

Chris Smith

& ASSOCIATES

SPECIALISING IN SUBDIVISION PROJECT MANAGEMENT AND DESIGN

Toolamba Precinct Structure Plan

Background Report



Rev. 0 April 2016

CS&A Ref: 15018

11 Edward Street, Shepparton, Vic, 3630
Telephone (03) 5820 7700 Facsimile (03) 5822 4878

Document Ref: 15018_Toolamba PSP - Background Report - Janelles corrected draft.doc



Contents

**Toolamba Precinct Structure Plan
Background Report**

1	LOCAL CONTEXT AND SITE DESCRIPTION.....	2
1.1	Local Context.....	2
1.2	PSP Study Area.....	2
1.3	Regional Context.....	4
2	TOOLAMBA PRECINCT - EXISTING FEATURES	7
2.1	Heritage.....	7
2.2	Biodiversity.....	7
2.3	Topography and Landform.....	8
2.4	Catchment and Drainage.....	8
3	EXISTING PLANNING CONTROLS.....	10
3.1	Local Policy Framework.....	10
3.2	Farming Zone.....	11
3.3	Land Subject to Inundation Overlay.....	11
4	TOOLAMBA PRECINCT STRUCTURE PLAN (PSP)	12
4.1	Township Character.....	12
4.2	Community facilities and retail needs.....	12
4.3	Natural Systems and Heritage Values.....	14
4.4	Stormwater Management.....	14
4.5	Traffic and Movement Networks.....	15
4.6	Vehicular Movement Network.....	15
4.7	Pedestrian & Cycling Movement Network.....	16
4.8	Proposed Goulburn Valley Highway (Shepparton Bypass).....	16
4.9	Utilities Servicing.....	17
5	SUPPORTING STUDIES.....	18

Intentionally blank

1 Local Context and Site Description

1.1 Local Context

The Toolamba Precinct Structure Plan area is located directly south of Toolamba's main street (Wren Street), approximately 250 metres west of the hotel and general store. The land is bounded to the north by existing town residences that front onto Wren Street; to the east by the railway line; to the south by the future Goulburn Valley Highway (Shepparton Bypass) and to the west by Rutherford Road.

The Toolamba PSP will allow the township to grow and become a community that will be supported by a local town centre, community facilities including a primary school and kindergarten, commercial facilities including a general store and post office, and sports ground.

Toolamba will function as a sustainable component of the Greater Shepparton municipality, whilst maintaining its unique local character and aesthetics.

Major investment in new transport infrastructure in the form of the Goulburn Valley Highway (Shepparton Bypass) will underpin the town's growth and accessibility and will open up strategic links to employment opportunities that will connect Toolamba with Mooroopna and Shepparton as well as Melbourne.

The Toolamba PSP:

- Identifies the areas to accommodate residential growth;
- Supports limited biodiversity assets including some remanent individual scar trees;
- Facilitates the connection of the precinct with existing activity nodes in the town and nearby urban centres;
- Provides for planned transport infrastructure;
- Provides for the protection and enhancement of cultural heritage, environmental and biodiversity assets; and
- Provides for onsite stormwater retention and quality improvement to pre-development rates.

1.2 PSP Study Area

The land is contiguous with the Toolamba township, with existing residential lots along Wren Street, the main street of Toolamba, adjoining its northern boundary. The land is quite undulating, relative to the flat plains of the Goulburn Valley. A number of mature native trees are spread across the site. It is intended to retain and incorporate these natural features into the development of the land to create an "open" rural town ambience.

The land has a long history of agricultural activities, mostly non-irrigated cattle grazing and fodder production. The land has not previously been used for any intensive agricultural uses, as the undulating terrain prevents efficient irrigation. The land contains no dwelling or buildings and the long-standing landholder informs us that the land has not (in living memory) contained sheep dip pits, chemical or fuel storages nor have any other activities with the high-risk potential to cause contamination been carried out on the land.

Essential services such as reticulated water, electricity and telecommunications are available in the area and should be available for future development on the land to connect to. Reticulated sewer is not available in Toolamba, with all existing development utilising septic tank type on-site effluent disposal. It is proposed to investigate with Goulburn Valley Water, the possibility of providing reticulated sewer to Toolamba via a rising main to the Tatura treatment plant. Some preliminary discussions have been held and it has been established that it is physically possible and that it would not only facilitate a more environmentally responsible development on the subject land, it would also remedy existing environmental concerns associated with existing non-sewered development in Toolamba and Old Toolamba townships.

Diagram 1 – Study Area



1.3 Regional Context

History

European settlement saw the Toolamba area originally established following the subdivision of the pastoral runs. The township was named after the pastoral station (1845) and is believed to be derived from an Aboriginal word meaning a lagoon with paperbarks.

Between 1874 and 1880 the town had established with five hotels and several stores. A fruit cannery was constructed in the 1880's as well as five primary schools by 1890. Despite this, a new town centre was formed approximately three kilometres to the north east, around the railway junction, following the extension of the railway network. Thus "Old" Toolamba remains as a residential node on the Mooroopna-Murchison Road.

The railway station was closed to pedestrian traffic in 1987. Of the five primary schools, only one remains with 127 pupils. The Toolamba population is currently at 752 (2011 census).

The Toolamba township is located within the Greater Shepparton Local Government Area. Clause 21.04 of the Local Planning Policy Framework identifies Toolamba as an area with potential for further residential expansion due to its unique position of having a dedicated freeway interchange as part of the Goulburn Valley Highway Bypass.

Surrounding Areas

The following settlements exist in the surrounding context of the Toolamba PSP area:

Shepparton

Shepparton is a major regional city which has a population of 29,553 (2011 census), and includes community facilities and services which cater to a broader regional catchment. Shepparton is in close proximity to Toolamba being 18 kilometres to the north and is accessible via Rutherford and Mooroopna-Murchison Roads; or via Bridge Road and Goulburn Valley Highway.

Mooroopna

Mooroopna is the second largest urban area within the Goulburn Valley supporting a population of 7,813 persons. While the township predominantly caters for residential development and includes retail, community and education services as well as employment opportunities for its population. A major new centre for freight and logistics of goods is planned for the southern side of Mooroopna.

Tatura

Tatura is a regional town which has a population of 4450 (2011 census) and is located 17 kilometres north west of Toolamba and 16km south west of Shepparton. The town offers significant employment opportunities with a number of industries and businesses in the town as well as the farming enterprises such as dairies and orchards which extend into the broader district.

Murchison

Murchison is located on the Goulburn River and supports a community of 1047 (2011 census) which features basic community infrastructure and services. Beyond the township are large landholdings which support dry land farming, dairying and vineyards. Murchison is 22 kilometres south of Toolamba.

Transport and Movement

The main roads which service Toolamba include Toolamba Road (Mooroopna-Murchison Rd), Rutherford Road, Wren Street and Bridge Road.

Toolamba has been identified for a dedicated freeway interchange as part of the proposed Shepparton Bypass. This bypass is anticipated to cater for long term traffic growth, improve safety and accessibility for both local and through traffic, improve the level of service for commercial traffic in the region, and provide certainty for future land use development.

The existing Melbourne-Shepparton rail line provides a major freight and pedestrian transport link between Melbourne and Shepparton. It does not however stop at Toolamba; requiring residents to embark on the train at either Shepparton, Mooroopna or Murchison East.

Employment and Activity Centres

Employment within the region has mostly been centred around agricultural production and manufacturing; with irrigation being a key driver to the success of these industries.

Over recent years, there has been a strong growth in employment within the utility service sectors (electricity, gas and water), health care and social services, accommodation and food services, public administration and support services.

A significant number of these employment opportunities are generally centralised to Shepparton township which features a major commercial centre, as well as health, education and community facilities which cater for the regional catchment.

Employment opportunities are also present to a lesser extent in the townships of Mooroopna and Tatura with major industries based in these locations.

Community Facilities

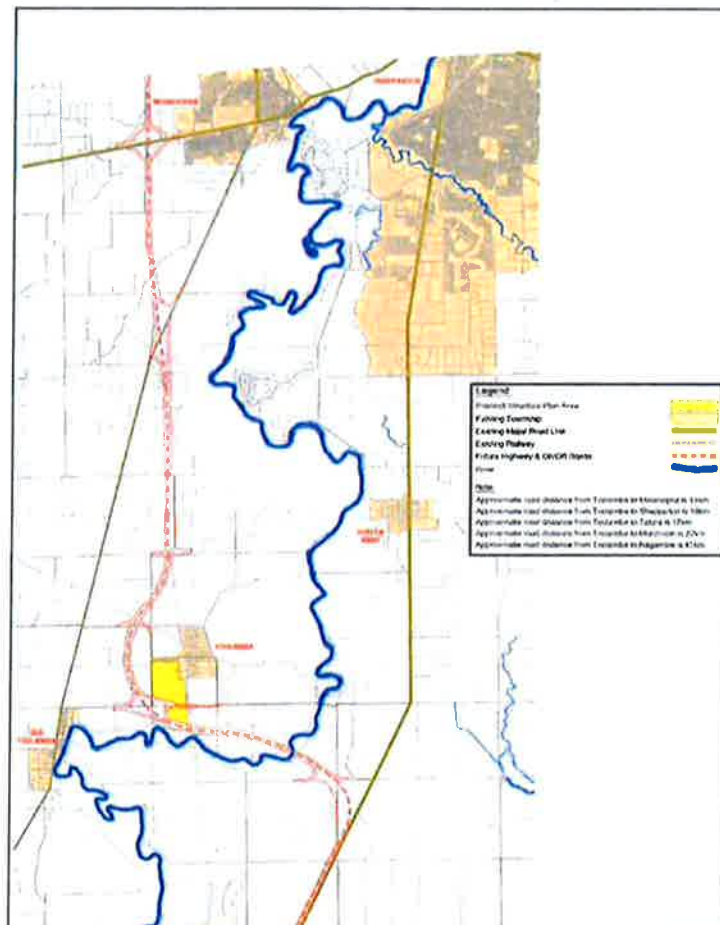
Toolamba has a number of existing facilities within the township which are underutilised as a result of the lack of population mass. The PSP will provide the opportunity for the Toolamba township to expand to a size that will improve service levels for current facilities, augment existing infrastructure and provide additional facilities which are lacking in the township such as public open space.

The key existing facilities include:

- Toolamba Primary School and kindergarten
- Community Centre
- Active open space including sports oval, tennis courts and clubroom
- General Store / Post Office
- Hotel

Proposed community infrastructure for the Toolamba PSP consists of a network of integrated Public Open Spaces with a sum total area in the vicinity of 8.6 hectares.

Regional Context Plan



2 Toolamba Precinct - Existing Features

2.1 Heritage

At the time of conducting the cultural heritage management plan, there was no Registered Aboriginal Party (RAP) for the subject land. The land did, however, fall within the RAP claimant boundaries the Yorta Yorta Nations Aboriginal Corporation.

A standard and desktop heritage assessment has been undertaken for the area. A number of remnant scar trees have been identified to the north east corner of the site, as well as another towards the centre near an existing water channel easement.

No Aboriginal archaeological sites were identified within the activity area by the surface survey. There were no surface scatters or stone scatter or stone artefacts. It is considered likely however the focus of Aboriginal settlement in the local area would have been around the wetland resources along the Goulburn River.

The results of the standard assessment indicate that the activity area comprises land that has been disturbed by land clearance and ploughing, as well as by the construction of several existing dams. These ground disturbance activities would likely have resulted in the removal of topsoil and the destruction of any surface or near surface Aboriginal cultural materials.

A dwelling has previously existed towards the centre of the southern boundary. Evidence of the original dwelling can be observed through stacks of bricks and remaining foundations at the site which is also accompanied by mature garden plants comprising of exotic species.

2.2 Biodiversity

The Toolamba Precinct is highly modified, with the majority of the area being replaced with introduced grasses as a result of agricultural activities which have taken place.

Flora

The subject site is situated within the Victorian Riverina Bioregion and the likely EVC present over the subject site prior to European disturbance was Plains Woodland (*syn. Riverina Plains Grassy Woodland*)

The site contains a large number of indigenous trees both as scattered and isolated trees and in clusters to the north east and southern areas. The majority of these tree species comprise of Yellow Box and Grey Box, and to a lesser extent River Red Gum, White Box and Sugar Gum. Wattle Mat-rush is found in very small occurrences within the north-eastern corner area.

The land also exhibits exotic tree species such as Peppercorn Trees throughout the site. Due to the use of the land there is no mid-storey vegetation. Ground cover species comprise of cropping and exotic species.

A number of scar trees were identified within the remnant area to the north-east.

Fauna

The native fauna in the region of the activity area is significantly diminished, largely as a result of the loss of habitat, with many animal species once present now locally or regionally extinct.

Mammals which are still present in the area include wallabies, eastern grey kangaroo, brush and ringtail possums, koalas, fat tailed dunnart and echidna.

There are 127 species of native birds recorded in the region of the activity area. 23 bird species were identified within the vicinity of the precinct, including Tawny Frogmouth, Little Corella, Galah, Australian Magpie, Crested Pigeon, and Eastern Rosella.

2.3 Topography and Landform

The PSP area is within an area which occupies fertile clays and clay loam soils. The site is gently undulating with a number of subtle low ridges between which there are shallow natural drainage paths that allow stormwater run-off to make its way eventually to the Goulburn River (to the south). Average annual rainfall in the area is 493mm.

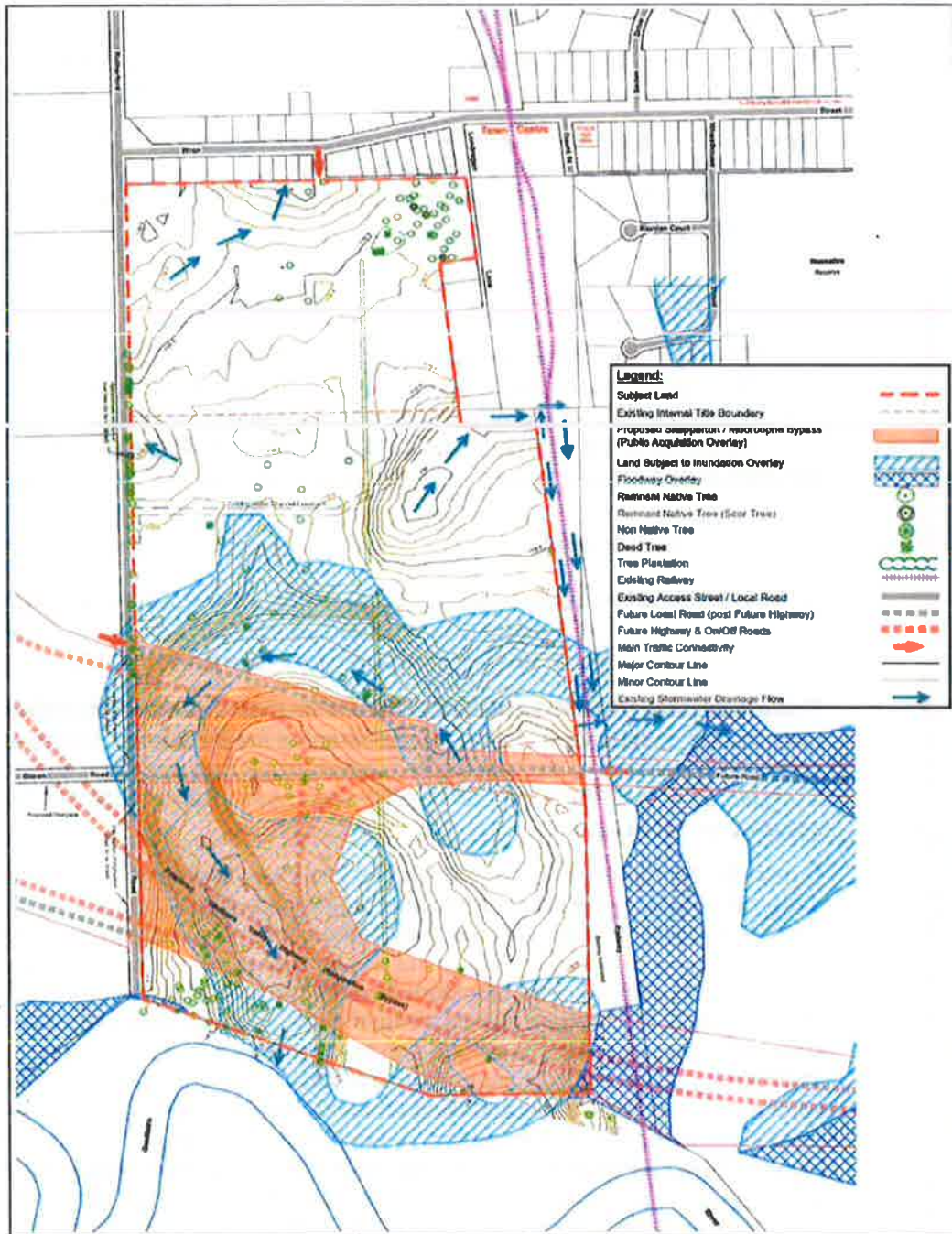
2.4 Catchment and Drainage

The existing site has been analysed as having four (4) sub-catchments as defined in the specialist report prepared by Stormy Water Solutions titled "Rutherford Road, Toolamba:- Stormwater Management Plan", Fig B.1, page 19.

There are some other external sub-catchments that have been identified as contributing to the overall drainage catchment of the PSP area. These external sub-catchments are to the west of Rutherford Road and are relatively small in comparison to the PSP area, but nevertheless have been included in the stormwater assessment.

Currently, the northern part of the land falls to a low spot where there is a disused dam, referred to in the abovementioned report as outlet A. Surface water leaves the site at outlet C where there is a dam that captures run-off for stock watering purposes, prior to it discharging to the west via a culvert under the railway line and then ultimately into the Goulburn River to the south via the open drains within VicTrack land. The largest sub-catchment is the southern sub-catchment which leaves the site at outlet D and then into the Goulburn River, ultimately discharging down the river bank via a well-defined rock-lined chute. This sub-catchment is impacted by Land Subject to Inundation Overlay due to Goulburn River flooding and is also impacted by the Public acquisition Overlay for the planned Shepparton Bypass. Sub-catchment D has a natural wetland and stock watering dam located within it. The subtle ridge that separates sub-catchment D from adjoining sub-catchments to the north, has an elevation which is high enough to protect the abutting sub-catchments from river flooding events. Water also currently leaves the site at outlet B which has the smallest of the identified sub-catchments.

Site Analysis Plan



3 Existing Planning Controls

The PSP study area is currently within the Farming Zone and the southern portion of the land includes a shallow depression that is affected by the Land Subject to Inundation Overlay. A summary of the relevant sections of the State and local policy framework of the Greater Shepparton Planning Scheme and demonstration of how the strategic directions within are implemented are provided in the accompanying Explanatory Report. The below sub-sections provide an expanded assessment of the proposal against the Local Planning Policy Framework as well as other relevant planning controls and strategies.

3.1 Local Policy Framework

The MSS recognises that Toolamba is in a unique position as it is the only small township with a dedicated freeway interchange; the Goulburn Valley Highway bypass together with the development of the Freight and Logistics Centre in Mooroopna provide opportunities for a township expansion in Toolamba as the population may increase and new business opportunities arise.

The MSS states that a connection to reticulated sewer would enable Toolamba to develop at higher densities, however in the absence of reticulated sewer all development will be subject to a Land Capability Assessment. Further, the MSS states that Development Plan Overlays should be used in conjunction with any future township expansion.

Clause 21.04 **Settlement**, within the Municipal Strategic Statement (MSS) provides for Urban Consolidation and Growth (Cl. 21.04-1). It sets out that the Greater Shepparton Housing Strategy 2011 (GSHS 2011) was prepared to provide future strategic direction regarding housing and residential development and provide guidance for residential development in the municipality; the Strategy provides for sufficient land supply to accommodate housing demand within defined settlement boundaries. Six Investigation Areas have been identified, which are areas that could accommodate higher density residential development, subject to resolving site-specific issues.

Toolamba – Investigation Area 6 – is identified as the area south west of the existing township. The density of residential development within this area will be dependent on whether reticulated sewer can be provided or not. The proponent has established that reticulated sewer is physically possible and is committed providing a sewer rising main to the Tatura Waste Water Treatment Plant (subject to Goulburn Valley Water approval). The PSP area corresponds with Investigation Area 6.

The proposal upholds the strategic directions of the MSS insofar as the land is identified on the Toolamba Framework Plan as an Investigation Area within the Settlement Boundary and is in a locality that will expand housing choice within the region. Very little development has been allowed to progress in Toolamba over recent years, for various reasons. As existing residents prefer to age in place, opportunity for new residents and young people wanting to stay in the town to raise their own families has been limited. Hence, there is a pent up demand for new housing stock in the town. New development is needed to sustain existing community facilities such as the primary school and sporting facilities, which the community has worked so hard to establish and grow.

The land's location, between the existing township and the future freeway, makes it a logical direction of expansion of the township. Provision for the future freeway alignment (including buffers) will be incorporated into the design, effectively negating issues usually associated with the urban rural interface. The future freeway corridor (defined by the Public Acquisition Overlay) forms a clear and logical boundary to the PSP area.

The land available for township purposes is in the vicinity of 56 hectares which may appear to be an over-supply, based on recent housing approvals in Toolamba. However, it should be noted that, compounding with the above described pent up demand is the possibility for exponential growth in Toolamba over the ensuing years due to the re-alignment of the highway and the establishment of GVLink logistics centre only a few kilometres away on the southern periphery of Mooroopna. Accordingly, now is the time to plan for this growth to prevent piecemeal and ad-hoc development. The PSP approach provides security for the future needs of the Toolamba community and orderly and sequential release of land can be facilitated through the planning permit process.

3.2 Farming Zone

As previously stated the subject land is within the Farming Zone. The purpose of the zone includes:

- *To provide for the use of land for agriculture;*
- *To encourage the retention of productive agricultural land; and*
- *To ensure that non-agricultural uses, particularly dwellings, do not adversely affect the use of land for agriculture.*

The subject land is currently used for non-irrigated cattle grazing and holds little farming improvements. The land is contiguous with the established township of Toolamba and will, when the freeway is created, be cut off from the proponent's adjoining agricultural land (to the east) and therefore inconvenient and uneconomical for on-going agricultural use. However, the locality of the land, with its proximity to the town centre and the proposed freeway interchange, makes it suitable for residential development. Therefore, the Farming Zone is no longer the appropriate zone for the land.

3.3 Land Subject to Inundation Overlay

The primary purpose of the Land Subject to Inundation Overlay is to identify land in a flood storage or flood fringe area affected by a 100-year ARI flood and to ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local conditions and not cause any significant rise in flood level or flood velocity. A comprehensive site analysis - in terms of pre-existing stormwater conveyance across the site as well as flood conveyance and storage - has been carried out by Stormy Water Solutions as part of a Stormwater Management Plan (SWMP). The SWMP provides a solution for development of the PSP area that meets best practice floodplain and catchment management.

4 Toolamba Precinct Structure Plan (PSP)

4.1 Township Character

Toolamba is a small regional town that values social interaction, community involvement and quality of life. A key objective of the Toolamba PSP is to promote and retain the "small town feel". This will be achieved by creating wide, open streets with landscaping and pedestrian facilities that encourage walking and cycling coupled with residential lots that encourage generous setbacks and open front gardens.

The PSP area will include a series of open spaces that will generous areas for passive and active recreation. Existing mature trees will be retained where possible, where they can be integrated into the residential landscape in a manner that will ensure survival, such as in open spaces or widened road reserves.

It is important that the new neighbourhood (PSP area) becomes an integrated part of the town. This will be achieved with the inclusion of strong vehicle and pedestrian links to the town centre and activity nodes – primary school and kindergarten, community centre, sports facilities, general store and hotel.

4.2 Community facilities and retail needs

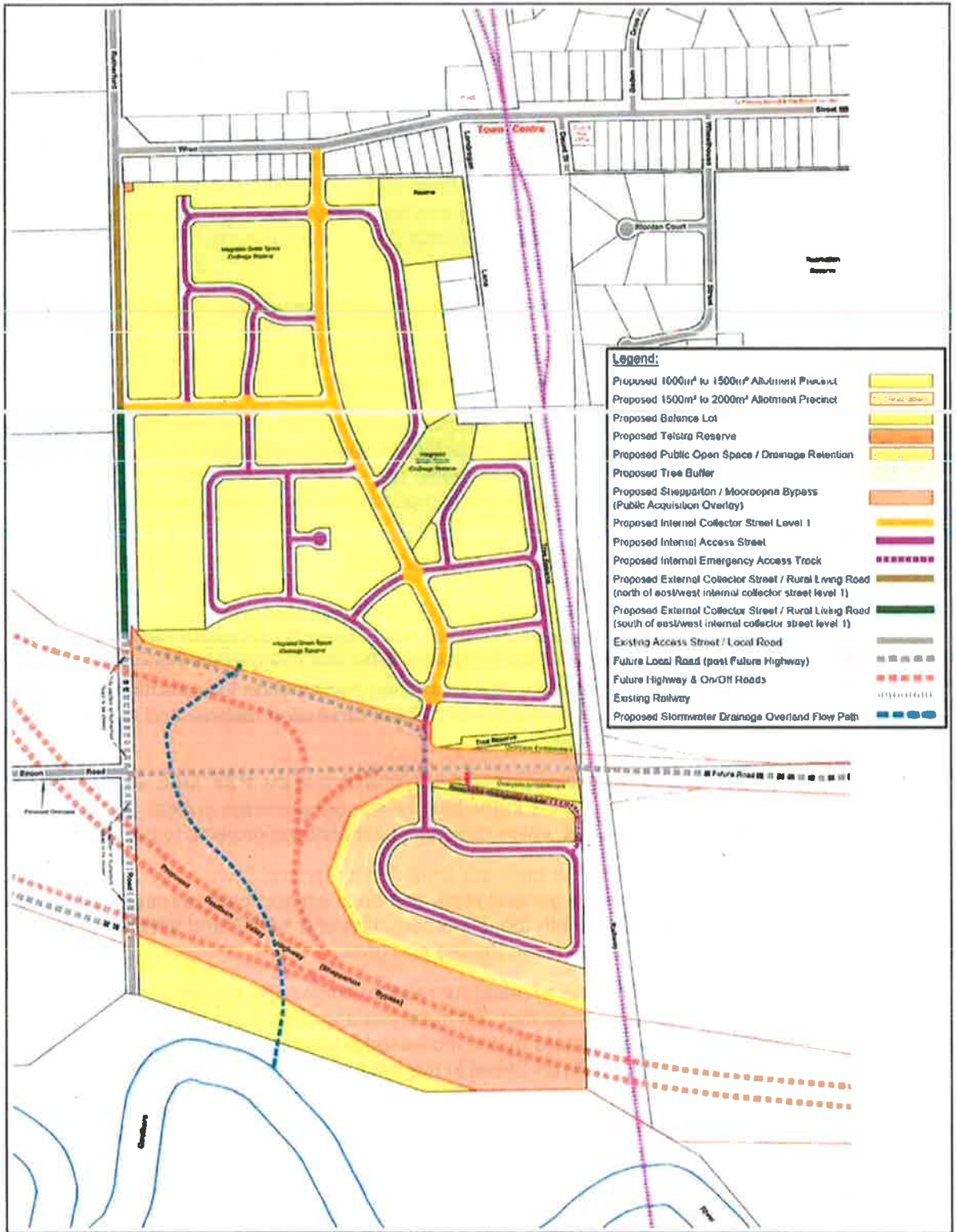
Toolamba has excellent community facilities that serve existing community needs, such as community centre (hall), sport & recreation facilities, kindergarten and primary school. The Toolamba & District Community Plan 2011 places a high priority on fostering and promoting participation in recreation, sport, leisure and culture. The redevelopment of the recreation reserve and community centre is a significant priority.

The creation of new residential opportunities in the PSP area will generate a larger pool of residents in the town which will generate greater utilisation of community facilities which should enable renewal projects to be realised.

Retail facilities in the town are limited to a General Store and hotel. Existing residents value the general store and have worked hard to retain the services it offers. Hopefully, with the implementation of the PSP and additional residents in town, the store can be sustained and grow.

No provision has been made for retail or community facilities within the PSP area. It is considered that, if it becomes apparent that new larger or additional facilities are warranted by the increased population, those facilities would be best positioned along Wren Street in the town centre or co-located with existing compatible facilities so that they can be utilised by the entire community.

Urban Structure Plan



4.3 Natural Systems and Heritage Values

The Rutherford Road site includes numerous remnant trees across it. However, a vast majority of these are within the corridor designated for the future Shepparton Bypass, so are not within the PSP study area. Of the trees that are within the PSP area, consideration should be given to retaining where possible. Of particular significance is the stand of native trees, including three aboriginal scarred trees, in the northeast corner of the PSP area.

The Cultural Heritage Management Plan by Heritage Insight concluded that the thin soils and lack of topsoil found in the Shepparton Formation indicate that if any Aboriginal Cultural remains existed in the study area, they would likely have been within the top soil profile, which has since undergone a significant level of disturbance by prior clearing and agricultural practices.

This was confirmed by test pit and transect excavations during the complex assessment phase of the CHMP. However, contingency plans are provided and must form part of a construction or environmental management plan as part of future development of the land.

Pre-existing natural drainage patterns within the PSP area will be formalised to incorporate Best Practice Stormwater Management Principles, the details of which are given in the specialist report prepared by Stormy Water Solutions titled "Rutherford Road, Toolamba:- Stormwater Management Plan". A copy of the report is attached and an overview of the plan is given in the following section.

4.4 Stormwater Management

The Stormwater Management Plan (SWMP) is sympathetic with the natural topography and comprises three (3) retardation/wetland precincts to be constructed within existing low spots or depressions to capture stormwater run-off prior to it leaving the PSP area. The locations of these precincts are essentially at or close to existing dams that were constructed as part of previous farming activities (grazing and cropping).

Stormwater run-off from the various sub-catchments within the PSP area will drain via gravity to their respective retardation/wetland precinct, either via conventional underground stormwater pipes, for storms with an Average Recurrence Interval (ARI) of 1 in 5 years or less or via overland flows, predominantly using the road reserve network as open channels, for storms with an ARI greater than 5 years.

The rates of stormwater run-off that leave the PSP site via the two (2) chosen drainage exit points have been modelled to not exceed the respective pre-development run-off rate applicable to that drainage exit point. This is of importance so as not to adversely impact the existing downstream drainage lines. These downstream drainage lines pass through the PAO and VicTrack land.

The quality of the stormwater that leaves the PSP site will meet "Best Practice" targets due to the water quality improvements that will be achieved within the retardation/wetland precincts.

The integrated green spaces within the development will accommodate urban drainage with retardation/wetland precincts, but will also contain significant areas

of un-encumbered land that will be available for passive recreational space into the greater for the benefit of the public.

4.5 Traffic and Movement Networks

A key priority of the PSP implementation will be creation of a coherent network of streets that is based on a grid network and limits the need for culs-de-sac. The new neighbourhood must integrate with and provide strong links to the existing township and activity nodes within.

4.6 Vehicular Movement Network

The development should proceed generally in accordance with the Road Hierarchy Plan. Development will commence at the northern end of the site via utilisation of the existing road link to Wren Street to create a new main access to the precinct. From here, a new centrally-located connector road will be provided that acts as a spine, feeding to residential access streets and lots. Careful consideration must be given to a connection to the Bitcon Road extension (to be constructed as part of the future Shepparton Bypass and interchange) to prevent the creation of a "short-cut" or "rat run" between the town and the freeway.

As staging progresses, a second connector will be linked to Rutherford Road, which will provide greater accessibility and driver choice when accessing the neighbourhood.

The Traffic Impact Assessment by Paffrath Consulting included assessment of the Wren Street/ Rutherford Road intersection and the two proposed new intersections at the entrance points to the development site. A SIDRA analysis of the existing surrounding road network and intersections found that:

- The Wren Street/ Rutherford Road intersection could continue to operate (post development) as a simple T-intersection with any difference in operation being indiscernible to the general motorist.
- Any impact on Wren Street and other surrounding roads will be minimal and any marginal traffic increase will be well within the capacity and function of these roads.
- The proposed new intersections (to Wren Street and to Rutherford Road) could be constructed as T-intersections and will have minimal disruption to weekday through traffic on the existing roads.

Londregan Lane and the 'right-of-way' along eastern part of the northern boundary of the site are not appropriate for additional vehicle movements from the development therefore will not be connected to the internal street network.

Proposed internal roads will be either Collector Roads or Access Streets, as shown on the Road Hierarchy Plan. All internal roads will be constructed in accordance with the Infrastructure Design Manual, will have footpaths on both sides and will be generally in accordance with the Typical Cross Section diagrams, below.

Rutherford Road, along the frontage of the precinct, will have lots facing and will be converted to a "one-sided" urban street as development progresses. The section of Rutherford Road between the new connector and the northern extent

of the development will be upgraded to include a bicycle lane and parking, upright kerb, landscaping and footpath on one side, along the frontage of lots, generally as shown on the Typical Cross Section diagram, below. South of the new collector road, the footpath will be "set back" and an additional 10 metres will be added to the road width to accommodate the existing trees along the existing boundary line. Careful consideration will be needed when designing lot access points so as to minimise disturbance to the tree root zone. Shared access points off Rutherford Road may be necessary in some locations.

4.7 Pedestrian & Cycling Movement Network

The vision for the precinct includes creation of a connected neighbourhood, where walking and cycling are encouraged and facilitated through provision footpaths and bike lanes throughout the neighbourhood and to activity nodes within the existing town. All new internal streets in the precinct will have footpath on sides that are fronted by lots. Footpaths and/or shared paths will be integrated into neighbourhood parks.

Connector streets will have a widened shared path on one side and on-road bike lanes that will connect to the regional network. Additional connectivity between the precinct and the existing town is to be provided via Londregan Lane. The layout should also provide for connection to the rail reserve, which includes an existing informal walking track.

Walking for daily exercise is a popular choice among the aging population. The internal layout should provide a series of paths through the neighbourhood and connections to the external network will provide numerous options for walking circuits, including through local parks and to destinations such as the river environs to create visual interest along the way.

4.8 Proposed Goulburn Valley Highway (Shepparton Bypass)

Provision has been made for the future Shepparton Bypass in the form of a Public Acquisition Overlay. The bypass will pass through the southern portion of the property. The PSP study area has been restricted to the part of the property that is north of the future highway.

Part of the property will also be taken up by the highway interchange (on and off ramps) and Bitcon Road will be extended through the property – and ultimately on to connect with Bridge Road – to provide continuity of local access.

The timing for the Shepparton Bypass is dependent on State and Federal Government funding strategies and therefore is largely unknown. To this end, the development should be designed so that it can proceed entirely independently from construction of the bypass.

The Traffic Impact Assessment by Paffrath Consulting includes recommendations for continued road, cycle and pedestrian connectivity both pre- and post- Shepparton Bypass.

4.9 Utilities Servicing

Sewer Reticulation

The existing Toolamba Township does not benefit from reticulated sewer, however it is proposed that the PSP area will be sewered. To this extent, Goulburn Valley Water (GVW) has advised that they would support a proposal to accept the direct effluent from the PSP area at their Tatura Wastewater Management Facility (TWMF). The TWMF is located approximately twelve (12) kilometres from the PSP area. Consequently, the connection to the TWMF will require, amongst other sewerage infrastructure, the construction of approximately twelve (12) kilometres of sewer rising main. Current funding guidelines would require one hundred percent (100%) of the sewerage infrastructure costs to be funded by the Developer.

Water Supply

Potable water is currently supplied to the existing Toolamba township via a pipeline from Mooroopna. Goulburn Valley Water has advised that the existing water supply infrastructure has capacity to service some additional connections in Toolamba, with the likelihood of being able to service some initial stages only within the PSP area prior to various system upgrades being required to meet subsequent development demands.

Electricity Supply

There is sufficient capacity in the existing electricity assets to supply the PSP area. Overhead power lines are located along in Wren Street and Rutherford Road and will be required to be augmented to serve the precinct.

Gas Supply

Toolamba does not have existing gas reticulation system, and relies on bottle LPG. It is possible that natural gas could be extended to the township at some point in the future.

Telecommunications

Development within the PSP area will require the installation of pit and pipe infrastructure through the subdivision works to install fibre optic cable. Connection to the external NBN Co network (or via an alternative provider) will also be required.

5 Supporting Studies

The Precinct Structure Plan for Toolamba has been informed by a number of specialist studies as follows:

- 1 Rutherford Road Toolamba Flora and Fauna Assessment (Water Technology) May 2012
- 2 Rutherford Road Toolamba Cultural Heritage Management Plan (Heritage Insight Pty Ltd) 2010
- 3 Proposed Residential Development Toolamba – Traffic Impact Assessment (Paffrath Consulting) July 2015
- 4 Rutherford Road, Toolamba:-Stormwater Management Plan Revision B (Stormy Water Solutions) 6 April 2016
- 5 Toolamba and District Community Plan, (Noelker Consulting) May 2011
- 6 Greater Shepparton 2030 Strategy (CGS) October 2006

