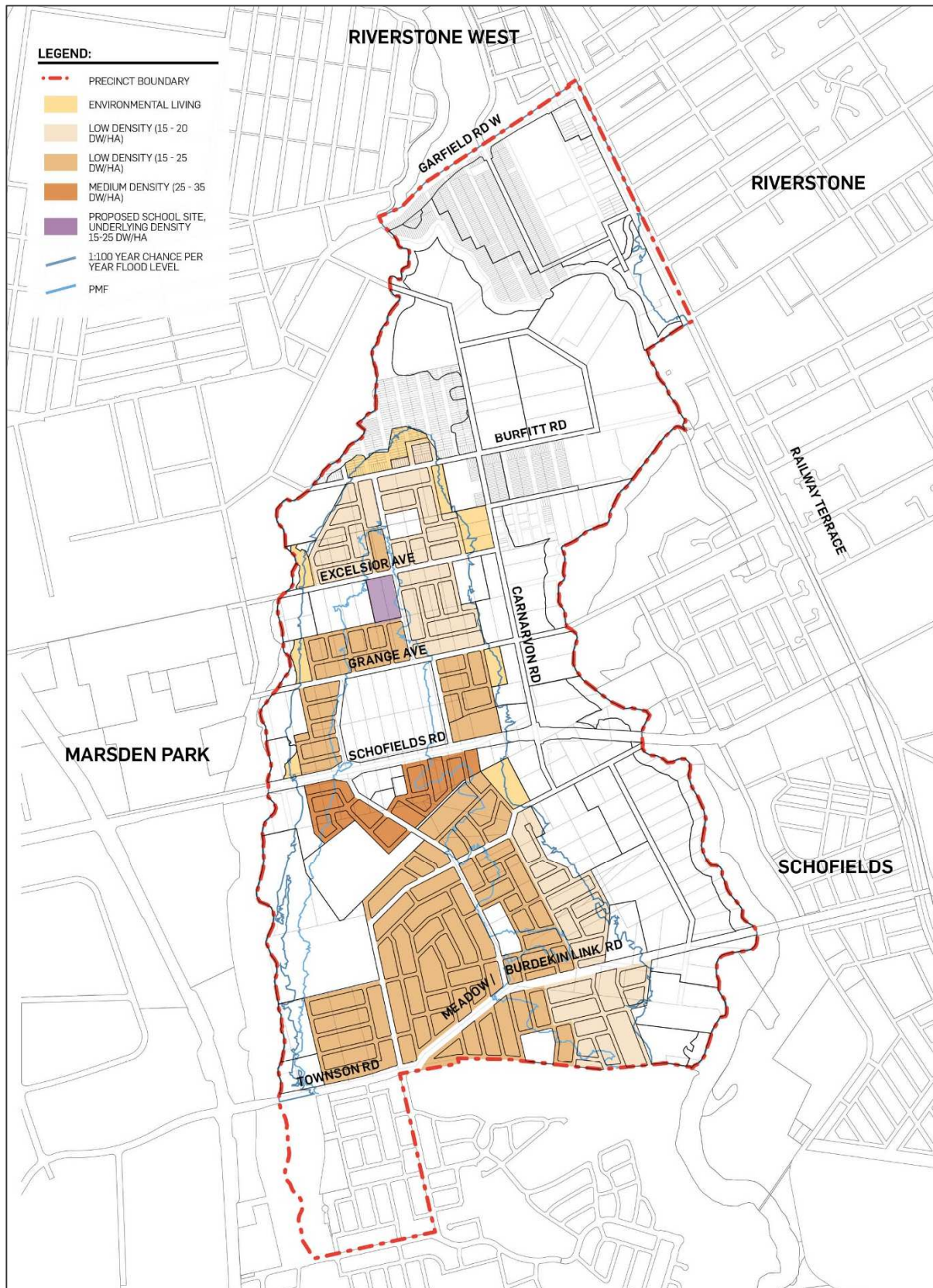


Figure 5 - Proposed residential densities

### 2.1.2 Housing Market Analysis

The housing market analysis prepared for precinct planning provided recommendations for housing delivery within the precinct. The recommendations are supported by estimates of the size of the market and demand for housing types based on consumption and demand data.

Based on the current take-up rates and market, the report concluded there is sufficient demand for up to 5,750 dwellings in the precinct. This recommendation **does not** take into account the environmental constraints affecting the precinct, in particular the capacity of the regional road network to facilitate an evacuation in the event of a major flood.

The report states that the housing growth in the region needs to consider diversity in housing stock to accommodate the needs of families (detached dwellings), families who cannot afford to buy a detached home but can afford a more affordable semi-detached dwelling with a backyard. The needs of downsizers and first home buyers also need to be considered through a provision of more affordable medium and high density housing.

An analysis of current market trends recommends the housing mix for the precinct should consist of 30% larger lots (up to 450m<sup>2</sup>), 25% medium lots (350-450m<sup>2</sup>), 30% small lots (up to 350m<sup>2</sup>) and 15% apartments.

The precinct proposes 5% larger lots, 30% medium lots, 54% smaller lots and 11% apartments. As this precinct is only proposing approximately 4,500 dwellings due to the environmental constraints, the dwelling breakdown does differ from the housing market analysis. A greater proportion of small lot housing is proposed to ensure the precinct is able to be viably developed.

Refer to:

- *West Schofields Housing Market Analysis (MacroPlan Dimasi April 2018)*
- *NWGA Flood Evacuation Study (Stantec May 2018).*

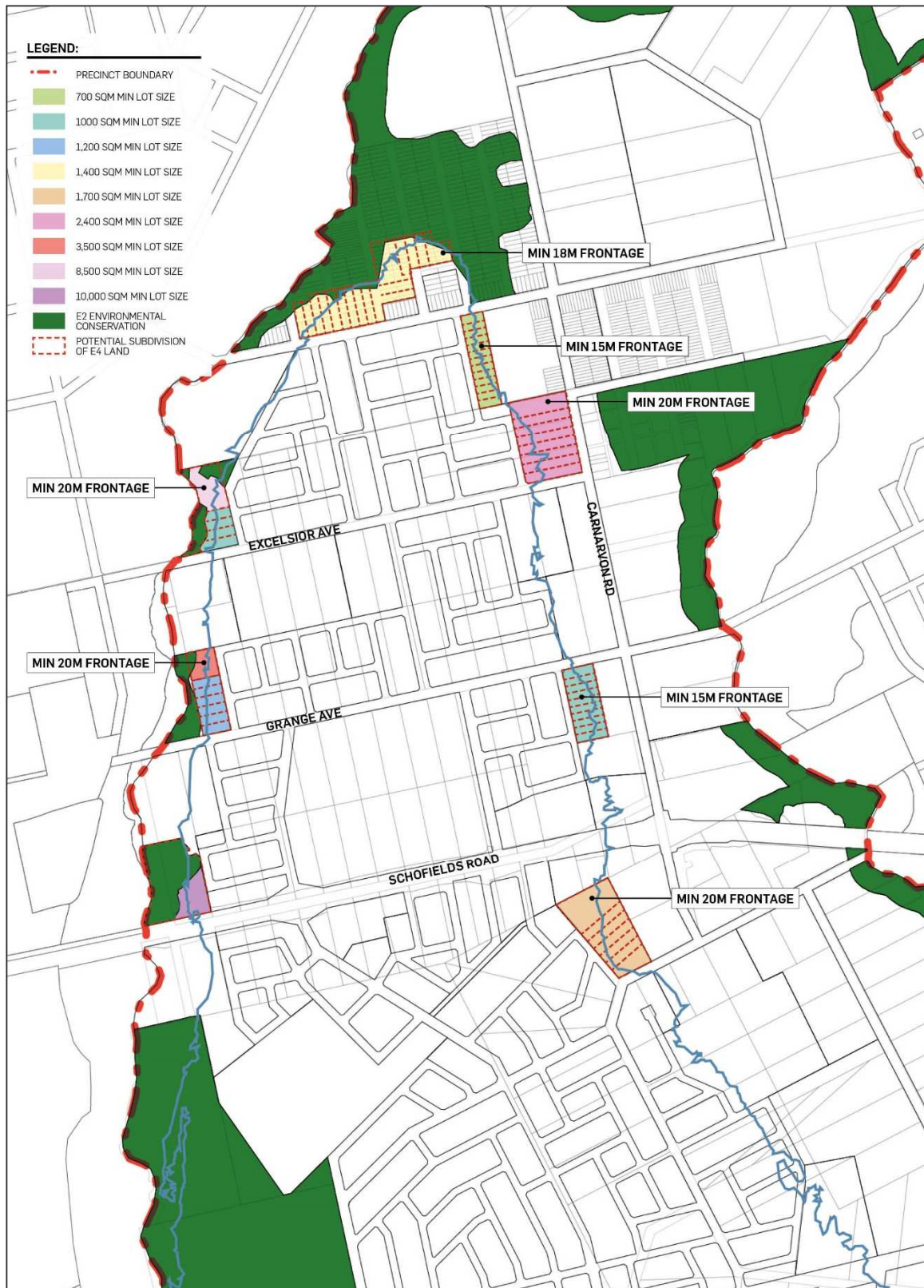


Figure 6 - Suggested E4 Environmental Living zone minimum lot size subdivision pattern

## 2.2 Open Space and the Green Grid

### 2.2.1 West Schofields active and passive open space

Open space planning within the precinct is looking to provide the future residents with local parks and sporting fields for active uses. The open space has been located within walking distance throughout the precinct to ensure all future residents have equitable access to areas.

The standard provision of open space is 2.83 ha of open space per 1,000 people. Based on a maximum of 14,381 residents, the precinct should provide 40.7 ha of open space. Precinct planning is providing 42.7 ha of open space. Within this, four double playing fields are provided (19.1 ha) with the remainder being parks spread throughout the precinct.

Referring to Figure 7, all residents will be within a 500m catchment to a local park. In addition, the medium density residential development around the local centre will be within 300m of a local park. Some parks will incorporate some existing native vegetation and the local parks will vary in size from a minimum 5,600m<sup>2</sup> up to over 20,000m<sup>2</sup> (2 ha).

### 2.2.2 Open space for the greater North West Growth Area

Located in the north east of the precinct are eight double playing fields proposed to address a shortfall for the Riverstone and Alex Avenue precincts (five double fields) and to provide additional playing fields for the greater NWGA. Passive open space is also provided in this area that would service residents across the greater NWGA.

With the development of the NWGA progressing with higher densities than imagined when the Growth Centres were first established, it is considered advantageous to provide additional open space on land that is not suitable for residential development to supplement demand.

### 2.2.3 Green Grid

The location of proposed open space, areas of existing native vegetation (ENV), the two creek lines, areas of Aboriginal and non-Indigenous heritage significance plus the proposed pedestrian and cycle linkages present an opportunity to establish a 'Green Grid' in the precinct. This will be consistent with 'Planning Priority C16: Increasing urban tree canopy cover and delivering Green Grid connections' as part of the Greater Sydney Commission's 'Central City District Plan'. C16 states 'Enhancing the amenity and activity within, and accessibility to, the Greater Sydney Green Grid will promote a healthier urban environment, improve community access to places for recreation and exercise, encourage social interaction, support walking and cycling connections and improve resilience'. The connection to Western Sydney Parklands (south of the precinct) along Eastern Creek is specially highlighted in the Central City District Plan as an opportunity.

Many areas will be brought into public ownership with links established for vegetation, wildlife and pedestrians and cyclists. Figure 7 shows the proposed open spaces, possible Green Grid linkages, areas for environmental conservation and pedestrian/cycle linkages.

Refer to:

- *Demographics and Social Infrastructure Assessment West Schofields Precinct (HillPDA May 2018)*
- *West Schofields Precinct Biodiversity and Riparian Assessment (Eco Logical May 2018)*

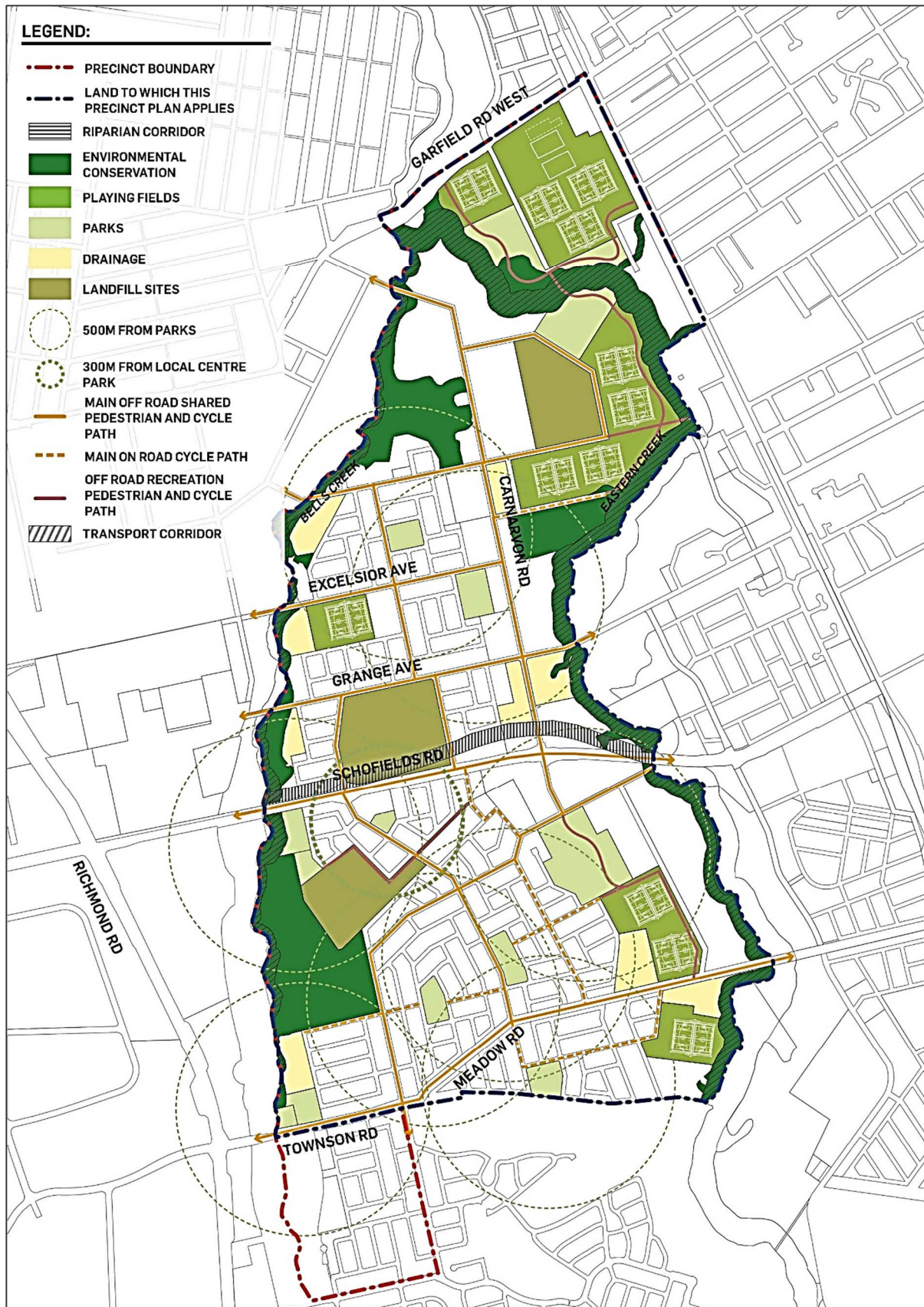


Figure 7 - Open space, green and pedestrian/ cycle linkages

## 2.3 Flooding and Water Cycle Management

### 2.3.1 Flooding and Evacuation

The precinct planning has considered both the 1:100 chance per year flood level and the PMF, see Figure 8. Precinct planning will not allow any new residential development below the 1:100 chance per year flood level and a maximum of 2,000 dwellings will be permitted above the 1:100 chance per year flood level but below the PMF. As mentioned in Section 2.1, this will ensure future residents can safely evacuate in a major flood event.

The SEPP will include a clause to ensure flood risk and resilience are considered for development between the 1:100 chance per year flood level and the PMF, including evacuation capacities and routes, mitigation of property damages and appropriate dwelling densities.

In addition, notation of planning certificates for land within the precinct will identify land between the 1:100 chance per year flood level and the PMF.

### 2.3.2 Hawkesbury-Nepean Valley Flood Management and Evacuation

The Hawkesbury-Nepean Valley Flood Management Directorate (the Directorate) commenced in early 2013, in response to the Government's adoption of 'The State Infrastructure Strategy 2012 – 2031' and ongoing concern about flood risk. The Directorate is examining the current planning, management and response arrangement for flooding in the Hawkesbury-Nepean Valley (HNV) with the aim to identify opportunities to improve flood management and/or planning. The Directorate includes DPE, Department of Premier and Cabinet, INSW, OEH, RMS, SES and WaterNSW.

The precinct lies within the HNV and as part of precinct planning, DPE met with the Directorate to discuss flooding and flood evacuation routes within this precinct, Marsden Park North, and Vineyard. The result of these meetings identified a need to model flood events within each precinct to determine internal flood evacuation routes which ultimately meet regional evacuation routes modelled and mapped by the Directorate.

Flood evacuation consultants were engaged by DPE to identify flood evacuation routes based on current flood data provided by the Directorate and future road network proposed in the draft ILP for each precinct. Recurring project working groups were held with DPE, the Directorate and the consultants to ensure work undertaken would feed into the Directorate's broader HNV flood evacuation model.

Flood evacuation routes have been determined for the precinct depending on the flood event, eg 1:100 chance per year or PMF, and whether the road is cut off by flooding. The precinct road layout (collector roads and above) will ensure evacuation. All local evacuation routes feed into the Richmond Road regional evacuation route. These routes and flood-responsive subdivision design principles from 'Designing Safer Subdivisions Guidelines' (Hawkesbury-Nepean Floodplain Management Steering Committee, 2006) were incorporated into the ILP and were informed by an underlying study that investigated the evacuation timeframes that would be available to residents below the PMF. This is detailed further in the NWGA Flood Evacuation Study (Stantec May 2018).

With part of the precinct located below the riverine PMF and located within the HNV floodplain, planning for the precinct was cognisant of accommodating residential populations in accordance with government objectives to mitigate flood risks to life and property. Consequently, there was a need to further the understanding of the capacity of the land between the 1:100 chance per year flood level and the PMF, being an area that was suitable for some level of residential development, and ensuring the future precinct road layout would facilitate evacuation in the event of a flood. The Flood Evacuation Study was prepared to inform the master planning and development design parameters for the precinct.

Central to the study was an assessment of flood risks for available regional riverine hydrograph data and local flood modelling data, developing and testing the traffic volumes in the event of flood scenarios, and developing evacuation timeline models for comparison against the regional evacuation model.

DPE will continue to work with the Directorate to better understand flooding and reduce flood risk within the NWGA. The flood evacuation work prepared for the three precincts has been provided to the Directorate with the intent to incorporate the results into the regional flood evacuation model.

### **2.3.3 Water Cycle Management**

The overall water management strategy for the precinct involves the implementation of water sensitive urban design features, along with traditional drainage infrastructure to achieve water quality targets.

The planning outcomes resulting from the water cycle management study and design investigations have been incorporated in the development of the ILP. These measures incorporate source control features and a traditional pit, pipe and overland flow network. The plan is shaped by constraints such as three drainage crossings of the oil and gas pipeline easement at three defined points in the precinct (two in the south and one in the north). See Figure 3 for the location of the pipeline easement. Treatment to meet water quality targets is to be provided by a total of six water quality (bio-retention) basins incorporating gross pollutant traps, filter media and vegetation. There is also the provision to include open water bodies for the potential re-use of harvested stormwater for sports fields irrigation.

The strategy has been designed to be consistent with Council's 'North West Growth Centre Stormwater Management Strategy Review'.

Refer to:

- *West Schofields Flooding, Water Cycle Management and Riparian Corridor Assessment (Calibre May 2018)*
- *NWGA Flood Evacuation Study (Stantec May 2018)*
- *North West Growth Centre Stormwater Strategy Review (GHD February 2018)*

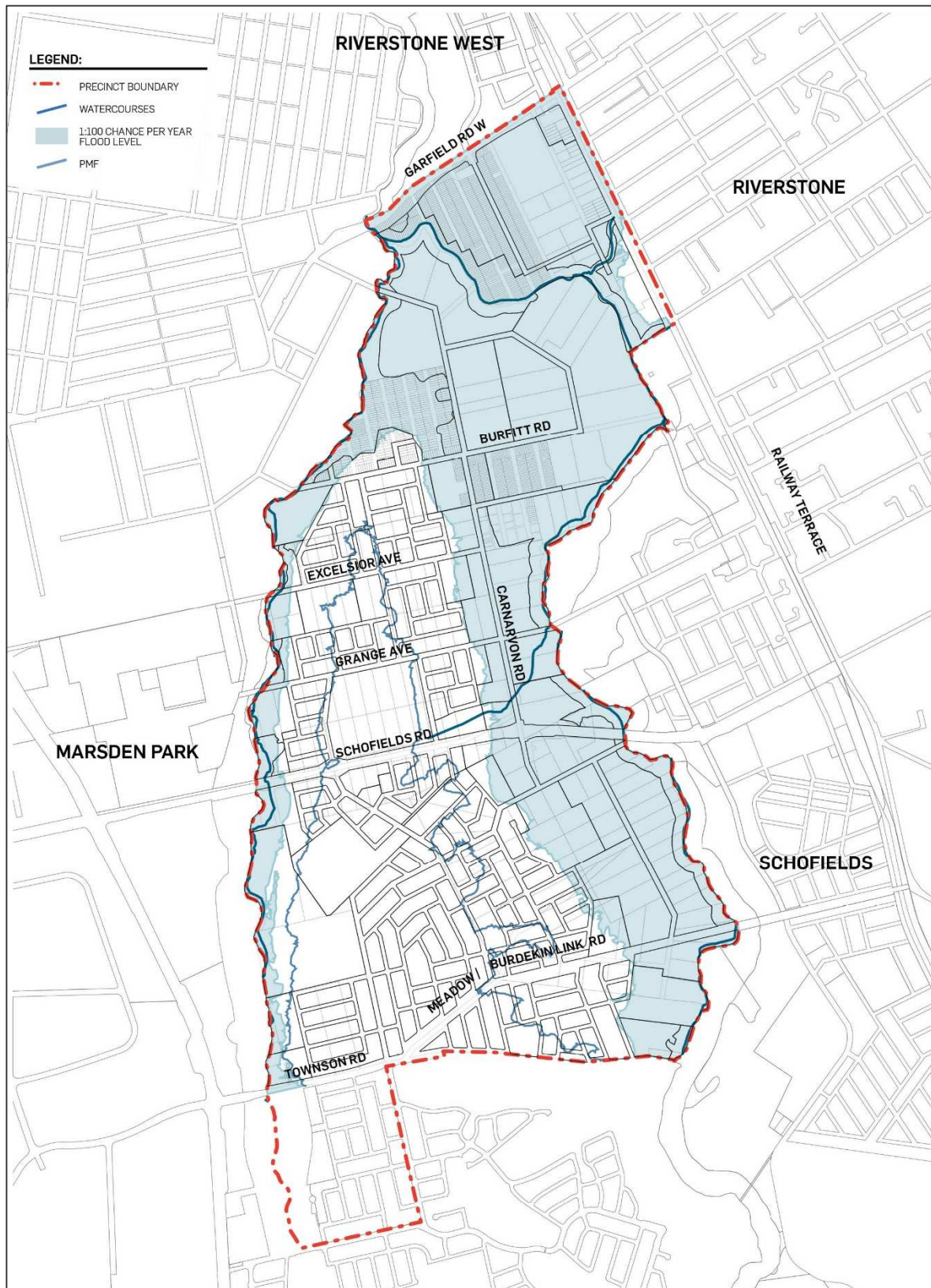


Figure 8 - 1:100 chance per year flood level and PMF

## 2.4 Essential Infrastructure Provision

### 2.4.1 Water

Water is currently supplied to the precinct from the Rouse Hill and Minchinbury water supply systems. There are mains in Carnarvon, Durham and Meadow Roads. These existing mains do not have the ability to serve the ultimate residential yield proposed within the precinct.

Sydney Water has advised that there is sufficient existing storage capacity within the Minchinbury supply zone to ultimately supply the precinct. However, new trunk mains will be required to be extended from the existing system to service the precinct. Additional, smaller lead-in mains and reticulation will also be required.

A new main is proposed to be delivered along the upgraded Schofields Road in 2018/19. Once this main is commissioned it could provide a connection point to the new development for both the southern and northern parts of the precinct.

### 2.4.2 Wastewater

There are currently no reticulated wastewater services in the precinct which is mostly serviced by various onsite treatment and disposal systems.

The precinct is divided into three sewer catchments. See Figure 9. Consistent with the Sydney Water document 'North West Priority Growth – Western Precincts, Water and Wastewater Options Assessment Report' (June 2017), wastewater from the precinct is proposed to be ultimately transferred to the existing Riverstone wastewater treatment plant in three different ways:

- transfer to sewer pumping station 1173 (SPS 1173)
- transfer to the existing Riverstone carrier
- transfer to the future SPS 'B'.

#### SPS 1173

Sydney Water recently commenced construction of SPS 1173 and rising main to serve the Marsden Park Industrial Precinct, some residential land (outside the West Schofields precinct) and some of the south western part of the West Schofields Precinct (see Figure 9). SPS 1173 is likely to be completed by mid-2018.

#### Riverstone carrier

This catchment area will be transferred by gravity to the existing Riverstone carrier. This existing carrier has sufficient capacity to accept the proposed flows from the precinct. Significant new infrastructure is required to service this catchment, including over 3km of a new wastewater trunk main and additional lead-in mains. Sydney Water has advised it has no committed timeframe for delivery of this trunk main and would unlikely be constructed until 2021 at the earliest, subject to funding.

Sydney Water has identified delivery risks with the construction of the portion of the sewer main across Eastern Creek. The design and constructability of this part of the proposed trunk main can only be confirmed after detailed survey and geotechnical assessment of the creek crossing. If a gravity connection is not possible, then a pumped solution to either the Riverstone carrier or SPS 1173, or gravity flow to the future SPS 'B' are possible alternatives.

Development of the southern part of the precinct is likely to occur first and therefore require the first servicing. Ahead of the new main to the Riverstone carrier, this land may require an interim servicing solution with details yet to be determined.

### SPS 'B'

Flows within this catchment could be transferred by gravity to a future pumping station, SPS 'B'. As a result of the current planning position and associated funding routes, Sydney Water has advised that it has no committed timeframe for delivery of this pumping station and would unlikely be constructed before 2024 at the earliest, subject to funding.



Figure 9 - Wastewater catchments

### 2.4.3 Electricity

The ultimate servicing strategy for the precinct will see the western part of the precinct supplied via the South Marsden Park zone substation and the eastern part supplied via the Schofields zone substation. To meet ultimate load requirements, an additional 3-5 feeders will need to be extended from both zone substations.

The northern part of the precinct will require additional feeders to be extended by Endeavour Energy. Endeavour Energy has provided no timeframe for this work.

Endeavour Energy has advised that there will be some initial spare network capacity (approximately 250-500 dwellings) from Schofields zone substation which could serve the southern part of the precinct. However, this spare capacity is on a 'first come, first served' basis so this capacity may be utilised by adjacent development outside the precinct. If the spare capacity is used by initial development within the southern part of the precinct, the initial feeders will be required from the Schofields zone substation by 2021.

### 2.4.4 Gas and Telecommunications

Jemena would be able to supply gas to the precinct. The nearest existing suitable gas main available to the connection for the precinct is located at the corner of Grange Avenue and Carnarvon Road. The main has sufficient capacity to service the precinct at this time. Additional capacity to the precinct is available if required in an existing high pressure steel main located on the north east corner of Schofields Road and Richmond Road.

The installation of telecommunication lines to the development area of the precinct will be demand driven. Once the precinct has been rezoned and developments commence, developers must lodge an application with the provider (NBN/Telstra) and the provider will then bring in sufficient cabling through the main ducts to service the new development.

Refer to:

- *Infrastructure Planning Report West Schofields Precinct (Calibre Consulting May 2018)*

## 2.5 Biodiversity and Riparian Corridors

The Biodiversity and Riparian Assessment identified the ecological and riparian values within the precinct and investigated the current and future constraints posed by ecological and riparian issues which informed the development of the ILP.

The precinct is substantially cleared and developed through agricultural and land management practices. However, the area is interspersed with several large remnants of native vegetation comprising of Shale Plains Woodland which is a sub-community of Cumberland Plain Woodland. The vegetation transitions to Alluvial Woodland. A small patch of Cooks River/Castlereagh Ironbark Forest was located along Grange Avenue.

Two threatened plants, *Grevillea juniperina* subsp. *Juniperina* (Juniper-leaved Grevillea) and *Dillwynia tenuifolia* were identified in the precinct.

### 2.5.1 Existing Native Vegetation

A key element to the Biodiversity Certification of the Growth Areas is the protection of 2,000 ha of ENV. The 2,000 ha was based on ENV on 'non-certified' land. Non-certified land is land generally below the 1:100 chance per year flood level.

The draft Growth Centres Conservation Plan mapped 85.51 ha of ENV within the entire precinct, with 52.55 ha located on non-certified land. Aerial photography plus field work has determined 46.95 ha of ENV remains in non-certified land. This is either due to clearing or the benefit of more accurate mapping.

Therefore, to maintain parity with the 2,000 ha target, 52.55 ha must be protected in the precinct. This means the shortfall of 5.6 ha must be found on certified land.

The precinct aims to protect 57.95 ha of ENV on certified and non-certified land. This will make up the shortfall of 5.6 ha for the precinct and contribute 5.4 ha to the overall 2,000 ha target for the Growth Area. See Figure 10.

### **2.5.2 Zoning of Land Containing Existing Native Vegetation**

The majority of land containing ENV is proposed to be zoned E2 Environmental Conservation. This is to ensure the protection of the ENV and meet the requirements of OEH. It is proposed some of the E2 land will be acquired by a public authority.

The large patch of high quality ENV across three lots in the south west (see Figure 10) will be acquired by the Office of Strategic Lands (part of DPE). This area falls across Lot 98, DP 1184582, Part Lot 11 DP 17048 and Lot 3 DP232574.



**Figure 10 - Large area of Existing Native Vegetation to be acquired**

### **2.5.3 Riparian and Aquatic Assessment**

Eastern Creek is classified as a 4<sup>th</sup> Order stream, accordingly to the Strahler system and Bells Creek is a 2<sup>nd</sup> Order stream. The required riparian buffers have been applied to each creek with 40m for Eastern Creek and 20m for Bells Creek.

Refer to:

- *West Schofields Precinct Biodiversity and Riparian Assessment (Eco Logical May 2018)*

## 2.6 Indigenous and Non-Indigenous Heritage

The precinct contains evidence of both Indigenous occupation and non-Indigenous occupation. Items confirmed through site inspection and areas of potential significance are outlined below. A number of areas will be protected via open space or environmental conservation zonings and by their location on undevelopable land below the 1:100 chance per year flood level. A number of items will likely be impacted through the development of the precinct.

Interpretation of the Indigenous and non-Indigenous heritage is suggested via the naming of new streets and parks after significant early landowners in the area and to commemorate the Aboriginal history within and occupation of the precinct.

Development Control Plan (DCP) figures will highlight the areas of significance and alert landowners and developers that further investigations will be required on the sites as part of any development application process.

### 2.6.1 Indigenous Heritage

The precinct lies within the traditional country of the Darug language group of Aboriginal people. The extent of the traditional territory of the Darug people can be interpreted as largely co-incident with the Cumberland subregion of the Sydney Basin Bioregion. While no historical observations within the precinct have been recorded, a number of explorers and travellers passed through the general area in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries which gives us a glimpse into the lives of the early colonial Aboriginal people of the precinct and greater area.

A significant and well-known post-contact site is located approximately 12 km to the south of the precinct. This is the location of the first land grant made to Aboriginal people. The grant quickly became a focus of Aboriginal occupation in the area and the settlement on and around the grant flourished and by the 1820s it had become known as the 'Black Town'.

Western Sydney is currently home to a large contemporary Aboriginal community, most of whose ancestors came from outside the Sydney area in the pre-contact period. However, their sense of community and engagement with Aboriginal cultural heritage is often connected at their local area as well as places that they may identify in their traditional country. Around 2.7% of the Blacktown LGA residents identify as Aboriginal or Torres Strait Islander and representation of much of this community is through the system of Local Aboriginal Land Councils (LALCs). Membership includes residents who may be traditionally descended from the Darug as well as people who reside in the Land Council's area. Consequently, the Aboriginal stakeholders consulted as part of the precinct planning process may be involved as either Darug traditional owners or through the Deerubbin LALC.

The key findings within the precinct as a result of the Aboriginal Cultural Heritage Assessment and Aboriginal groups consultation include three landforms of archaeological interest – land within 200m of both Eastern and Bells Creeks and part of Plumpton Ridge, the identification of 35 archaeological sites and, an Aboriginal heritage site. See Figure 11.

Plumpton Ridge is the ridgeline in the precinct running north-south and is a well-documented (silcrete) raw material resource used by Aboriginal people for stone tool production. The ridgeline has, however been extensively impacted by past development, including by the CSR quarry.

While many of the identified archaeological sites will be partially or completely impacted as part of the precinct being developed, some areas will be protected in open space areas or on land below the 1:100 chance per year flood level.

A predictive model has been developed to identify areas where further archaeological material may be present, using five categories from nil to very likely. Most of the areas identified as having likely and very likely conservation potential are within land within the creek corridors. The proposed zoning of this area and retained vegetation will ensure many areas with potential archaeology will be left undisturbed. See Figure 12.

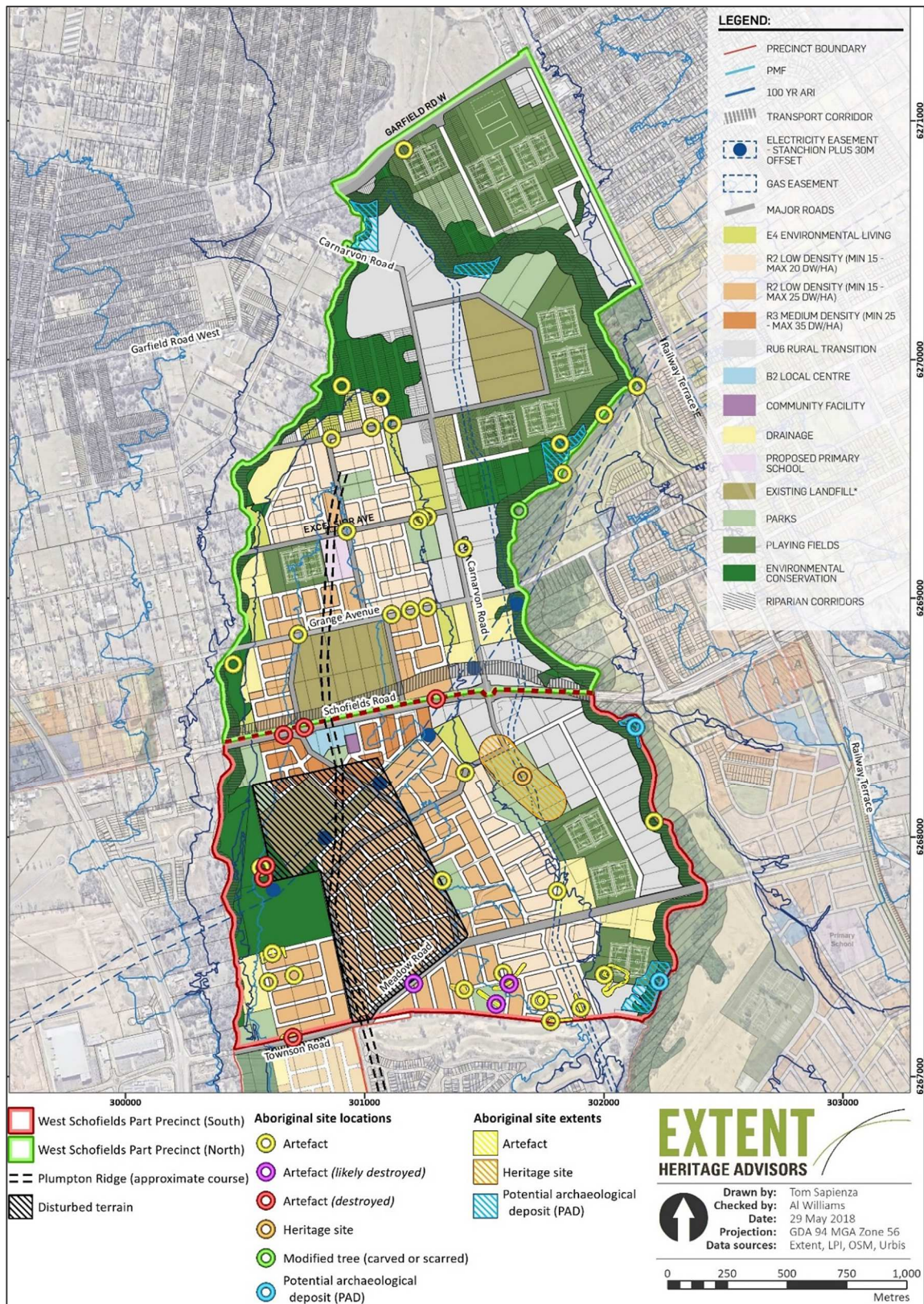


Figure 11 - Aboriginal cultural heritage

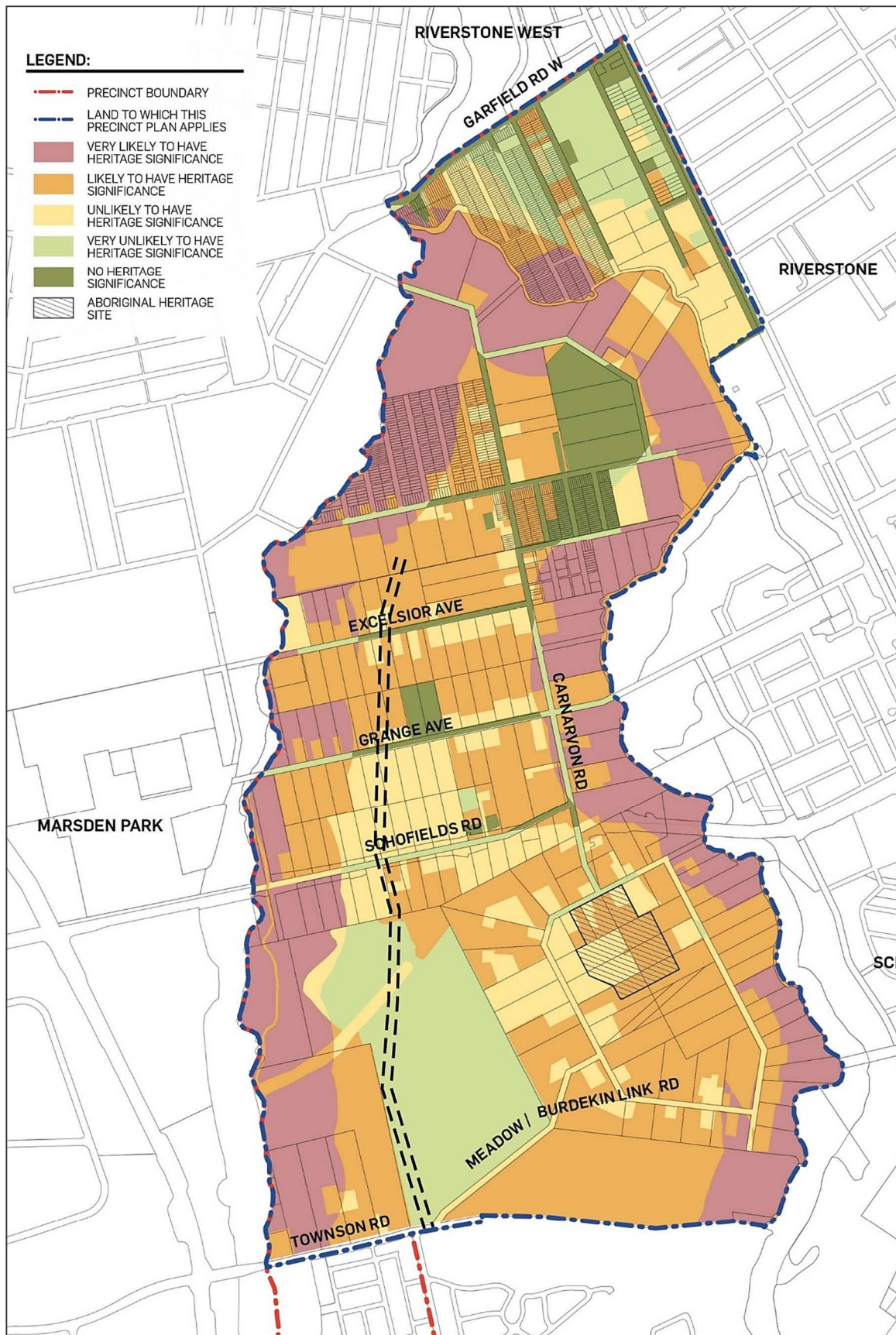


Figure 12 - Likelihood of area containing Aboriginal cultural heritage

## 2.6.2 Non-Indigenous Heritage

The precinct lies within an area that was originally explored within the first decade of the settlement of Sydney by Governor Arthur Phillip, with the intention of determining whether the Hawkesbury River linked with the Nepean River. Phillip's expedition revealed an area of high agricultural value and with significant natural resources where in 1802 Governor King established the Prospect Hill Common. The common was formally established as common grazing land that was set aside to provide sufficient and reliable grazing land to assist smaller. The footprint of the common corresponds with the total current area of the Blacktown LGA.

The area was then surveyed focusing on South Creek (Eastern Creek) and large areas were released due to the increase in land grant applications from increasing numbers of free and emancipated settlers. This included land within the precinct.

Areas of historical archaeological potential in the precinct are listed below, see Figure 13 and Figure 14.

In the north of the precinct:

- Wilmington Estate – a large estate associated with the Marsden and Betts established in the first half of the 19th century. This includes a gardener's cottage and garden.
- 1850s Riverstone subdivision – adjacent to the trotting track characterised by marshy ground. Some concrete slabs and edging and brickwork remains.
- Grange Farm – several courses of a sandstone footing and bricks are still evident in the area.
- Macdermot's hut – a pre-1842 cottage.

In the south of the precinct:

- The Ivory Farmstead and horse stud
- The cottage site and stockyard within the west of the Pye Estate
- An Aboriginal heritage site linked to the settlement of the area
- The site of the bridge over Eastern Creek
- Two potential 19<sup>th</sup> century farm sites at 19 and 27 Dunham Road, and 20 Jersey Road.

No archaeological remains were sighted in these areas likely due to lack of access or dense vegetation but there is the potential evidence does remain.

With regard to existing built heritage, two dwellings in the north east of the precinct are listed under Blacktown's LEP 2015. They are 4 and 22 West Parade, Riverstone. They are examples of the early development of the town of Riverstone, c1880-1920. 4 West Parade will be impacted by the widening of Garfield Road West and will not be able to be retained. 22 West Parade will continue to be listed as a heritage item under the Growth Centres SEPP.

As with the known and potential areas of Aboriginal archaeology, a number of areas of non-Indigenous heritage will be retained as the precinct develops but a number of sites will be impacted.

Refer to:

- *West Schofields Part Precinct (Northern Part) Non-Indigenous Heritage Assessment (Extent May 2018)*
- *West Schofields Part Precinct (Southern Part) Non-Indigenous Heritage Assessment (Extent May 2018)*
- *West Schofields Part Precinct (Northern Portion) Aboriginal Cultural Heritage Assessment Report (Extent May 2018)*
- *West Schofields Part Precinct (Southern Portion) Aboriginal Cultural Heritage Assessment Report (Extent May 2018)*

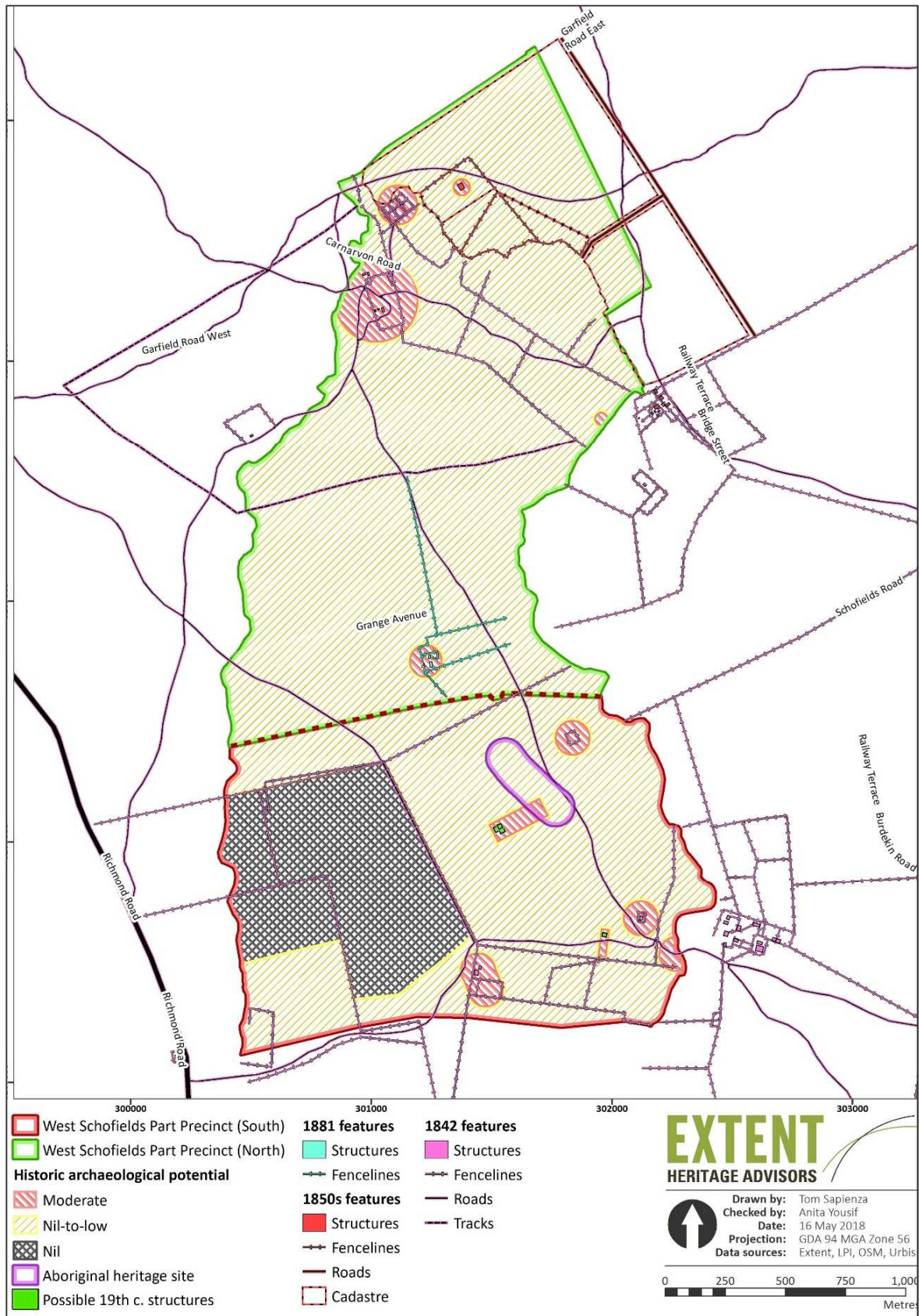


Figure 13 - Non-Indigenous heritage

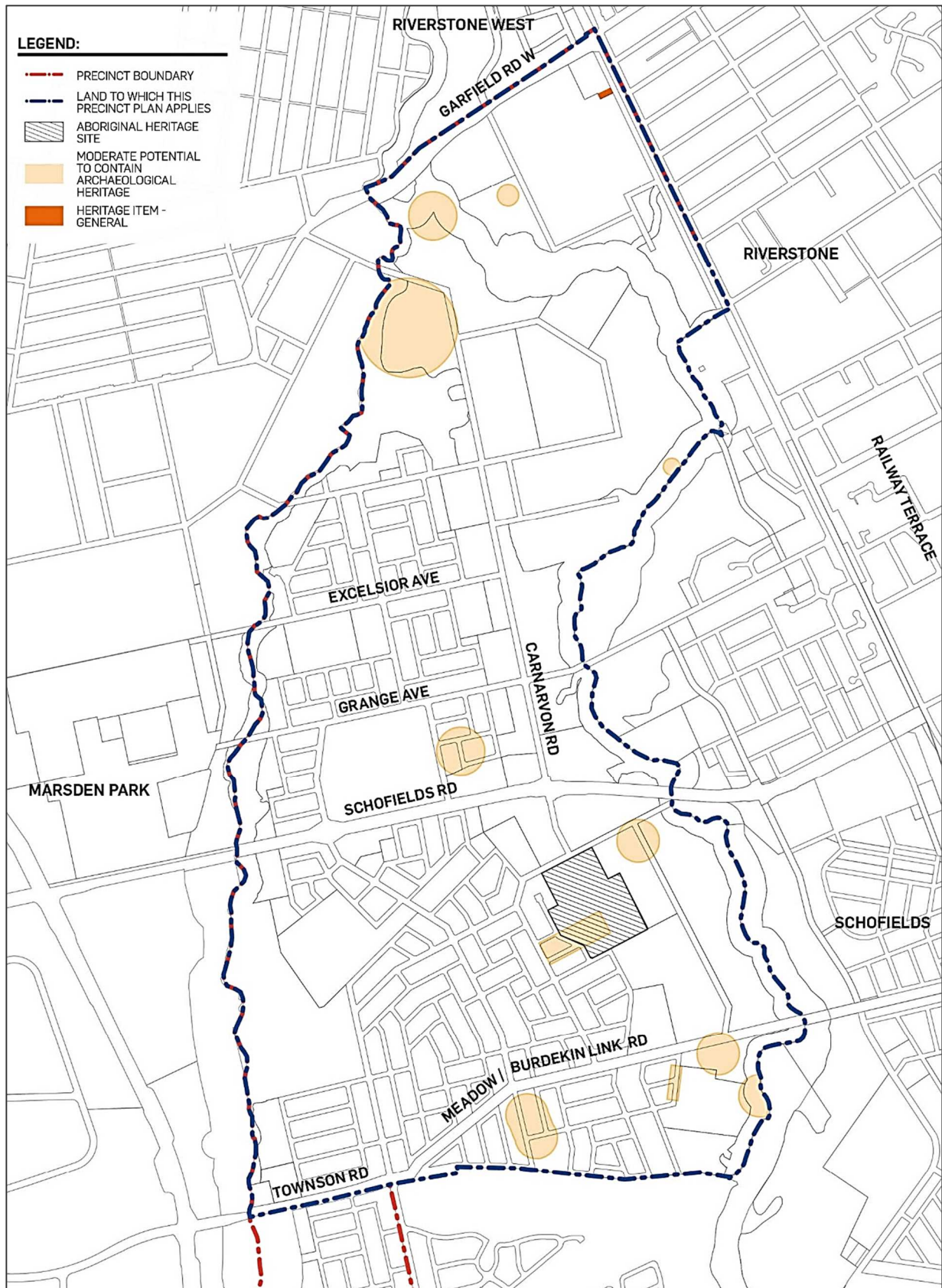


Figure 14 - Known and potential areas of non-Indigenous heritage

## 2.7 Transport

The precinct is currently supported by three main roads: Richmond Road, Schofields Road and Garfield Road West. Internally, through roads supporting the precinct include Grange Avenue, Carnarvon Road and Townson/Meadow Roads. Due to the rural nature of the precinct and the developing area surrounding the precincts, the car is the predominant mode of transport for existing residents. Public transport, walking and cycling routes are limited.

### 2.7.1 Traffic and Transport

As the precinct is developed, the main east-west traffic routes will be Schofields Road and Townson Road/Burdekin Link Road. Schofields Road is currently being upgraded to two traffic lanes in either direction (sub-arterial status). The third and final stage of the upgrade from Windsor Road to Richmond Road passes through the precinct and is due for completion in 2018.

Townson Road currently connects Colebee to Richmond Road and the southern portion of the precinct via Meadow Road. Townson Road is to be upgraded and connected to Burdekin Road via a creek and rail crossing, known as 'Burdekin Link Road'. It will also be two traffic lanes in either direction. The design of this road has not commenced and there is no timeframe for delivery.

Within the precinct, Excelsior Avenue (formerly known as Vine Street) and Grange Avenue will have signalised connections to Richmond Road and act as more minor east-west links having one traffic lane in either direction.

Carnarvon Road will perform as a collector road as a primary north-south connection to Garfield Road. A new north-south collector road is proposed west from Carnarvon Road and will likely form a signalised intersection with Schofields Road to access the local centre as well as provide a flood evacuation route out of the precinct. Carnarvon Road cannot perform the role of an evacuation route because it is majority located below the 1:100 chance per year flood level. See Figure 15.

Garfield Road which borders the north of the precinct is due to be widened and upgraded. The widening will impact the precinct as shown on the ILP and corresponding SEPP maps. This will include the loss of a heritage item at 2 West Parade.

### 2.7.2 Public Transport

Currently in the NWGA around 11% of trips to work are completed by train (with 77% completed by car). However, when the Metro Northwest line opens in 2019 to Tallawong Station this percentage is expected to increase. The station will be equipped with commuter car and bicycle parking. Future West Schofields residents will be able to access the station via car, bus and cycling.

The 'North West Sector Bus Servicing Plan' (produced for TfNSW, 2012) identifies five regional and 12 district routes that will service the NWGA, five of which will service the precinct. For this reason, the collector road routes throughout the precinct will have a carriageway width of 13m (within a total road reserve of 22m), as requested by TfNSW to accommodate bus movements.

### 2.7.3 Transport Corridor

TfNSW confirmed the alignment of the transport corridor through the precinct in August 2017. The proposed route will run north of Schofields Road however the mode of transport or a timeframe for delivery are unavailable.

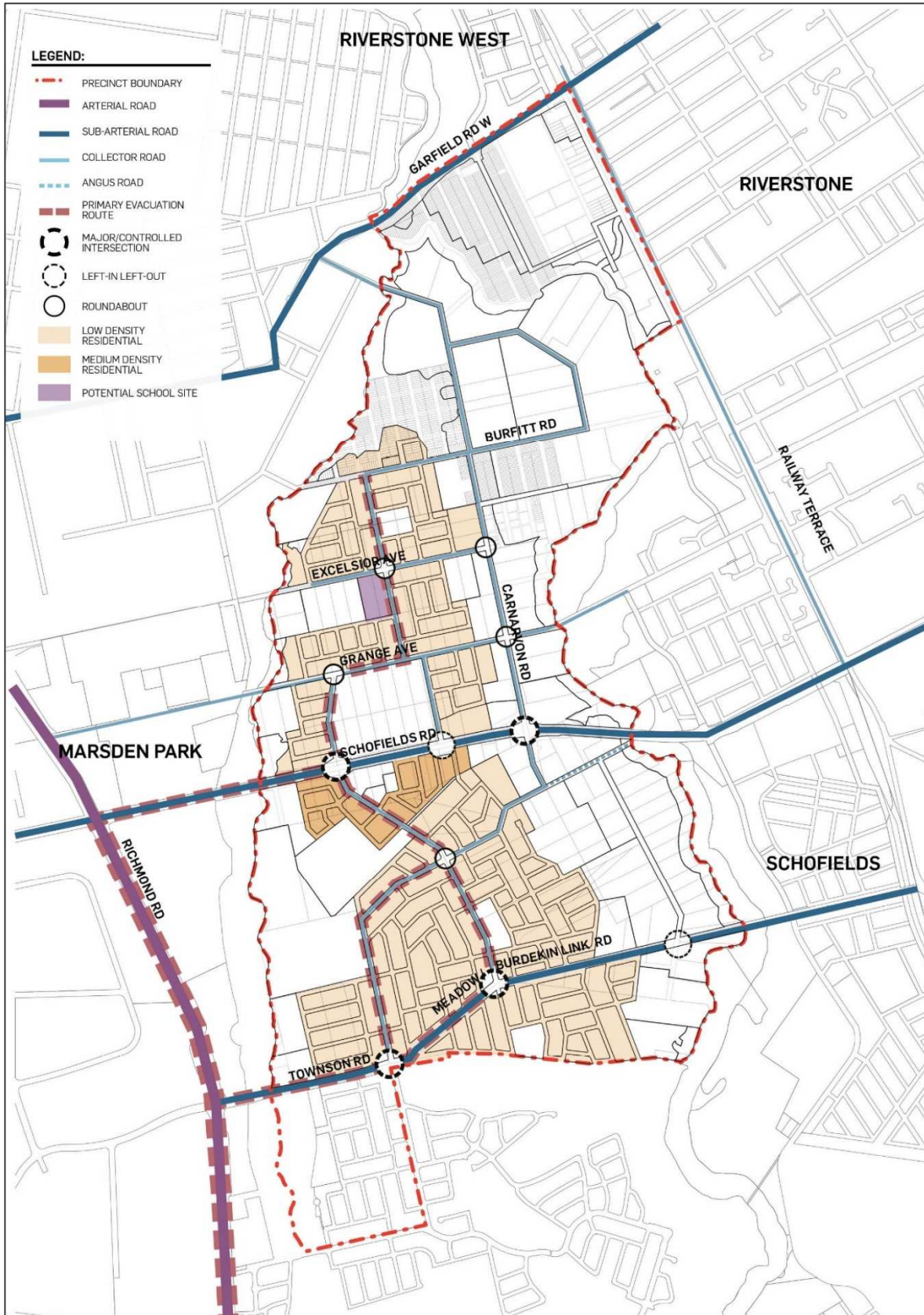


Figure 15 - Precinct road hierarchy

## 2.7.4 Pedestrian and Cycle Network

Cycling and walking will be supported in and through the precinct within a proposed network. See Figure 16. Some of the routes will be via local roads and parks and others via the collector road network which will have a shared pedestrian/cycle path.

Refer to:

- *West Schofields Precinct Traffic and Transport Study (ARUP May 2018)*



Figure 16 - Pedestrian and cycle network

## 2.8 Local Centre

### 2.8.1 Retail and Employment Demand

A retail and employment assessment was prepared to present an independent assessment of the scale, mix and distribution of retail and employment floorspace that could potentially be supported across the precinct.

The assessment also considered the appropriate timing of the floorspace and assessed the economic impacts on the retail/activity centres throughout the surrounding region and potential employment that could be sustained.

The assessment recommends that one local centre be created within the centre of the precinct, around Schofields Road. This centralised location will serve all residents and readily capture passing trade along Schofields Road. The centre is recommended to have approximately 6,500 – 7,000 m<sup>2</sup> of floorspace and include 5,500 m<sup>2</sup> of retail including a full scale supermarket of 3,750 m<sup>2</sup>, approximately 1,500 m<sup>2</sup> of supporting speciality, and 1,500 m<sup>2</sup> of non-retail floorspace.

A local centre will facilitate permanent employment opportunities as well as further jobs throughout the supply chain, including those in industries servicing the retail and commercial tenants at the site. It is estimated that the new local centre could potentially support approximately 207 jobs over the longer term.

The local centre proposes approximately 6,650 m<sup>2</sup> of floorspace including 5,300 m<sup>2</sup> of retail floorspace and 1,350 m<sup>2</sup> of non-retail floorspace.

### 2.8.2 The Proposed Centre

The local centre within the precinct will support the needs of the surrounding community, provide a focal point for local activity, and proposes to include a community hub/facility. To create a village atmosphere the local centre should incorporate a range of small scale shops anchored by a supermarket, with shop top housing above. A local park, potential childcare and a community facility could be co-located with the local centre to provide amenity and reduce trip generation. A well-designed streetscape and landscaped areas will create vibrant and high quality pedestrian amenity.

Townhouses, terraces and other medium density dwellings surround the local centre to encourage activity and vibrancy. The local centre will maintain visual cohesion with the surrounding low and medium density housing in terms of height, bulk and scale. The design and scale of the local centre will reinforce its support role in the hierarchy of centres for the NWGA and will provide safe and direct pedestrian connections to sporting fields and parks which will promote walkability within the neighbourhood.

Car parking should not detract from the amenity or aesthetic of the local centre and can be located to the side or incorporated beneath the shops as basement parking.

Active frontages should be provided adjacent to the local open space and collector road within the centre generally in accordance with Figure 17. See Figure 18 for an artist's impression of the local centre.

A park will be located adjacent to the local centre, which will provide a green entrance to the centre and an opportunity for local play and relaxation.

The location of the local centre has been identified to maximise exposure to passing trade and facilitate convenient access. As a result, vehicle and loading access to the centre is restricted to that off a side street to the east. Careful design and planning of this will ensure a vibrant and active village centre whilst also providing convenient parking.



Figure 17 - Indicative local centre layout



Figure 18 – Artist’s impression of the local centre

### **2.8.3 Community Facility**

Land for a community facility/hub is proposed within the local centre to deliver a mix of uses and create a community focus. An area of 4,000 m<sup>2</sup> has been provided as requested by Council.

The facility will consist of approximately 1,000 m<sup>2</sup> of floorspace. This includes the opportunity for co-location of public services and thus improved delivery of services and programs.

The design of the building should celebrate the local character of the precinct and have a unique form that identifies it as the community 'hub'. It should be designed in a way that provides flexibility to support a diverse range of programs.

As with the local centre, the amenity of the facility should not be compromised due to car parking, and therefore carparking should be located at the rear of the property or combined with the local centre basement parking.

Refer to:

- *West Schofields Retail and Employment Assessment (MacroPlan Dimasi April 2018)*

## **2.9 Other Precinct Land Uses**

### **2.9.1 Land Zoned RU6 Transition**

Land wholly below the 1:100 chance per year flood level that is not proposed for open space, environmental conservation or drainage purposes is proposed to be zone RU6 Transition. This zone will enable limited uses however new residential dwellings will be prohibited.

Most of the rezoned precincts in the NWGA do not have so much land below the 1:100 chance per year flood level as does this precinct. Other precincts have properties that are partially above and partially below the flood level and this allows a very low residential zone where a home can be built above the flood level, and backyards located below the flood level, for example. This cannot be achieved for the majority of the land in this precinct below the flood level.

Uses proposed for the RU6 Transition zone within this precinct include: agricultural produce industries, aquaculture, building identification signs, business identification signs, cemeteries, environmental facilities, environmental protection works, extensive agriculture, farm buildings, flood mitigation works, intensive plant agriculture, landscaping material supplies, plant nurseries, recreation areas, recreation facilities (outdoor), roads, roadside stalls and water supply systems.

### **2.9.2 Indicative School Site**

DPE worked with the Department of Education (Education) in locating a site for a potential primary school. An approximate 2 ha site in the north of the precinct has been indicated on the ILP. Education will continue reviewing the need for schools across the NWGA however, at this stage the site is proposed to be zoned R2 Low Density Residential.

## 2.10 Social Infrastructure

The demographics and social infrastructure assessment considered the open space, recreation and community facilities that would be required to support the future population of the precinct. It is estimated that the precinct will generate a need for:

- 41.3 ha of open space (which is detailed in Section 2.2 of this report) as well as three tennis courts and four netball courts
- one community hub with approximately 1,150m<sup>2</sup> of floor space (see Section 2.8.3 of this report)
- one primary school
- around 300 long day care places and 75 out of hours school care places.

As the proposed population (14,400) is well below 20,000, the precinct does not trigger the requirement for district level social infrastructure facilities.

Refer to:

- *Demographics and Social Infrastructure Assessment West Schofields Precinct (HillPDA May 2018)*

## 2.11 Contamination and Landfill Sites

A number of investigations have been completed for the precinct to investigate areas of potential contamination and investigate two of the landfill sites. These include preliminary site investigations, detailed site investigations and a landfill gas risk assessment.

A number of sites have been identified as contaminated or potentially contaminated, known as 'areas of environmental concern', see Figure 19. In accordance with SEPP 55 – Remediation of Land, these sites will be subject to further investigation as part of any development application process.

### 2.11.1 Former Landfill Sites

The precinct contains three former landfill sites: the CSR landfill in the southern part of the precinct, and Grange Avenue landfill and Riverstone landfill in the northern part. See Figure 19. All sites have been capped and are monitored for health and environmental risks, in the context of their current rural setting.

Residential and other urban uses are proposed around the CSR and Grange Avenue former landfill sites. Monitoring of these sites has been carried out previously (before precinct planning commenced) and for the Grange Avenue site an updated landfill gas risk assessment has been completed. Further monitoring of both of these sites to investigate gas migration will be required to assess the suitability of the uses surrounding the sites prior to recommending to the Minister for Planning that the precinct be rezoned.

Veolia owns the Riverstone landfill site and monitors it accordingly. Due to the distance the landfill is from proposed residential development, further investigations of this site have not been carried out for precinct planning. Further investigations may be needed depending on the ongoing monitoring being managed by Veolia.

Proposed zonings for the former landfill sites include:

- Grange Avenue – continue the existing RE1 Public Recreation zone
- CSR – RE2 Private Recreation. This zone is proposed because it is hoped in the future when the site is fully remediated it can be used for recreation purposes
- Veolia – RU6 Transition

Depending on the results of further monitoring of the Grange Avenue and CSR former landfill sites, site specific controls may be required as part of the proposed Growth Centres SEPP amendment.

Refer to:

- *West Schofields Preliminary Environmental Site Assessment with Supplementary Soil and Groundwater Sampling (southern part) (DLA Environmental July 2016)*
- *West Schofields Preliminary Site Investigation (northern part) (DLA Environmental August 2017)*
- *West Schofields Detailed Site Investigation (northern part) (ERM April 2018)*
- *Grange Ave Reserve Landfill Gas Risk Assessment (Biogas Systems, May 2018)*
- *CSR Landfill Status Letter (ERM, May 2018)*

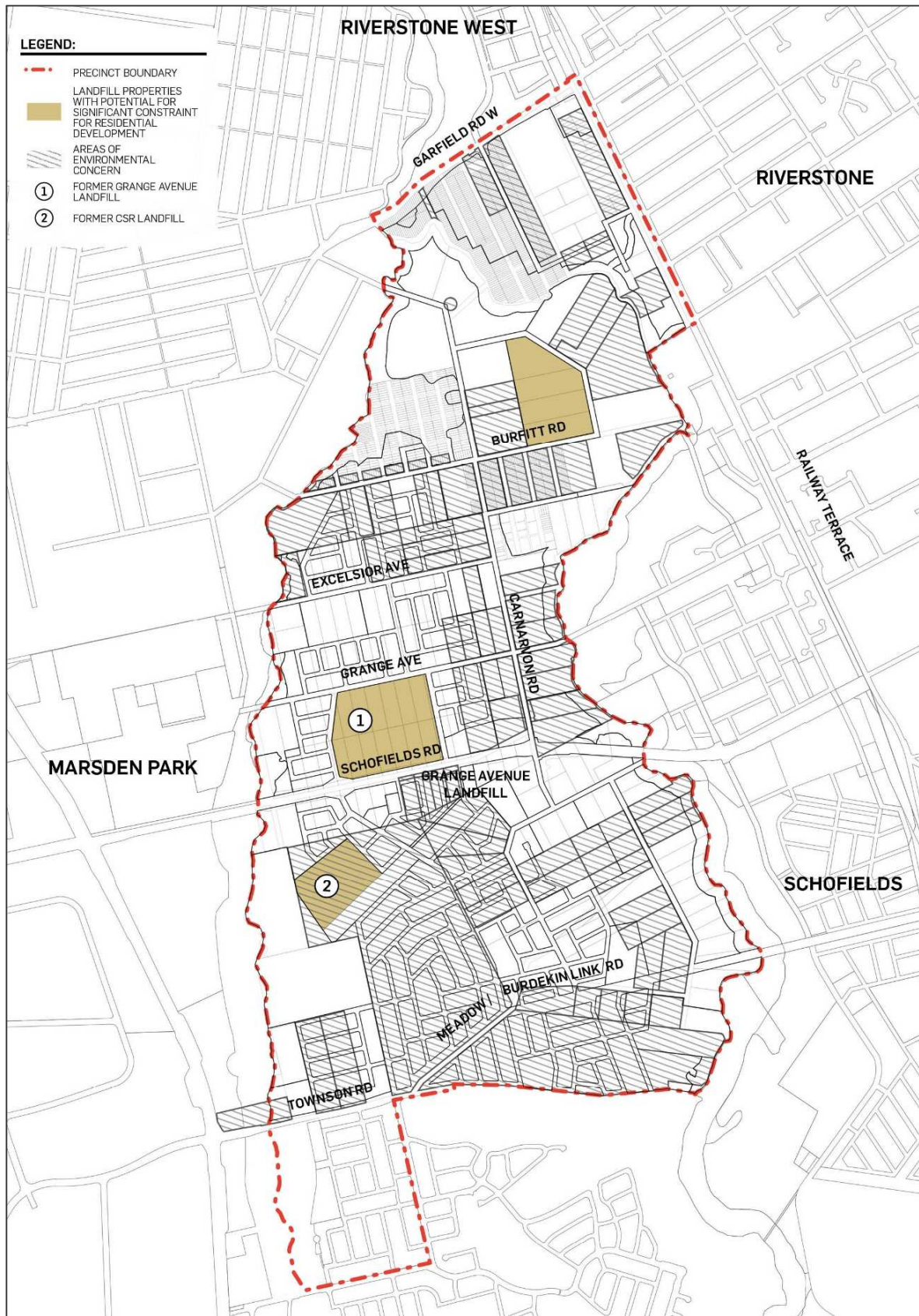


Figure 19 - Landfill sites and areas of environmental concern

## 2.12 Other

### 2.12.1 Bushfire

A bushfire assessment was completed for the precinct to assess the potential bushfire hazard across the area in the context of existing vegetation and to recommend planning requirements for future development to comply with 'Planning for Bush Fire Protection 2006' (PBP).

The analysis assumed that vegetation on proposed urban zoned land will be removed and will no longer present a bushfire hazard. The assessment therefore represents a 'final state' based on the ILP rather than an assessment of bushfire hazards at various stages of development. Future subdivision of land and the construction of buildings will require an assessment against PBP.

The assessment concludes that the hazard proposed is acceptable based on the ability to provide compliant asset protection zones (APZ) within property boundaries. A figure in the DCP will outline the required 15m APZs required throughout the precinct.

It should be noted that an updated version of PBP has been prepared for public consultation but has not yet been adopted. This updated version may apply to future development in the precinct and may slightly increase the width of APZs (from 15m to 16m).

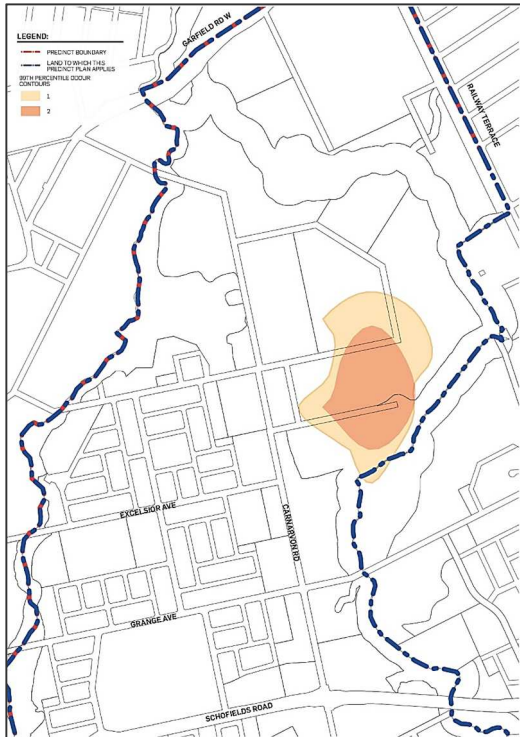
### 2.12.2 Odour

Two reports were prepared to determine the potential for odour impacts on the precinct a Level 1 odour assessment and a Level 2/3 odour assessment.

The Level 1 assessment identified one source of odour within the precinct being the Northwest Recycling Centre which is located in the north east of the precinct, see Figure 20. It also identified several potential odour sources surrounding the precinct including poultry operations, intensive piggeries, a meat rendering operation, mushroom farms and sewage treatment plants. The report found that seven poultry operations and a recycling centre in the vicinity of the precinct may have the potential to individually impact on the northern, eastern and western borders of the precinct. These impacts were assessed in detail using the Level 2/3 odour impact assessment with the results used to establish the likely area of potential odour influence.

The results of Level 2/3 odour impact assessment show a reduced area of influence on the precinct when compared with Level 1 assessment results. Utilising the 2 Odour Units (OU) contour (representing the OEH guideline value applicable to urban areas), there are no poultry farms that are predicted to affect the precinct. The results of the Level 2/3 odour assessment for the Northwest Recycling Centre show an exceedance of the 2 OU criterion in the mid-eastern border of the precinct.

However, this will not affect the residential areas proposed for the precinct due to the separation between the Northwest Recycling Centre and the proposed residential areas.



**Figure 20 - Odour concentration contours associated with the operation of the Northwest Recycling Centre**

### 2.12.3 Noise and Vibration

An Environmental Noise & Vibration Impact Assessment was prepared to conduct an environmental noise assessment of the proposed land uses for the precinct. The report quantifies the road traffic noise and aircraft noise and assesses their potential impact on the precinct. It also assesses the future traffic noise and future site operation noise associated with the precinct potentially impacting on existing residential premises located nearby.

In respect of industrial noise, CSR Brick Pits is an existing noise source within the precinct. It is anticipated to be operational during the first five years of the development of the precinct. The report concluded the existing noise limits imposed on the CSR Brick Pits is sufficient in limiting noise to the future dwellings. In relation to future noise sources, the report concludes that when the employment uses are determined and finalised, a detailed acoustic assessment of noise impacts to future sensitive land uses should be undertaken.

Richmond and Schofields Road were identified as having noise impacts within the precinct. The report provides recommendations to limit noise impacts such as noise barriers, building treatment and building design that could be considered as part of the development assessment process.

The precinct will not require noise attenuation for aircraft noise.

The report identifies noise and vibration impacts associated with the Richmond Railway Line particularly within the north-eastern part of the precinct. The report recommends a 30 metre buffer to reduce both noise and vibration impacts from the nearest rail line to a living room and/or bedroom. However, no new residential development is proposed in the north-east of the precinct.

Refer to:

- *West Schofields Precinct Bushfire Protection Assessment (Eco Logical May 2018)*
- *West Schofields Precinct Level 1 Odour Assessment (Pacific Environment May 2018)*
- *West Schofields Precinct Level 2/3 Odour Assessment (Pacific Environment May 2018)*
- *West Schofields Environmental Noise and Vibration Impact Assessment (Renzo Tonin & Assoc February 2018)*



***Part 3 – Proposed Growth  
Centres SEPP amendments  
and relationship with  
relevant legislation and  
policies***

### **3.1 Proposed amendments to *State Environmental Planning Policy (Sydney Region Growth Centres) 2006***

The intended effect of the proposed amendments are to rezone the precinct for primarily residential, business, open space, community and infrastructure purposes. The anticipated amendments to the provisions of Appendix 12 and Growth Centre maps are outlined in Attachment A.

### **3.2 Consistency with the Greater Sydney Region Plan and Central City District Plan**

Precinct planning has been guided by the provisions of the Greater Sydney Commission's 'Greater Sydney Region Plan' (Region Plan) and 'Central City District Plan' (District Plan).

The Region Plan, *A Metropolis of Three Cities*:

- sets a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters
- informs district and local plans and the assessment of planning proposals
- assists infrastructure agencies to plan and deliver for growth and change and to align their infrastructure plans to place-based outcomes
- informs the private sector and the wider community of the growth management and infrastructure investment intentions of government.

The Region Plan applies to the Greater Sydney Region and sets the planning framework for the five districts which make up the region. It specifically notes the need to provide for new neighbourhoods, industry and urban services, and biodiversity protection within the NWGA.

The District Plan covers the Blacktown, Cumberland, Parramatta and The Hills LGAs and is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision of Greater Sydney.

It is a guide for implementing the Region Plan at a district level and is a bridge between regional and local planning. It contains a suite of planning priorities, direction, objectives and actions based on the themes of:

- Infrastructure and collaboration
- Liveability
- Productivity
- Sustainability
- Implementation

The District Plan notes that the NWGA presents an opportunity for additional housing supply, new communities to be linked to a variety of employment opportunities, infrastructure and services, and that within the NWGA environment zones have been used along major waterways making a step towards achieving a green parkland city.

In response, the precinct will provide additional housing supply and the new communities will have access to open space, a variety of employment opportunities, and infrastructure and services. In addition, an environment zone is proposed along Eastern and Bells Creeks and the Indigenous and non-Indigenous heritage will be respected.

### 3.3 North West Land Use and Infrastructure Implementation Plan

The 'North West Growth Area Land Use and Infrastructure Implementation Plan' (LUIIP) outlines how DPE will plan for more homes, jobs and essential services in the NWGA and seeks to balance the needs of residents with the timely delivery of infrastructure, services and facilities.

The objectives of the LUIIP are

- plan for an increased population in Sydney's North West in vibrant and liveable neighbourhoods
- balance the needs of a growing population with opportunities for employment and recreation
- improve transport accessibility and connectivity throughout the area
- facilitate the delivery of infrastructure that will support housing and employment growth
- identify and enhance key biodiversity areas, open spaces, riparian corridors and culturally sensitive areas
- explore new land uses along major infrastructure corridors to maximise public investment in infrastructure.

The LUIIP sets out the following key actions to support the delivery of new homes and jobs in the NWGA:

- Action 1: Exhibit rezoning proposals for the remaining NWGA precincts that have potential to deliver more homes and jobs
- Action 2: Undertake a strategic land use review of the future public transport corridor between Rouse Hill and Marsden Park and the upgrade of Schofields Road
- Action 3: Establish new density controls for residential land so that new communities are supported by adequate infrastructure and local councils can plan for the new population precinct plans into a single precinct plan
- Action 4: Work with Infrastructure NSW, local councils and the NSW State Emergency Service to review planning controls for land within the Hawkesbury-Nepean Valley which includes land below the PMF
- Action 5: Transfer planning controls into local environmental plans to make development controls more consistent
- Action 6: Consolidate existing precinct plans into a single precinct plan
- Action 7: Coordinate and monitor the delivery of a capital works program for infrastructure items supported by the Special Infrastructure Contribution (SIC) fund to support housing delivery
- Action 8: Promote a Green Grid through the Eastern Creek regional open space corridor which will connect with the Western Sydney Parklands, the Wiannamatta Regional Park and Rouse Hill Regional Park

Actions of most relevance to the West Schofields precinct are actions 1, 3, 4, and 8.

Specifically for the West Schofields precinct the LUIIP:

- forecasts 4,300 dwellings
- notes the precinct's Aboriginal heritage significance
- highlights particular electricity and sewer servicing requirements.

Precinct planning for West Schofields has been guided by the above and in response:

- approximately 4,500 new homes are proposed
- new homes will be close to shops, schools and transport
- new homes will be located above the 1 in 100 year flood level and homes are limited below the PMF
- the proposed density controls will provide for a range of housing types at different price points, giving future residents choice when it comes to owning their own home
- new residents will have access to local jobs, including those nearby at Marsden Park, Rouse Hill, Norwest Business Park, Blacktown and Penrith
- necessary infrastructure and services, pedestrian paths and cycleways, and open spaces will be provided to serve the incoming community
- bushland, riparian corridors and Aboriginal heritage will be protected.

### 3.4 Growth Centres Development Code

The Growth Centres Development Code was released in October 2006 to guide the precinct planning process. The Code contains precinct development parameters, guidelines for the preparation of an ILP, including an environmental analysis of a Precinct and an urban form analysis for development of a Precinct.

The Code has been used by the project team as a reference document in the undertaking of all studies and generally as part of the precinct planning process, where still relevant. It is acknowledged the Code is now 12 years old.

### 3.5 Biodiversity Certification for the Sydney Growth Areas

Biodiversity Certification under the *Biodiversity Conservation Act 2016* (the BC Act) commenced on 25 August 2017. The BC Act replaced the *Threatened Species Conservation Act 1995* (TSC Act). Biodiversity certification under the TSC Act was conferred upon the Growth Centres SEPP in December 2007 and confirmed in July 2008 through an amendment to the TSC Act. The certification effectively switches off the need to undertake assessment and obtain approvals required under the BC Act for development of land that is certified. The biodiversity certification includes a number of requirements (or Relevant Biodiversity Measures – RBMs) that must be satisfied in order to maintain certification.

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) protects matters of National Environmental Significance (NES). A Strategic Assessment of the Growth Centres under the EPBC Act was undertaken to enable development to proceed in the Growth Centres while protecting the environment. The Strategic Assessment considered the potential impacts of development on matters of national environmental significance for the whole of Sydney's Growth Centres. This allows strategic conservation outcomes to be identified and secured. It also provides greater certainty for those constructing new houses and employment areas, as well as infrastructure providers in the Growth Centres. The Strategic Assessment operates in parallel with Biodiversity Certification under the BC Act.

The draft ILP is consistent with the conditions of the Biodiversity Certification Order 2007 and the Commonwealth Strategic Assessment Program 2012 under the EPBC Act and includes provisions relating to the protection of ENV. Approximately 57.95 ha of ENV will be protected within the precinct which is 5.4 ha more than is required to

meet the target for the precinct. The additional ENV will contribute to the retention of the required 2,000 ha of ENV across the NWGA and South West Growth Area.

## 3.6 Blacktown Local Environmental Plan 2015

Once the precinct plan and the associated amendments to the Growth Centres SEPP is notified, the planning controls in the precinct plan will come into force and the planning controls in Blacktown LEP 2015 will no longer apply to land within the precinct.

## 3.7 Developer contributions

### 3.7.1 Existing and Proposed SIC

Under Subdivision 4 of the *Environmental Planning and Assessment Act, 1979* (EPA Act) a Special Infrastructure Contribution (SIC) Plan was established for the Growth Areas. It provides for a one-off financial contribution payable by any developer or landowner in the Growth Areas who is developing or subdividing land in a manner triggered by the provisions of the plan. The SIC will help fund regional infrastructure required for development in the North West and South West Growth Areas over the next 30 years.

The upgrade/widening/extension of Garfield Road West, Grange Avenue and Townson Road/ Burdekin Link Road are items in the current SIC that impact the precinct.

A SIC specific to the North West is currently being prepared by the Department.

### 3.7.2 Local Contributions

Subdivision 3 of the EPA Act provides for a local council to prepare and implement a plan to capture payments to fund the provision of local services required by a development.

Local development contributions in this precinct are not subject to the transition arrangements for the 'Local Infrastructure Growth Scheme' which means the full cost of developer contributions will be passed onto the developer.

It is expected the contributions amount will be over \$30,000 per lot and therefore the Independent Pricing and Regulatory Tribunal will be required to review any plan.

Council will prepare the contributions plan.



***Attachments***

## Attachment A – Anticipated amendments to the Growth Centres SEPP

The amendments to Appendix 12 of the Growth Centres SEPP will be minimal, with the majority of clauses proposed to apply to the West Schofields precinct. Any variations are detailed below in Table 2.

**Table 2 – Anticipated amendments to the Growth Centre SEPP Appendix 12 and maps**

Clause / Schedule / Map	Comment
1.2 Aims of Precinct Plan	Amend clause to make reference to the West Schofields precinct
1.3 Land to which Precinct Plan applies	Amend clause to make reference to the West Schofields precinct
2.1 Land use zone	<p>Land use zones proposed include: RU6 Transition, R2 Low Density Residential, R3 Medium Density Residential, B2 Local Centre, B4 Mixed Use, SP2 Infrastructure, RE1 Public Recreation, RE2 Private Recreation, E2 Environmental Conservation and E4 Environmental Living.</p> <p>For the RU6 Transition land, it is proposed to prohibit dwelling houses and permit the following uses: agricultural produce industries, aquaculture, building identification signs, business identification signs, cemeteries, environmental facilities, environmental protection works, extensive agriculture, farm buildings, flood mitigation works, intensive plant agriculture, landscaping material supplies, plant nurseries, recreation areas, recreation facilities (outdoor), roads, roadside stalls and water supply systems.</p>
4.1AB Minimum lot sizes for residential development in Zone R2 Low Density Residential and Zone R3 Medium Density Residential	Amend clauses as necessary to give effect to the proposed development controls relating to minimum lot sizes for residential development and the minimum and maximum dwelling densities/dwelling yields.
4.1AC Minimum lot sizes for secondary dwellings in Zone R2 Low Density Residential and Zone R3 Medium Density Residential	Amend or insert clause relating to a minimum lot size to permit a dwelling in the E4 Environmental Living zone.
4.1AD Exceptions to minimum lot sizes for dwelling houses	
4.1AE Exceptions to minimum lot sizes for dwelling houses on other lots in Zone R2 Low Density Residential	

Clause / Schedule / Map	Comment
4.1AF Exceptions to minimum lot sizes for dwelling houses on small lots	
4.1B Residential density	
4.6 Exceptions to development standards	
6.11 Attached dwellings and multi dwelling housing in Zone R2 Low Density Residential	
5.1 Relevant acquisition authority	Amend clause to add any necessary references to land acquisition types and authorities.
Part 6 Additional local provisions	Inclusion of a clause to ensure flood risk and resilience are considered for development between the 1:100 chance per year flood level and the probable maximum flood level, including evacuation capacities and routes, mitigation of property damages and appropriate dwelling densities.
	Depending on the results of further monitoring of the Grange Avenue and CSR former landfill sites, site specific controls may be required.
Development Control Map	Amend maps as necessary to give effect to the proposed planning provisions described in this Exhibition Discussion Paper.
Floor Space Ratio Map	
Heritage Map	
Height of Buildings Map	
Land Application Map	
Land Reservation Acquisition Map	
Lot Size Map	
Land Zoning Map	
Residential Density Map	
Native Vegetation Protection Map	
Riparian Protection Area Map	