



**Horsley Park
Urban Farming
Master Plan
2019**



Western Sydney Parklands

Contents

1.0

Introduction

1.1	Purpose	4
1.2	About Horsley Park	6
1.3	Master Plan overview	8
1.4	Farming partners	8
1.5	Planning framework	12
1.6	Master Plan process	12

2.0

Vision and objectives

2.1	Vision	15
2.2	Objectives	15

Disclaimer

While every reasonable effort has been made to ensure that this document is correct at the time of printing, Western Sydney Parkland Trust, its agents and its employees, disclaim any and all liability to any persons in respect of anything or the consequences of anything done or omitted to be done in reliance upon the whole or any part of this document.

3.0

Challenges and opportunities

3.1	State of play in the Precinct	16
3.2	Challenges and opportunities	16
3.3	Statutory requirements	20
3.4	Natural environment	22
3.4.1	Soil	22
3.4.2	Hydrology and water	22
3.4.3	Climate	22
3.4.4	Topography	22
3.4.5	Native vegetation	22
3.5	Built environment	26
3.5.1	Current land uses	26
3.5.2	Surrounding land uses	26
3.5.3	Public domain	26
3.5.4	Infrastructure and utility services	26
3.6	Economic potential	29
3.6.1	Water	29
3.6.2	Parcel sizes and leases	29
3.7	Heritage	29
3.8	Social and cultural context	30
3.8.1	Existing farming partners	30
3.9	Ownership, utilities and easements	31
3.9.1	Existing land ownership	31
3.9.2	Infrastructure, easements and buffers	31

4.0

Horsley Park Master Plan

4.1	Overview	34
4.2	Leasing and operational guidelines	38
4.2.1	Existing and future farming partners	38
4.2.2	Operational guidelines	38
4.3	Proposed land uses	39
4.3.1	Potential new uses	40
4.4	Precinct development	41
4.5	Public domain	42
4.5.1	Community farming hub	44
4.5.2	Community hub concept	46
4.6	Landscape and vegetation character	48
4.7	Access and movement	48
4.7.1	Roads	48
4.7.2	Tracks and trails	48
4.8	Signage and wayfinding	50
4.9	Public art strategy	52
4.10	Environmental management	53
4.11	Water management	54
4.12	Culture and engagement	56
4.12.1	Health, wellbeing and cultural consumption	56
4.12.2	Education	56
4.12.3	Attracting and retaining farming partners	56
4.12.4	Agritourism	57
4.13	Farm gate	58

5.0

Farming approval process

5.1	Lease arrangements	60
5.2	Development processes	63
5.2.1	Agricultural and farm planning	63
5.2.2	Vehicle access points	68
5.2.3	Parkland tracks	69
5.2.4	Landscape and vegetation character	70
5.2.5	Infrastructure, easements and buffers	73
5.2.6	Fencing	74
5.2.7	Waste, soil and water	76
5.2.8	Pest management	77
5.2.9	Noise and odour	78
5.2.10	Farm buildings	79
5.2.11	Farm gates	80
5.2.12	Farm signage	82

6.0

Conclusion

6.1	Conclusion	85
-----	------------	----

Introduction 1.0

The Western Sydney Parklands are an essential green recreation corridor for the people of Western Sydney and beyond. As Western Sydney's population grows and Western Sydney Airport brings a range of new jobs, transport connections, agribusiness opportunities and communities, the Parklands can be further developed to provide accessible recreational, agricultural and economic activities.

The overall vision and strategic directions underpinned by NSW's strategic planning framework and specific legislation and policies including:

- *Western Sydney Parklands Act 2006*
- *Western Sydney Parklands Trust State Environmental Planning Policy 2009 (Parklands SEPP)*
- *The Western Sydney Parklands Plan of Management 2030 (POM)*.

The *Plan of Management 2030* defines the Parklands into 16 Precincts, each with specific management guidelines. This Master Plan applies to the Horsley Park Precinct, a mix of business, urban farming and environmental uses centred around Redmayne and Ferrers roads in Horsley Park.

Horsley Park Precinct ties into the vision for the Western Sydney Parklands to protect and promote valuable urban agricultural areas to create recreation, tourism, education, local sustainable food supply and economic opportunities.

1.1 Purpose

This Master Plan is a refresh of the 2012 *Horsley Park Urban Farming Master Plan*. It builds on the principles and directions established in the 2012 document and aligns with the POM.

This Master Plan:

- details the Western Sydney Parkland Trust's vision and desired future character for the Precinct
- explores land use and leasing opportunities
- aims to enhance the Precinct's natural environment, make it easier to access and introduce programmed activities
- will be a blueprint for the Precinct's future planning and the successful rollout of urban farming in the Parklands
- aims to complement agribusiness development around the Western Sydney Airport.





**The vision for
Horsley Park
ties into the
wider vision of
the Western
Sydney Parklands**

to protect and promote the parklands as a valuable urban agricultural setting, with benefits for recreation, tourism, education, local sustainable food supply and the economy.



Horsley Park Precinct

1.2 About Horsley Park

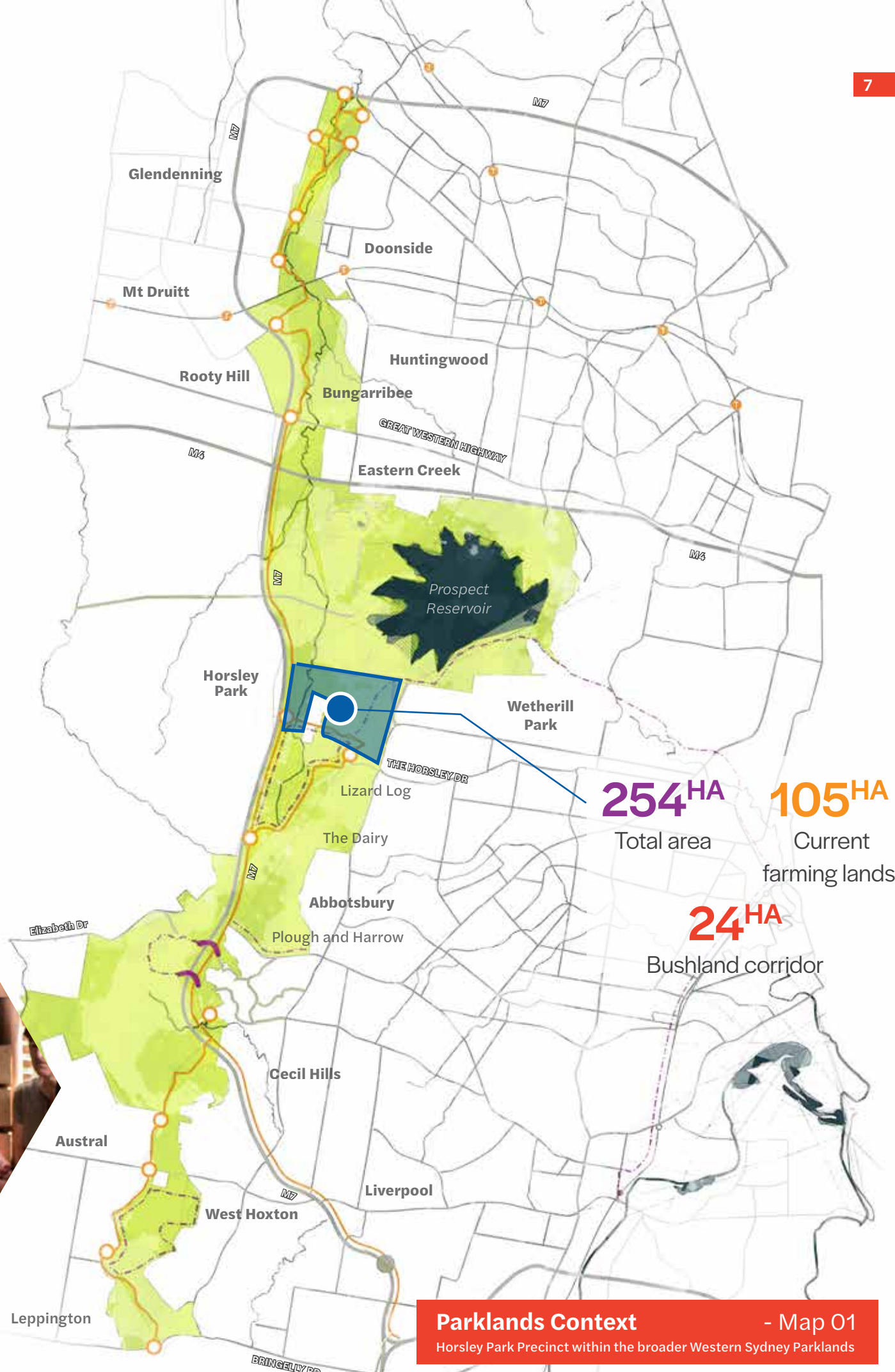
Western Sydney was historically the food bowl for Greater Sydney, with agriculture and horticulture dominant land uses until the 1940s. In the last 20 years, rapid urbanisation, particularly in the north west and south west growth areas, has replaced much of Western Sydney's productive, peri-urban land. The Parklands' urban farming lands will help to maintain Western Sydney's farming heritage.

The 254-hectare Horsley Park Precinct, the largest agricultural area in the Parklands, features undulating rural farming lands bounded by the M7 Motorway to the west, industrial lands (Smithfield and Wetherill Park) to the east, and private quarrying and brickmaking facilities to the north. The State heritage-listed Upper Canal system travels through the Precinct.

The Precinct also contains a Parklands business hub as an extension of the Smithfield/Wetherill Park industrial area. As well as local jobs, the business hub creates a revenue stream for recreation facilities, activities and operations.

The Greater Sydney Region Plan, *A Metropolis of Three Cities*, identifies opportunities for growing fresh food close to the increasing population, and agribusiness and freight export infrastructure associated with Western Sydney Airport. This builds on a strategic commitment to retain urban agricultural land since the Parklands were identified in the 1968 *Sydney Region Outline Plan*.





Parklands Context - Map 01
Horsley Park Precinct within the broader Western Sydney Parklands

1.3 Master Plan overview

By providing a planning framework, this Master Plan encourages partnership and investment in the agricultural and horticultural sectors. This will require the Western Sydney Parklands Trust to:

- promote agricultural activities positively in Greater Sydney to retain food production in Western Sydney
- prepare and release guidance on planning for agricultural activities
- support sustainable agrifood business development and innovation.

Potential urban agricultural enterprises include greenhouses, market gardens and orchards, farm gate sales, community and research gardens, agritourism, education programs, cafés, tracks and trails and picnic and farmers' market venues.

The Master Plan responds to the surrounding land uses and will inform the development of broader community uses that could transform the Precinct, including public open space, better connections and clear wayfinding and signage.

Horsley Park Precinct will meet the emerging understanding of the relationship between food consumption, quality and provenance and how these relationships influence healthy living. People want to feel connected to food growing and fresh produce. This refreshed Master Plan will leverage this interest and reinforce the benefits and values of urban farming.

The Precinct forms part of the Trust's Future Farming Program, which aims to showcase industry best practice, research and development, training, employment pathways and community education.

1.4 Farming partners

The efficient establishment and viability of farm partnerships will be critical to this Master Plan's vision and objectives. The Trust has already recruited, negotiated and manages a small number of agricultural leases in the Precinct; this allows the Trust to test, refine and improve approaches to recruiting suitable farming partners,

and to determine suitable locations, sizes, uses and lease conditions. The Trust has also been able to improve its dealings with external partners responsible for development approval processes.

Beyond primary production, the Precinct's farming partners will be encouraged and supported to develop direct connections with consumers through agritourism experiences, value adding to their produce and farm gate sales. A thriving farming and food community can then drive investment in farm lots, leading to efficiencies in irrigation, water harvesting, waste minimisation and recycling.

The Trust and its farming partners will need to collectively engage with stakeholders across government, the commercial sector and community organisations.

This could include organisations such as the Western City and Aerotropolis Authority, Royal Agricultural Society of NSW, Western Sydney University, the Institute for Sustainable Futures, WaterNSW, Sydney Water, Department of Primary Industries programs such as the Young Lessees Business Program, Landcare and the Trust's Future Farming Program.

Market gardens

Require a range of capital requirements and their intensity depends on the infrastructure used. Less resource intensive than glasshouses. Produce seasonal vegetables and herbs.

Orchards/groves

Field-based production of seasonal fruits and vegetables. Medium intensity of production.

Greenhouses

Intensive production of vegetables, fruit, herbs and cut flowers. Capital requirements and intensity depends on the infrastructure used. Less resource intensive than glasshouses. Produces a range of vegetables and herbs throughout the seasons.





Planning framework

1.5 Planning framework

WESTERN SYDNEY PARKLANDS STATE ENVIRONMENTAL PLANNING POLICY 2009 (PARKLANDS SEPP)

The Parklands SEPP outlines uses and development that can be carried out on land within the Parklands and matters that must be considered when assessing a development application.

Amendments to the Parklands SEPP in 2012 allow for urban farming including agriculture. This is permissible without consent on public land, although not in the environmental conservation area. Farm buildings are permissible with consent on public land outside the environmental conservation area. Section 5.2 details other development provisions for agricultural uses.

PLAN OF MANAGEMENT 2030 (POM)

The POM identifies a vision for the Western Sydney Parklands:

Western Sydney Parklands is a place that offers diverse experiences, celebrates its natural qualities and creates an identity for local communities. By respecting the area's heritage and planning for the future, the Parklands will be a sustainable legacy for generations to come.

The POM aims to “develop, manage and conserve the Parklands using best practice and inclusive sustainable practices.” In an urban farming context it aims to “protect and promote the Parklands as a valuable urban agricultural setting, with benefits for recreation, tourism, education and the local economy.”

The vision is framed by four strategic directions that clarify and emphasise the vision for Horsley Park Precinct. Strategic Direction One, includes Objective 5 Protecting Rural Landscapes, which aims to:

- continue to implement the Horsley Park Urban Farming Master Plan and plan for new areas of urban farming within the Parklands
- protect the status of existing farming on public or private landholdings within the Parklands
- use initiatives such as markets, farm gate sales and food and beverage outlets to promote agricultural education
- build relationships with other Sydney and regional urban farming stakeholders to promote sustainable farming practices
- support educational programs and attract community-based agricultural training activities to the Parklands, such as Calmsley Hill Farm
- partner with research and industry organisations to investigate urban farming initiatives.

The vision for Horsley Park Precinct also ties in with Objective 1: Increase sustainable outcomes for water, energy, waste, construction and horticultural materials. This includes requirements to:

- provide non-potable water for irrigation and public amenities in Parklands developments
- work with partners to achieve sustainability targets for water, energy, waste, construction and horticultural materials

The Master Plan also supports the NSW Government-level strategic thinking for the Western Sydney Parklands Trust and the broader metropolitan region. *A Metropolis of Three Cities*, the *Western City District Plan* and the Government Architect NSW's Sydney Green Grid support the Trust's vision to exemplify best practice of an integrated urban parkland and protect and promote agriculture in suitable areas.

1.6 Master Plan process

Stakeholder engagement and consultation will continue, aligning with Strategic Direction Three of the POM.

The Trust's business development and property team will work with local councils and State agencies that have interest or influence over the development and management of the Precinct. This will help to activate and develop the urban farming Precinct to be environmentally and economically sustainable.

The team will also work with current and prospective lessees – people from many different cultures, which creates opportunities and challenges in terms of engagement and communication. Recruiting, selecting, inducting, supporting and communicating with lessees will be guided by the Master Plan's objectives to help lessees operate viable and vibrant urban agriculture businesses.



Strategic Direction One



Environmental protection and land stewardship

Strategic Direction Two



Creating recreational and community facilities

Strategic Direction Three



Community participation and engagement

Strategic Direction Four



Financial sustainability and economic development



More than 50 years in the making...

1960s



1968: *Sydney Region Outline Plan* identifies the Parklands corridor to provide for future open space and infrastructure needs.

1970s



1978: NSW Government acquires almost 70 per cent of the current Parklands. The Office of Strategic Lands has continued to purchase the remaining privately-owned land for transfer to the Trust.

1980s



1989: Key recreation facilities such as the Sydney International Motorsports Park were added via the State Environmental Planning Policy (SEPP) No. 29.

2000s



2006: *Western Sydney Parklands Act 2006* confirms the Parklands boundaries and the framework to establish the Trust to manage the lands.

2007: The Parklands track was completed, providing access to the full length of the Parklands.

2008: The Western Sydney Parklands Act establishes the Trust to own, manage and develop the Parklands.

2009: Parklands SEPP provides the statutory planning framework for Parklands development.

2010s

2011: The Plan of Management 2020 outlines the vision, principles, strategic directions and ongoing management of the Parklands to 2020.

2012: Horsley Park Precinct - Urban Farming Master Plan

2015: Construction begins on the first stage of Bungarribee Park, the largest new recreational space in Western Sydney since Bicentennial Park in Homebush.

2016: Draft district plans identify Western Sydney Parklands as integral to the Greater Sydney Green Grid.

2018: POM 2030 considers the achievements of the past decade and outlines the key priorities and actions for the decade ahead.

2019: Horsley Park Urban Farming Master Plan

2020+



Vision and objectives

2.0

2.1 Vision

Horsley Park Precinct will be a place of peri-urban agriculture that celebrates a genuine rural character, promotes a best-practice approach to farming, and creates a socially engaging experience. It links food production to the community and complements other agricultural Precincts in Western Sydney.



2.2 Objectives

The Horsley Park Urban Farming Master Plan aims to:

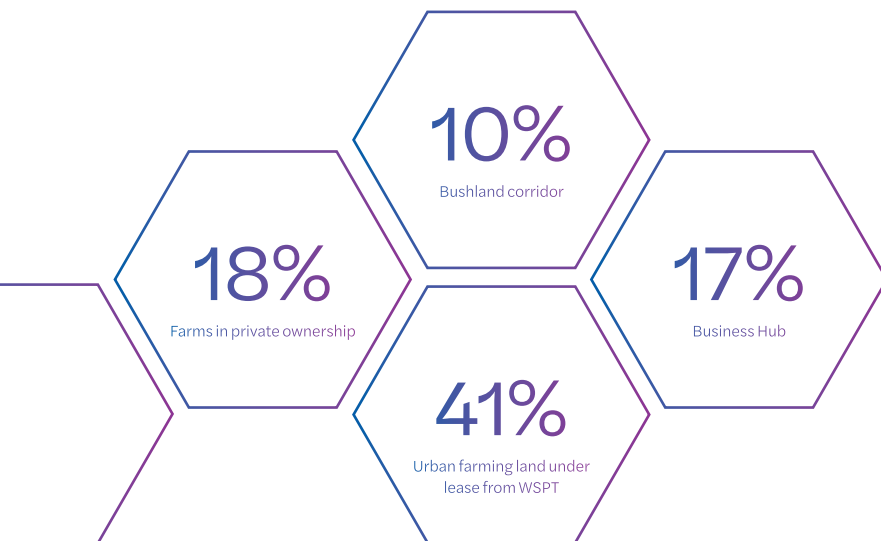
- create a farming and agriculture destination that helps people in urban areas to understand where food comes from
- develop public spaces that support recreation, tourism, farming and educational opportunities
- maintain and embellish the Precinct's visual character.
- protect the Upper Canal system, its catchment and cultural heritage value
- celebrate local culture in an interactive, playful way, employing art, built form, interpretive signage and events
- support business hubs at sites designated by the Trust.
- encourage existing and future farming partners to use sustainable urban farming practices
- promote the Precinct to new agricultural groups
- build a cohesive rural landscape with leasing arrangements, lot parcels, and roads and lot boundaries that reflect agricultural patterns to support the rural character
- allow a flexible, progressive approach to farming, recognising the value of innovation to farming sustainability
- complement other agriculture Precincts in Western Sydney such as the Agribusiness Precinct in Western Sydney Aerotropolis and Hawkesbury Harvest.

Meeting these objectives requires a mix of land uses:

- + agritourism and education
- + urban farming, market gardens and associated value-adding facilities
- + farm-gate shops, markets and associated value-adding facilities
- + walking and cycling tracks
- + water and other utility infrastructure
- + Aboriginal and non-Aboriginal cultural and heritage interpretation
- + business hubs.

Context

3.0



3.1 State of play

The Precinct supports farming partners who lease approximately 105 hectares of land from the Trust with the expectation that these partnerships will continue to develop. Some leased areas contain dwellings and some are land only. The Trust intends to allow for flexibility of lease tenures (fixed tenure with an option to renew) and offer areas from between two and 30 hectares. Privately owned agricultural land in the Precinct reinforces agricultural land uses and rural character.

A dedicated bushland corridor includes a gazetted conservation area associated with Eastern Creek. There are also fragments of bushland scattered throughout the area. The complementary agricultural and bushland landscapes protect the waterway and its riparian buffer. A small portion of the Precinct is occupied by business hubs.

3.2 Challenges and opportunities

As resource-based land across Western Sydney decreases, Horsley Park Precinct is more valuable at a time when consumers are more interested in how their food is grown, processed and brought to market.

The Institute of Sustainable Futures created the Sydney Food Futures project to understand how Sydney feeds itself. It found that in 2011 agricultural production in the Sydney Basin is worth at least \$924 million, directly employing around 7,000 people. The Precinct, therefore, provides opportunities for new migrants to enter education, training, employment and establish small agrifood enterprises.

Long-term farming partnerships will attract investments and make capital available for other activities. The Precinct's peri-urban location, connections to distribution channels and access to markets and labour will capitalise on the economic advantages of urban farming. The challenge is to communicate the value of peri-urban food production to a regional audience including councils, non-farming neighbours and stakeholder groups.

Other opportunities include:

- new jobs and farming entrepreneurship
- leases for areas under production with the provision of services and security of tenure
- proximity to markets, requiring less travel and storage time while maximising freshness and nutrition
- proximity to the emerging Western Sydney Airport Agribusiness Precinct
- industry and educational partnerships through the Trust
- cooperative approaches between producers



The Stravos Niarchos Foundation Gallery by Renzo Piano, Athens

Challenges that need to be addressed include:

- sustainability initiative such as regenerative agriculture, recycling waste, water and energy, and reducing food miles and packaging
- community engagement and education
- provenance branding.
- restricted availability and increasing cost of potable and recycled water for irrigation
- marginal soil quality requires improvement to maximise production
- clarifying the development application process for lessees
- complying with environmental standards and introducing sustainable farm practices
- no single, coordinated voice of farming partners
- scale and commercial viability
- capacity of current farming partners to identify and implement value-adding and innovation opportunities
- cohesive vision of a local farming community that support sustainable and innovative opportunities
- the nexus between urban development, food production, productivity and government planning priorities and the need to increase understanding of and engagement with agriculture
- making lease agreements commercially attractive.





From an economic perspective, our planning for the Precinct's future must recognise how markets govern price and availability based on supply and demand and the many opportunities to promote and sell produce grown in the Precinct.

Different marketing avenues include:

- **Direct marketing:** lessees' markets such as Lizard Log Markets, a cooperative or communal food hub, roadside stalls, pick-your-own, on-farm stores, branded provenance-based produce, or community-supported agriculture.
- **Agritourism:** including farm gate trails similar to, or in conjunction with, Hawkesbury Harvest, or food educational opportunities.
- **Value-adding:** including on-site processing, packing, provenance branding and storage.
- **Domestic market:** wholesale markets such as Flemington or direct supply to food service sector such as restaurants or supermarkets.
- **Global markets:** requiring an understanding of supply and demand, exports and how seasonal conditions drive prices.

While larger operations will likely supply Sydney Markets, export from Western Sydney Airport or hold contracts with supermarkets, catalyst infrastructure should be considered to stimulate artisan producers, broaden the range of food available and help overcome seasonal issues around oversupply and waste of second-grade produce. This creates opportunities for:

- processing to create high-value products like sauces, jams and condiments
- branded packaging and grading of fresh produce with a provenance-based brand
- boutique food enterprises that reflect the region's diverse cultures.

This also creates opportunities to amalgamate facilities for a number of producers in a single location, requiring investment in shared or cooperative commercial kitchen or central packaging and cold storage facilities.

However, economic challenges include:

- attracting and recruiting farming partners and food entrepreneurs
- providing viable land of a size that aligns with the scale of investment and type of production
- providing competitive leasing structures and rates
- achieving environmental certification, farm management and workplace health and safety
- addressing planning and development approval processes
- providing new public infrastructure, such as farm gate shops, car parking, signage, tracks and trails
- improving skills in areas such as sustainable farm management, agritourism and value-added business development
- better connectivity across easements, infrastructure and roads.

Infrastructure, utility services and easements challenge the Master Plan's objectives around connectivity for the Upper Canal zone and restrictions to allowable land uses within various easements – refer Section 3.5.4 for more detail.

3.3 Statutory requirements

Land adjoining Horsley Park Precinct falls under the local planning controls of Fairfield City Council:

- Fairfield Local Environment Plan 2013 (Fairfield LEP)
- Fairfield Citywide Development Control Plan 2013 (Fairfield DCP).

Adjoining land uses under Fairfield LEP, as shown on Existing Land Uses map, includes Rural Landscape (RU2), Primary Production Small Lots (RU4) and General Industrial (IN1). The area in the centre of the Precinct – yet outside the Precinct boundaries – is described as the keyhole area in this Master Plan. It is zoned RU2.

Fairfield LEP and Fairfield DCP acknowledge that Fairfield City Council has no planning jurisdiction over land to which the Parklands SEPP applies. The SEPP allows the following development within the Parklands on Trust-owned and managed facilities without consent:

- community facilities, kiosks, restaurants, cafes or ticketing facilities
- depots
- entertainment facilities and function centres
- environmental facilities or environmental protection works
- information and education facilities
- public administration buildings
- recreation areas and facilities
- signage
- agriculture (other than farm buildings) unless the land is in an environmental conservation area.

The SEPP does not allow for new residential development.

Under the SEPP, exempt development may be carried out without the need for development consent, including;

- alterations to public building (maximum area 200m²)
- earthworks and retaining walls for the purposes of agriculture (to a maximum height of 600mm)
- landscaping and public domain works
- rainwater tanks (above and below ground)
- sheds, cool rooms, greenhouses (to a maximum area of 30m²).

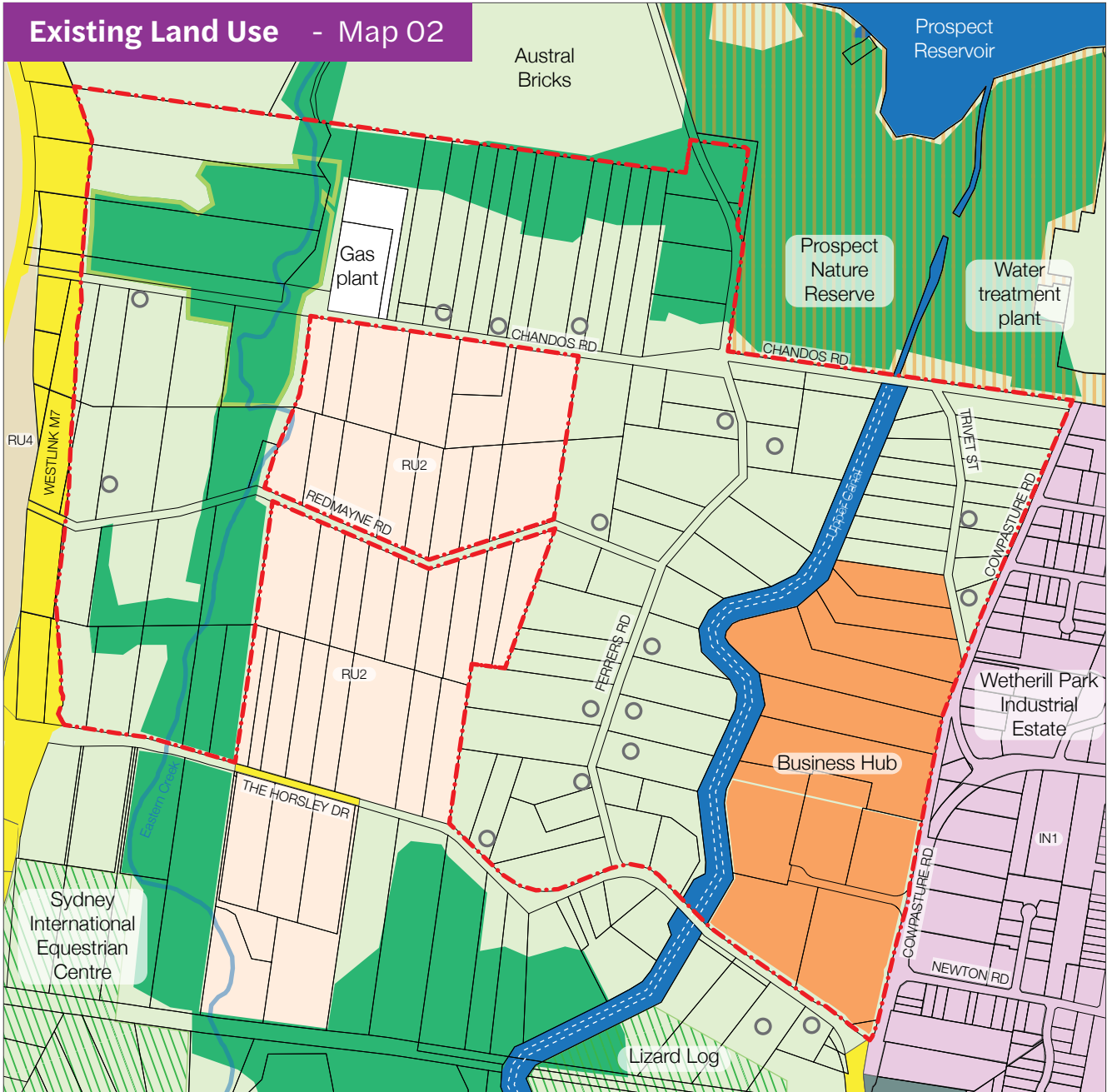
In every other respect, if the type of development does not conform to the above parameters and SEPP provisions a development application process is triggered, with Council the consenting authority.

- farm gate stalls over 8m²
- driveway access
- greenhouse larger than 30m²
- other rural buildings with a footprint larger than 30m² including sheds and cool rooms.
- significant earthworks
- dams, filling in existing dams or stormwater management systems
- sewer tanks and connections.

Council's development application process, particularly in relation to rural areas, influences the planning approach for Horsley Park Precinct – refer Chapter 5 for more detail.

This could include:





Legend

- Precinct Boundary
- Horsley Drive Business Hub
- Eastern Creek
- Parklands bushland corridor/protected vegetation
- Parklands gazetted Conservation Area
- Biobank site
- Parklands - Unstructured sport and structured recreation
- Bulk water supply infrastructure
- Parklands - Urban farming and rural
- SP2 Infrastructure
- IN1 General Industrial
- RU2 Rural Landscape
- RU4 Primary Production Small Lots
- Existing dwellings



Scale 1:15,000 @ A4



3.4 Natural environment

3.4.1 Soil

There is a diverse range of soils associated with the Luddenham Soil Landscape category (Wianamatta shales geology). Brown clay loams, sticky clays and stony light clays are typical of this group. Steeper ridgelines along Ferrers Road are associated with a higher risk of erosion compared to other parts of the Precinct.

Market gardening and other soil-based horticultural activities such as greenhouses will require the quality of soils to be:

- very low salinity (all Class A+) – ideal for plant growth
- low sodicity – ideal for plant growth and soil structure
- suitable pH – ideal for plant growth
- suitable to high phosphorus – ideal for plant growth but with potential runoff
- low nitrogen – requires nitrogen fertiliser to maximise plant growth.

3.4.2 Hydrology and water

Successful urban farming will require a water management plan. With minimal existing water storage (small dams), farming partners rely on substantial volumes of potable water. The Trust is investigating resource partnerships, possibly with the adjoining business hub, to secure suitable quality water to offset irrigation demands as the Precinct develops. The POM aims to reduce potable water use for recreation areas and urban farming by 50 per cent while significantly increasing site water capture, reuse and recycling.

Water management and improvements to soil hydrology and structure must also be considered in the context of climate change. Best-practice water management will offset risk of sunburn, lack of cooling, crop stress or the potential for extreme events such as heat, hail and late frost. The impact of climate change on rainfall and the security of irrigation water supply will continue to be considered.

Lower parts of the Precinct connected to Eastern Creek are subject to flooding. Refer Map 04 Hydrology.

The Upper Canal and Prospect Reservoir are discussed in Section 3.5.4.

3.4.3 Climate

Sydney's climate varies from the coast to the Blue Mountains. Western Sydney will continue to be warmer than coastal and mountain areas throughout the year by a factor of two to five degrees Celsius. As found out in 2014 by Climate and Weather, Metropolitan Sydney Climate Change Snapshot, at present the region's summer average maximum temperature is 28–30C with 10 to 20 days where the temperature hits 35C or over occurring throughout the year. The region's winter average minimum temperature is six degrees. Maximum and minimum temperatures are predicted to increase in the near future within a range of 0.3 to one degree and in the longer term by two degrees.

Annual average rainfall is in the range of 800–1200 mm for much of the region. More rainfall is recorded close to the coast and in the upper Blue Mountains. There is some seasonal variation with more rainfall in summer and autumn than winter and spring. In Western Sydney, rainfall is more uniform with totals ranging from 200–300 mm in summer, autumn and spring, to 100–200 mm in winter.

This climate is suitable for a range of crops, although irrigation will be required during summer to sustain plant growth.

Climate variability must be considered when planning future land uses for the Precinct, particularly in relation to rainfall and availability of water. Section 4.11 discusses this further.

3.4.4 Topography

The Precinct's moderate to steep sloping land limits some areas for production. The degree of slope dictates appropriate farm activities. The topography predominately allows a mix of market gardens, pastures, orchards and greenhouses (Map 03 Topography). Areas with gradients greater than 15 percent carry potential for soil erosion and chemical and nutrient issues.

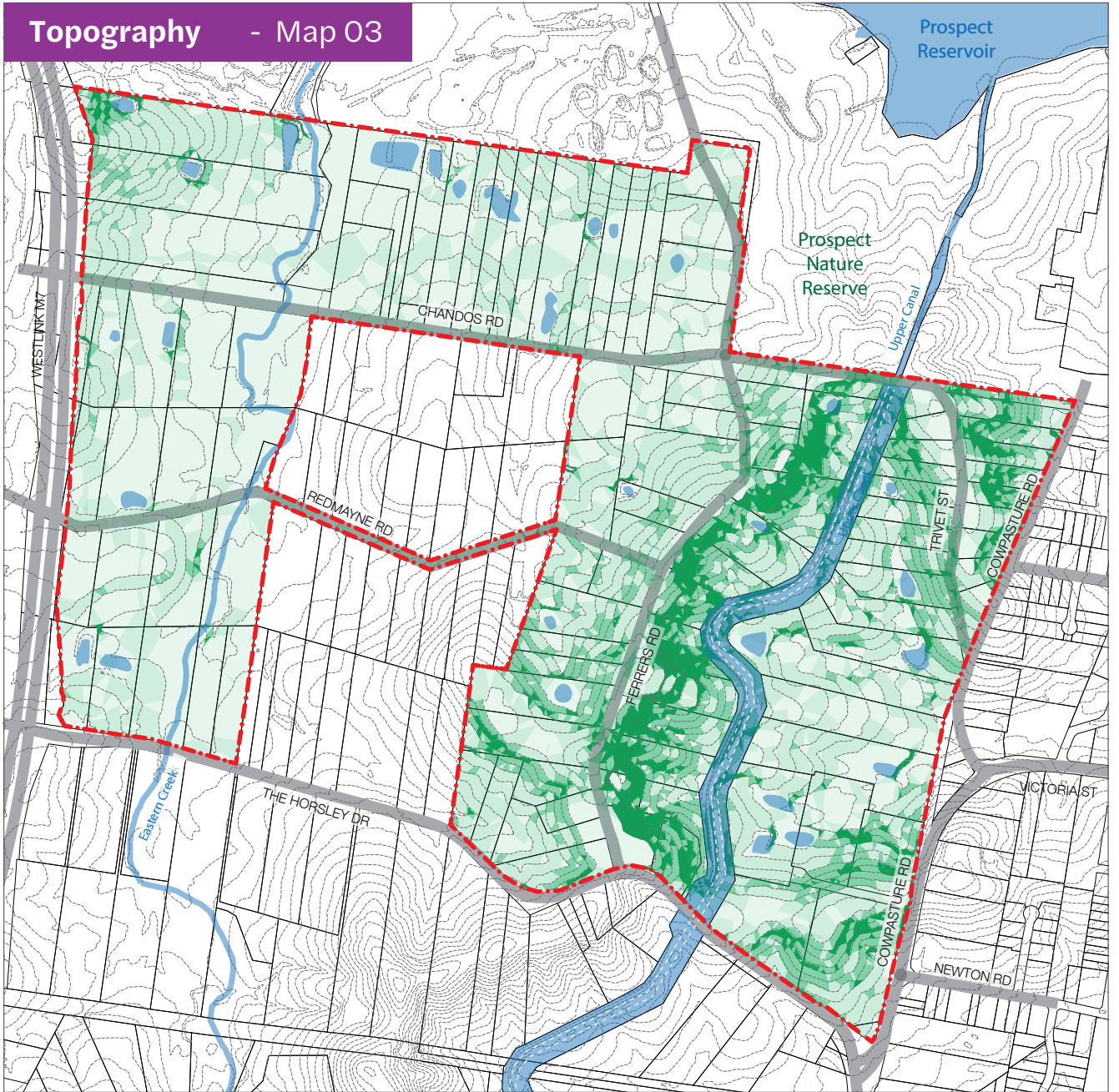
3.4.5 Native vegetation

A bushland corridor runs north-south along Eastern Creek in the Precinct's west. In its north, the corridor is a Gazetted Conservation Area including Shale Hills Woodland, Shale Plains Woodland and Alluvial Woodland (Map 05). A biobank agreement underpins the Conservation Area's long-term management.

Fragmented patches of native vegetation sit within farming lots. These areas are important ecological bridges in the landscape.



Topography - Map 03



Legend

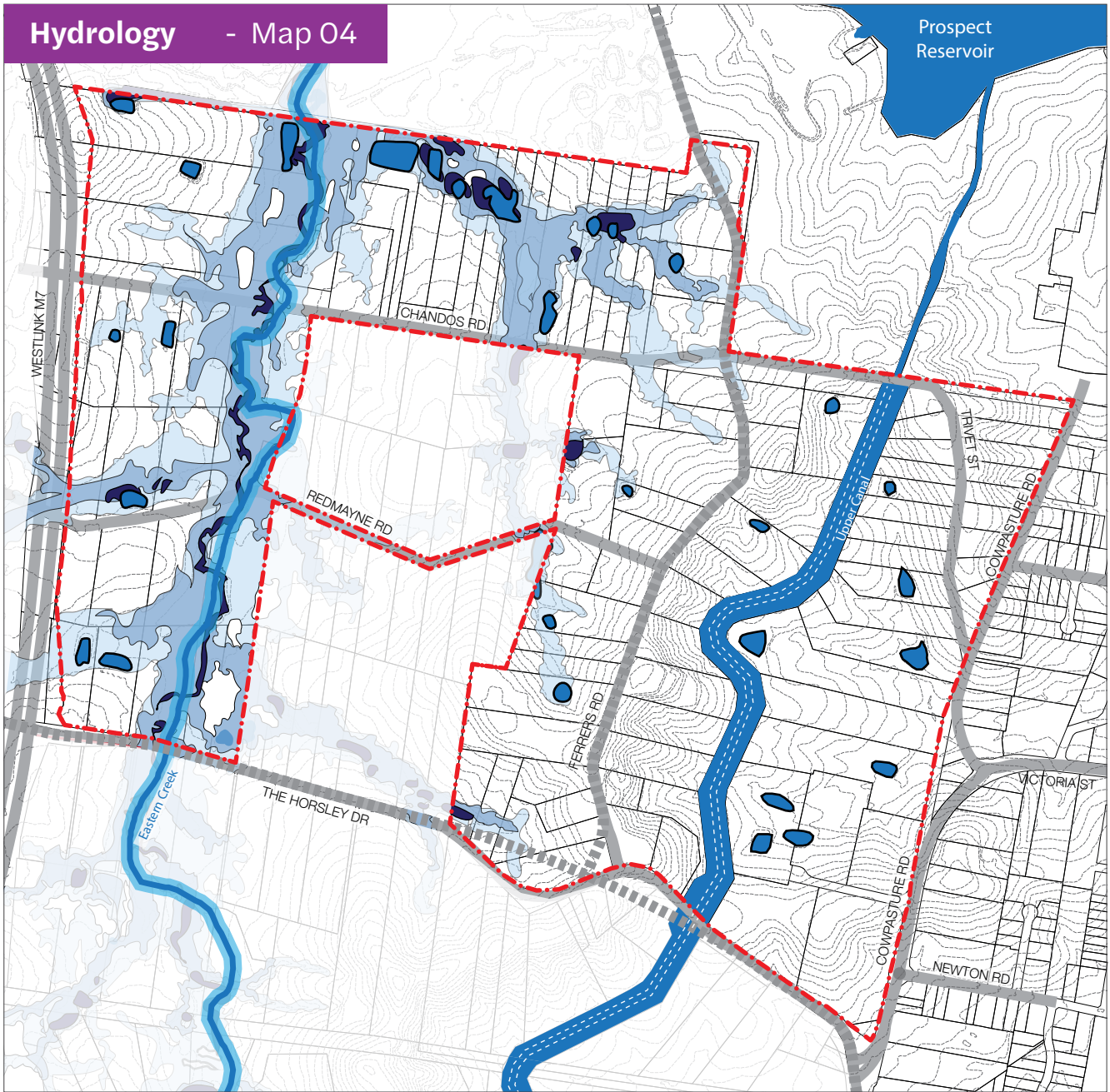
- Precinct boundary
- Reservoir, watercourses or canal
- 2M contour interval
- 0-5% Slope
- 5-10% Slope
- 10-15% Slope
- >15% Slope



Scale 1:15,000 @ A4



Hydrology - Map 04

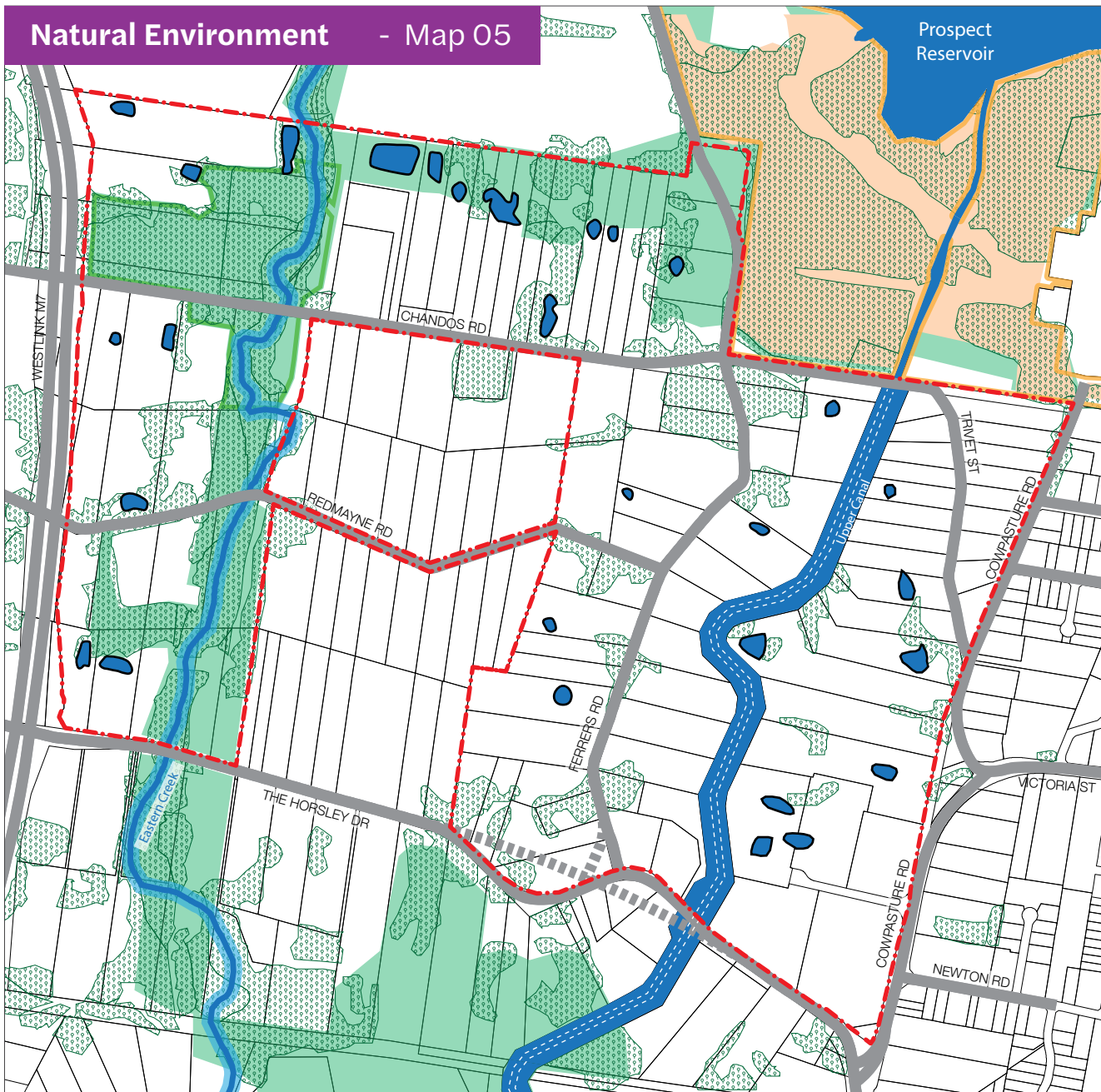


Legend

- Precinct boundary
- Reservoir, watercourses or canal
- Upper Canal corridor (60m wide)
- 2m contour interval
- Dams/storage
- Eastern Creek buffer (40m)
- Low risk flood
- Medium risk flood
- High risk flood



Scale 1:15,000 @ A4



Legend

- Precinct boundary
- Reservoir, watercourses or canal
- Upper Canal Corridor (60m wide)
- Dams/storage
- Eastern Creek buffer (40m)
- Gazetted Conservation Area
- Bushland corridor
- Biobank site
- Prospect Nature Reserve
- Woodland - protected vegetation



Scale 1:15,000 @ A4



3.5 Built environment

3.5.1 Current land uses

Outside of the bushland corridor and environmental conservation area, land uses include:

- vacant land
- residences
- existing agriculture, either leased from the Trust or privately owned
- sports facilities leased from the Trust
- employment lands - business hubs.

3.5.2 Surrounding land uses

Surrounding land is partly urbanised and partly agricultural, and compatible with additional proposed urban farming activities. It includes:

- M7 Motorway to the west
- Horsley Drive Business Hub and adjoining industrial development in Wetherill Park
- the central 'keyhole' area zoned as RU2
- extractive and manufacturing industry to the north
- Prospect Nature Reserve to the north east between Prospect Reservoir and the Precinct, which also has a water treatment plant to the east
- Sydney International Equestrian Centre to the south west
- Lizard Log recreational area to the south.

3.5.3 Public areas

The semi-rural character consists of an undulating open landscape organised by an historical pattern of farming land use. The clusters of buildings, fencing and roads combines with scattered trees to create an agrarian sense of place. Significant vegetation along Eastern Creek visually enhances the Precinct from urban areas.

The Precinct appears as a remnant farming area, where the land is not utilised to its potential. Minimal development of public areas results in poor connectivity, exacerbated by the barrier of the Upper Canal.

Public domain improvements can co-locate recreational areas and community facilities to complement farming land uses. Improvements will activate places, create a more dynamic landscape for more users, and increase productivity thanks to better movement and access. Public domain

improvements will focus on access and gateways, boundaries, signage, tracks and trails.

CONNECTIVITY

The Precinct is bordered by the M7 Motorway and The Horsley Drive and contains several well-maintained roads. The proposed 2.4-kilometre upgrade of The Horsley Drive between the M7 Motorway and Cowpasture Road will improve access to the Smithfield and Wetherill Park industrial area, Western Sydney Employment Area, the M7 Motorway and the rest of the Western Sydney Parklands. Once opened, Western Sydney Airport will be less than 10 kilometres away. Ferrers Road will remain a major road connection between Fairfield and Blacktown.

A new shared path connection from the Precinct to the proposed off-road shared path along Horsley Drive as part of The Horsley Drive upgrade will connect to the M7 Motorway shared path and Western Sydney Parklands cycleway. The walking and cycling network will also link to the Prospect Reservoir Loop. The upgrade project is in community consultation phase.

Strict access regulations apply to the Upper Canal to avoid water contamination; this can be managed by controlling access and circulation along the canal.

The future Western Sydney Freight Line is in the early planning stages. Linking Western Sydney to Port Botany as well as employment lands and future industries in the Western Sydney Aerotropolis, the corridor will impact Horsley Park Precinct.

3.5.4 Infrastructure and utility services

Map 07 shows that most infrastructure is located along the Precinct's boundary or internal roads, with the exception of powerlines and some gas lines.

ENERGY (ELECTRICITY, GAS)

Endeavour Energy owns buried electrical cables within Chandos, Ferrers and Cowpasture roads, Trivett Street and part of The Horsley Drive, as well as unused electrical conduits within Newton Road, Sleigh Place, Victoria Street, Redmayne Road, Cowpasture Road and The Horsley Drive. The availability of these unused conduits is subject to further investigation.

Access to electricity and three phase power is widespread in the Precinct due to existing residential and agricultural/horticultural land uses. Access to power will not limit urban farming.

Gas infrastructure is integral to greenhouses. There is a 550mm diameter and a 200mm diameter/250mm diameter gas main along Chandos and Cowpasture roads and a 150mm diameter and 250mm diameter main nearby at Newton Road and Sleigh Place, Wetherill Park. The Jemena Eastern Gas Line enters the Precinct in the north and exits through the south west and north east. Access to gas in parts of the Precinct will need to be verified at the time of leasing.

WATER

Prospect Reservoir and the Upper Canal, form part of Sydney's water supply infrastructure. The Upper Canal and corridor (60m wide) is also State heritage listed. The Parklands SEPP requires all development to consider potential impacts on drinking water catchments and associated infrastructure.

The Precinct's proximity to a drinking water source will require agricultural activities such as nutrient run off and spray drift will be subject to the *Drinking Water Catchments Regional Environmental Plan No1* under the *Environmental Planning and Assessment Act 1979*, and the *Sydney Water Catchment Management Act 1998*.

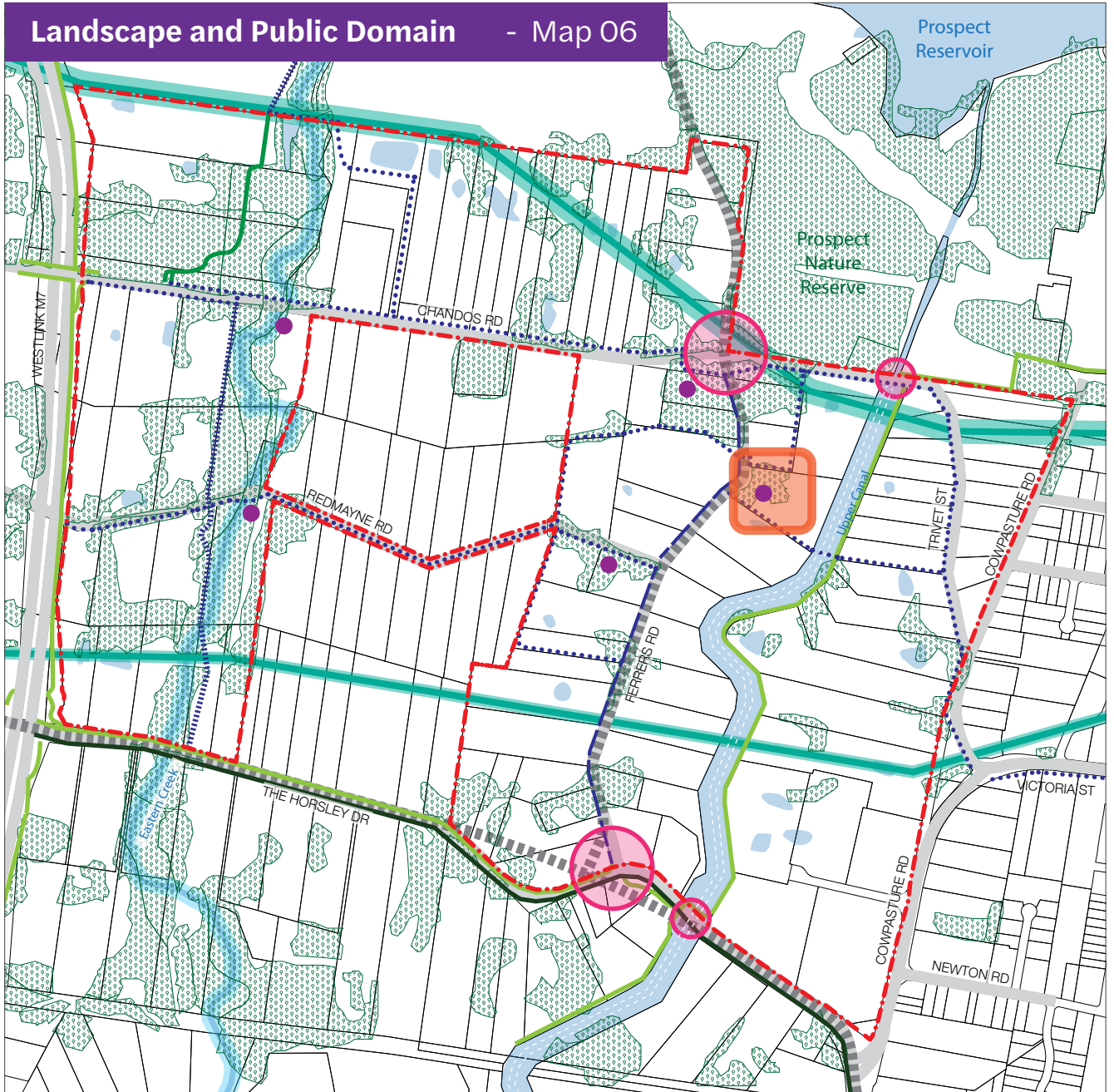
Potable water pipelines are only available on individual property title and will need to be considered by individual farming partners.

Sewer mains run along The Horsley Drive and to the east in Wetherill Park.

COMMUNICATIONS

Optus cables run along the Precinct's main roads only.

Landscape and Public Domain - Map 06



Legend

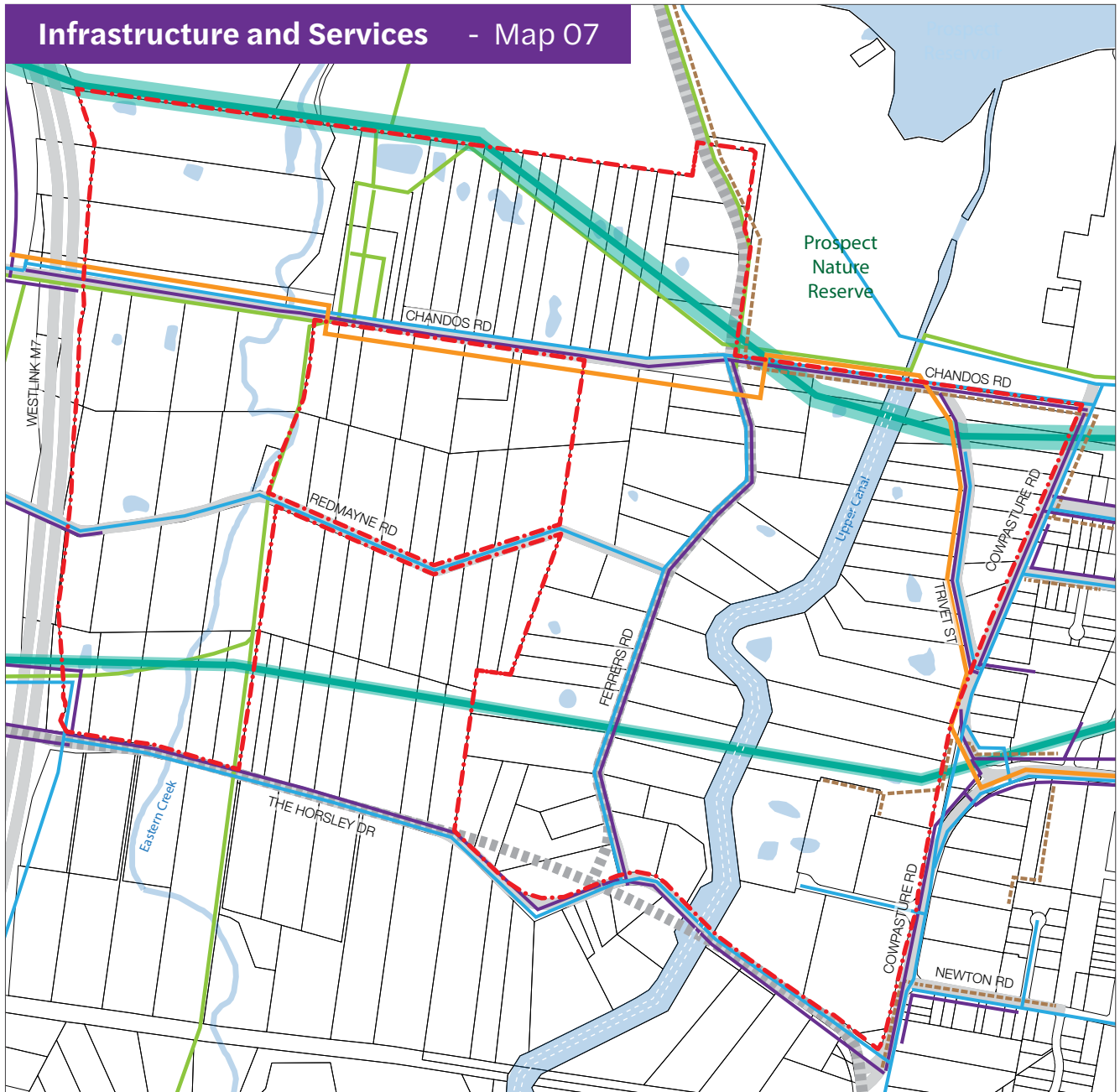
- Precinct boundary
- Reservoir, watercourses or canal
- Upper Canal corridor (60m wide)
- Powerlines (30m 60m easement)
- Existing concrete/asphalt track
- Existing road in biobank site
- Proposed concrete/asphalt track
- New concrete Parklands Track - 2.5m
- New asphalt Parklands Track - 2.5m
- New gravel Parklands Track - 2.5m
- Eastern Creek buffer (40M)
- Road/street
- Proposed roadway upgrade
- Potential community farming hub
- Gateways/markers
- Potential picnic shelters
- Existing vegetation



Scale 1:15,000 @ A4



Infrastructure and Services - Map 07



Legend

- Site
- Reservoir, watercourses or canal
- Road/street
- Proposed road upgrade
- Jemena gas lines (24.385m easement)
- Communication
- Potable water
- Sewer
- Electrical
- Powerlines (30m and 60m easement)



Scale 1:15,000 @ A4





3.6 Economic potential

Horsley Park Precinct will continue to contribute to peri-urban agriculture within the Sydney Basin. The ability to produce food, particularly highly perishable food types, that cannot travel long distances, makes it an attractive economic prospect to farm within the urban fringe. This increases local employment opportunities, supports traditional agricultural skills and encourages new techniques while stimulating the demand for food packaging and processing.

3.6.1 Water

Water will be a key factor. Although there are numerous dams throughout the Precinct, the volume of water from rainfall and what is held is not substantial relative to water demands for commercial horticultural/agricultural production. Refer to Section 4.11 for further discussion.

3.6.2 Parcel sizes and leases

The varying size of current leases provides the flexibility to align requirements and agricultural typology with topography, soil capability and economic opportunities. Lease tenures are fixed for three years with an option to renew, with rental amounts adjusted to a minimum five per cent increase.

3.7 Heritage

The Upper Canal System traverses the Precinct and forms part of the Upper Nepean Scheme, including the Prospect Reservoir. The reservoir is located within the Prospect Nature Reserve, which contains remnant Cumberland Plain Woodland and is an important refuge for wildlife. The reservoir and canal are part of Sydney's drinking water supply. The Heritage Statement of Significance highlights that the canal has changed little since 1888:

The Canal is aesthetically significant, running in a serpentine route through a rural bushland setting as an impressive landscape element with sandstone and concrete-lined edges... [it] demonstrates the techniques of canal building, and evidence of engineering practice [and is] an excellent example of 19th century hydraulic engineering, including the use of gravity to feed water along the canal. (BCubed Sustainability, 2006)

The area is also rich in Aboriginal heritage. The Parklands are part of country belonging to inland Darug people. Favourable camp sites occurred along Eastern Creek, Prospect Creek and more elevated landscapes. The Darug people continued to live in the area long after local European settlement in 1789.

3.8 Social and cultural context

The Precinct sits within a culturally diverse area; people living in the Parklands catchment draw their heritage from 140 nations, and nearly half of all neighbouring residents are from non-English speaking backgrounds. The Sydney Peri-Urban Network estimates there are 2,000-3,000 people employed in agriculture in the peri-urban areas of Sydney and 80 to 90 per cent of these are migrants with a language other than English as their first language (James, 2009). Most farming partners are from Chinese, Vietnamese, Cambodian and Lebanese backgrounds.

3.8.1 Existing farming partners and their feedback

Farming partners have been encouraged to share their valuable knowledge and experiences to inform this Master Plan. Their feedback included:

- the need for better understanding around when a development application is required
- clarity around the development application process and its relationship to Council
- greater access to non-potable water
- greater on-the-ground support for farming partners.

Chapter 5 addresses this feedback in terms of farm planning, development application requirements and standard controls relating to land use. The Trust will continue to work with stakeholders to resolve water access and management issues.





3.9 Ownership, utilities and easements

3.9.1 Existing land ownership

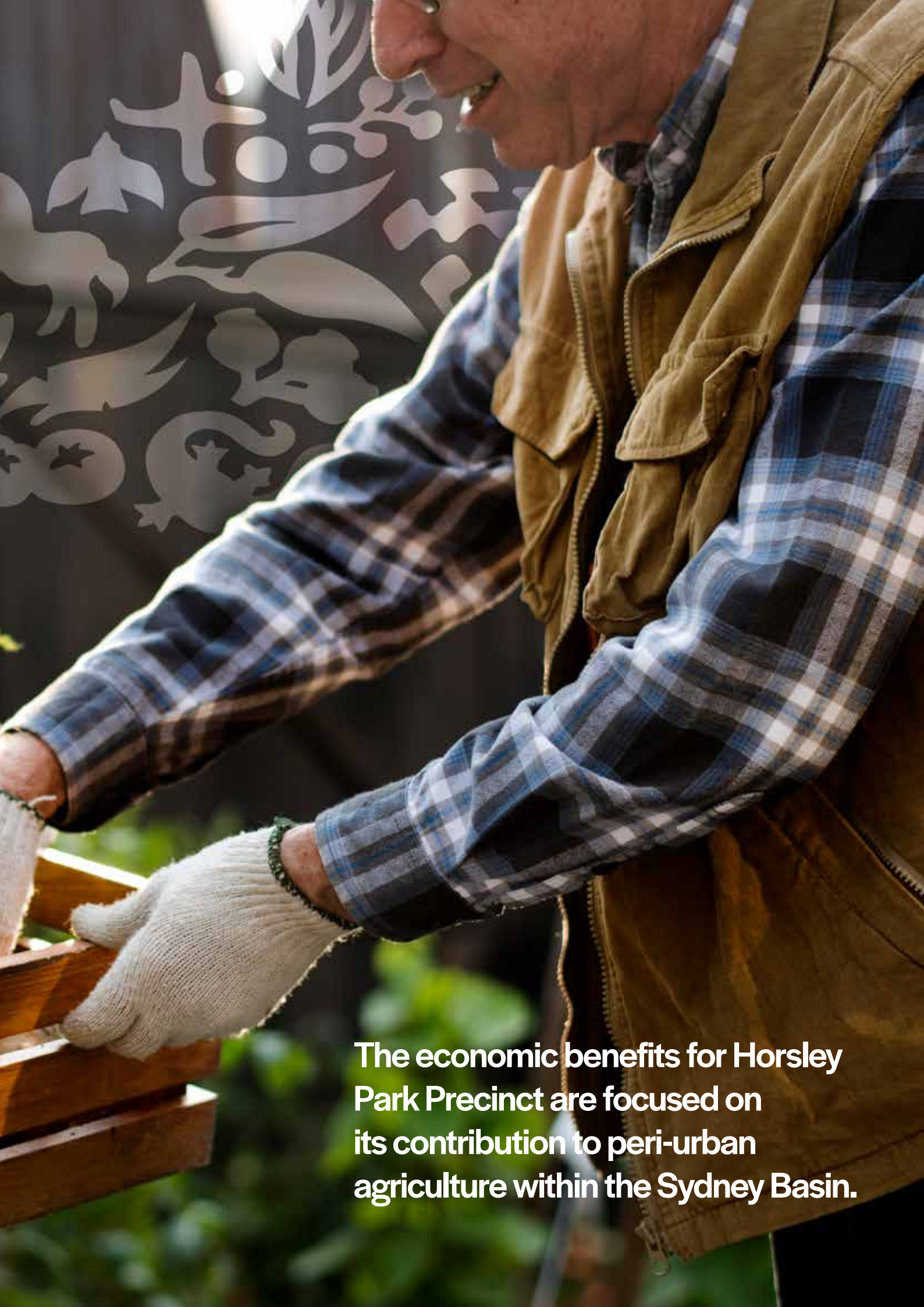
The Trust owns most of the land in the Precinct and intends to acquire more land in the long term.

3.9.2 Infrastructure, easements and buffers

Infrastructure, easements and buffers influence the pattern of land use development and dictate what is permissible within their zones of influence. They are managed by utility companies to specific regulatory frameworks and requirements (refer Infrastructure and Services Map 07).







The economic benefits for Horsley Park Precinct are focused on its contribution to peri-urban agriculture within the Sydney Basin.

Horsley Park Master Plan

4.0



Horsley Park Urban Farming Master Plan considers existing private land ownership, including farming partners in the Precinct; occupied dwellings; native vegetation; farm dams for irrigation; easements and infrastructure.

4.1 Overview

The Master Plan is influenced by the need to increase the diversity of agricultural uses in the Precinct. It aims to:

- support existing farming partners and encourage new agricultural and value-adding ventures
- locate greenhouses and market gardens on suitable topography and soil types to catalyse infrastructure, address workplace health and safety, and protect the environment
- locate orchards along ridge lines and steeper land, providing a productive and

viable use of this land and contributing to the rural aesthetic

- create the opportunity for a cut flower industry
- utilise small numbers of animals as a complementary land management tool
- encourage regenerative agricultural projects that feature innovative farming, and land and resource management concepts
- clarify the planning and leasing requirements for farming partners
- complement other agricultural Precincts in Western Sydney.































Understanding existing uses and future opportunities provides the foundation for the Master Plan to:

- recommend enterprises based on potential agricultural land and economic suitability
- recommend staging to support short and long-term development
- suggest areas considering the minimum lot sizes by enterprise
- address the business hub site connecting to the Smithfield/Wetherill Park industrial area.



Horsley Park Master Plan

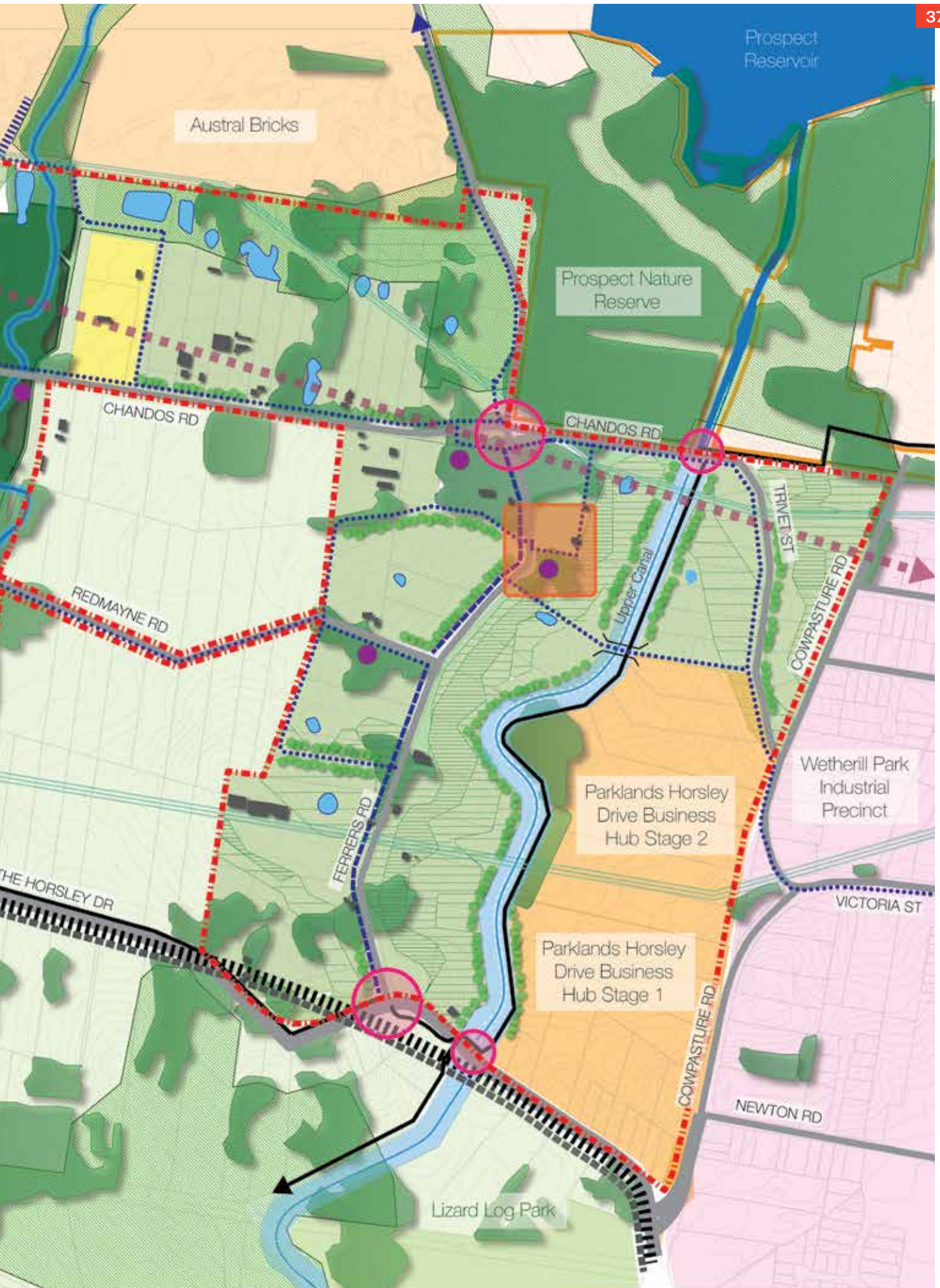
Legend

-  Precinct boundary
-  Lot boundaries
-  Existing roads
-  Proposed Horsley Drive upgrade
-  Proposed Horsley Drive shared path
-  Existing concrete/asphalt track
-  Existing road in Biobank site
-  Proposed primary Parklands Track
-  Proposed secondary Parklands Track
-  Existing power lines
-  Existing parklands rural landscape
-  Reservoir, watercourses or canal
-  Upper Canal corridor (60m wide)
-  Parklands bushland corridor
-  Parklands gazetted Conservation Area
-  Biobank site
-  Existing vegetation
-  Planting buffer
-  Existing dwellings
-  0-5% slope proposed greenhouses, market gardens, orchards
-  5-10% slope proposed market gardens and orchards
-  10-15% slope proposed orchards
-  15% plus slope
-  Parklands Horsley Drive Business Hub
-  Industrial area (outside Precinct boundary)
-  Utility area
-  Gateways/markers
-  Community farming hub
-  Potential picnic shelters
-  Future bridge

0m 50 150 300 600m



Map 08



4.2 Leasing and operational guidelines

Partnership building will benefit from investment in agritourism and value-adding through alliances with Destination NSW, or regional and local tourism organisations. These partnerships have been employed successfully by Hawkesbury Harvest.

4.2.1 Existing and future farming partners

Retaining and supporting current farming partners will encourage new urban farming ventures and partnerships. Interested parties need to understand relevant planning regulations as detailed under the Trust's Expression of Interest document (refer further detail in Chapter 5). Partner considerations include:

- lease arrangements
 - + length of tenure, area under lease in hectares and access
 - + land use controls and the type of farming allowed
 - + permissible activities
 - + buildings and structures allowed with and without permission, use, materials, heights, footprint and earthworks, including specifications for importation of fill, soil and road base

- + energy, water and communication connections
- + water management, irrigation and storage
- + existing vegetation
- + operational requirements such as run-off, application of chemicals, irrigation or storage
- + workplace health and safety
- + maintenance provisions and responsibilities
- + visual controls
- division of responsibilities between the Trust and lessees
- interface with public areas
- regulatory framework
- easement and infrastructure controls
- partnerships or shared infrastructure
- opportunities for agritourism, value-adding, or marketing and promotional activities.

4.2.2 Operational guidelines

Current and future lessees must operate sustainable, viable businesses. Education and coordinated programs will help farming partners to overcome operational challenges that are unique to the Precinct. These may include:

- requirements for environmental certification
- understanding lease agreements
- Development application regulations
- food safety compliance issues
- workplace health and safety
- access to markets, branding marketing and agritourism business development.
- adding value to innovate and overcome operational challenges.

These operational parameters often have cost implications but can boost economic viability.



Agricultural Use	Land sustainability criteria	Positives for Precinct	Key management factors	Operational /commercial conditions required
Greenhouses	<ul style="list-style-type: none"> • Topography of <4% • Average area of 2 ha 	<ul style="list-style-type: none"> • Large production volumes • Quality control of production • Showcase innovative/high tech farming • Employment opportunities • Promotes partnerships with other supply chain industries • Supports local growers • Supports local markets • Attracts cultural groups 	<ul style="list-style-type: none"> • Significant capital investment • Increased traffic and business activities • Community acceptance • Labour intensive • High resource requirements • Encourage best practice farming methods • Amenity value may decline • Water storage from roof areas • Visual buffers • Reduced permeability and increased run-off 	<ul style="list-style-type: none"> • Flexible lease tenure • Attractive lease rates • DA approval • Clear simple DA process • Access to water • Access to gas • High to moderately high returns • Longevity of lease
Market Gardens	<ul style="list-style-type: none"> • Average area 2-5 ha • Topography range of 5-10% • Soil: Requires improvement. Addition of organic matter. Test pH, sodicity, salinity, phosphorus nitrogen levels. Suitability will be depend on crop selection. 	<ul style="list-style-type: none"> • Supports local growers • Attracts cultural groups to Precinct • Contributes to visual amenity • Promotes farming community • Employment opportunities • Supports local markets 	<ul style="list-style-type: none"> • Encourage best practice farming methods • Heavier clay/loam soils may make year round access difficult 	<ul style="list-style-type: none"> • Moderate return • Flexible/long-term tenure • Attractive lease rates • Utilisation of existing residential properties • Simple leasing process • Access to water • Land management practices • Sediment control • Rubbish around farms
Orchards	<ul style="list-style-type: none"> • Topography < 10% Average area 3 ha + • Soil: Requires improvement. Addition of organic matter. Test pH, sodicity, salinity, phosphorus nitrogen levels. Suitability will be depend on crop selection. 	<ul style="list-style-type: none"> • Attracts new partners • Employment opportunities • Contributes to visual amenity • Supports local markets • Promotes partnerships 	<ul style="list-style-type: none"> • Lag time between planting and return • Simple lease could manage a large portion of the Precinct due to scale of operation required 	<ul style="list-style-type: none"> • Moderate return • Flexible/long-term tenure • Attractive lease rates • Utilisation of existing residential properties • Simple leasing process • Access to water



4.3 Proposed land uses

There are many opportunities for different land uses to co-exist, interact and support the adjoining land use. For example, partnerships can be explored for water harnessing opportunities from the business hub for farming areas.

Proposed land uses are broadly divided in to:

- Public domain
 - + roadways
 - + public domain
 - + tracks and trails
 - + community farming hubs or picnic areas
 - + bushland corridors and conservation zones
 - + utility services easements and buffers.

- Farm domain
 - + urban farming
 - + farm gates
 - + farm infrastructure or shared infrastructure
 - + greenhouses
 - + market gardens
 - + orchards and groves
 - + animals (as a management tool).

This philosophy matches a proposed land use with existing biophysical features to dictate a pattern of development and land suitability. Land use suitability is further defined in the table above, which details the factors that must be managed for each farm, and the conditions required for success.

4.3.1 Potential new uses

The cut flower industry in Greater Sydney benefits from a climate that allows year-round production of a range of flowers. Commercial production occurs within open fields or greenhouses. With freshness being a premium, distance to market is critical.

Most cut flowers are sold through Flemington Markets, approximately 25 kilometres from the Precinct. Flower production can also recycle urban and industrial waste products, offering the potential to partner with adjoining neighbours and horticultural ventures. For these reasons, flower production is considered a potential land use.

Orchards can also be explored for their suitability on topography less suitable for other agricultural pursuits. The Master Plan allows for a focus on crop selection and market demand. A crop of fruit or nuts entails, on average, four years lead time, requiring considerable investment before return. Other factors include water demand, consistency of yield and quality as well as orchard management and mechanisation. Orchards can, however, enhance visual amenity, creating an additional pattern within the landscape while highlighting seasonal change.

Beekeeping should be considered as part of urban farming. Not only do native bees produce honey for consumption and medicinal use, they also increase farming yields and quality through pollination. Approximately 75 per cent of the world's crops rely on pollination. The commercial value of beekeeping has steadily increased as bees' role as pollinators has become more important in maintaining biodiversity and vibrant ecosystems. There are opportunities for relationships between urban farmers and beekeepers.

The planning and development of the Western Sydney Aerotropolis Agribusiness Precinct will provide access to global markets, which may attract new farmers, investment and opportunities to Horsley Park.

MANAGEMENT PRIORITIES

- Establish a recruitment process that attracts and supports farming partners likely to engage in a mix of production, regenerative farming practices and agritourism or value added industries.
- Review land suitability relative to Expressions of Interest to match proposed land uses with land capability, viability, sustainability and regenerative agricultural practices.
- Where appropriate, test soil prior to leasing to understand and establish soil resource management requirements and viability of the lot size relative to productive capacity and the proposed land use.
- Examine the interface between different land uses to determine compatibility or edge treatments.
- Encourage a diversity of land uses through economic incentives and business development support programs.
- Establish guidelines for the introduction of animals as a component of holistic farm management such as permaculture.





4.4 Precinct development

Developing urban farming uses along the border of the Upper Canal presents operational and physical challenges. The Upper Canal is owned by WaterNSW, with most water flowing into a filtration plant at Prospect Reservoir. It is a highly managed resource and zone in terms of access and protection.

Land bordering the canal is earmarked for potential orchards and greenhouses. The south western area has been developed as a business hub, with stage 1 complete and stage 2 being planned.

MANAGEMENT PRIORITIES

- Canal zone
 - + liaise with WaterNSW as future development occurs adjacent to the canal corridor
 - + employ efficient farming operations where they adjoin canal
 - + control movement pedestrians and cyclists across and along the canal and examine bridge locations
 - + introduce fencing to limit access and protect the water resource
 - + control run-off of stormwater/irrigation and wastewater
 - + use vegetation buffers or windbreaks to manage chemical dust and spray drift
 - + manage soils to reduce erosion and salinity
 - + establish demonstration project to improve water quality and soil hydrology such as natural sequence farming
 - + minimise earthworks.
- Business hub
 - + establish a vegetation buffer where the hubs adjoin agricultural land to reduce visibility of large industrial built form and preserve rural character
 - + continue to develop infrastructure to provide access to recycled water (stormwater) from hub sites
 - + develop an economic model for equitable water distribution and trade
 - + monitor volumes and quality of recycled water available for use.

4.5 Public domain

Horsley Park Precinct synthesises urban and rural uses, celebrates food production and connects people to urban farming. This authenticity will be considered through public domain developments such as:

- community farming hub
- farm gates sales
- public amenities such as shelters or car parks
- tracks and trails
- signage and wayfinding
- furniture and fencing
- trees and planting.

The elements will work together to create a cohesive aesthetic, as shown on the Landscape and Public Domain Plan. It is guided by the Trust's Parklands Design Manual and the Precinct's identity as an urban farming destination.

Gateways



Public Art

Wayfinding

As a peri-urban Precinct, Horsley Park challenges the dichotomy of urban and rural, providing a synthesis of both while forging a place that celebrates food production, connecting people to urban farming.



Boundaries



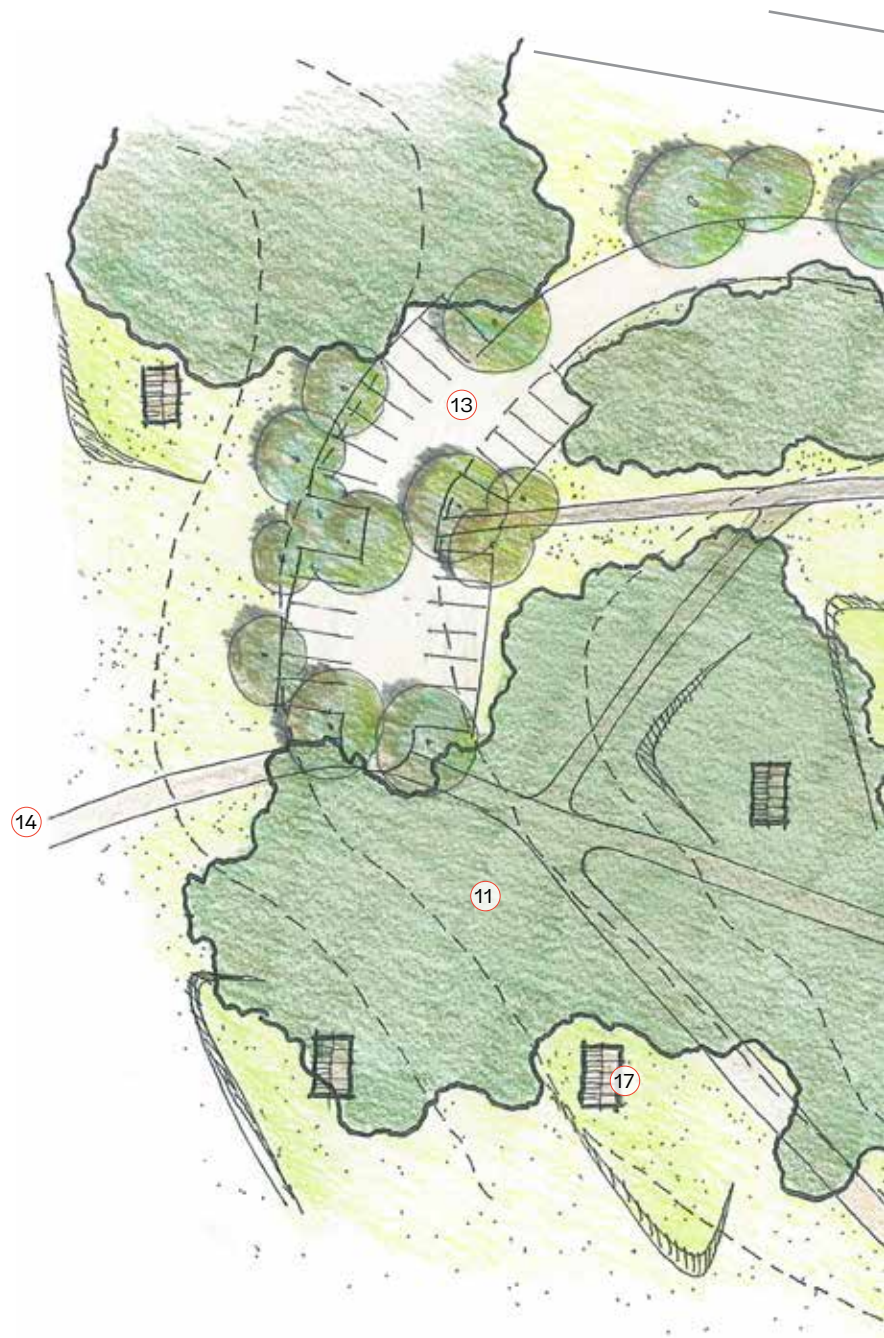
Circulation

4.5.1 Community farming hub

Horsley Park Precinct requires an authentic offering that distinguishes it from established or more scenic regions. The community farming hub will focus on the Precinct's cultural diversity. It will showcase the Precinct as a world food hub, engaging visitors in urban farming and food production. This concept could focus on food as a common cultural link across a linguistically and culturally diverse community.

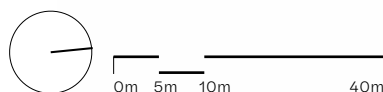
The community farming hub will provide educational opportunities, share knowledge and resources, and build community connections. The inclusion of a visitor information kiosk will support farming partners and farm gate trails. The hub will include a café or restaurant, demonstration gardens, community gardens and communal commercial kitchens to host classes about nutrition, cooking, growing, preservation and gardening.

Investment in catalyst projects such as a kitchen could attract future farming partners who wish to move from a community plot to a lease to grow food used in traditional dishes and make it available at farm gate stalls.

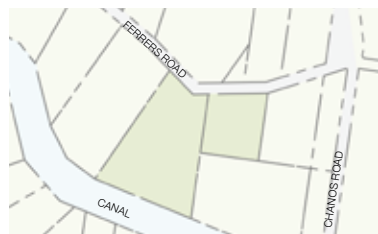


MANAGEMENT PRIORITIES

- Purchase the land proposed for a farming hub.
- Refine the proposed hub development.
- Research the market to explore development potential.
- Maximise niche marketing opportunities
- Stage development to align with operational budgets, requirements and timing



CONTEXT MAP



LEGEND

1. Community farming hub building
2. Kitchen garden - demonstration plots
3. Spill out turf space
4. Orchard planting
5. Car park 1 - 40 space capacity
6. Bus zone to accommodate 3 buses).

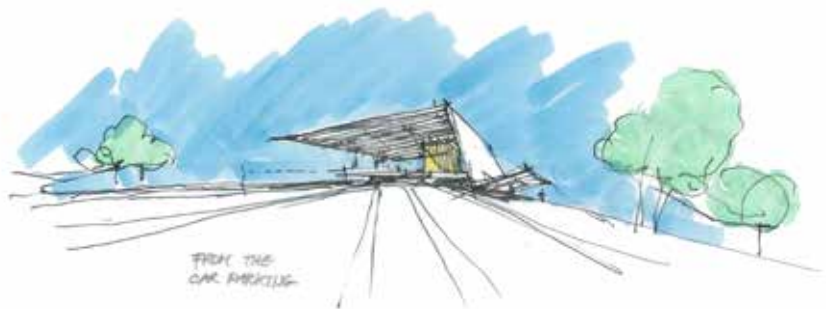
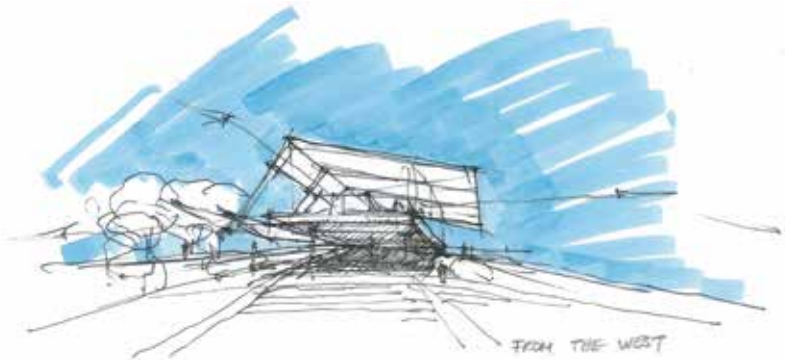


- | | |
|---|---|
| 7. Native vegetation buffer | 13. Car park 2 - 24 space capacity |
| 8. Disabled access pathway | 14. Access to existing bike path |
| 9. Secondary/maintenance paths | 15. Access road to car park and picnic areas. |
| 10. Level grass terraces with picnic shelters | 16. Site entry |
| 11. Existing vegetation | 17. Picnic areas |
| 12. Service road to community farming hub | 18. Water tank |

4.5.2 Community farming hub concept

The community farming hub is proposed to be located on a hilltop, taking advantage of the sweeping views of the city skyline and the Blue Mountains. The hub concept relies on a simple yet bold built form, made to appear larger with a dramatic folding roof line that responds to its elevated location. The building would reflect the agricultural nature of the land, utilising a restrained palette which celebrates the rural aesthetic. Building edges would transition from indoors to outdoors via generous decks and folding walls. The hub will be flexible and adaptable, creating spaces to cater for large or small groups and various programs.

Car parking, bus parking, commercial vehicle loading zones, shared paths and picnic areas would interconnect to the hub. People would journey through the kitchen gardens and demonstration plots before arriving at the building, reinforcing what the hub is all about: making visible the journey of food from paddock to plate.

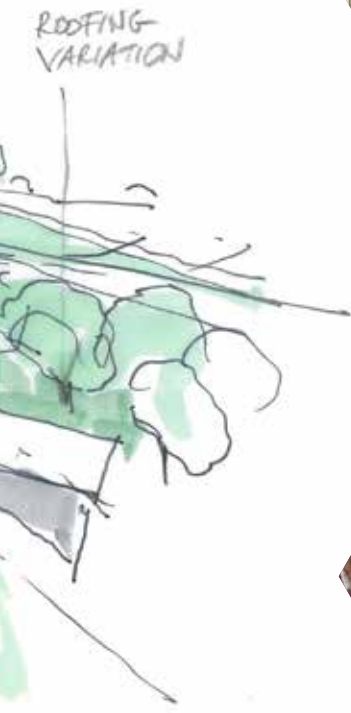


Community

The community farming hub will provide educational opportunities, share knowledge and resources, and build community connections.



Education



4.6 Landscape and vegetation character

The Master Plan's vegetation strategy focuses on suitable tree planting to embellish the landscape while also creating useful buffers for farming uses.

MANAGEMENT PRIORITIES

- Embellish the Precinct's rural character and amenity, natural landscape features and scenic qualities.
- Establish a register of suitable tree planting options for farming partners to use as vegetation buffers and landscaping on their boundaries.

Vegetation strategy

Land use	Design control
Road corridors	Informal avenues of indigenous trees to reflect road hierarchy
Picnic Areas	Indigenous shade trees in informal groups, turf in sustainable areas, maintain clear sightlines
Car parks	Indigenous shade trees in informal groups
Tracks and trails	Indigenous shade trees in informal groups
Community farming hub	Feature tree planting, special area planting, productive orchard trees
Prospect Nature Reserve	Vegetative buffer
Environmental Conservation Area	Vegetative buffer



4.7 Access and movement

Accessibility and connectivity will be fundamental to the people working within the Precinct and visitors such as walkers, cyclists, bridle trail users and drivers (refer to Map O6). The Master Plan incorporates access points that establish an entrance hierarchy, using signage and public art to reflect their importance. Access points will act as gateways that identify the Precinct as part of the Parklands and reinforce its rural character.

4.7.1 Roads

As a working landscape, the Precinct includes rural-type that will be maintained. The road hierarchy accords with Fairfield DCP, in that all roads conform to a 20-metre road corridor.

4.7.2 Tracks and trails

Increasing the network of paths and cycleways allows for greater public exposure and potential interaction with farming activities. This includes connections to the Prospect Loop and The Horsley Drive shared path. New tracks and trails will conform with the Trust's Parkland Design Manual, and defer to existing road corridors to reinforce the historical pattern of farm development. They will occur as separate pathways and allow people to disperse across the landscape for a more intimate rural experience.

Existing concrete shared pathways border the M7, The Horsley Drive and the Upper Canal including the Prospect to Blacktown bike network, connecting to Prospect Reservoir in the north and Lizard Log in the south. Other local connections occur at Victoria Street and a shared concrete pathway is proposed along Ferrers Road. Secondary asphalt tracks connect to the Ferrers Road track within road corridors and overland. A gravel shared path is proposed along Eastern Creek bushland corridor. Where necessary, the track will be sealed to deal with steep topography.

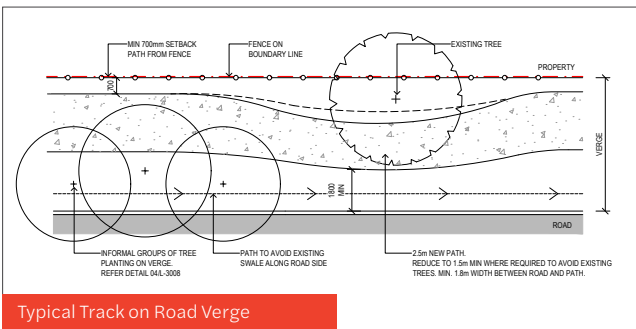
Regardless of the proposed method of internal construction, all driveways must be concrete paved between the property boundary and the connecting roadway. Before commencement of any road works, suitable soil erosion protection measures must be implemented. All exposed areas of soil must be turfed or seeded and mulched immediately following construction.



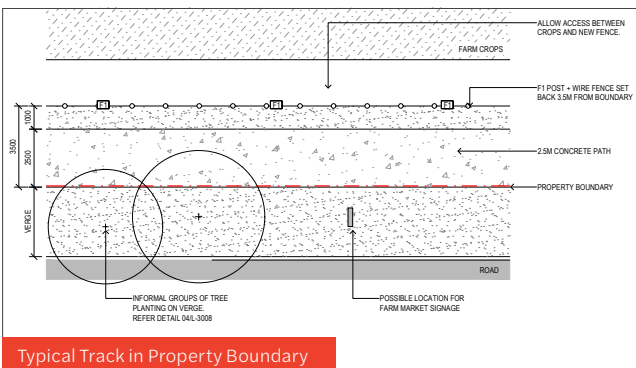
MANAGEMENT PRIORITIES

- Roads
 - + use a minimal engineered approach to road construction (no formal kerbs) and associated drainage (typically swales) consistent with the informal rural character
 - + retain existing vegetation, particularly mature trees, within the road reserve and encourage informal tree planting
 - + ensure new roads reflect rural types of road and follow natural topography.
 - + work with Council to improve road maintenance.
- Tracks and trails
 - + accommodate tracks within road reserve and leased properties to encourage permeability
 - + plan and design for connectivity beyond the Precinct to Prospect Loop, The Horsley Drive shared path and local pathways
 - + Align with Master Plan requirements in terms of widths, surface materials, associated drainage and staged construction.

Typical track treatment in road verge

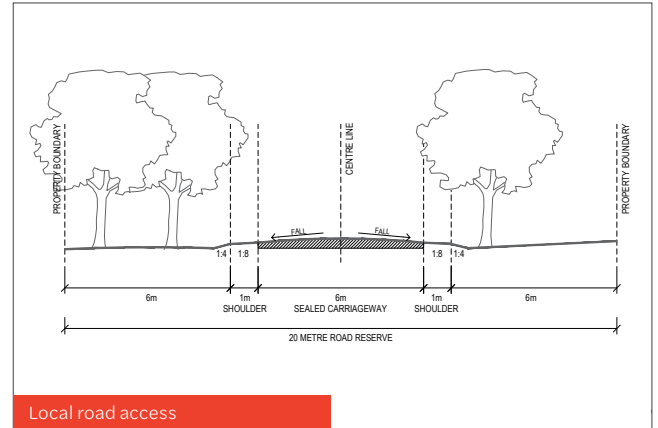


Typical Track on Road Verge

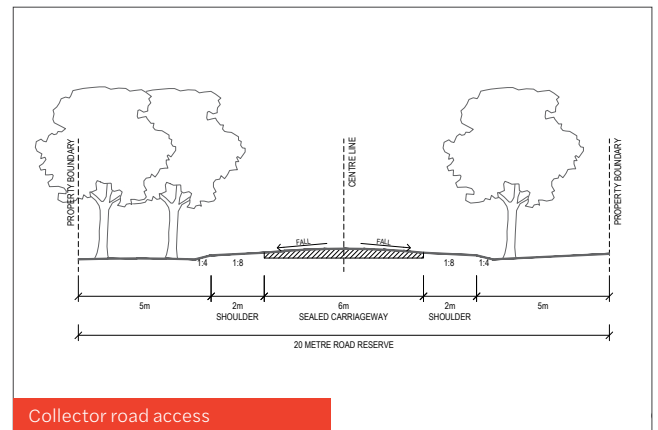


Typical Track in Property Boundary

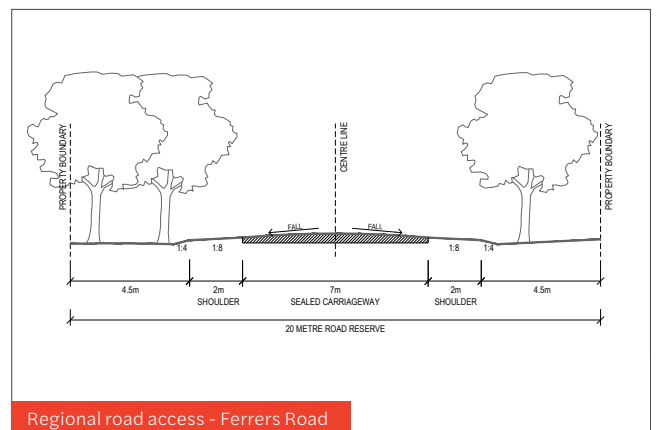
Fairfield Council rural road cross sections



Local road access



Collector road access



Regional road access - Ferrers Road

4.8 Signage and Wayfinding

The Design Manual includes entrance hierarchy, signage and wayfinding and provides Precinct-specific guidance that responds to place, function, landscape and cultural or regional heritage.

Horsley Park Precinct incorporates a hierarchy of entrances that act as gateways and make it easier for people to navigate the area. These entrances are being developed as part of the Horsley Park Public Art Strategy.

MANAGEMENT PRIORITIES

- Develop a Precinct-wide approach to wayfinding and signage, guided by the Design Manual.
- Implement signage and wayfinding strategy concurrent with staging of development.
- Incorporate the Public Art Strategy as part of wayfinding and signage.

Horsley Park Precinct will be identified with markers, signage and public art, to integrate the Precinct into the cultural and recreation landscape framework of the wider Parklands.





4.9 Public art

Public art will celebrate the Precinct's attributes and agricultural legacy while responding to new ideas about art, interpretation and cultural expression. These interventions will:

- orientate visitors at gateways and access points
- build the profile of the Precinct as a destination
- celebrate the cultural landscape
- promote the farm's edge-of-city productive agriculture
- reinforce Precinct identity with a consistent design language

Public art will include temporary and permanent projects at locations such as farm gates and visual markers within the landscape. Public art will help to introduce the public to the scale and character of the Precinct. Careful selection of a colour and material palette will consider the aged patina of metal, hand tools utilised by farm workers and the Precinct's landscape, in keeping with the Design Manual.

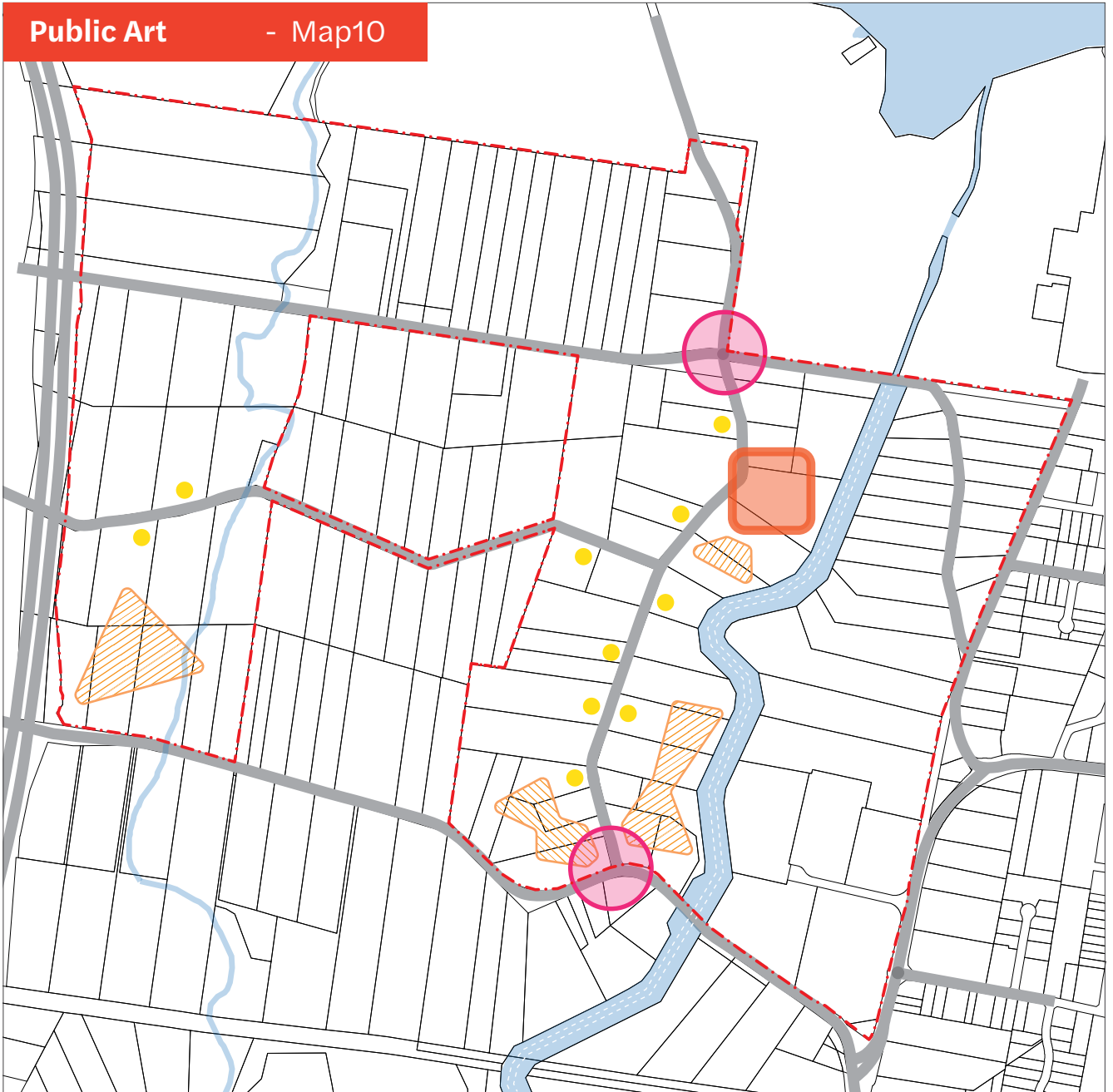
Artworks will anticipate future activity such as cafés, additional farm gates and farmers' markets. Ephemeral works will reflect the harvest cycle of food production and renewal and programming will work with the Precinct's larger event program as it develops. Ephemeral artworks will be an experimental response just as crops test the adaption of soils. This can move beyond just the aesthetic, adding another dimension to community engagement and education.

MANAGEMENT PRIORITIES






- Finalise and implement public art concurrent with signage and wayfinding works.
- Consider a staged approach that prioritises high visibility sites.
- Deliver public art simultaneously with the expansion of the Precinct.
- Incorporate ephemeral materials within artworks to allow installations to align with events and programs.



Public Art - Map10



Legend

-  Precinct boundary
-  Road/street
-  Community farming hub
-  Gateways
-  Farm gates
-  Art field



Scale 1:15,000 @ A4





4.10 Environmental management

The Master Plan embodies best-practice environment resource and land management. Given the diversity of the audience, the challenges associated with the site and broader objectives for the Parklands and the Trust, it may be more effective to share knowledge and set standards by way of demonstration, incentive and engagement rather than instruction and regulation.

Onsite renewable energy should be encouraged through options such as solar panels on sheds and battery storage. Tanks should be installed to allow water harvesting from farm sheds and other farm buildings.

Minimising hard surfaces in areas such as car parks and access roads will reduce reflected heat and allow rain to dissipate into ground water rather than running into the stormwater system.

A healthy soil, which is defined by having good levels of organic matter, a friable soil structure, low risk of erosion and

excellent water holding capacity, ensures long-term productivity. Soils also help to mitigate climate change by storing carbon. A holistic approach to soil management in the Precinct will emphasise practical ways of increasing levels of organic matter to improve soil structure and fertility while maintaining ground cover to reduce wind and water erosion.

Demonstration projects such as regenerative farming, permaculture, silviculture, natural sequence farming, the use of animals to reduce and manage weeds, composting and site preparation and management could all minimise chemical use, improve soil and water quality, improve soil productivity and reduce reliance on irrigation.

Biodiversity is essential to the ecosystem and the farming system. Monoculture and repetitive planting will degrade the soil and attract pest and disease, jeopardising the viability of urban farming in the area. Encouraging best practice biological farming methods, reducing or eliminating the use of chemical sprays and fertilisers, and practicing soil hygiene and crop rotation will underpin long-term viability.

MANAGEMENT PRIORITIES

- Establish pilot environmental land management projects to demonstrate best practice and upskill farming partners.
- Invest in extension programs adapted to a culturally diverse audience.
- Incentivise farming partners to use best-practice environmental systems through a green star rating that promotes producers and their produce to consumers.
- Install renewable energy and water tanks on Trust-owned buildings.
- Use silviculture in selected areas to demonstrate how trees can be used as a holistic farm management tool.
- Encourage conversion to organic farming through leasing and other incentives.
- Work with Council to adapt planning and development requirements for car parks to reduce stormwater runoff and heat generation.



4.11 Water management

Successful urban farming requires sustainable management for food production that also considers land management objectives.

Existing farms rely on an annual mean rainfall of 757mm (Horsley Park Equestrian Centre, AWS, Bureau of Meteorology, 2018), small farm dams and, overwhelmingly, potable water.

With farm dams contributing only low volumes of water, farms will continue to rely on potable water in the short to medium term. However, given the costs, this is unlikely to be viable source in the future. A Precinct-wide water management strategy will investigate alternative water sources with an emphasis on re-use and recycling.

Existing farms must also be made aware of their dam licensing obligations, including the Department of Primary Industries and WaterNSW's directive on dams and licensing.





In terms of non-potable options, the Trust is partnering with adjacent land uses to harvest stormwater for re-use in the Precinct; there is further potential to develop this type of partnership as the 'keyhole area' industrialises. Viable alternative sources that focus on re-use and recycling should account for Western Sydney's urbanisation and the volumes of stormwater generated from hard surface run-off.

MANAGEMENT PRIORITIES

- Establish a Precinct-wide water management strategy.
- Reduce reliance on potable water for recreation areas and urban farming by 50 per cent.
- Instigate water management partnerships involving stormwater harvesting and diversion from adjoining land uses such as the business hub and new uses in the keyhole.
- Explore opportunities to utilise water from the WaterNSW adjoining canal.
- Partner with Sydney Water to investigate long-term water harvesting, landscape recycling systems and water recycling for irrigation.
- Encourage farming partners to use a whole-of-farm approach to water management, including management of soil to increase water holding capacity.



4.12 Culture and engagement

4.12.1 Health, wellbeing and cultural consumption

The social and educational benefits of urban farming go beyond growing food, especially as people want to understand and become involved in locally-grown food as areas urbanise. Growing food can build community cohesion, provide educational experiences and build new skills. It activates areas, creating green spaces for many cultures and generations. Urban farming can also influence healthy eating.

4.12.2 Education

Local and practical knowledge disappears as local food production decreases. The Precinct can be a place where people learn about urban farming, food production and the benefits of healthy consumption of unprocessed foods. Learning partnerships could involve:

- **Education institutions:** local primary schools incorporating a kitchen garden or secondary schools on agriculture subjects.
- **Higher education:** TAFE (for example, horticulture studies) or Western Sydney University for field trials or research.
- **Industry and research organisations:** for example, a demonstration site for the Department of Primary Industries.
- **Special interest groups:** such as heirloom and heritage seeds, 'paddock to plate' restaurants or cooking groups.
- **Community groups:** culturally and linguistically diverse organisations such as Fairfield Migrant Resource Centre, groups wanting to engage with neighbourhood food production and the Greater Sydney Local Land Services demonstration farm.

4.12.3 Attracting and retaining farming partners

Retaining existing farming partners and stimulating commercial interest in urban farming will underpin the Precinct's success. The Future Farming Program facilitates the Trust's partnerships with existing and future farming partners; this engagement must translated into committed urban farming. This requires:

- security of tenure to give a level of assurance regarding farming rights, and length of lease to encourage long-term investment
- best-practice management and environmental assurance
- a sense of community and social interaction through shared infrastructure such as sheds or cool stores
- retention of basic residential properties to allow farming partners to live on the property, where available
- careful management of land and waste (particularly plastic) to discourage theft and vandalism and attract visitors
- a commitment by the Trust to invest in the public domain
- the establishment of a farming network to provide training, marketing and business development.





4.12.4 Agritourism

Like the nearby Hawkesbury region, Horsley Park Precinct is close to a large population base to attract visitors and generate demand for agricultural products and experiences. While Hawkesbury has developed as a successful agritourism destination using a peri-urban farming model, it has done so in a vastly different context, in that its agricultural base was largely established on independently-owned properties.

By comparison, Horsley Park Precinct is essentially a greenfield urban farming site that needs new farming partners to establish farms and agritourism offerings – all under a one owner.

This allows the Trust to recruit farming partners who have the capacity and desire to establish agritourism and consumer-facing businesses, such as farm gate stalls and pick-your-own experiences.

HawkesburyHarvest illustrates that farming has more to offer than food and fibre production, ranging from environmental protection, land preservation, health benefits, regional community development and value-adding. Complementary functions also build a farm's resilience to climate and economic variability. This

approach encourages innovation and local testing of ideas and products before development and investment in a value-added business.

The Trust can support agritourism outcomes by promoting and supporting:

- investment in catalyst projects and processes
- networks of agricultural businesses
- formal food and tourism networks to facilitate trade, branding and marketing
- events and consumer engagement to test new products, build brand awareness and market the Precinct's produce and experiences
- extension and education, including capacity building, business development programs, organisational support, marketing, training and collaboration
- partnerships with other Western Sydney agriculture Precincts such as the Western Sydney Aerotropolis Agribusiness Precinct.

MANAGEMENT PRIORITIES

- Attract and motivate farming partners to establish agritourism through secure tenures, farm management practices and public domain investments.
- Establish a provenance brand to promote the farm gate trail and local produce to commercial buyers.
- Support farming partners through educational opportunities.
- Consider a culturally and linguistically diverse world food hub concept.
- Encourage upkeep and use of residential properties as agritourism infrastructure.
- Create learning partnerships to advance and test urban farming with a focus on educational, institutional and research organisations.
- Consider how to use signage and wayfinding to celebrate cultural diversity

4.13 Farm gate

Farm gate sales gives farming partners direct contact with potential customers, and allows them to test the economic viability of new products. The Trust is in a unique position as owner and manager to encourage farm gate opportunities.

MANAGEMENT PRIORITIES

- Review the expression of interest (EOI) process to pre-qualify farming partners and attract agricultural diversity.
- Pilot a recruitment process and farm gate business development program to target suitable farming partners.
- Update the EOI to clarify roles and responsibilities in terms of delivery of infrastructure, services and ongoing support.
- Consider publishing the EOI in different languages.
- Implement farm gate guidelines for joint Trust and Council approvals and include the guidelines in the EOI.





Farming approval process

5.0

5.1 Lease Arrangements

The Trust conducts leasing agreements through an expression of interest (EOI) process that aims to attract feasible, commercially viable and sustainable urban farming proposals. Proponents can be individuals, companies, partnerships or a combination, who can demonstrate skills, experience and adequate human and financial resources to develop, manage and operate urban farms. Proposals are assessed in accordance with criteria set out in the EOI.

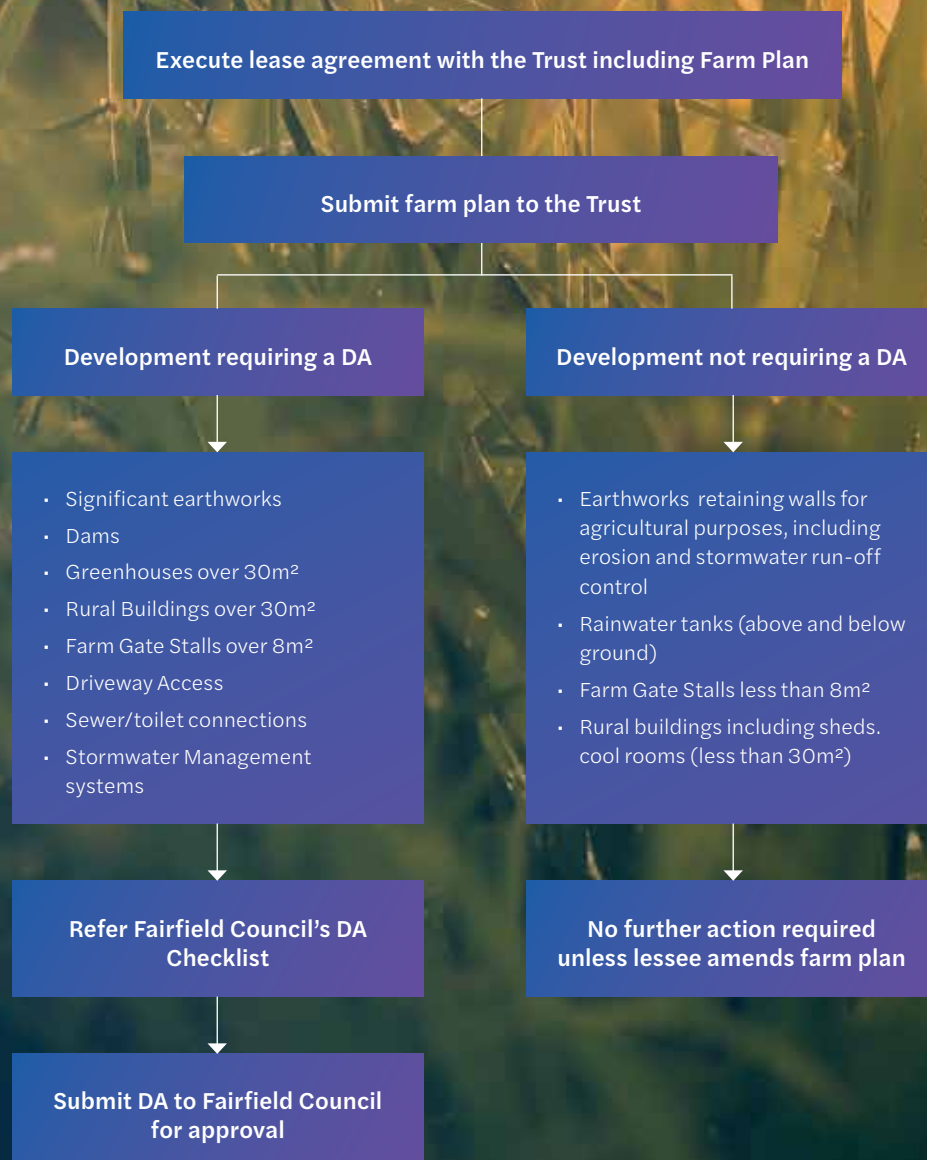


Leasing application process

(Lease guideline)



Development application (DA) process (DA Guideline)



5.2 Development processes

5.2.1 Agricultural and farm planning

Planning, property design and management of farming or agricultural uses is based on natural resources and economic factors. The physical design of an agricultural enterprise should align with the management and economic aspects of farm planning.

OBJECTIVES

- Simplify management and improve productivity in farm decision-making when considering all physical aspects of the proposed enterprise
- Ensure development is consistent with existing rural character and amenity, natural landscape features and scenic qualities
- Ensure new or expanded farms do not adversely impact biodiversity, endangered ecological communities and threatened species
- Minimise the potential for land use conflict
- Maximise the opportunity for long-term agricultural production.

CONTROLS

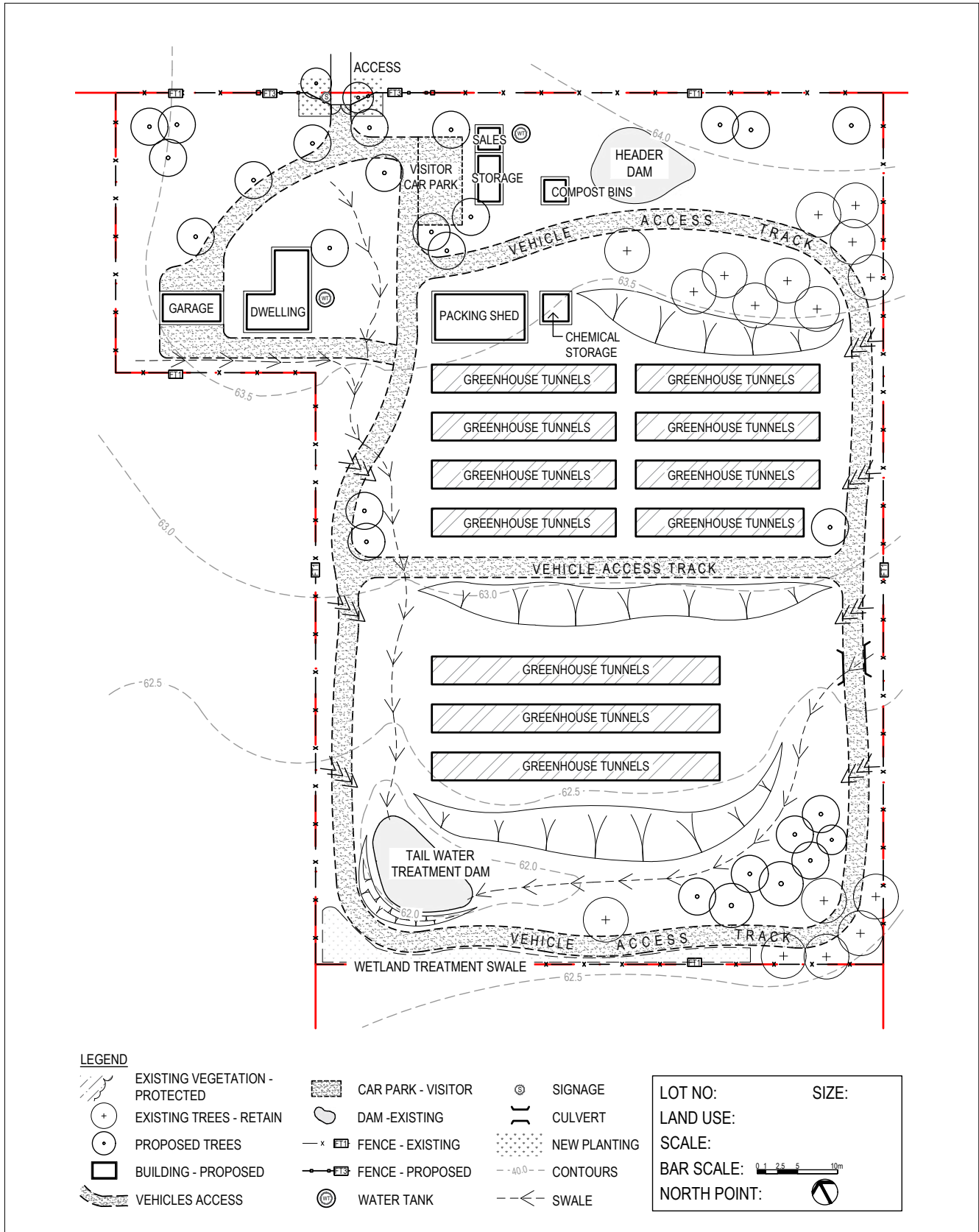
- Prepare a farm plan at 1:100 up to 1:500 scale that includes all physical components of the farming operation. In accordance with example farm plan relevant to the type of enterprise and farm plan checklist (see below)
- Gain Trust approval prior to altering existing landform
- Ensure earth filling is no greater than 600mm with any earthworks to balance cut and fill
- Ensure any imported fill is validated virgin excavated natural material, with certification confirming the material is suitable for an agricultural application
- Use fill for soil improvement, access roads and paths and consider monitoring the quality, type and appropriate use of fill by lessees to secure the long-term viability and productive capacity of the leases.
- Submit the farm plan at the time of the EOI or prior to signing the lease agreement for review by the Trust
- Respond to the farm plan review process if necessary and amends to the Trust's satisfaction.



Farm plan checklist		Checklist
Lot number(s) Property Lease Size		
Legend	Indicates interpretation of all features/graphics shown on plan	
Bar scale	Depict plan within a range of 1:100 to 1:500	
North point		
Site plan	High level site plan to be provided by the Trust	
Land use type	Description of proposed use: cropping, greenhouse, mixed.	
Soil conditions	Description of any proposed soil improvement works	
Existing buildings	Indicate on plan	
Existing vegetation	Including individual trees, protected vegetation	
Existing fences	Indicate on plan and nominate type in accordance with	
Existing signage		
Proposed vegetation i.e. windbreaks, shade trees	Refer Recommended Plant Schedule Section 5.2.4.	
Proposed fences	Indicate on plan and nominate type in accordance with fencing details. Refer 5.2.6.	
Stormwater management	Waterways, swales/berms and existing dams. Include any offline detentions basins, water tanks and tail water management	
Proposed buildings	Nominate use, height and size. Indicate on plan. Check if DA required. Refer Chapter 5.2.10.	
Access and tracks throughout farm	Access from roadway to lot boundary. Refer 5.2.3. Nominate location and details of carpark. Refer Section 5.2.11 Nominate vehicle tracks. Refer Farm Plans. Nominate pedestrian tracks (if applicable)	
Proposed signage	Location, size, style Refer 5.2.12	
Any earthworks or retaining walls	Approval required by the Trust prior to any soil works occurring on site. Soil volumes, Cut/fill balance, extent of soil works. Retaining walls locations, material, height, Imported fill – extent, type, volume, quality (source of fill to be approved Refer 5.2.10)	
Proposed toilet facilities (private use only)	Confirm if sewer connection available. If none, install waterless, composting toilet. Refer Section 5.2.7	
Proposed wash bays	Location, area dimensions, surface finish.	

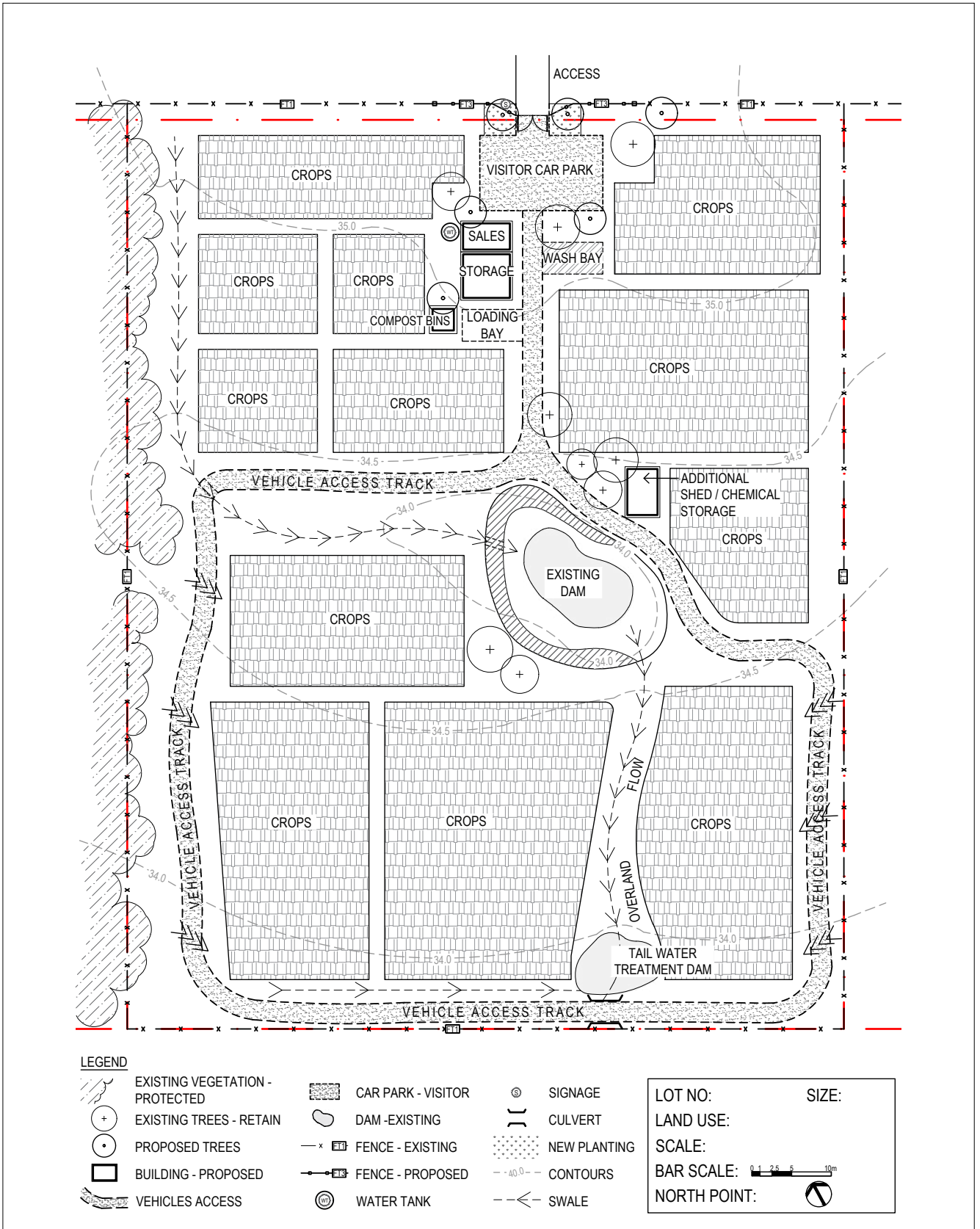
Example farm plan

Greenhouses



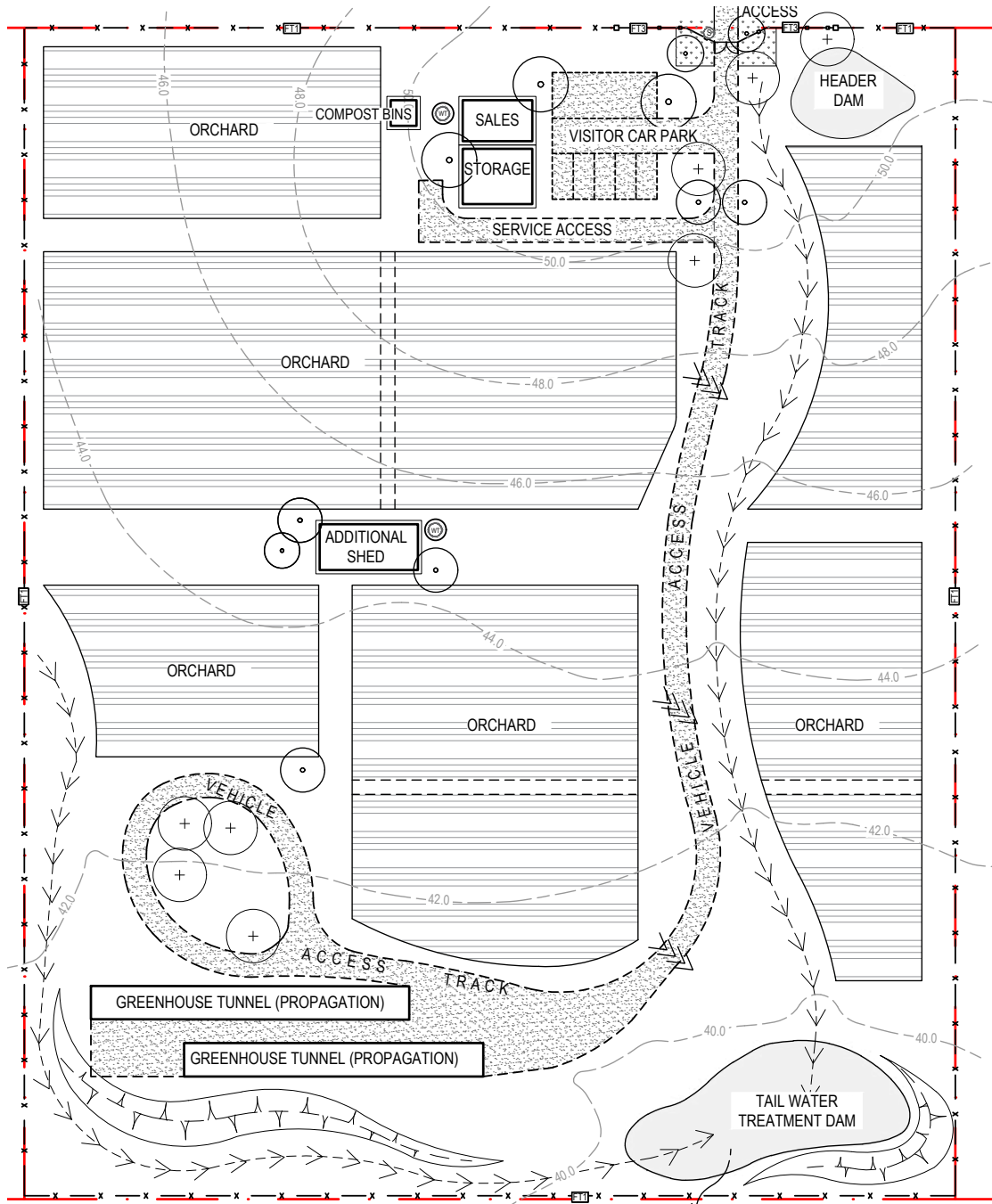
Example farm plan

Market gardens



Example farm plan

Orchards



LEGEND

- | | | | | | |
|--|---------------------------------|--|--------------------|--|--------------|
| | EXISTING VEGETATION - PROTECTED | | CAR PARK - VISITOR | | SIGNAGE |
| | EXISTING TREES - RETAIN | | DAM - EXISTING | | CULVERT |
| | PROPOSED TREES | | FENCE - EXISTING | | NEW PLANTING |
| | BUILDING - PROPOSED | | FENCE - PROPOSED | | CONTOURS |
| | VEHICLES ACCESS | | WATER TANK | | SWALE |

LOT NO:	SIZE:
LAND USE:	
SCALE:	
BAR SCALE: 0 1 2.5 5 10m	
NORTH POINT:	



5.2.2 Vehicle access points

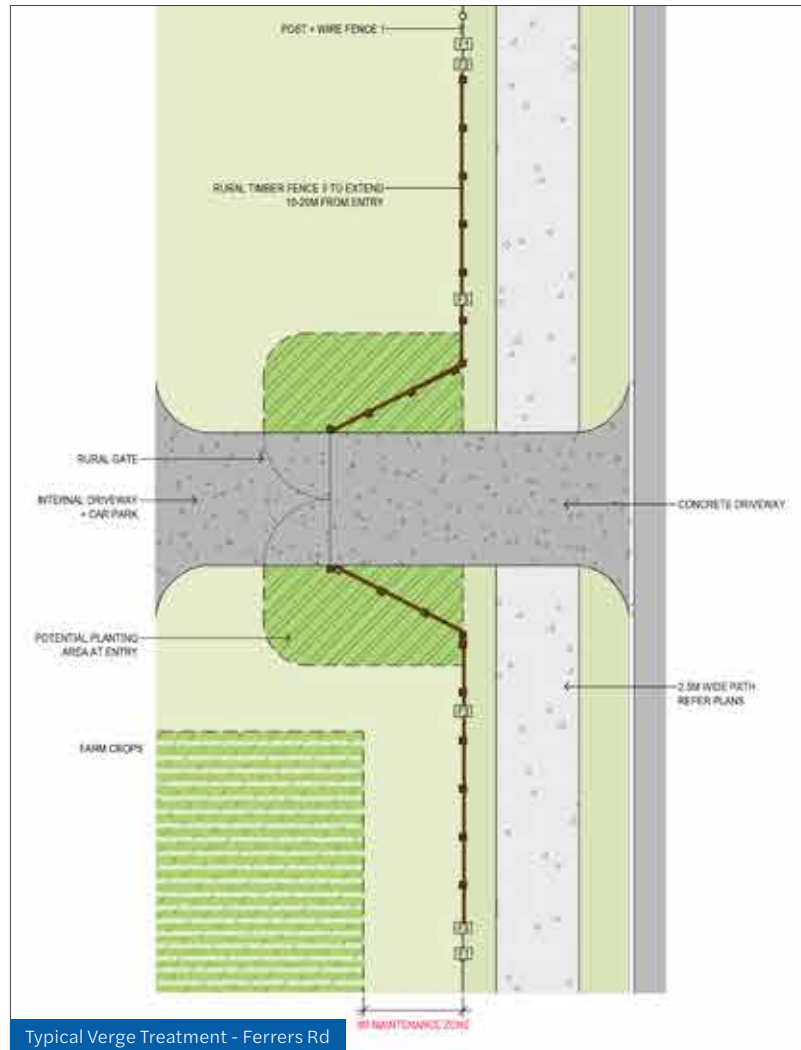
Vehicle entries will be landscaped, with all primary access points concrete paved to the connecting roadway and extending into the property boundary. Before commencement of any road works, suitable soil erosion protection measures must be implemented. All exposed areas of soil must be turfed or seeded and mulched immediately following completion of construction.

OBJECTIVES

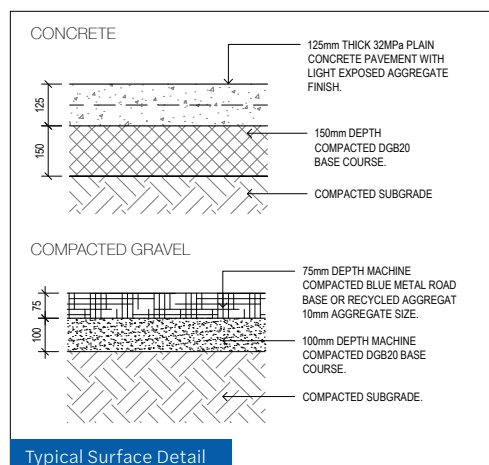
- Ensure access driveways follow rather than cut across natural contours
- Avoid extensive cut and fill to:
 - + retain natural character by reducing the intrusive appearance of driveways
 - + minimise erosion and subsequent maintenance costs.
- Allow an informal lot layout and built form placement.
- Allow easier manoeuvring and reduce speeding.

CONTROLS

- Internal access roads must have a vehicle grade concrete apron off the roadway. Refer plan and detail.
- Indented entry gates and fencing must allow for larger vehicles to store clear of roadway while opening gate
- Timber post and rail fencing should highlight entry. Refer 5.2.6.
- Driveway entry width to be 3 to 3.5 metres.
- Turning areas must be adequate for large articulated vehicles where required.
- The location of roads, parking and turning areas must consider day to day farming operations and transport activities associated with the development including the frequency, times, routes and number of deliveries and pick-ups, feed deliveries and clean-outs.
- Compacted gravel surface must be used for internal access roads and car parks in accordance with typical surface detail (shown right).
- Entry zone or farm gate should be landscaped. Refer 5.2.11.



Typical Verge Treatment - Ferrers Rd



Typical Surface Detail



5.2.3 Parkland tracks within farms (cycleways and shared paths)

Within farm areas, tracks vary in surface (concrete, asphalt and gravel) reflecting a path hierarchy. The inclusion of a five-metre track easement within leased areas, form part of lease agreements. This is a separated track, typically 2.5 metres wide that occurs:

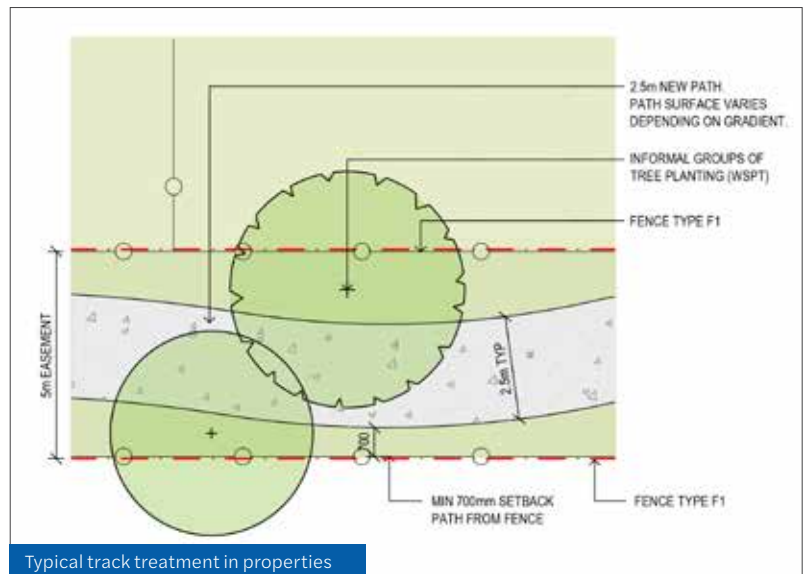
- alongside the road corridor within leased property boundaries (3.5 metres easement e.g. Ferrers Road)
- through leased properties (five metre easement).

OBJECTIVES

- Increase connectivity between the farm and public areas
- Promote movement through a varied landscape setting.

CONTROLS

- Farming partners should maintain access tracks and trails to the public during daylight hours.
- The Trust will maintain tracks and work with farming partners in terms of access requirements.
- Farming partners will notify Trust of any track maintenance works as required.



Typical track treatment in properties

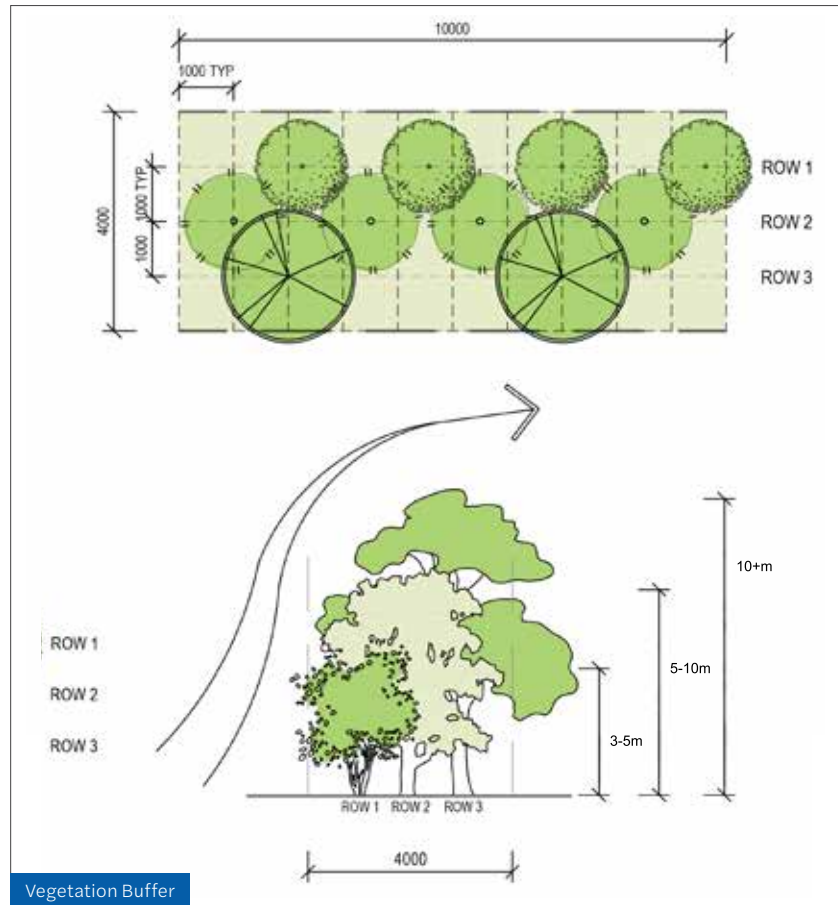


5.2.4 Landscape and vegetation character

All new farming infrastructure should be planted to complement existing vegetation such as native or productive tree species and to contribute to rural patterns and scenic quality.

OBJECTIVES

- Retain and protect existing vegetation
- Use vegetation buffers to reduce the impact of the built form, such as rural sheds and other large agricultural structures
- Design vegetative buffers to match scale and width of built form at mature height
- Highlight entry/access points, site boundaries and reinforce the road corridor
- Control dust, spray drift and erosion where necessary
- Encourage use of endemic and native tree species suitable to micro-climate. Refer Recommended Plant Schedule.



CONTROLS

- Vegetation is retained where possible and noted on the farm plan where possible.
- New farm infrastructure considers existing trees and tree protection zones.
- Vegetation more than three metres tall can be removed, with approval



Recommended Plant schedule

BOTANICAL NAME	COMMON NAME	MATURE SIZE
TREES		
<i>Acacia implexa</i> *	Hickory Wattle	8 x 7
<i>Acacia parramattensis</i> *	Parramatta Wattle	15 x 6-8
<i>Corymbia maculata</i> *	Spotted Gum	30 x 10
<i>Eucalyptus crebra</i>	Narrow leaved Ironbark	20+
<i>Eucalyptus moluccana</i> *	Grey Box	25 x 8
<i>Eucalyptus tereticornis</i> *	Forest Red Gum	30m +
<i>Melaleuca linariifolia</i>	Narrow-leaved Paperbark	6-10 x 3-8
SHRUBS		
<i>Bursaria spinosa</i>	Native Blackthorn	3-4 x 2-3
<i>Dodonaea viscosa</i> *	Hop Bush	3 x 2
<i>Jacksonia scoparia</i>	Native Broom	4 x 3
PRODUCTIVE TREES		
<i>Citrus latifolia</i>	Tahitian Lime	3 x 3
<i>Citrus sinensis</i> "Valencia"	Valencia Orange	4 x 3
<i>Citrus limoni</i> "Eureka"	Eureka lemon	4 x 4
<i>Citrus paradisi</i> "Star Ruby"	Red Grapefruit	4 x 3
<i>Feijoa sellowiana</i>	Pineapple Guava	5 x 4
<i>Ficus carica</i> "Black Genoa"	Black Genoa Fig	3-5 x 3
<i>Fortunella margarita</i> "Nagami"	Nagami cumquat	3 x 2
<i>Macadamia tetraphylla</i>	Macadamia Nut	15 x 10
<i>Morus macroura</i> "Shatoot"	White mulberry	3 x 3
<i>Punica granatum</i>	Pomegranate Tree	5 x 5
<i>Prunus salicina</i> "Satsuma"	Japanese Blood Plum	4 x 3
<i>Prunus dulcis</i>	Self pollinating almond Tree	6 x 4

* Indigenous species





5.2.5 Infrastructure, easements and buffers

Telecommunications: Currently there are no communications infrastructure runs through land parcels as they are mainly confined to existing road corridors.

Sewers: The only sewers in the region are located to the east of the Precinct. As there are no plans to connect the Precinct to a sewer main, farming partners who wish to install toilet facilities must comply with waterless composting toilet systems accredited by NSW Health. Refer to 5.2.11 and: <https://www.health.nsw.gov.au/environment/domesticwastewater/pages/wcts.aspx>

Water: The Trust will develop a Precinct wide water management strategy which provides access to water for irrigation purposes through a range of sources and partnerships, particularly targeting adjoining developments.



Type	Owner	Legislation	Allowed Use	Excluded
Energy				
Powerlines (overhead)	Transgrid 60m easement	<i>Electricity Supply Act 1995</i> <i>Electricity Supply Amendment (Protection of Electricity Works) Act 2006.</i>	Agricultural activities max machinery height 4.3m 15m curtilage to structures Vegetation less than 3m ht Access roads	Houses, buildings Fixed plant or equipment Storage of flammable materials/explosives Storage of garbage materials Storage of fallen timber Planting vegetation over 3m ht No heavy irrigation dams
	Endeavour			
Gas	Jemena, 24.385m easement from centreline	<i>Gas Supply Act 1996</i>	Agricultural activities Access roads	Buildings/structures Deep ripping, Tree planting No heavy irrigation dams
Water				
Upper Canal No easement Managed corridor	Sydney Catchment Authority	<i>Environmental Protection Agency Act 1979</i> (Drinking Water Catchments Regional Environmental Plan No1) <i>Sydney Water Catchment Management Act 1998</i>	Agricultural activities adjacent to canal corridor. Refer WaterNSW directive D2016/115376 for further information.	No run-off into canal , No chemical spraying within 10 metres from canal corridor fence line.
Watercourse, Eastern Creek 40m corridor	The Trust	<i>Water Management Act 2000</i>	Protected	No development. Vegetation watercourse protected.
Roads				
Internal roads 20m easement	Fairfield City Council	<i>Roads Act 1993</i>		
External roads M7, Horsley Park Drive	TfNSW	<i>Roads Act 1993</i>		

5.2.6 Fencing

To maintain a rural setting, boundary and other fencing should be inconspicuous. Post and wire or post and rail fences in timber should be used.

Gates and openings are required within fence lines to allow pedestrian, operational and emergency services access using the controls below and the Parklands Design Manual.

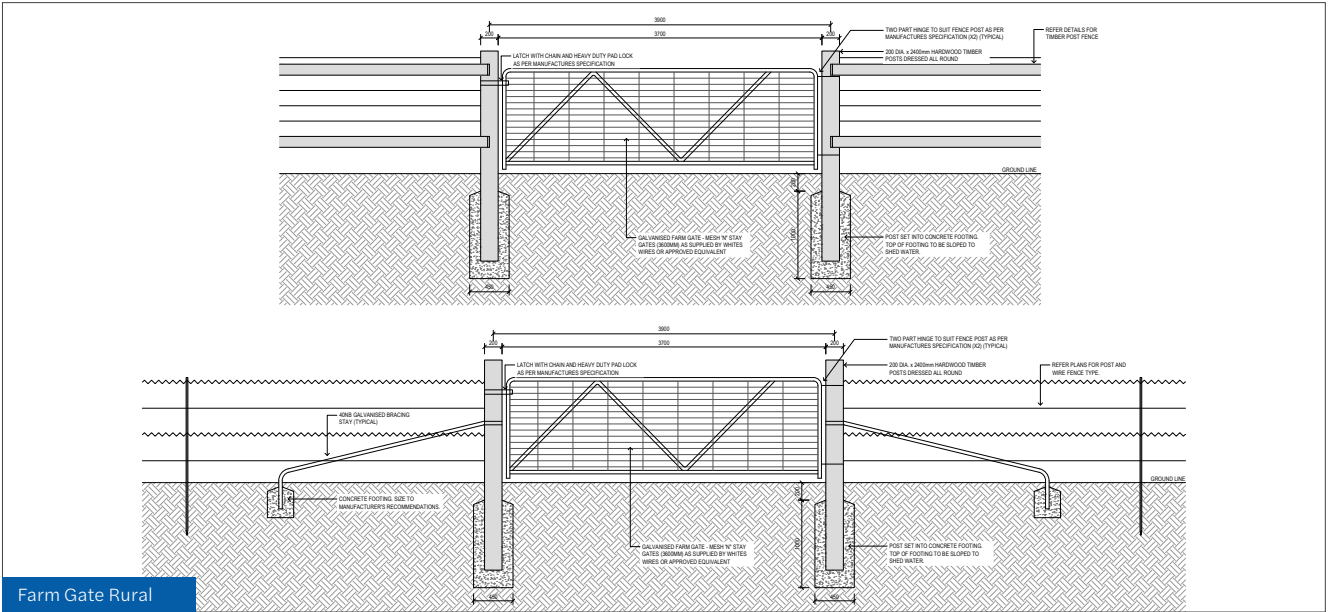
OBJECTIVES

- Control pedestrian movement
- Demarcate and protect farms
- Protect habitat zones
- Demarcate maintenance and operational zones.

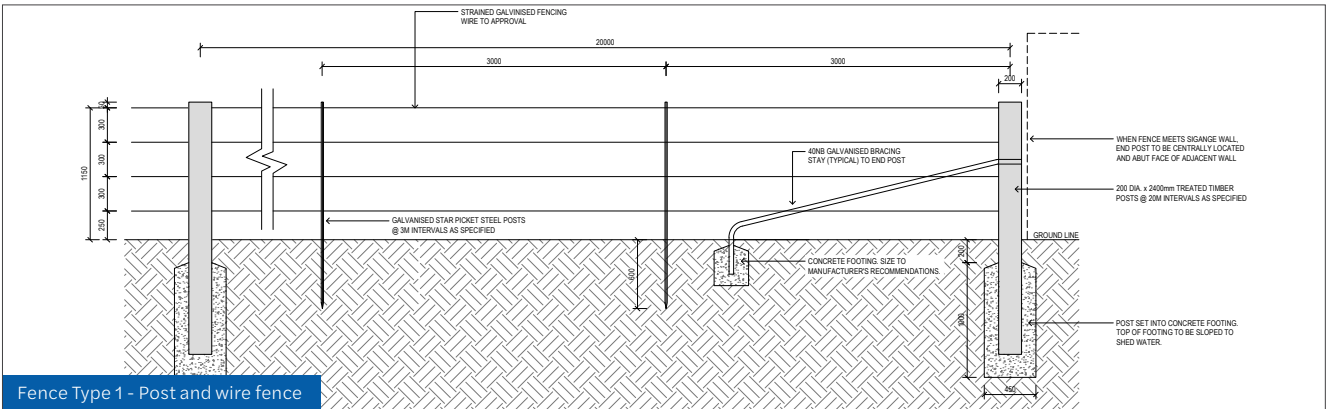
CONTROLS

- Rural gates: 1200mm nominal height, galvanised steel frame steel mesh gates mounted on timber posts.
- Rural fence type 1: 1200mm high with four strands of wire, star picket steel posts and timber strainer posts.
- Rural fence type 2: 1400mm timber post and rail

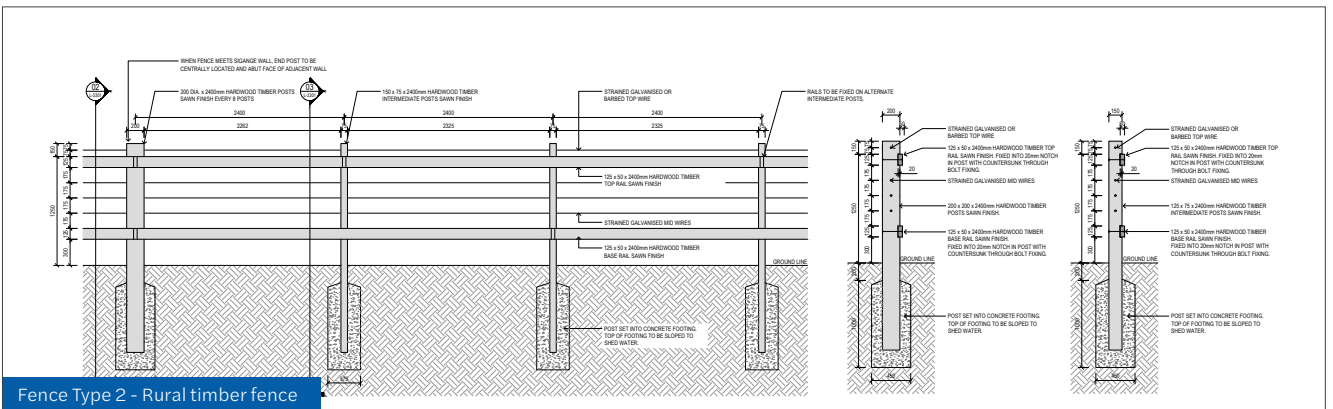




Farm Gate Rural



Fence Type 1 - Post and wire fence



Fence Type 2 - Rural timber fence

5.2.7 Waste, soil and water

The Precinct is not served by Sydney Water's reticulated sewerage system. Existing properties utilise an onsite sewage system to deal with waste water and human wastes. The future focus on agritourism will require public and farm-based toilet facilities and requirements for installing and maintaining septic tanks.

OBJECTIVES

- Design, install and locate onsite sewage systems appropriately and manage waste water
- Minimise the impact of development on soil erosion
- Improve soil organic matter and reduce soil compaction
- Minimise the impact of stormwater and surface run-off on receiving water courses or waterbodies and on adjacent lands
- Ensure drainage systems efficiently control water flows and minimise the impact on natural drainage patterns of the site
- Integrate onsite detention requirements with the design and layout of the development, i.e. the OSD system does not conflict with location of the septic system
- Protect the Upper Canal.

CONTROLS

- Sewage management
 - + nominate the type of sewage management system proposed including specifications on infrastructure require as part of farm plan
 - + install waterless composting toilets as described in 5.2.5
 - + if utilising onsite disposal, consider the location of the disposal area of wastewater as part of an onsite sewage management including distances from drainage reserve and flood liable land
 - + place septic tank systems at least five metres from a dwelling.
- Soil management
 - + use intensive plant or horticultural operations as a grassed surface between production areas to reduce erosion potential, improve soil organic matter, provide trafficable areas in wet weather, act as biological filters for water run-off, and avoid damage to the soil structure by restraining from cultivating when too dry or moist
 - + apply regenerative farming practices where appropriate.
- Stormwater management
 - + include stormwater management in the farm plan
 - + utilise wide, gently sloping swales that are well vegetated to minimise erosion potential and facilitate filtering of solid particles contained in the run-off
 - + encourage run-off management through options such as natural sequence farming
 - + make use of stormwater diversion banks and sedimentation ponds to divert and capture water run-off where open field horticulture or intensive plant agriculture is proposed
 - + consider collection of run-off from site buildings into sedimentation ponds or rainwater tanks
 - + suitably treat contaminated waters before reuse or release off the farm
 - + use diversion banks to intercept and divert runoff away from the Upper Canal.
- Upper Canal
 - + refer WaterNSW directive D2016/115376 for further information on management practices adjacent to the Canal.





5.2.8 Pest management

Anyone intending to use pesticides must undertake necessary chemical application and certification training to minimise risk to crop production in accordance with the *Pesticides Act 1999*. This includes compliance with recommended spray withholding periods.

OBJECTIVES

- Undertake pest management in a responsible and sustainable manner.

CONTROLS

- Use pesticides that meet the requirements of any relevant legislation and associated regulations, administered through the NSW Department of Planning, Industry and Environment
- Store, transport and keep records for all pesticides used in intensive plant agriculture farms in accordance with relevant legislation
- Avoid pesticide or use of chemical spray within 10 metres of the boundary fence to the Upper Canal.

5.2.9 Noise and odour

Development must consider the topography and micro-climate of the area to avoid concentrations of odours. Healthy, sustainable practices will minimise the impact of development.

OBJECTIVES

- Minimise the noise and odour impacts of intensive plant agriculture and animals on surrounding land uses
- Encourage organic farming practices.

CONTROLS

- Where possible, buildings and facilities are to be located out of the line of sight of adjoining neighbours.
- Entry of drainage/seepage water into site sheds and storage facilities must be prevented through the construction of earth contour banks and drainage.
- All stationary noise generating machinery must be located within sheds and where practical away from property boundaries.
- Farm sheds must be well ventilated.
- Best-practice management should be used when applying fertilisers to minimise odour.



5.2.10 Farm buildings

Future farm buildings will reinforce the Precinct's rural character, enhancing the existing agricultural fabric and scenic qualities. Pitched roof forms and simple building detailing is encouraged with an emphasis on robust, utilitarian architectural materials. This approach will be sympathetic to both the local environment and land use.

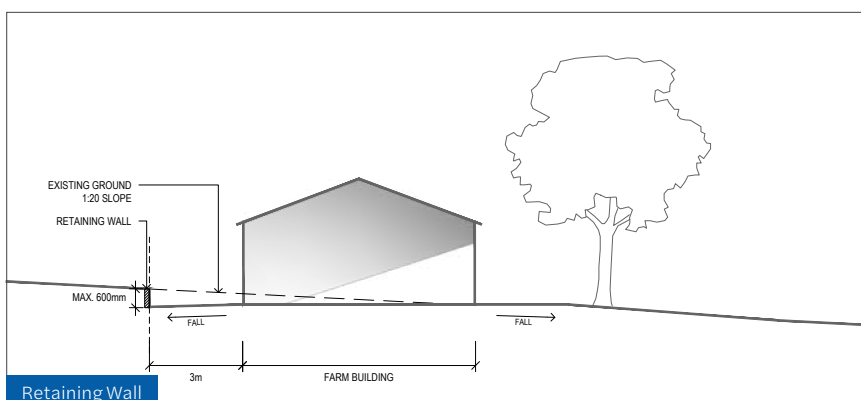
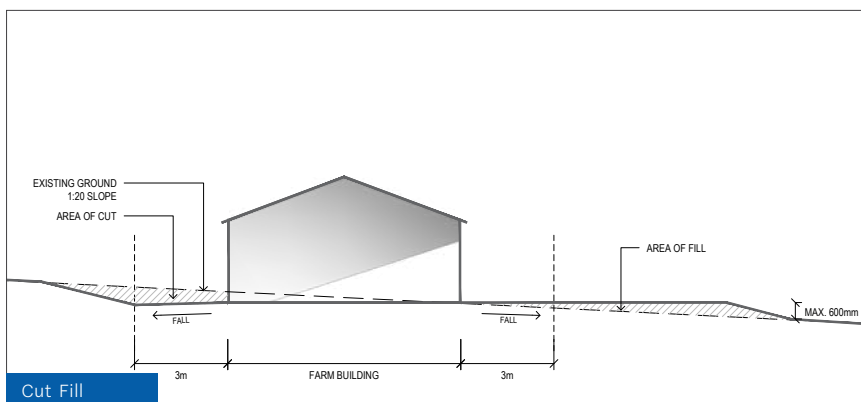
Existing residences associated with urban farming will continue to be utilised. In the future, owners may wish to upgrade these residences or add ancillary farm buildings and agricultural structures to their site. Sensitive siting and design of structures and the use of landscape can minimise the impact of the overall development and maintain the rural character. For development control requirement for farm gates, refer to Section 5.2.11.

OBJECTIVES

- Ensure building designs respond to the natural features, topography and character of the place, minimising visual impact on the landscape amenity
- Facilitate agriculture such as horticulture, greenhouses, flower cultivation and other peri-urban farming activities that can positively contribute to the Precinct economically and culturally
- Control the visual impacts of controlled environmental structures such as igloos or greenhouses
- Utilise well-designed structures to minimise the use of chemical sprays and pesticides required.

CONTROLS

- Identify all structures on the farm plan and show the size, roof profile and height to scale with clear dimensions
- Keep controlled environment structures, including covering materials, in a well maintained and good condition
- Use planting and maintain vegetative screens and windbreaks. Refer Section 5.2.4
- Contain earth filling to a depth of 600mm
- Utilise earth batters (maximum 1:4) or retaining walls less than 600mm when transitioning levels
- Balance cut/fill requirements allowing for a maximum of one metre cut
- Facilitate drainage of stormwater away from structures
- When planning for building siting, consider
 - + solar orientation
 - + ventilation and prevailing winds
 - + bushfire risk
 - + access
 - + overland flow paths
- Encourage non-reflective building materials such as galvanised corrugated iron or zincalume, to better integrate with the rural landscape
- Make front and side boundary setbacks consistent with existing patterns of rural dwellings
- Consider roof profiles and wide roof eaves for optimal weather protection
- Retain existing trees where possible
- As required under Fairfield DCP:
 - + maximum building height of seven metres (no greater than two storeys)
 - + ancillary structures should not exceed five metres
 - + maximum accumulative size of enclosed rural ancillary structures 250m²
 - + for enclosed rural ancillary structures over 60m², provide an internal layout



5.2.11 Farm gates

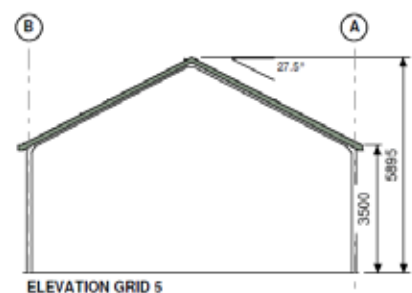
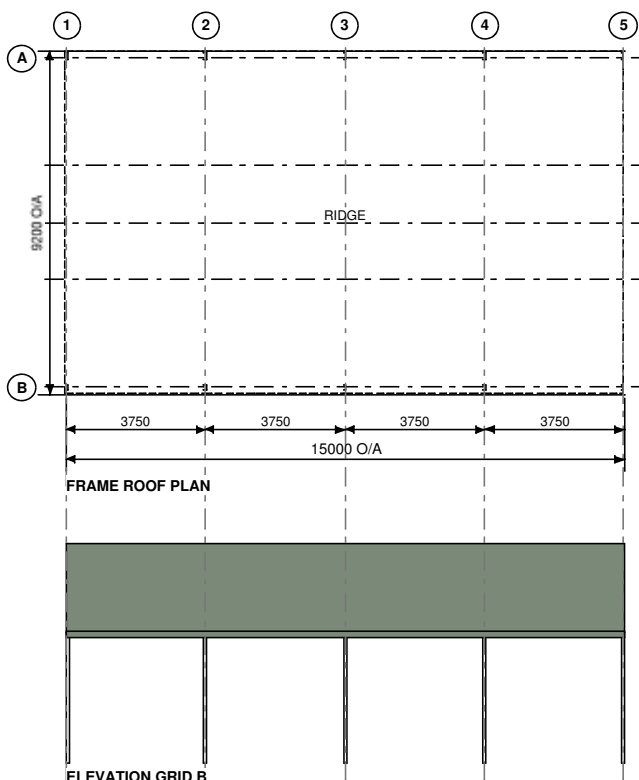
Farm Gates present an opportunity for visitors to engage directly with farmers. For farmers it is way of connecting with the community, promoting what's "in season" while obtaining an understanding of consumers preferences. Presentation at the farm gate can attract customers. A well-planned, authentic farm-type shed consistent in profile, scale, colour and materials, supported by signage and car parking will encourage public patronage. If replicated throughout the Precinct, this building typology becomes recognisable as part of the Horsley Park Precinct brand. A typical farm gate is shown on plan and consists of the built form and surrounding landscape setting.

OBJECTIVES

- Create a visual impact from the roadway to attract consumers (signage, built form, landscape setting).
- Use the built form as a "visual marker" within the landscape.
- situate near the front boundary for convenient access for working vehicles/ visitor car parking
- reinforce the working environment
- use robust, simple rural materials.
- use a modular, compact and flexible layout, applicable to different land use types
- consider broader farm management and imply public/private zones through design layouts
- support appealing presentation of produce (shelving, signage, hanging space, furniture)
- consider environmental comfort (shade, heat and cold protection)
- consider shared farm gates
- allow for special farm gate events/field days/farm demonstrations.

CONTROLS

- Site the farm gate approximately 10-15m from front boundary
- Do not exceed an indoor floor area of 30m²
- Pitch the roof at 27.5 degrees, no higher than six metres
- Keep the cool room storage area to no more than five square metres
- Provide a concrete access driveway. Refer to 5.2.2
- Use rural-type materials such as corrugated iron, timber or concrete.
- Create a gravel car park surface to be gravel with capacity for 15 cars. Refer to Section 5.2.2
- Provide an overspill car park area for no more than five cars
- Provide shade through tree planting and all-weather awning structure (awning a maximum of eight square metres)
- Make signage consistent with Section 5.2.12 and the Parklands Design Manual.



Typical farm gate structure - draft design



Farm gate overall arrangement



Farm gate overall arrangement - Ferrer's Road

5.2.12 Farm signage

A limited suite of signs developed for the Precinct can be used by farming partners to promote farm gate sales. The scale and height of the signs suggests a logical “end of journey” in the hierarchy of wayfinding. They are specifically co-located with farm gate access points, highlighting to the community that they are open for business. Complementary “in season” signage can also be utilised, allowing the flexibility of promoting seasonal produce. The signs create a consistent, recognisable response to farm gates while allowing for personalisation.

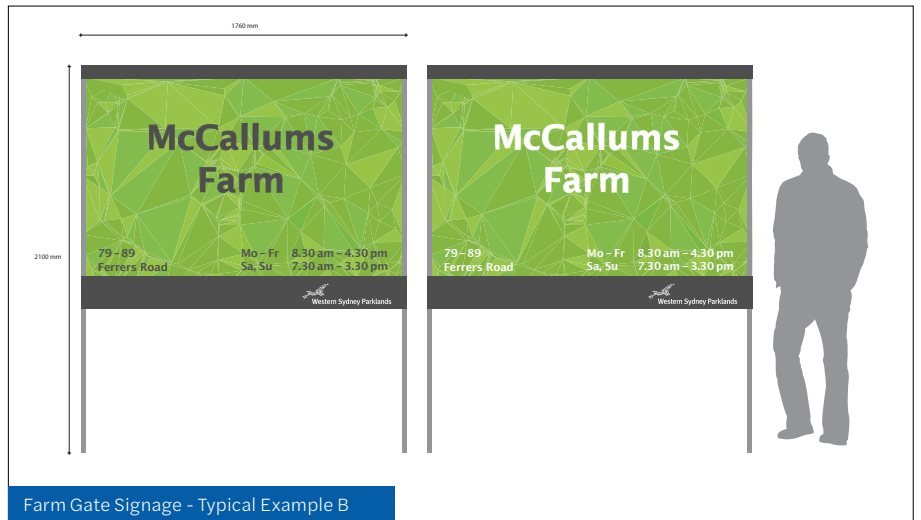
OBJECTIVES

- Utilise signage specifically designed for farm gates as part of the Horsley Park Precinct Signage and Wayfinding Strategy
- Promote a consistent approach to signage which is recognisable to the community
- Control both the quality and quantity of signage to ensure best visual outcomes
- Encourage flexible “in season” signage
- Increase Precinct-wide marketing visibility
- Control locations of farm signage.

CONTROLS

- Use farm gate signage developed for Horsley Park Precinct, as shown below
- Use - aluminium or timber
- Do not exceed height of 2100mm
- Erect signage in locations identified on farm gate plans.





Conclusion

Horsley Park

6.0



Horsley Park Master Plan provides a planning and design framework for the continued invigoration of the Precinct for urban farming.

Horsley Park Master Plan provides a planning, design and implementation framework for the continued development and activation of the Precinct for urban farming, agritourism and education.

Grounded in the strategic directions of the Plan of Management, the Master Plan highlights many peri-urban food growing opportunities and knits together Precinct's diverse values.

The future development of Horsley Park Precinct will preserve environmental values and rural character while fostering a flexible, imaginative approach to urban farming within a parkland setting. New partnerships and finely tuned solutions will maximise potential.

The Master Plan promotes engagement with the community, industry and government, seeking strategic alliances and opportunities for activities, investment and research. It provides the framework for communities to connect with local food and producers, driving agritourism potential through farm gates and food trails.

In implementing the Master Plan, the Trust will:

- continue to create a farming and agriculture destination at Horsley Park that engages with the farming and Western Sydney communities
- help to create a mosaic of agricultural production opportunities at Horsley Park including market gardens, greenhouse and orchards
- continue to work with farming partners and Fairfield City Council in the planning approval and establishment of new farms at Horsley Park
- cultivate existing and develop new partnerships with stakeholders such as the Western City & Aerotropolis Authority, Royal Agricultural Society, Western Sydney University and Western Sydney communities
- partner with Fairfield City Council to improve and enhance the public domain including paths, street trees and fencing
- establish a farming partners group to support, educate and engage farmers in the creation of a

key farming destination in Western Sydney

- develop a Precinct-wide water management strategy that guides sustainable water provision for farms
- establish a pilot regenerative farming site to showcase sustainable farming practices and opportunities
- build a pilot farm to demonstrate a farm gate stall building design, arrival area, car parking and fencing
- identify additional agribusiness, tourism and recreation opportunities in response to emerging trends and practices.

With the support of stakeholders and the community Horsley Park Precinct will be an example of how commercial agriculture in a metropolitan setting can not only be conserved but encouraged to thrive.



