

BOTANIC RIDGE PRECINCT STRUCTURE PLAN BACKGROUND REPORT

November 2011 | Draft for Consultation

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PLANS

Plan 1:Regional Context

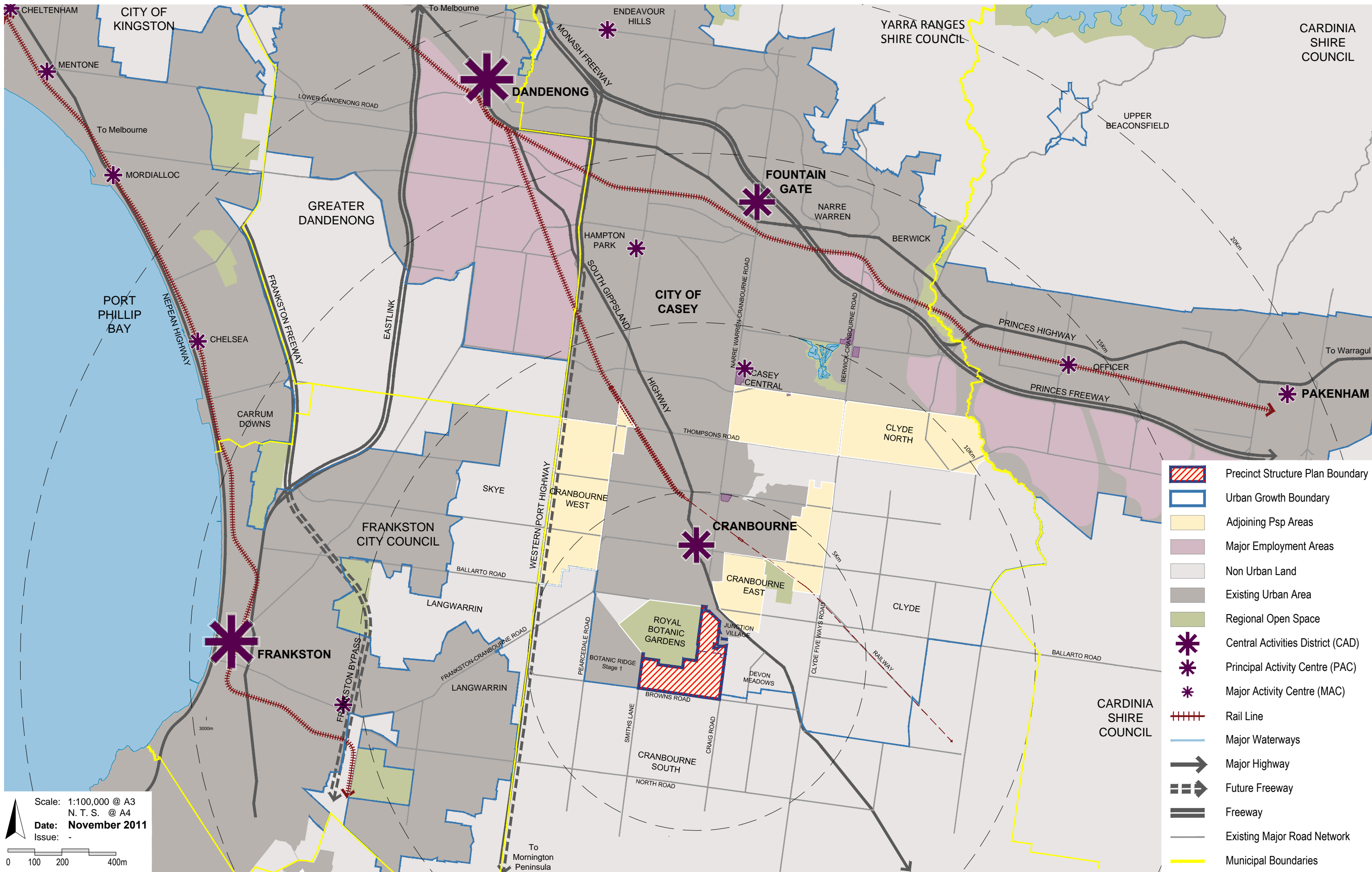
Plan 2:Precinct Location and features


















1.0 INTRODUCTION

The Botanic Ridge Precinct Structure Plan (PSP) covers an area of approximately 318 hectares and sets out a 15 year plan for the development of 3,200 new homes accommodating 9,000 residents.

Incorporating the unique rolling hills and native landscape of the area, including the adjoining Royal Botanic Gardens Cranbourne (RBGC), the plan delivers a residential community embedded in a network of boulevards, parks and waterways that deliver significant enhancement of local landscape and conservation features.

This background report will assist in providing context the Botanic Ridge PSP, Botanic Ridge development Contributions Plan (DCP) and Botanic Ridge Native Vegetation Precinct Plan (NVPP).



-  Precinct Structure Plan Boundary
-  Urban Growth Boundary
-  Adjoining Psp Areas
-  Major Employment Areas
-  Non Urban Land
-  Existing Urban Area
-  Regional Open Space
-  Central Activities District (CAD)
-  Principal Activity Centre (PAC)
-  Major Activity Centre (MAC)
-  Rail Line
-  Major Waterways
-  Major Highway
-  Future Freeway
-  Freeway
-  Existing Major Road Network
-  Municipal Boundaries

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Plan 1

Metropolitan & Regional context
 botanic ridge precinct structure plan



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2.0 METROPOLITAN AND REGIONAL CONTEXT

The PSP area is located within the Casey Cardinia Growth Corridor in the City of Casey and is approximately 45 kilometres south east of Melbourne as shown in Plan 1.

The Casey Cardinia Growth Corridor encompasses the suburbs of Cranbourne, Berwick, Narre Warren, Lynbrook and Lyndhurst in the City of Casey, and Officer and Pakenham in Cardinia Shire, and has existing infrastructure and resources that make it attractive for continued urban development.

The growth area benefits from its proximity to major road and rail transport infrastructure connecting to the Dandenong Principal Activity Centre as well as Gippsland, Phillip Island, Bass Coast, the Mornington Peninsula and greater Melbourne. Significant natural features including the Dandenong Ranges and areas of poorly drained and flood prone land in the Western Port catchment will ultimately constrain further long-term urban development beyond the current urban area.

The corridor (as defined by the 2010 Urban Growth Boundary extent) is ultimately expected to accommodate around 325,000 more people and to grow by between 135,000 and 175,000.

Major existing employment areas are located in Dandenong and Dandenong South and along the Monash Freeway corridor. New employment areas are planned for Cranbourne West, Cranbourne East (along Ballarto Road), Minta Farm north of the PSP area and in Officer to the east within Cardinia Shire. It is anticipated that the expanded Urban Growth Boundary (UGB) Area will also contain future employment opportunities (subject to Growth Corridor planning outcomes).

The area has access to two suburban rail lines (Cranbourne and Pakenham) which converge at Dandenong and then link to central Melbourne and beyond. The rail network is supported by a bus network that is expanding with urban growth.

The Princes Freeway, South Gippsland Highway and Westernport Highway provide the key trunk links through the region to Dandenong and Greater Melbourne. Other important supporting existing (or future upgrades to) regional roads include Berwick-Cranbourne Road, Narre Warren-Cranbourne Road, Ballarto Road, Browns Road, Cranbourne-Frankston Road and Thompsons Road, which provide direct connections to the Princes Freeway, South Gippsland Highway, Western Port Highway and Eastlink / future Frankston Bypass.

The City of Casey contains two designated Principal Activity Centres (PAC), being Cranbourne Town Centre and the Narre Warren-Fountain Gate complex. The corridor is further supported by a network of five major activity centres, which are Hampton Park, Casey Central, Berwick, Pakenham and Officer.

Dandenong and Frankston have also been nominated as key Central Activities Districts (CAD). These centres currently provide the regional of community, retail, commercial and employment services. The importance and attraction of these two CADs is expected to grow significantly in coming decades.

The amenity of the area is promoted by environmental features such as the Cardinia Creek corridor, significant regional attractions including the Royal Botanic Gardens Cranbourne (RBGC) and Cranbourne Racing Complex. The area benefits from convenient access to tourism and recreation in the Dandenong Ranges, Gippsland, Phillip Island, Bass Coast and the Mornington Peninsula. To the south, along the Western Port coastline, are the internationally significant RAMSAR listed wetlands, which provide seasonal habitat to numerous important migratory bird species and other wildlife.

The recently extended UGB within the City of Casey and will encompass the Devon Meadows and Clyde areas and is generally bounded by Muddy Gates Lane to the east and Browns Road

and Manks Lane to the south. It covers a total area of approximately 4,500 hectares. This area is the subject of a Growth Corridor Plan (draft Nov 2011) which will determine appropriate future land uses at a broad scale. PSPs will thereafter be prepared for specific areas within the corridor and involve more detailed analysis and planning.

3.0 LOCAL CONTEXT AND SITE DESCRIPTION

3.1 History

The traditional indigenous owners of land within the precinct were clans of the Boon Wurrung and Bunnerong people.

The area is classified as central lowlands comprising low elevation and subdued relief. The major geological formation of the area is Cranbourne Sands, deposited over the last 100,000 years during the Ice Ages. The more recent sand dunes were deposited during the last Ice Age (25,000 - 8,000 years ago). Prior to settlement, the sandy rises retained a sand heathland with Manna gum and Narrow Leaf Peppermint. Swamp bush occurred in low lying depressions. Most of these natural communities have subsequently been cleared since European settlement.

The local vegetation and waterways are likely to have been used seasonally by Aboriginal people for food and medicinal purposes, and would have provided habitat for small mammals, also a food source. Stone sources that may have been used by Aboriginal people, including basalt, quartz and flint, can also be found in the region.

Since European settlement (1850's onwards), the local region, including the precinct, has predominantly been cleared of indigenous vegetation and used for agricultural and pastoral purposes. Remnant features from the agricultural period in the general area include a mix of younger and ageing windrows, former homestead sites as well as remnant patches of native vegetation, scattered trees and farm dams. Today, the vegetation in the area consists largely of open pasture grass and weeds, windbreaks and ornamental planting of native and introduced trees, and small pockets of remnant native vegetation.

The land is currently used for a range of purposes including some grazing, horse stabling and training, market gardening, large and small lot residential. Ground disturbance as a result of clearing and post-contact agricultural practices is also high in most areas.

3.2 Surrounding Neighbourhoods

A number of existing and planned residential neighbourhoods occur within the immediate surrounds of the Botanic Ridge precinct. These are:

South

Cranbourne South contains a mix of large rural residential properties, hobby farms as well as functioning farms and agricultural enterprises. As it is outside the UGB, no urban development is planned in the area.

West

Botanic Ridge Stage 1, which is currently being developed for urban residential purposes, immediately abuts the western edge of the PSP area. Once completed, Botanic Ridge Stage 1 will be home to approximately 4,000 people. This area has similar terrain characteristics as the PSP area and immediately abuts the RBGC. As such, it has been planned with landscape, environmental and RBGC interface issues in mind. The area has a low density of residential lots (minimum average 1,000m² lots with lots ranging from 400m² to 1,600m²). The Settlers Run portion in the north contains a golf course, providing for an extensive landscaped interface with the adjoining RBGC. The Botanic Ridge PSP has been influenced by planning and design standards and actual outcomes from this Stage 1 area.

While landscape responsive, the low density of the precinct creates challenges for the provision of appropriate community services, including public transport. The Stage 1 area does not contain any planned active open space or community and retail services.

Further west, and beyond Stage 1, are the rural residential properties and agricultural land of Langwarrin and Skye. The Cranbourne West Precinct, to the north west of the precinct, covers an area of approximately 790ha of which 344ha will be residential and 446ha employment. Development of the precinct is in its early phases and when completed, this suburb will be home to around 12,500 people and will provide the local region between 10,500 and 16,500 jobs.

East

Junction Village is a small established residential area of approximately 1,100 residents that abuts the north eastern flank of the precinct, and extends to the South Gippsland Highway. It predominantly contains 600-700m² lots, with a smaller proportion of larger 2,000m² to 4,000m² lots and some aged care and retirement development. It has a small convenience retail centre (comprising approximately 700m² of retail floor space) and a local park with a football / cricket oval.

Devon Meadows is also east and south east of the precinct, and contains many rural residential properties, market gardens and a quarry (which may potentially be decommissioned). Hydro-geologically, Devon Meadows occupies flatter and less well drained land compared to the Botanic Ridge Precinct. It likely contains significant areas of native vegetation dispersed throughout and also along the drainage lines that extend from the adjoining Botanic Ridge Precinct.

A component of Devon Meadows is contained within the expanded UGB area. This area is the subject of draft Growth Corridor planning to determine the extent and nature of future uses. The Corridor Plan notes that the area is potential urban subject to biodiversity investigation.

The Cranbourne East Precinct, north-east of Botanic Ridge, will be developed for 535ha of residential land and 43ha employment land. Development of the precinct is in its early phases and when completed, Cranbourne East will be home to around 18,000 people and will provide the local region with approximately 2,900 jobs.

North

The northern boundary of the precinct is dominated by the RBGC, which covers 363ha, of which around 340ha is state significant bushland and native grassland that is home to many important flora and fauna species. The RBGC attracts around 90,000 visitors a year and this is set to increase with the imminent completion of stage 2 of the 'Australian Garden' as well as future landscaping and planting in the south of the gardens, that will directly interface with the precinct. Planning and design of the precinct has been heavily influenced by the importance of the gardens, and their proximity to the precinct.

Directly north of the gardens and Cranbourne Racecourse, (approximately 2km from the northern extremity of the precinct) lies the established Cranbourne Principle Town Centre and residential area. This centre is a significant employer and is currently estimated to provide for 5,000 jobs. It is projected that this may increase to more than 9,000 jobs in the longer term. Metropolitan and local planning policies anticipate significant expansion and improvement over time for the Cranbourne Town Centre.

3.3 Transport and Movement

The historical mile grid road configuration is interrupted in the local area by the presence of the RBGC.

The precinct is located between two major, north-south arterial road routes, being the South Gippsland Highway to the north and east, and the Western Port Highway to the west. Both these roads intersect with Ballarto Road and Browns Road which provide the east-west connections closest to the precinct, albeit as lower order 2-lane roads. Ballarto Road, to the east, is anticipated to be upgraded to a 4-lane local arterial road as the abutting areas develop. Browns Road has been nominated as a key east-west transport corridor in the Growth Corridor Plan for the South East. In this capacity, Browns Road will provide a regional link between the south eastern growth precincts, Frankston, Hastings/Mornington Peninsula and alternate route to Melbourne CBD and beyond.'

Hall Road / Berwick-Cranbourne Road, further to the north, is progressively being upgraded and duplicated and provides for a more substantial east-west traffic connection between Clyde Road and the Western Port Highway. Hall Road / Berwick-Cranbourne Road is accessed from the precinct via the South Gippsland Highway or Pearcedale Road.

Casey Fields Boulevard is a new north-south road that traverses and is in part delivered by the Cranbourne East Precinct Structure Plan. This will be a local arterial road, that will extend north east, from Craig Road at the eastern boundary to the Precinct, across the South Gippsland Highway and into Cranbourne East. This will be an important connection for the precinct as it will improve connections to the South Gippsland Highway, assist in controlling traffic volumes on the northern section of Craig Road and more generally enable integration with Cranbourne and of Cranbourne East

Craig Road, a two-lane connector level road, currently provides direct access from the eastern part of the Precinct to the South Gippsland Highway. It will continue this function for the early stages of the precinct's development until its southern portion is upgraded as part of the Casey Fields Boulevard extension. The section north of the Casey Fields Boulevard intersection will retain a connector road function.

The South Gippsland Highway, Western Port Highway, Hall Road / Berwick-Cranbourne Road, Clyde Road, Browns Road and Craig Road are all categorised as arterial roads in the 2011 draft Casey-Cardinia Growth Corridor Plan.

In addition, the draft South East Growth Corridor Plan provides for the transport needs of the growth area by:

- Making provision for a future public transport network including both the Principal Public Transport Network (rail and bus) and other local bus services;
- Proposing public transport investments including bus services between major activity centres;
- Supporting improved road and public transport connections with future employment precincts; and
- Supporting access to jobs through improved east-west arterial road connections.

In terms of access to fixed rail services, the Cranbourne Railway Station is located approximately 3.3km from the precinct. There is provision for the extension of the metropolitan rail line to Cranbourne East along with the construction of a new rail station, which when built, will be only 2.4km from the precinct, providing for improved public transport access. A further extension to and a new station at Clyde is also proposed within the draft South East Growth Corridor Plan.

In terms of current local bus services the Cranbourne-Warneet bus route (no. 795) services the Precinct via the South Gippsland Highway and Craig Road, and links back to the Cranbourne Town centre and Railway Station. The Cranbourne-Clyde bus route (no. 796), also via South Gippsland Highway and Craig Road, provides additional bus services but only on school days. The Cranbourne Station provides an interchange with numerous other bus routes servicing the region.

It is anticipated that bus services will be progressively extended and new services introduced as the precinct develops, demand for services grows, and funding is made available. It is noted that new and extended public transport services will be required to cater for future needs and it is highly desirable that these are able to be provided early.

In particular, an east-west bus route through the precinct would provide bus access to the Stage 1 area and potentially to the future Cranbourne West employment area. Improving public transport access to the RBGC would be an additional benefit of providing services to the precinct.

3.4 Employment and Town Centres

The hierarchy of activity centres for the surrounding Cranbourne region is established by State Planning Policy, the draft Growth Corridor Plan, and Casey planning policies.

The existing town centre hierarchy includes:

- Central Activities Areas - Dandenong and Frankston.
- Principal Town Centre - Cranbourne Town Centre and Narre Warren-Fountain Gate.
- Major Town Centre - Casey Central Town Centre, Hampton Park, Berwick, Pakenham and Officer
- Small Local Centres - Junction Village; Cranbourne South General Store

Future proposed town centres include:

- Major Town centres - Clyde (with railway station) and Clyde North
- Local Town Centres - Cranbourne East (x2 medium & x 1 small) and Cranbourne West (x1 large and 2 small),

New residents moving into the precinct will form part of the core catchment for the Cranbourne Town Centre.

3.5 Public Open Space and Recreation

The precinct benefits from being adjacent to the major metropolitan and regional parkland facility of the RBGC. The RBGC is a significant regional attraction and contains the award winning 'Australian Garden', café and function facilities, as well as extensive trails through natural bushland and various picnic areas, one of which contains a major family playground facility. The RBGC also provides an education function for over 10,000 school children a year. A number of gated pedestrian access points are proposed also, to provide direct access from the precinct to the gardens (number, and monitoring and management subject to RBGC confirmation).

The Cranbourne Race Track is located just north of the RBGC on the South Gippsland Highway and accommodates horse, harness and greyhound racing on a regular basis.

The substantial Casey Fields Regional Sports Complex is only 2.5km or so from the precinct and will ultimately be accessible directly via road (Casey Fields Boulevard extension) and off-road shared trails.

Further afield, a new metropolitan regional park is being investigated in the vicinity of Cardinia Creek, just south of the Clyde North precinct.

The precinct is also only 2.5km from the expansive and multi-functional Casey Indoor Sports Complex and recently completed 'state of the art' Casey RACE indoor aquatic and recreation centre.

The precinct abuts the Green Wedge Zone to the south, and benefits from its open rural setting, which will add to the distinctive amenity and character of the precinct.

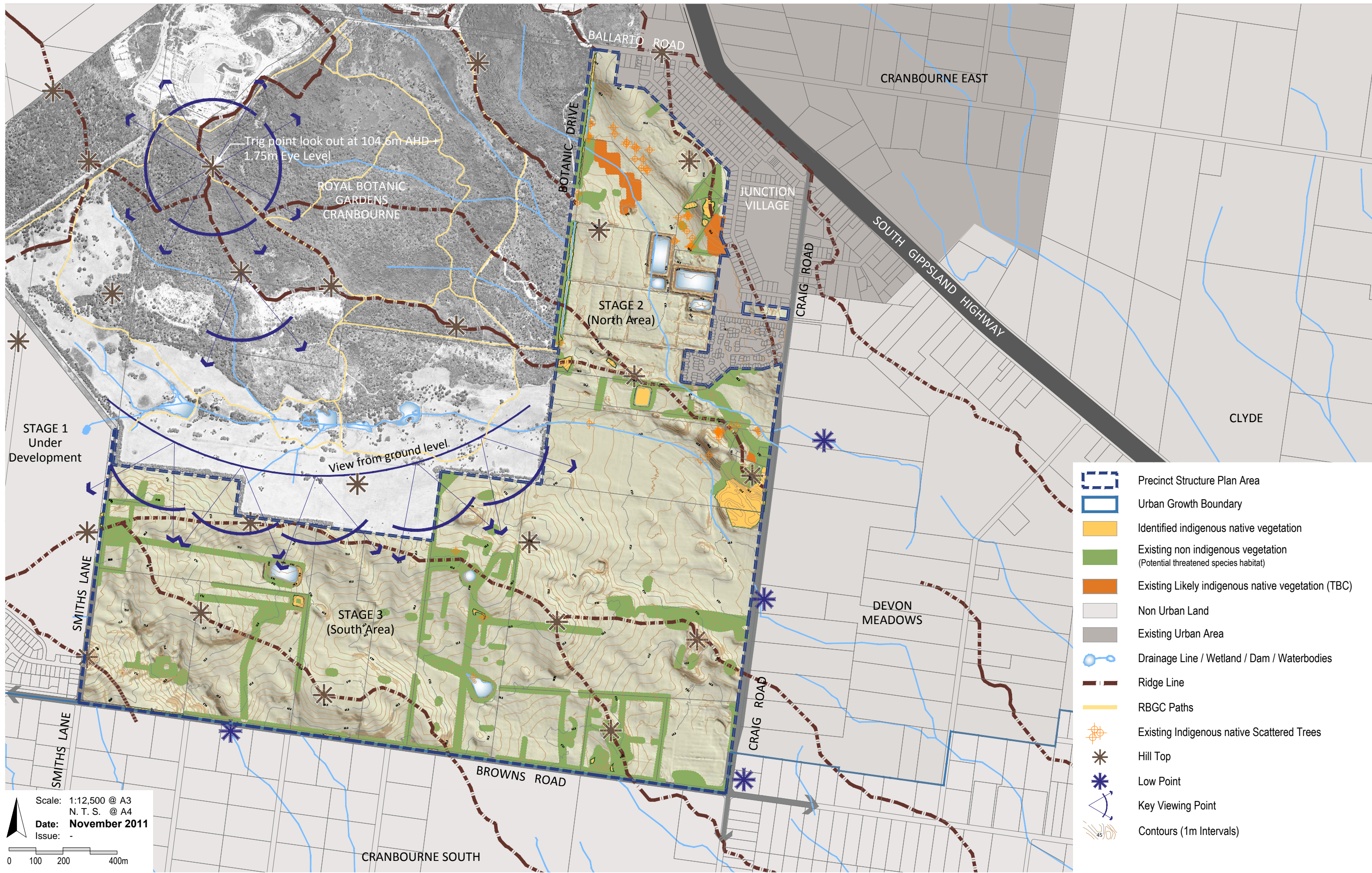
In the adjoining stage 1 Botanic Ridge development a range of open space corridors are also in development. These will provide for pedestrian, cycle and equestrian connections to and from the precinct.

3.6 Community Facilities

The nearby Cranbourne Town Centre includes significant existing and proposed social, health and community infrastructure, including the Cranbourne Integrated Care Centre, which provides a range of day care health services to the local population.

The Cranbourne West Precinct will be providing two government primary schools and one government secondary school, along with associated multi-purpose community centres, Maternal and Child Health and kindergarten facilities. While these facilities will primarily cater for the demand generated by the new residents of Cranbourne West, they will provide opportunities for all people in the local region. The catchment of the proposed Cranbourne West secondary school in particular, will encompass Botanic Ridge.

The Cranbourne East Precinct, when complete, will contain two integrated community facilities associated with two primary schools. The Catholic Education Office is also planning to deliver a secondary school and a primary school within Cranbourne East, and these have the potential to service residents at Botanic Ridge, particularly once Casey Fields Boulevard is delivered.



- Precinct Structure Plan Area
- Urban Growth Boundary
- Identified indigenous native vegetation
- Existing non indigenous vegetation (Potential threatened species habitat)
- Existing Likely indigenous native vegetation (TBC)
- Non Urban Land
- Existing Urban Area
- Drainage Line / Wetland / Dam / Waterbodies
- Ridge Line
- RBGC Paths
- Existing Indigenous native Scattered Trees
- Hill Top
- Low Point
- Key Viewing Point
- Contours (1m Intervals)

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4.0 Precinct Features

4.1 Topography and Landform & Character

The PSP area, particularly the southern area south of the RBGC, predominantly consists of undulating topography that gradually descends from north-west to south-east. Heights range from 84 (AHD) in the north-west to 38 (AHD) in the south-east.

This undulation is dominated by a series of broadly east / west and north-west / south-east ridgelines which are in-turn complemented by a corresponding series of valleys and drainage lines (sometimes incorporating small farm dams). These 'rolling hills' are a significant and important existing character of the precinct.

The undulating topography extends into the RBGC and the gardens contain the highest point in the local region known as 'Trig Point' with a ground level spot height of 100.6 AHD. A lookout platform has been constructed on this highpoint, with a platform height of 104.6m. This lookout provides extensive, 360° views and is a popular feature of the gardens. On clear days Westernport Bay to the south and Melbourne CBD to the north-west are both visible from the Trig Point lookout. There are also a number of other vantage points from ground level, where visitors to the gardens can view out of the gardens into and across the Botanic Ridge Precinct.

The northern component of the precinct, east of the RBGC is generally flatter and follows the profile of a broad, shallow valley, rising up toward the eastern edge of the precinct. A number of drainage lines in this area extend from inside the RBGC.

Many of the ridgelines within the PSP area are visible when looking out from the gardens, particularly from Trig Point. While there are also views into the precinct at ground level from some sections of the Gardens.

The landform character of the precinct, as well as the view-sheds from within the adjoining RBGC, is a key driver for the planning of the precinct.

4.2 Catchments and Drainage

The Ridgelines of the Precinct and Royal Botanic Gardens represent the divide between waterways that shed into either the Port Phillip or Western Port catchments. The valleys and waterways of the precinct generally converge to the south and south east into the Westernport basin via three local drain systems, these being Wylies Drain Branch F, Wylies Drain Main Branch and Christies Drain. As the Western Port Catchment south east of the precinct is low lying, it presents some unique problems for drainage in the precinct.

While the land within the precinct drains reasonably well due to the topography (with the exception of some boggy low points), the flat Devon Meadows hinterland to the south east of the precinct is prone to water-logging particularly during winter and spring months. Urban development in the precinct will generate increased 'low flow' volumes of water in the drainage system, during this period. Unless mitigation measures are implemented as part of the development, this susceptibility to water-logging will be exacerbated, threatening the usability of downstream properties and compromising the function of septic systems in the area.

To address the precinct 'low flow' drainage issue, Melbourne Water, via the precinct Development Services Drainage Scheme (and in partnership with South East Water), plans to install a stormwater treatment plant adjacent to Craig Road associated with one of the precinct retarding basins. This plant will treat precinct stormwater to 'Class A' or better standard suitable for uses such as irrigation, toilet flushing and possibly domestic laundries.

Treated stormwater will be piped and delivered to a planned recycled water supply tank at the Cranbourne racecourse and then distributed via the planned recycled water supply mains to Botanic Ridge and / or other precincts within the growth corridor.

The precinct will also require a range of constructed open waterways linked to a network of wetland / retarding basins, as identified in the background drainage reports. These will present opportunities to provide for local flora and fauna habitat as well as become a key and functional part of the precinct open space network.

4.3 Biodiversity

The majority of the PSP area is currently used for grazing livestock and features large open paddocks with little native vegetation. Biodiversity values include some scattered indigenous trees, small woodland remnants, and planted vegetation. Native vegetation is common in roadsides and adjacent to farm dams, drainage lines and other waterways.

Biodiversity values of the study area are assessed in the 'Biodiversity Assessment Report: Flora and Fauna Assessment and Mapping, Precinct Structure Plan area 10, Botanic Ridge' (Practical Ecology, 20 July 2010).

With respect to Flora, seven EVCs were recorded and mapped within the study area. Most EVCs identified have an endangered or vulnerable conservation status in the Gippsland Plains bioregion. Forty-eight scattered trees were recorded within the study area, mostly Mealy Stringybark (*Eucalyptus cephalocarpa*).

Habitat zones within the study area include:

- Heathy Woodland in habitat corridors in the north east sector;
- Damp Heathy Woodland along Botanic Drive roadsides; and
- Patches of aquatic vegetation including Sedge Wetland, Wetland Formation and Swamp Scrub within farm dams.

With respect to Fauna, one species of State significance was recorded in the Botanic Ridge PSP area, being the Pacific Gull. However it was noted that the Pacific Gull is unlikely to use the precinct other than as a fly-over route. A number of other species of State and National significance may also occur in the study area, however were not recorded during the surveys. Overall, the large areas of agricultural land in the precinct have limited habitat value for fauna, with potential habitat for threatened species being primarily limited to roadsides, farm dams, drainage lines and small areas of woodland.

In contrast, the adjoining 363ha RBGC is an area of high biodiversity significance in the region. It contains:

- 6 ecological communities and 8 broad fauna habitats
- 3 fauna species of national & 15 of state significance including a stable population of the Commonwealth EPBC listed (as endangered) Southern Brown Bandicoot (SBB).
- 3 flora species of state and numerous of regional significance

For these and other reasons, RBGC is of high significance as an important site for the conservation of biodiversity. It is therefore important that where practical, biodiversity conservation is achieved and enhanced throughout the Botanic Ridge PSP area. Habitat linkage, to connect RBGC to other core areas of habitat in the bioregion, has been identified as a key mechanism in conservation and enhancement of the Southern Brown Bandicoot (SBB) species.

Southern Brown Bandicoot Corridors

A Draft Conservation Management Plan has been produced for the precinct, focussing on implementing the prescription (Melbourne Strategic Assessment 2010) and draft Sub-regional Species Strategy (Nov 2011) for the Southern Brown Bandicoot.

Consistent with these plans, the PSP shows two significant green corridors (often referred to as biolinks) to provide habitat and linkages from the RBGC to the broader region to the east and south of the Precinct. Corridors consist of:

- Eastern Continuous Habitat Corridor, linking the RBGC to Devon Meadows to the east. This corridor is proposed as 870m long and 172m wide (including defendable space).
- Southern Short Distance Dispersal Corridor linking the RBGC to Cranbourne South. This corridor is proposed as 976m long and 82m wide (including defendable space).

Each corridor has been designed with strategic road and shared trail crossings to enable movement by residents across them and to ensure precinct integration

4.4 Existing Plantings and Windrows

While the landscape of the Botanic Ridge PSP is predominantly open farmland, there are areas of planted (non remnant / non indigenous) vegetation most commonly associated with property boundaries, driveways and in the vicinity of houses. Most tree planting is in groups or rows and there are relatively few scattered specimens.

With the exception of the older plantings at 53-65 Craig Road, most of the planting in the precinct has occurred more recently and many are semi mature, and not classed as significant.

The arboricultural assessment of the precinct, covering the majority of properties, found that of the 2,143 trees / groups of trees assessed, only 10 were of high value and 969 were of moderate quality. The remaining trees / groups of trees received a low or no rating.

36 trees were not rated as they were located on inaccessible properties where adequate scrutiny was not possible.

The trees not surveyed were located on:

- 105-107 Browns Road
- 51A Craig Road
- 53-65 Craig Road
- 60 Botanic Drive

The structure plan does provide opportunities for strategically located existing trees to be integrated into the open space network. There may be further opportunities to retain additional specimen trees within small pocket parks, roadsides and some larger lots as the precinct develops and where their structure, health and form permit.

Plantings at former Homestead and Driveway

Part of 53-65 Craig Road contains of a run-down old homestead and driveway with old (but generally declining) tree plantings.

As described later, it is not considered feasible or viable to retain or upgrade the homestead. Most if not all of the trees along the driveway leading to it will be difficult to retain, although this should be done if possible and there is a strong probability of long term viability. Therefore may be some additional opportunities to retain existing trees that surround the current homestead building within the proposed environs.

4.5 Aboriginal Cultural Heritage

The traditional owners of the precinct were the Boon Wurrung people. These are today represented by the Bunnerong Land Council Aboriginal Corporation and the Boon Wurrung Foundation Pty. Ltd.

A standard and complex assessment (including sub-surface investigations) has been undertaken by the GAA for a significant number of the landholdings in the precinct as part of the preparation of a draft Cultural Heritage Management Plan (CHMP). This, and studies by other landowners within the precinct (adjoining the GAA CHMP) have found Aboriginal stone artefacts across the area, with various locations containing higher artefact densities.

GAA sponsored investigations recovered a total of 542 stone artefacts, as a result of the test excavation programme from 59 excavated test trenches (117 square metres in total).

The landform test excavation revealed evidence of Aboriginal cultural activity across the landscape. In particular, a higher density and frequency of stone artefacts were found on crest landforms, on Cranbourne Sand soil landscape and within 100m of former water sources (generally ephemeral drainage lines).

The patterning revealed by the test excavations and analysis suggest that the landscape may have primarily been used for hunting and foraging with occasional tool production events. There was very little evidence of complex residential occupation. No hearths were found and the evidence found at high density artefact locations was consistent with discrete tool knapping events rather than sustained or repeated occupation.

As a result of GAA and adjoining landowner investigations, the PSP proposes three key and representative conservation areas within the Precinct, with two of the conservation sites being integrated with the proposed Southern Brown Bandicoot Habitat and Dispersal corridors (often also referred to as biolinks). These conservation areas will provide for an integrated open space, biodiversity and cultural heritage outcome, while also providing for development certainty among participating land owners.

Detailed management actions for conservation zones will be set out in the CHMP, with the intent that sections will enable low key (passive) recreation activities to occur in addition to integration with precinct biodiversity outcomes.

Properties which are not encompassed by the GAA sponsored CHMP will be required to complete their own CHMP's prior to obtaining any development approvals.

4.6 Post Contact Heritage

There are no heritage overlays presently designated for the precinct, however, a house, and associated outbuildings, plantings and driveway at 53-65 Craig Road have been identified as potentially having a longer term association with the precinct.

Assessment of the house indicates that the structure is in very poor condition with wide-scale salvage and rehabilitation unlikely to be viable. There may be potential for limited retention and upgrade of strategic elements for incorporation in future parkland as a character element. Similarly, a landscape assessment of the trees along the driveway leading to the degraded house indicates that most are either structurally unsound, in poor health or environmental weeds (or a combination of all three).

In response, the PSP proposes a local park on the site of the old house, and a local street along the alignment of the old driveway. It contains requirements and guidelines to: undertake careful design of these elements to retain / upgrade components if possible and practical, and if not, to produce a design that is innovative and respectful of the local context and that provides for interpretation for future users.

4.7 Bushfire Management

While the RBCG is a significant environmental asset, it also constitutes a potential bushfire risk that must be managed in the planning of the Botanic Ridge Precinct. The PSP therefore implements the high standards for planning and housing as recommended by the Victorian Bushfire Royal Commission.

Key elements which have informed planning for Fire Management in the precinct include:

- The Precinct and Surrounds have been included in State Bushfire Prone Area (BPA) mapping. This requires enhanced design and construction standards for buildings to a minimum Bushfire Attack Level (BAL) standard of 12.5.
- A Wildfire Management Overlay (WMO) currently applies to land within the RBGC and some land within the north east of the precinct.

The WMO in particular has triggered the need for detailed planning requirements and guidelines within the PSP for the delivery and management of public and private land that interfaces with the RBGC. These include:

- Specifications for outer and inner zone defendable space land
- Specifications for building BAL requirements

Note that, pending the release of forthcoming Bushfire Management Overlay, requirements for the precinct may be amended

5.0 SUPPORTING INFORMATION

5.1 Background reports

Background information on the Botanic Ridge PSP area is located in the following reports, which have informed the preparation of the PSP:

- Arboricultural Assessment, Stages 2 & 3 Botanic Ridge, Treelogic, October 2010.
- Biodiversity Assessment Report - Flora and Fauna Assessment and Mapping, Precinct Structure Plan 10 - Botanic Ridge, September 2010.
- Southern Brown Bandicoot Conservation Management Plan - Botanic Ridge Precinct Structure Plan are (Draft for consultation purposes subject to revision based on stakeholder comments) November 2011.
- Botanic Ridge PSP - Cultural Heritage Management Recommendations and Contingencies, AHMS Pty Ltd, November 2011
- Community Infrastructure Assessment - Clyde North & C21 Business Park, Cranbourne North Stage 2 and Botanic Ridge Precinct Structure Plans, ASR Research Pty Ltd November 2009.
- Botanic Ridge Precinct Structure Plan Community Infrastructure Assessment -, ASR Research Pty Ltd November 2009, Addendum October 2010.
- Botanic Ridge PSP - Hydrology Assessment - 1st Report - Review of Prior Studies, Neil Craigie Pty Ltd, September 2009.
- Botanic Ridge PSP - Hydrology Assessment - 2nd Report - Base case Drainage Scenario, Neil Craigie Pty Ltd, December 2009.
- Botanic Ridge PSP - Hydrology Assessment - Catchment and Base Case Plan, Neil Craigie Pty Ltd and Beveridge Williams.
- Botanic Ridge PSP - Hydrology Assessment - 3rd Report - Some Drainage Options associated with the Devon Road Quarry, Neil Craigie Pty Ltd, May 2010.
- Botanic Ridge Stormwater Options Assessment, Sinclair Knight Mertz, March 2011
- Casey Corridor Growth Area, Economic Development and Employment Analysis, Essential Economics Pty Ltd, November 2009 (updated November 2010 for Botanic Ridge Component).
- Report for Botanic Ridge PSP - Environment Contamination Assessment, GHD, January 2010.
- Amendment C133 Casey Planning Scheme - Botanic Ridge Precinct Structure Plan, Transport Assessment, GTA Consultants, November 2011.
- Botanic Ridge Precinct Structure Plan (PSP), Revisions To Road Network, Addendum Note, GTA Consultants, November 2011
- Botanic Ridge Precinct Structure Plan, Utilities Infrastructure Servicing Assessment - Version B, February 2010.

5.2 Other Supporting Information

The following documents may also assist in understanding the background to the vision, objectives and other requirements of this Precinct Structure Plan:

- A Plan for Melbourne's Growth Areas, Department of Sustainability and Environment, 2005.
- A Strategic Framework for Creating Liveable New Communities, Growth Areas Authority, March 2008.
- Activity Centre Design Guidelines, Department of Sustainability and Environment, January 2005.
- Central Region Sustainable Water Strategy, Department of Sustainability and Environment, 2004.
- Design for Trucks, Buses and Emergency Vehicles on Local Roads, VicRoads, 1998.
- Development Contributions Guidelines, Department of Planning and Community Development, March 2007.
- Flora and Fauna Guarantee Strategy: Victoria's Biodiversity, Department of Natural Resources and Environment, 1997.
- Growth Area Corridor Plans, DPCD, November 2011 (draft)
- Guidelines for Conducting Historical Archaeological Surveys, 2008, Heritage Council of Victoria and Heritage Victoria.
- Guidelines for Higher Density Residential Development, Department of Sustainability and Environment, October 2004.
- Healthy by Design: A planners' guide to environments for active living, National Heart Foundation of Australia, 2004.
- Linking Melbourne: Metropolitan Transport Plan, State of Victoria, November 2004.
- Linking People and Spaces: A Strategy for Melbourne's Open Space Network, Parks Victoria, 2002.
- Meeting Our Transport Challenges, State of Victoria, May 2006.
- Melbourne 2030: Planning for Sustainable Growth, State of Victoria, October 2002.
- Our Environment, Our Future, Department of Sustainability and Environment, 2006.
- Port Phillip and Westernport Regional Catchment Strategy, Port Phillip Regional Catchment and Land Protection Board, 1997.
- Planning for all of Melbourne: The Victorian Government Response to the Melbourne 2030 Audit, State of Victoria, 2008.
- Planning for Community Infrastructure in Growth Areas, Australian Social and Recreation Research Pty Ltd for Growth Area Councils, April 2008.
- Precinct Structure Planning Guidelines, Growth Areas Authority, 2009.
- Public Transport Guidelines for Land Use Development, Department of Transport, 2008.
- Safer Design Guidelines for Victoria, Department of Sustainability and Environment, June 2005.
- Schools as Community Facilities, Department of Education and Training, November 2005.

- Shared Facility Partnership: A Guide to Good Governance for Schools and the Community, Department of Education and Early Childhood Development, December 2007.
- Sub-regional Species Strategy for the Southern Brown Bandicoot, Department of Sustainability and Environment, November 2011.
- The Victorian Greenhouse Strategy, Department of Natural Resources and Environment, 2002.
- Urban Development Program, Department of Planning and Community Development, annual.
- Urban Stormwater Best Practice Environmental Management Guidelines, CSIRO, 1999.
- VicRoads Access Management Policies Version 1.02, VicRoads, May 2006.



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