

Local Context and Site Description

March 2012

2.1 Metropolitan and Regional Context

Refer to Plan 1.

The precinct is located approximately 33km from the Melbourne CBD in Melbourne's Northern Growth Area as shown in Plan 2. Melbourne's North Growth Area generally extends north from Somerton Road (east of the Sydney rail line) and Craigieburn Road (west of the Sydney rail line) to just south of the Wallan township. It includes parts of the suburbs of Greenvale and Craigieburn, and the localities of Donnybrook, Kalkallo and Beveridge in the City of Hume, the City of Whittlesea and the Shire of Mitchell.

The precinct area is generally bound by the Melbourne-Sydney railway line to the east, the Hume Highway to the west, the township of Beveridge to the north and the Kalkallo Township and Donnybrook Road to the south.

The 2011 Growth Area Corridor Plans (Draft):

- Supports greater residential development and employment uses around the existing Melbourne-Sydney rail line with a future Principal Town Centre (PTC) to be located at Lockerbie;
- Allow for two Major Town Centres (MTC), located at Mickleham and Beveridge;
- Has a significant retarding basin which will combine with regional active open space uses;
- Will cater for between 68,000 120,000 jobs; and
- Will be home to over 250,000 people.

The area is characterised by strong population growth occurring on a number of fronts and a network of activity centres to provide additional services and facilities, and employment opportunities. Additional local town centres will be required to meet demand from the planned new communities in the north of the Growth Area.

The northern corridor provides an opportunity to establish new communities to assist in meeting Melbourne's urban growth needs over the next 30 years, whilst maintaining the key roles and features of the Growth Area, which include its:

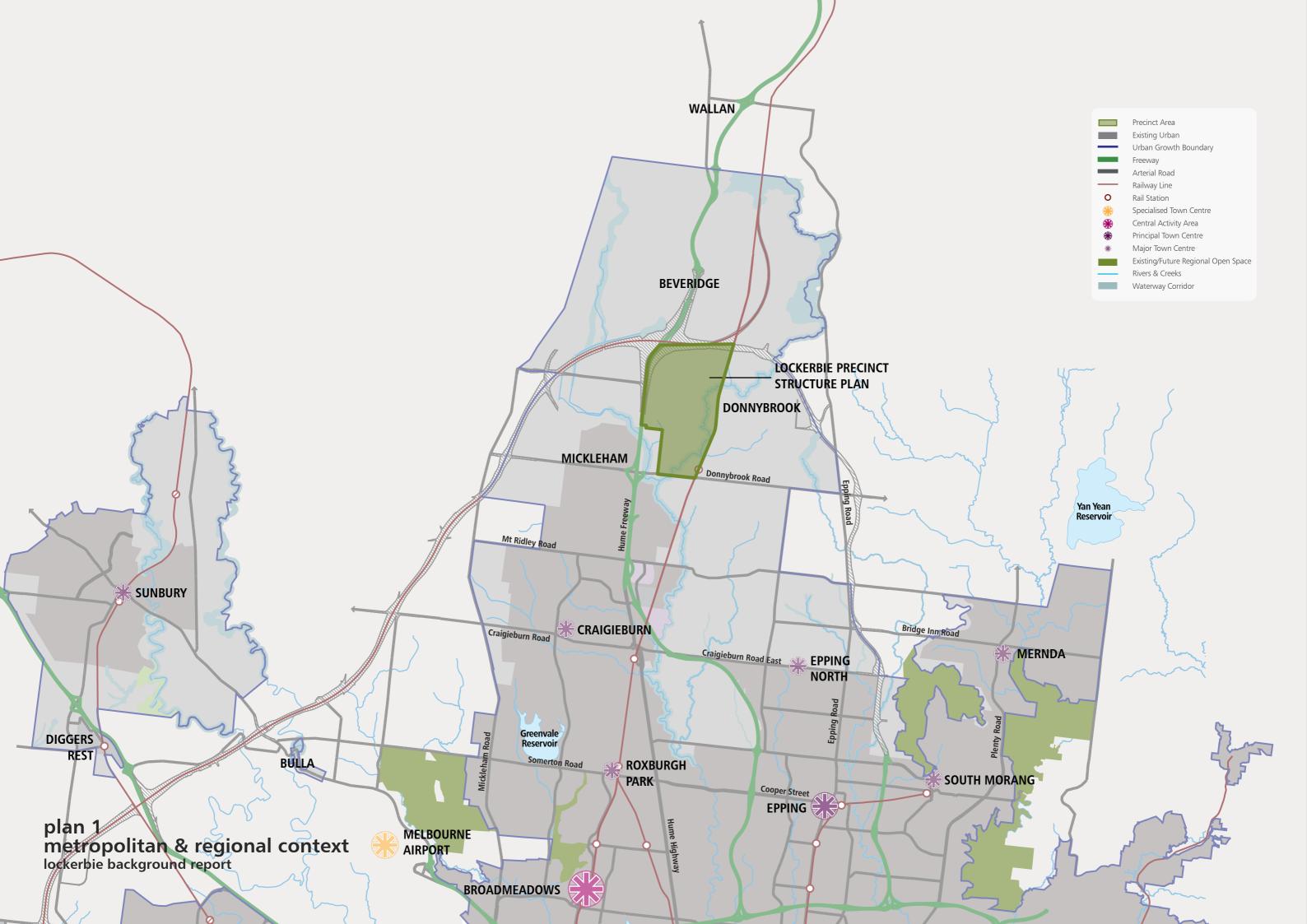
- role as a strategic transport corridor of State and national significance;
- gateway role to Melbourne for interstate and international visitors;
- large areas available for future employment and industrial development;
- highly self-contained working population (circa 50% of Hume's workforce is employed within the municipality);
- significant water catchments, creek corridors, remnant vegetation and stone resources on its east and west boundaries; and
- important landscape features and biodiversity assets including volcanic cones; grasslands, and grassy woodlands.

With large consolidated land holdings adjoining the existing urban edge, the northern corridor is well placed to deliver large new development projects that provide a wide range of housing options and employment opportunities.



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PLAN 1: Metropolitan context plan



LOCKERBIE PSP – CONTEXT AND BACKGROUND REPORT

2.2 Local Context

Refer to Plan 2.

2.2.1 History

The Lockerbie area is located on the traditional lands of Aboriginal people known as the *Woi wurrung*, a language group whose territory centred on the Yarra River and its catchment areas and extending west to the Werribee River.

The *Woi wurrung* language group was part of a broader language area known as the East Kulin Language Area, which has covered central Victoria from the east side of Port Phillip Bay north to the Murray River, for about the last 40,000 years.

It is believed that the clan which occupied land including the South Morang area was the *Wurundjeri william*, a patriline of the *Wurundjeri balug* and one of the four *Woi wurrung* clans.

Today, the *Wurundjeri* Tribe Land Compensation and Cultural Heritage Council Incorporated is the Registered Aboriginal Party (RAP) under the *Aboriginal Heritage Act* 2006 (Vic), with responsibilities in relation to the management and administration of Aboriginal Cultural Heritage matters in the Activity Area.

European settlement in Port Phillip commenced early in the 19th Century, but it was in the mid-1830s that permanent European settlement of Victoria commenced with the arrival of the first squatters. A treaty was signed in 1835 by John Batman and elders of the *Woi wurrung* (east of the Werribee River) for an arrangement to exchange supplies of basic goods for the provision of 600,000 acres of land. The treaty was never recognised by the Government in NSW, and during the 1830s to 1860s a 'squatting expansion' saw squatters taking up land across Victoria, particularly on the plains north of Melbourne.

Land sales commenced in the Parish of Kalkallo in 1840. Areas to the west of the Merri Creek along the current routes of the Hume Freeway and the North Eastern Railway were purchased by people of English, Irish and Scottish descent. The town of Kalkallo was surveyed and town allotments were sold, so that by the 1860s Kalkallo was a developing township. The construction of the north-eastern railway line connecting Melbourne and Sydney, particularly the section that passes next to the study area completed in 1872 further consolidates and expanded agriculture in the region. Today Kalkallo is a small town servicing the highway trade and surrounding agricultural district.

2.2.2 Lot size and ownership pattern

Landholdings within the precinct area are generally large, corresponding with the predominant use of land for agricultural purposes. The township of Kalkallo, bordering the precinct's south-west exhibits a more typical residential ownership pattern.

2.2.3 Surrounding neighbourhoods

A number of rural and rural-residential neighbourhoods and townships exist within the immediate surrounding context of the Lockerbie PSP area, including:

Kalkallo: a small township servicing highway trade and the surrounding agricultural district is established at Kalkallo, which borders the precinct area to the southwest.

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Donnybrook: a small rural community largely based around the Donnybrook train station and Donnybrook Hotel area, consisting of some smaller residential properties and local convenience facilities. This is partly located in the south eastern corner of the plan area.

Beveridge: Located along the Hume Highway to the north of the precinct area, Beveridge Township has a population of circa 1200.

Mickleham: a small community of rural residential lots is established in Mickleham, southwest of the precinct.

Eden Park and Woodstock are small rural / residential localities situated east of the precinct area.

In addition to these existing small scale communities, a number of significant new residential and employment precincts are planned in areas west of the precinct area, including the Merrifield Employment and residential area and Folkestone Employment Area to the southwest, Donnybrook to the south, and Alma Vale to the northwest. Beveridge also stands to witness growth and urban consolidation through the influence of the Victoria Transport Plan proposal for a new freight terminal centred around a new Beveridge rail station, and the future urban development of land to its north and west, around Alma Vale.

2.2.4 Transport and movement

Hume is renowned for its strategic positioning at the crossroads of the Hume Highway (incorporating a railway corridor), Calder Highway and Metropolitan Ring Road.

The existing arterial road network includes the following key elements:

- The Hume Freeway, a four-lane divided road aligned in the north-south direction along the western boundary of the site (declared main road under VicRoads control);
- Donnybrook Road, a two-lane road aligned in the east-west direction located along the precinct's southern boundary (declared main road under VicRoads control).

The PSP area is currently accessed directly from the Hume Freeway north of Kalkallo. Secondary access is also available to the southern part of the PSP area via Donnybrook Road and to the north via Donovans Lane in Beveridge. The nearest major Hume Freeway interchange is a ¾ diamond constructed in 2009 at Donnybrook Road.

Lockerbie is well situated in terms of major roads and highways access, as two major road corridors bound the proposed development, the Hume Highway to the west and the future Outer Metropolitan Ring Road (OMRR) to the north. These arterials provide excellent vehicular transport access (both passenger and freight), and robust links between the future Lockerbie community and places of work, schools, shops, and community facilities within the region.

An internal road layout comprising an east-west sub-arterial extension of Gunns Gully Rd and a centrally located sub-arterial running the full length of the precinct and connecting to Donnybrook Road in the south will augment the existing arterial road network of the wider corridor. A network of connector streets based on a grid layout will support the sub-arterial network and provide connectivity for all forms of transport including rail, buses and bicycles.

Public Transport

The two key public transport routes in the Northern Corridor will be the Melbourne–Sydney rail line and the E14 arterial road. The Melbourne–Sydney rail line is presently served by V-Line inter urban services, Lockerbie is currently serviced by a V-Line train service from Donnybrook Station. Craigieburn is the nearest station on the electrified metropolitan rail network. with the closest operating stations (run by

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diesel powered sprinters) to Lockerbie being Donnybrook, approximately 3km south of the centre of the PSP area.

East-west public transport services will be provided by buses operating on the arterial and connector road network, which will allow for future principal Public Transport Networks (PPTN).

2.2.5 Town centres and Employment

A network of existing and planned town centres will service the northern corridor in the future. The existing centres (including those currently under development) of most relevance include:

- Epping Plaza, a Principal Town Centre, located circa 20km to the south of the precinct area;
- Craigieburn East local town centre and the emerging Craigieburn Major Town Centre development located 6km and 8km south and southwest of the of the precinct area, respectively;
- Roxburgh Park, a Major Town Centre located circa 10km to the south of the precinct area.

The nearest Central Activities Area is Broadmeadows, some 20km south of Lockerbie, located on Pascoe Vale Road.

The northern corridor will also be served by three significant proposed industrial precincts, being:

- Merrifield to the west of Lockerbie, comprising of some 400ha of business and industrial zoned land to create the largest business park in Melbourne's North. It also has the potential for a Major Town Centre and includes planned residential neighbourhoods;
- The Folkestone Employment Area on the southern side of Donnybrook, west of the Hume, is proposed to be developed as an office park;
- The proposed Donnybrook/Beveridge intermodal freight terminal to the north-east of Lockerbie, comprising some 885ha and a key component of Victorian Government's *Freight Futures* strategy to relocate interstate rail freight from South Dynon to a new terminal on the Hume Freeway.

2.2.6 Open space

The precinct will have unique and easy access to the regional open space network via the Merri Creek Corridor, a passive recreation asset that is becoming increasingly formalised in the metropolitan north.

The Northern Growth Corridor plan provides for the following regional open space outcomes:

- Linking the Merri Creek to bald Hill, Kalkallo Creek and the Kalkallo Retarding Basin;
- Providing the establishment of a Grassy Eucalypt Woodland reserve south of Donnybrook Road;
- Creeks and waterways will also provide alternative connections between communities via the Metropolitan Trail Network (MTN); and
- protecting woodlands and grasslands along the Merri Creek and other areas of sensitivity.

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2.2.7 Community facilities

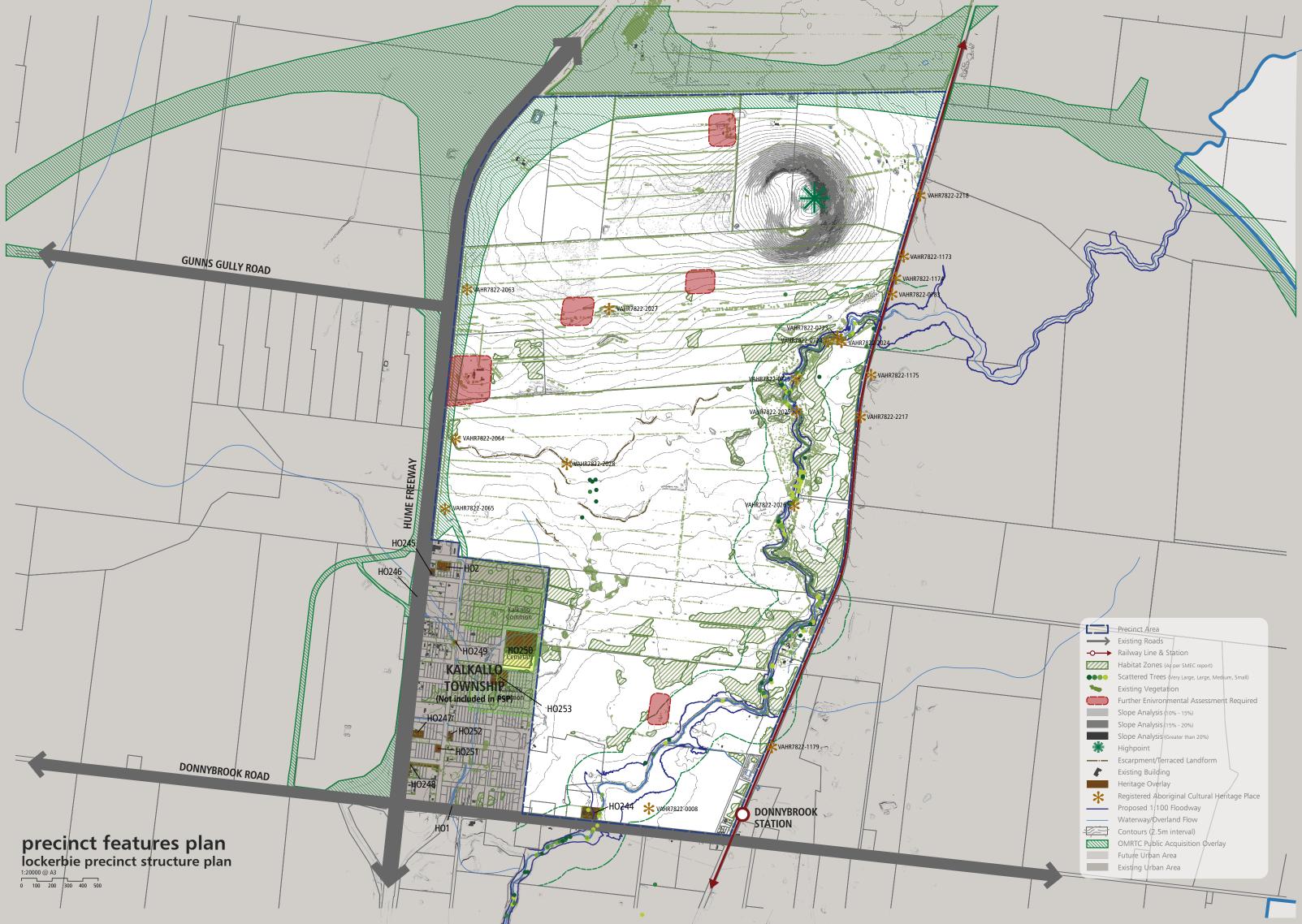
The precinct itself is served only a small amount of existing community infrastructure within it, including Kalkallo Common (a 9.8 ha crown land grassland reserve managed by Hume City Council), Kalkallo Cemetery, Kalkallo CFA, and John Laffan Memorial Reserve (an 8ha reserve containing two ovals.)

The surrounding neighbourhoods and towns of Craigieburn, Mickleham, Beveridge, and Wallan contain a wide range of community services and facilities servicing their existing populations. However, they are considered too distant, even with the development of new future road networks in the Hume growth corridor, to be suitable for accessing lower to medium order community infrastructure forms such as including primary schools, secondary schools, community centres, active recreation reserves, libraries and indoor recreation facilities.



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PLAN 2: Local context & site features plan



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2.3 Precinct Features

Refer to Plan 2

2.3.1 Heritage

Aboriginal

The traditional indigenous owners of the precinct were clans of the Woi Wurrung people and the clan most closely associated with the area was the *Wurundjeri William*.

The precinct contains twelve registered Aboriginal Cultural Heritage Places, and a further 33 Registered Places within a 2km radius, predominantly consisting of artefact scatters and isolated artefacts, including scarred trees. The Merri Creek corridor is particularly sensitive for Aboriginal stone artefacts, with indigenous archaeological artefacts being found across the precinct. Merri Creek corridor, Bald Hill and the ephemeral watercourses that run through the property are considered to have moderate potential for Aboriginal Cultural heritage, with the flat ground between considered of relatively low potential.

A Cultural Heritage Assessment, prepared by Terraculture, details a desktop review of the archaeology and heritage of the land. Historical information and other relevant background was obtained from published and unpublished documents. Background research on known heritage was undertaken by searching relevant Commonwealth, State and local registers for any known heritage sites or places.

A review of the AAV register has revealed there are twelve registered Aboriginal Cultural Heritage Places within the subject land and a further thirty-three registered Places are located within two kilometres of the subject land. Most of these Places are isolated artefacts (48% of total), followed by artefact scatters (30% of total) and scarred trees (15% of total). There are also three earth features, which represent buried deposits containing Aboriginal cultural material. The high number of sites in the Kalkallo area is indicative of both the sensitivity of the landscape for Aboriginal sites and the high number of archaeological surveys undertaken in the area. It is likely that further Aboriginal archaeological sites, in particular stone artefact scatters and possibly scarred trees may be located within the subject land.

The Lockerbie PSP area at Kalkallo is located within an 'Area of Cultural Heritage Sensitivity' as specified under Division 3, part of the Activity Area being specified under regulation 23(1) land within 200 metres of a waterway the name of which is registered under the *Geographic Place Names Act 1998*, being the Merri Creek. As such, the preparation of a Cultural Heritage Management Plan (CHMP) is required.

Post Contact

There are seven historical archaeological sites located within the subject land; six on the HV Inventory (3 with statutory protection) and one on the Hume City Council Heritage Overlay.

European settlement has caused ground disturbance in the Kalkallo area due to the clearance of native vegetation and the subsequent land uses, including farming. These modifications to the landscape are likely to have adversely affected the ground integrity, vegetation, hydrology and wider environment of the subject land, therefore affecting the survival and intactness of Aboriginal cultural material. Modern development and urbanisation in the Kalkallo area is also likely to have had an impact on the local historical archaeology.

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2.3.2 Biodiversity

Biodiversity Significance

The precinct area has historically been grazed but retains a wide range of biodiversity values that links to biodiversity assets of the wider landscape. Kalkallo Common Grassland and Kalkallo Cemetery, Merri and Kalkallo Creeks, and the Stony Knolls throughout this PSP area have been identified as perhaps the most important of these assets. The remainder of the PSP area is largely degraded due to the long term land-use history of agriculture and natural attrition attributed to human disturbance and alteration.

These landscape assets provide the opportunity for the future development of the land and creation of urban precincts in a way that retains the most sensitive areas.

Biodiversity Assets

SMEC consultants undertook a biodiversity assessment of the precinct and identified a total of 131 zones of remnant native vegetation within the PSP area, encompassing a total area of 124.79 hectares (ha) and representing 31.64 habitat hectares. A total of seven Ecological Vegetation Classes (EVCs) were identified across the PSP area. Within the Victorian Volcanic Plains Bioregion, all of the mapped EVCs have a Bioregional Conservation Status of 'Endangered'.

The purpose of the Biodiversity Assessment and Mapping Project was to:

- Undertake detailed field surveys of native vegetation and targeted flora and fauna species and to assess and map the ecological significance of these.
- Prepare Biodiversity Reports (covering native vegetation and flora and fauna habitat) as essential background input into precinct structure planning at an early stage in the planning process.
- Inform the preparation of precinct structure plans in areas designated for future urban development
- Assist the long term planning of Melbourne's growth areas, including working with infrastructure authorities to ensure their requirements are met over the next 30-50 years.

The PSP area supports significant biodiversity assets spread throughout the precinct. Kalkallo Common Grassland and Kalkallo Cemetery, Merri and Kalkallo Creeks, and the Stony Knolls throughout this PSP have been identified as perhaps the most important of these assets. The remainder of the PSP area is largely degraded due to the long term land-use history of agriculture and natural attrition attributed to human disturbance and alteration.

An opportunity exists to provide a significant flora and fauna reserve and enhance the existing values contained within Kalkallo Common Grasslands and Kalkallo Cemetery. The protection of many of the Stony Knolls could enhance the habitat linkages across the site, and provide continuous remnant vegetation cover within the already existing corridor of Merri Creek. The SMEC report recommends that a buffer of at least 100m would adequately protect the riparian zone of Merri Creek and Kalkallo Creek. It is recommended that unnamed creeks and natural drainage lines also be retained and disturbance kept to a minimum in these habitats.

The following biodiversity values have been identified within the precinct:

- Four threatened fauna species, being:
 - Golden Sun Moth (EPBC Listed- Critically Endangered, FFG Listed);
 - Growling Grass Frog (EPBC Listed- Vulnerable, FFG Listed);
 - o Pied Cormorant (VROT- Near Threatened); and
 - Yellow-bellied Sheathtail Bat (FFG Listed).

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- Six fauna habitat types, including degraded treeless vegetation/cropping and pasture zones, Plains Grassy Woodland EVC, Wind Rows, Merri Creek Aquatic Habitat, Merri Creek Riparian Zone, and Stony Knoll Shrublands.
- Four threatened flora species, being:
 - Matted Flax-lily (EPBC Listed- Endangered);
 - Pale Swamp Everlasting;
 - Slender Tick-trefoil; and
 - o Tough Scurf-pea.

2.3.3 Topography and landform

The precinct consists of a gently inclined plain, sloping gently down to the southeast, with a prominent hill, Bald Hill, in the northeast of the PSP area, and Merri Creek running within, through and adjacent to the eastern boundary of the precinct.

The precinct is surrounded by rural and residential properties within Kalkallo and is predominantly farm land with a number of rural buildings existing on the site. Land within and surrounding the precinct is generally used for grazing, comprised primarily of paddocks bounded by windrows of pine trees.

2.2.4 Catchments and drainage

The drainage system for the precinct area generally consists of the Merri Creek, the largest watercourse in the Kalkallo / Craigieburn area, and tributaries of the Merri Creek include Malcolm and Aitken creeks which flow from the east and meet the Merri Creek at Craigieburn. There are also a number of smaller tributaries running into the Merri Creek, some of which are ephemeral including Kalkallo Creek which runs through the township of Kalkallo meeting Merri Creek south of Donnybrook Road.

Party of the plan area falls within the Kalkallo Creek Drainage Scheme, however Melbourne Water has not yet prepared a drainage scheme for the remaining area. The proposed drainage system for the precinct area is planned to consist of a series of wetlands / retarding basins linked by a drainage system. For most locations where retarding basins are proposed it is also intended to have stormwater treatment wetlands to maximise the stormwater benefits of these basin / wetland areas. The system proposed will satisfy Melbourne Water's requirements, including the need to manage peak flows and stormwater quality as well as the Merri Creek floodplain and waterway corridor. Further discussion with Melbourne Water will confirm flood retardation requirements as part of the detailed construction requirements. The proposed drainage system for the study area is planned to consist of a series of wetlands / retarding basins linked by a drainage system. For most locations where retarding basins are proposed it is also intended to have stormwater treatment wetlands to maximise the stormwater benefits of these basin / wetland areas.

Several locations along Merri Creek were also checked to ensure that the flows within the development are maintained to existing conditions when entering the creek to avoid adverse effects such as greater flood levels, higher velocities and scour. Modelling of the proposed retarding basins for developed conditions indicates flows within the creek are generally kept at existing conditions with the exception of the southern end of Merri Creek, where flows are slightly higher due to the large area of directly connected flows.

2.2.5 Community Facilities

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Consultants, ASR Research Pty Ltd, provides a detailed analysis of community infrastructure issues and requirements associated with the preparation of the Lockerbie Precinct Structure Plan (PSP) area.

The Lockerbie PSP area has sufficient population and is sufficiently distant from existing urban communities to warrant a significant quantity and diversity of community infrastructure. Most of this infrastructure will be located within four main community infrastructure hubs based around proposed town centres. Government Non-Government schools, community centres, passive and active open space, indoor recreation facilities, arts and cultural facilities, justice and emergency services, and residential aged care services may all be required.

2.2.6 Services

The servicing infrastructure assessment demonstrates that development of the Lockerbie PSP area can be provided with the full range of utility services, although not all services are immediately available.

Yarra Valley Water, the water supply authority responsible for the provision of reticulated sewerage, water supply and recycled water supply to the Lockerbie PSP area, has indicated support for the following permanent servicing arrangements:

Sewerage

A regional treatment plant will be established south of Donnybrook Road, with the exact location still the subject of discussions between Yarra Valley Water, GAA and the government. Yarra Valley Water have confirmed that the cost of constructing the treatment plant will be funded as part of their capital works program, however the major branch sewer between Donnybrook Road and the Gunns Gully Road extension will be subject to 40% bring forward costs.

Water Supply

Ultimate water supply to this area is via the future Bald Hill Tank on Bald Hill adjacent to the project. The tank will be financed as part of the Yarra Valley Water capital works scheme. As an interim, Yarra Valley Water have confirmed that supply to Stage 1 will be available from the existing Wallan-Craigieburn water main in the Hume Highway.

Recycled Water Supply

Yarra Valley Water has confirmed that recycled water will be mandated for all proposed developments. As it is unlikely that recycled water will be available until the Kalkallo Treatment Plant is operational, Yarra Valley Water has confirmed that a temporary cross-connection between the potable mains and recycled mains would be approved.

The following arrangements for electricity and gas supply and telecommunications services are made, following discussion with the relevant utility providers:

Electricity Supply

SP Ausnet is the power supply authority for this area. Underground power can be made available by extension of mains from the existing Kalkallo zone sub-station infrastructure at the north-west corner of Donnybrook Road and Hume Highway. SP Ausnet will require a number of substations to be strategically located within the proposed development.

Gas Supply

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Envestra is the Gas Supply Authority. It is anticipated that gas will be extended and augmented from existing assets north of the site at Beveridge, consistent with consumer demand.

Telecommunications

Telephone facilities will be made available in conjunction with staged subdivision. The provision of telecommunications is currently being negotiated to enable fibre optic to be made available to all new lots.

2.2.7 Site Contamination

Lane Piper was engaged to conduct a Phase 1 Environmental Site Assessment at specified areas within the Lockerbie PSP. The purpose is to provide preliminary advice on the site (identified contamination status and implications for the suitability for intended use) to inform the development. The objective is to identify the past and/or current uses and activities at the site and in the immediate vicinity, and whether these uses and activities have had the potential to cause contamination of the land and groundwater at the site.

The significance of the identified contamination potential cannot be fully assessed without further investigation; however the risk level indicated is to be low to moderate based on the information collection within this Phase 1 ESA. There is a potential for soils in the vicinity of the ASTs, the potential UST, sheep dips, jetting yards, former waste dumping areas, abandoned houses, septic tanks, chemical storage and cropping areas to be impacted. Further investigation in these areas may be required.

Further environmental assessments are likely to be required in each development stage to provide sufficient evidence for a determination that proposed land uses are acceptable, or to inform potential remediation.

2.2.8 Transport

The Transport needs of the Proposed Lockerbie community will be addressed through the provision of transit-oriented land use, including a rail station and bus interchange located centrally adjacent to the proposed Principal Town Centre. Ensuring appropriately laid-out walking and cycling paths (with direct access to the proposed rail station and bus interchange), throughout the community, the provision of secure bicycle facilities at the rail station and PTC, and well designed and serviced bus routes will ensure residents have an excellent transport network at Lockerbie, where sustainable travel modes are prioritised.

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Summary of Technical Studies for Background Report

- Lockerbie PSP Community Infrastructure Assessment Stage 1 Quantitative Assessment (ASR Research Pty Ltd, 28 April 2011)
- Lockerbie PSP Community Infrastructure Assessment Requirements and Opportunities (ASR Research Pty Ltd, 2 November April 2011)
- GAA Biodiversity Mapping 2009 2011, Biodiversity Assessment Report Contract Area 57 Lockerbie/Kalkallo (SMEC, 8 September 2010)
- Cultural Heritage Assessment Desk Top (Terraculture, May 2011)
- Distribution of Retail Floor Space Options (Urbis, 25 October 2011)
- DCP Land Valuations Assessment (Urbis, October 2011)
- Growling Grass Frog Conservation Management Plan Lockerbie Precinct (Working Draft) Ecology Australia 17 November 2011.
- Servicing Report Draft (Breese Pitt Dixon, 3 October 2011)
- Phase 1 Site Environmental Assessment Lockerbie PSP (Lane Piper, 27 April 2011)
- Draft Surface Water Management Plan (Engeny 25 May 2011)
- Proposed Hume Highway and Outer Metropolitan Ring Road Interchange Study -(Parsons Brinckerhoff, 13 January 2011)
- Project Lockerbie Transport Infrastructure Report (Parsons Brinkerhoff, 21 April 2011)
- Northern Growth Corridor Modelling (Memorandum), (GTA Consultants, 17 November 2011)
- Upper Merri Creek Flood Mapping Donnybrook Alluvium March 2011
- Lockerbie Precinct Structure Plan Transport Impact Assessment GTA Consultants 21 March 2012

