



# 6.2

## Armstrong Creek South Central

# 1 - Investigation Area Context

## 1.1 Total area of land within investigation area

376.953 ha (gross land area).

## 1.2 Definition of investigation area:

The investigation area in Armstrong Creek South Central (i.e. east of the Surf Coast Highway) is defined by the land parcels which are (in the majority) contiguous with the Urban Growth Zone land contained within the existing settlement boundary (refer Figures 16 and 17). This land therefore satisfies Principle 2 of the Long Term Boundary Review in that it is contiguous with urban residential areas.

There are a small number of land holdings located at the Lower Duneed Road intersection of Surf Coast Highway and Barwon Heads road that are not contiguous with the urban residential area. This land has been included within the investigation area, on the basis that this will enable a more holistic consideration of the landscape characteristics that will inform the settlement boundary in this location.

## 1.3 Current Zoning and Overlays:

The land within the investigation area is zoned Farming Zone (refer Figure 18).

The following overlay controls apply to land within the investigation area:

- Vegetation Protection Overlay (roadside locations)
- Heritage Overlay (farming residence and structures, 21 Lower Duneed Road)
- Flood Overlay (western part of area)
- Land Subject to Inundation Overlay (eastern part of area)
- Public Acquisitions Overlay (Barwon Heads Road widening)

(Refer Figures 19 and 20).

A photo montage of the existing site context of the investigation area is shown at Figure 21.

**Geelong Growth Investigation Areas**  
Armstrong Creek South - Central

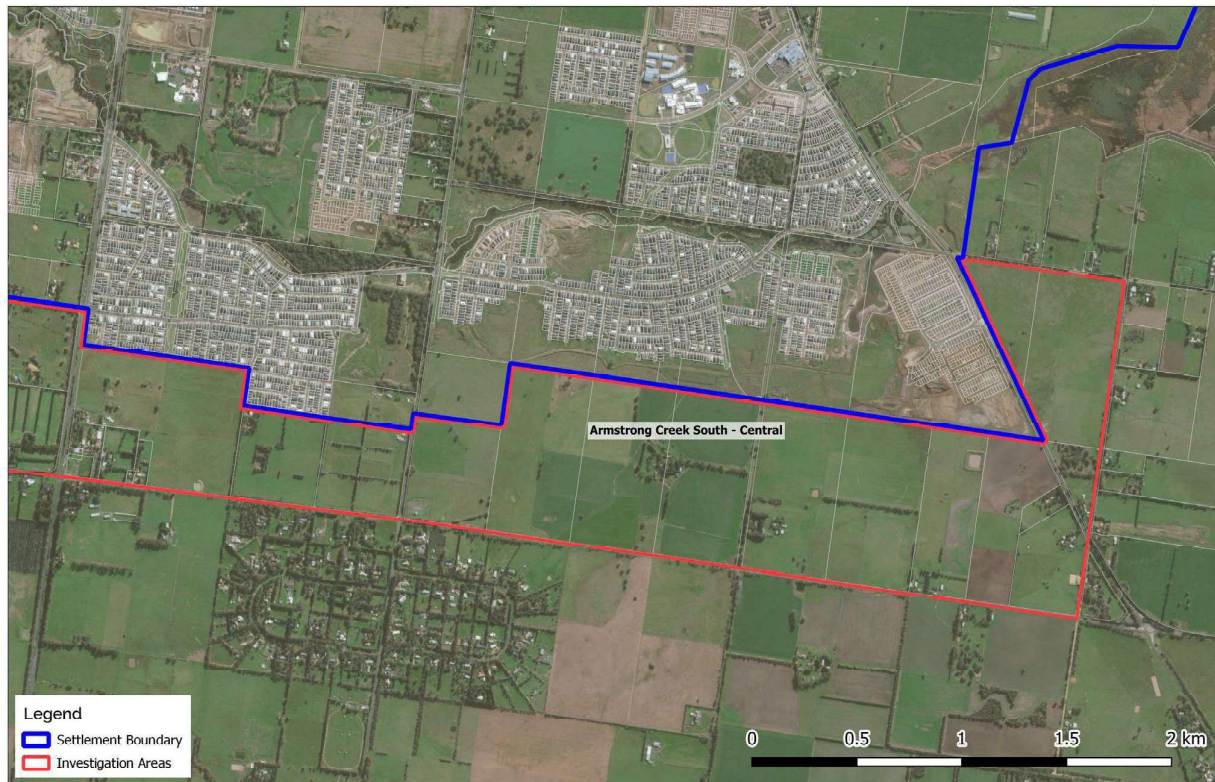


Figure 16. Armstrong Creek South Central – Aerial Cadastral Plan.

**Geelong Growth Investigation Areas**  
Armstrong Creek South Central Investigation Area

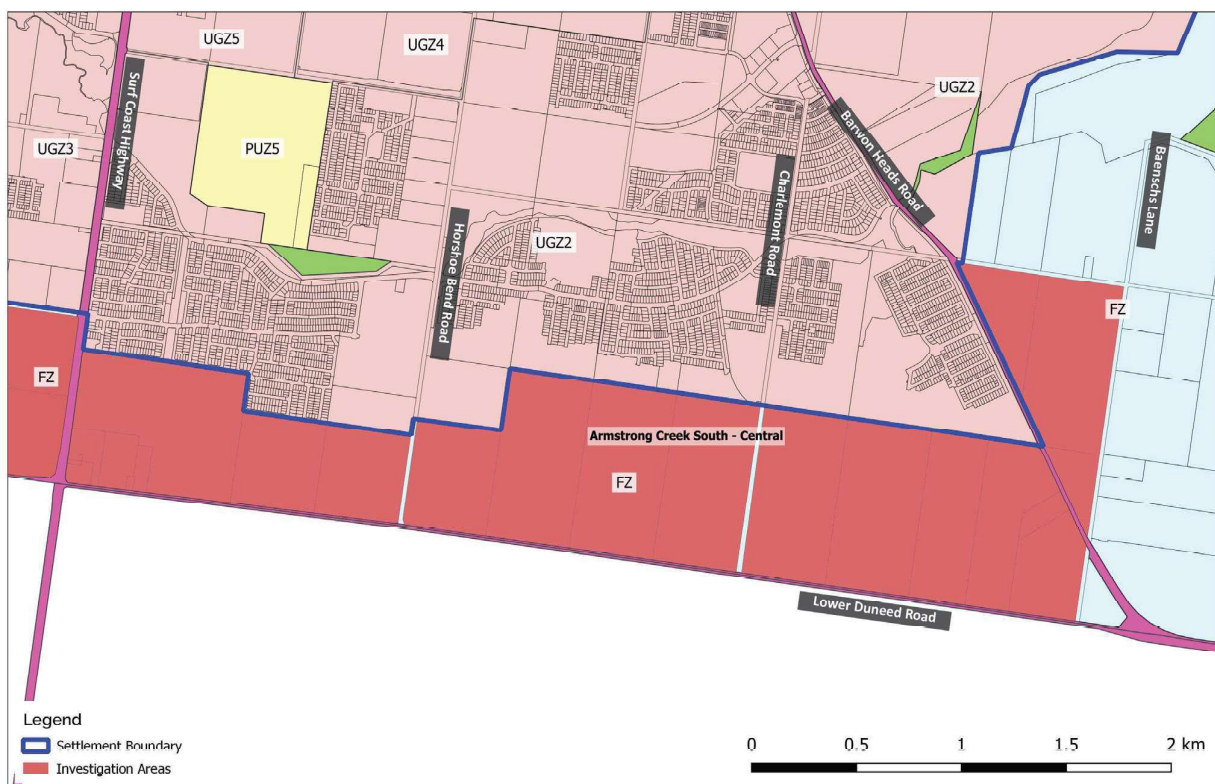


Figure 17. Armstrong Creek South Central – Investigation Area Plan.



**Geelong Growth Investigation Areas**  
Armstrong Creek South Central - Zoning

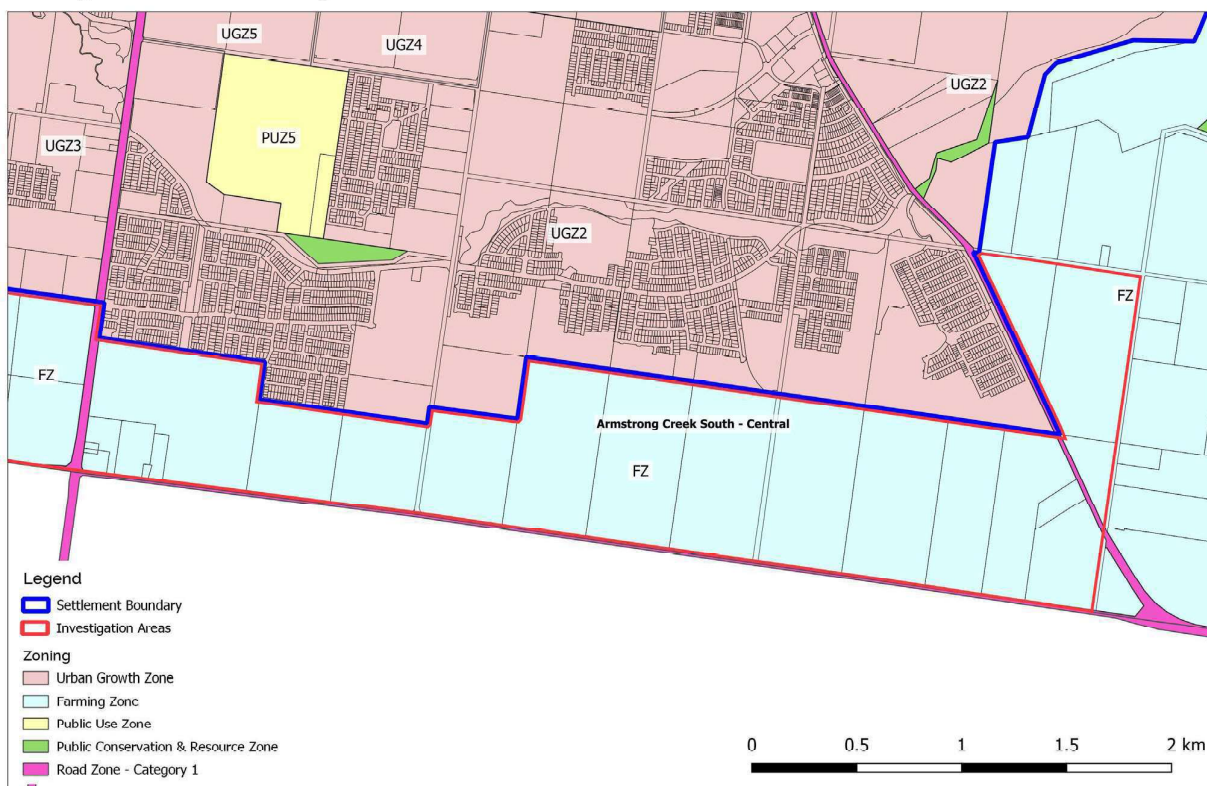


Figure 18. Armstrong Creek South Central – Zoning Plan.

**Geelong Growth Investigation Areas**  
Armstrong Creek South Central - Overlays

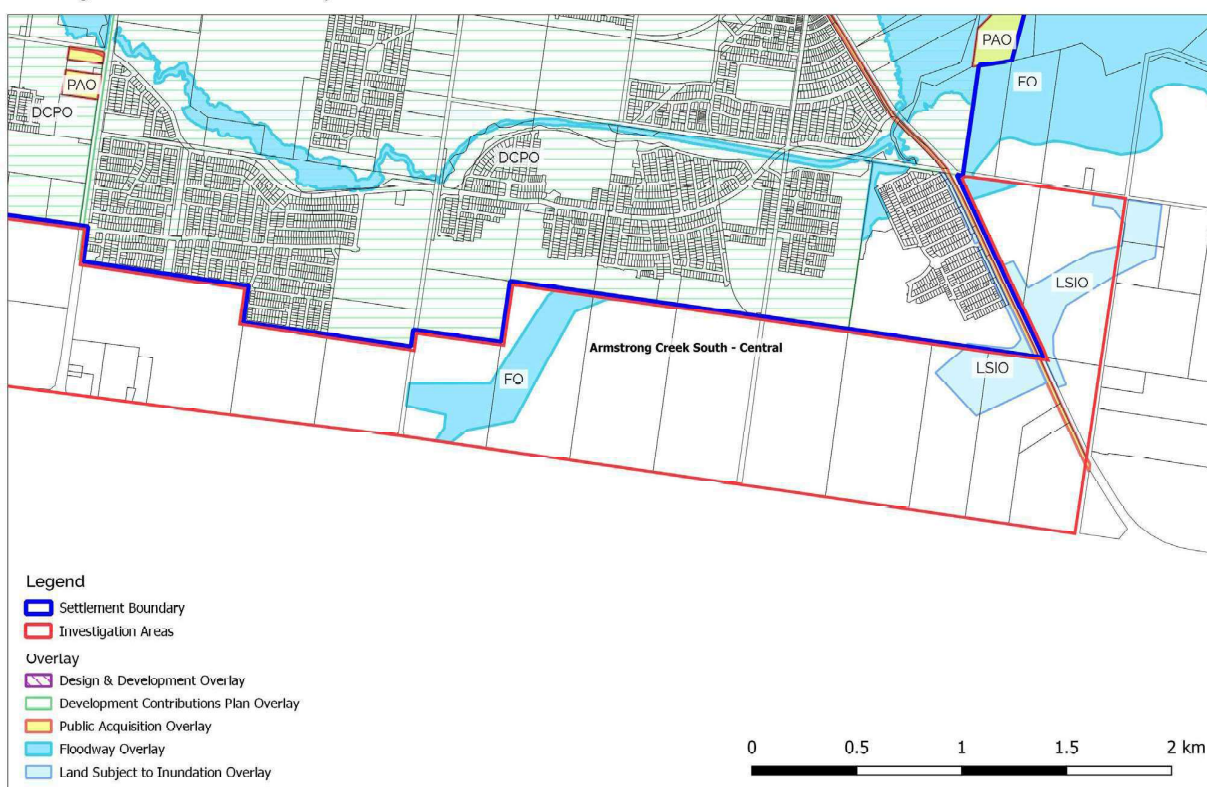


Figure 19. Armstrong Creek South Central – Overlays Plan 1.



**Geelong Growth Investigation Areas**  
Armstrong Creek South Central - Overlays

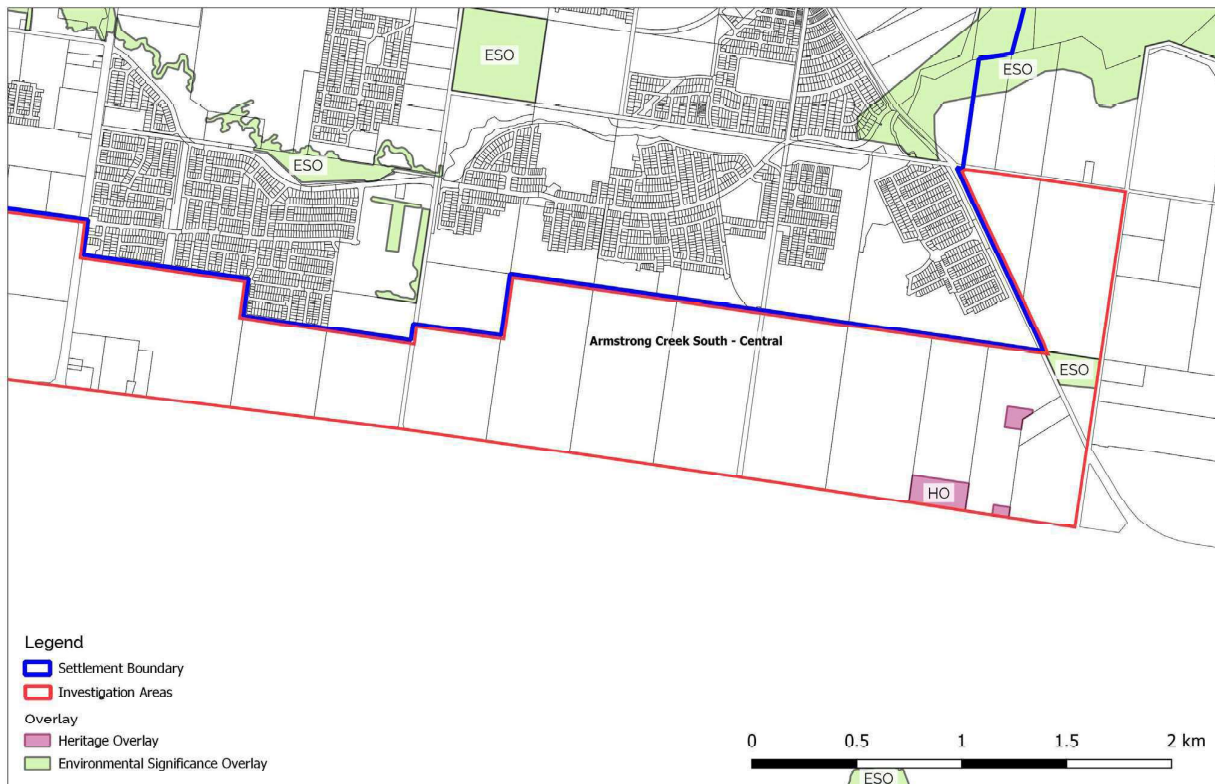


Figure 20. Armstrong Creek South Central – Overlays Plan 2.



Figure 21. Armstrong Creek South Central – Photo Montage.

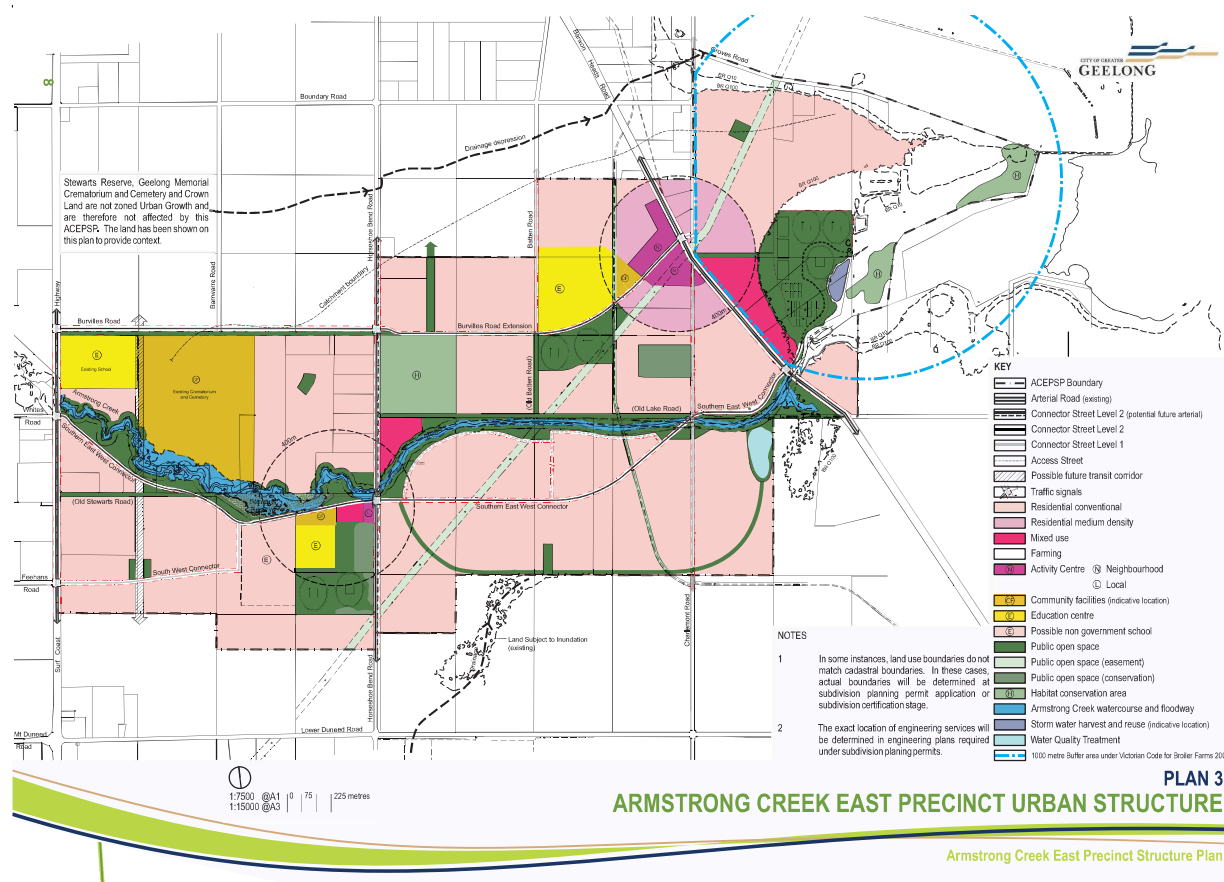


Figure 22. Armstrong Creek East Precinct - Urban Structure (Armstrong Creek East Precinct Structure Plan, City of Greater Geelong, 2010).

#### 1.4 Investigation Area & Surrounds:

The investigation area is generally flat in the central and western parts, and gently rises towards Mt Duneed to the west. The land is primarily used for cropping and grazing, and there are a small number of farm houses located on land within the area.

The Armstrong Creek Growth Area and Armstrong Creek East PSP area are located to the north of the investigation area (refer Figure 22). Substantial residential development has already occurred in this part of the growth area. The urban form within this growth area is visible at a distance from Lower Duneed Road, and is set back from this road between 450-800m.

The prevailing character of the area is rural, with both sides of Lower Duneed Road being used for farming or (in the case near Horseshoe Bend Road) low density residential.



## 2 - Summary of Recent Submissions in Relation to the Settlement Boundary

### 2.1 Amendment C395 to the Greater Geelong Planning Scheme (Greater Geelong Settlement Strategy)

The following is a summary of submissions made to the City of Greater Geelong in relation to the settlement boundary identified in Amendment C395 (Geelong Settlement Strategy):

#### 372-450 Charlemont Road Armstrong Creek (DFC Services Pty Ltd and Landowner):

It is the view of DFC Services Pty Ltd and the landowner (the Sprague family), that the 372-450 Charlemont Road property is suitable for urban residential development and should be treated as a logical extension of the Warralily development located to the immediate north. The submitter supports the use of a 'logical inclusions' process in order to determine a settlement boundary and assess the suitability of contiguous land.

#### 70 Baensch Lane (Property Corporate Holdings Pty Ltd):

This submission seeks recognition of 70 Baensch Lane, Connewarre as a suitable candidate for inclusion within the Geelong Settlement Boundary.

The submission makes the following points:

- The site exhibits a range of features that are in-keeping with those features present on the land to the west before it was rezoned from Farming Zone to Urban Growth Zone via Amendment C301.
- Inclusion of the site within the Geelong Settlement Boundary can demonstrate consistency with the planning aspirations and objectives of the State and Local Planning Policy Frameworks of the Greater Geelong Planning Scheme, including the following:
- The existence of major road infrastructure in the form of Barwon Heads Road and the approval of Amendment C301 results in good accessibility to a range of services from the site.

- Inclusion of the subject site into the Armstrong Creek Growth Area will result in improved utilisation of the neighbourhood centre and associated recreational facilities within a 1.6km catchment of the subject site.

#### 70 Baensch Lane (Property Corporate Holdings Pty Ltd):

This submission seeks recognition of 70 Baensch Lane, Connewarre as a suitable candidate for inclusion within the Geelong Settlement Boundary. It also argues that:

- The subject site does not exhibit any of the attributes listed under section 46Ap of the Planning and Environment Act 1987 that must apply for a site to be declared as a distinctive area and landscape.
- The subject site does not exhibit any of the attributes qualifying the Bellarine Peninsula as a distinctive area and landscape listed in table 1 of the draft SPP.
- The approach taken to classifying land under the SPP is highly generalised and lacks clear guidance
- The subject site is no more visually prominent or sensitive than land to the west, which is within the Armstrong Creek Growth Area.

## 2.2 Draft Surf Coast Distinctive Areas and Landscapes (DAL) Strategy

A number of landowners made submissions to the Victorian Government in relation to question of whether and how the Geelong Settlement Boundary should be addressed in the DAL Strategy. The following is a summary of submissions made to the draft DALs:

### 372-450 Charlemont Road Armstrong Creek (DF (Sprague Farm) Developments Pty Ltd):

DF (Sprague Farm) Developments Pty Ltd submitted that the location, purpose, characteristics and implementation of a final protected settlement boundary for Armstrong creek Urban Growth Areas are matters of further investigation, to be finalised following the completion of a 'logical inclusions' process facilitated by the City of Greater Geelong.

The submission stated that it is premature for the Surf Coast DAL Advisory Committee to make any recommendations in relation to the green link and settlement boundary in this location.

### 413-491 Charlemont Road, Armstrong Creek (DFC Services Pty Ltd and Landowner):

It is the view of DFC Services Pty Ltd and the landowner (the Cameron Family) that land north of Lower Duneed Road and east of Horseshoe Bend Road should not have formed part of the Surf Coast DAL and instead should be consumed within the Armstrong Creek Urban Growth Area as part of the City of Greater Geelong's future logical inclusions review process.

The submitter argued that the settlement break proposed within the draft Surf Coast DAL Statement of Planning Policy should be located south of Lower Duneed Road, focused on the Thompson Creek Valley, and that the land north of Lower Duneed Road be included within the Geelong Settlement Boundary via Council's logical inclusions process.

### 91 Lower Duneed Road (Geoff and Carolyn Blyth):

The owner of 91 Lower Duneed road submitted that an additional set of planning controls as proposed in the DAL is unwarranted. Further, it was their submission that their property and those in the immediate area within the City of Greater Geelong do not meet the requirements / criteria as set out in Section 46AP of the Planning and Environment Act 1987 to be included in the Surf Coast DAL. The submitter noted that is no concentration of unique attributes of State and/or National significance that are under threat of significant or irreversible change in this location.

## 2.3 Draft Bellarine Peninsula Distinctive Area and Landscape (DAL) Strategy

A number of landowners made submissions to the Victorian Government in relation to question of whether and how the Geelong Settlement Boundary should be addressed in the DAL Strategy. The following is a summary of submissions made to the draft DALs:

### 70 Baenches Lane, Conneware (Property Corporate Holdings Pty Ltd):

## 3 - Assessment of Investigation Area Against Suitability Criteria

The following is an assessment of the investigation area against the Long Term Boundary Review Decision Criteria.

### 3.1 - Settlement:

Criteria 1.1: Impacts of any proposed changes on the establishment of logical and enduring settlement boundaries (including consideration of natural features, location of major roads and reservations for public utilities).

The existing settlement boundary is located along cadastral boundaries circa 450-800m north of Lower Duneed Road, between the Surf Coast Highway and Barwon Heads Road.

This settlement boundary was set following the preparation of the Armstrong Creek Framework Plan and the review of the boundary by an independent planning panel in 2008 (Amendment C138 to the Greater Geelong Planning Scheme).

The settlement boundary was broadly based on the principles contained in the planning scheme at the time of maintaining non-urban breaks between settlements, and using natural boundaries as the edge of urban areas.

The finer-grained objectives for setting of the boundary along the southern edge of Armstrong Creek were articulated as follows:

- establish a permanent and natural edge to development;
- maintain the green skyline viewed from within the growth area and from land to its north;
- maintain an attractive green edge to Geelong when approached from the south, south-east and south-west; and
- protect the existing character of Mt Duneed.

We have reviewed the abovementioned objectives for setting the settlement boundary along the southern edges of Armstrong Creek and we consider that they continue to remain relevant.

We have therefore adopted these objectives for the purposes of considering the impact of any proposed changes to the settlement boundary in this location.

The original application of the abovementioned objective to this area sought to define a limit to urban development which limited the degree of intrusion into the rural landscape when viewed along Lower Duneed Road (and specially when viewed from either end of the 'dip' along this road between the Surf Coast Highway and a point approximately 600 metres east of Horseshoe Bend Road).

In each of these views, a prominent natural feature was identified part way down the north-facing slope of Mt Duneed or the ridgeline that was considered to be critical to the 'green' character experienced from the road (refer Figure 23).

The settlement boundary that was introduced by Amendment C138 was selected in a location which sought to protect the rural character along Lower Duneed road as viewed between these two locations. It was broadly based on the viewline analysis prepared by Council but adapted in some locations to follow cadastral boundaries.

An additional 52ha of land was included within the settlement boundary (and rezoned Urban Growth Zone) by Amendment C301 to the Greater Geelong Planning Scheme in 2016. The independent panel that assessed this amendment was satisfied that this boundary expansion would not remove the urban break between the Armstrong Creek Urban Growth Area and the Surf Coast Shire to the south of the amendment area.

The settlement boundary options outlined in Table 1 (overleaf) have been identified as potential alternatives to the existing settlement boundary.

Each of these options has been assessed against the abovementioned settlement boundary objectives.



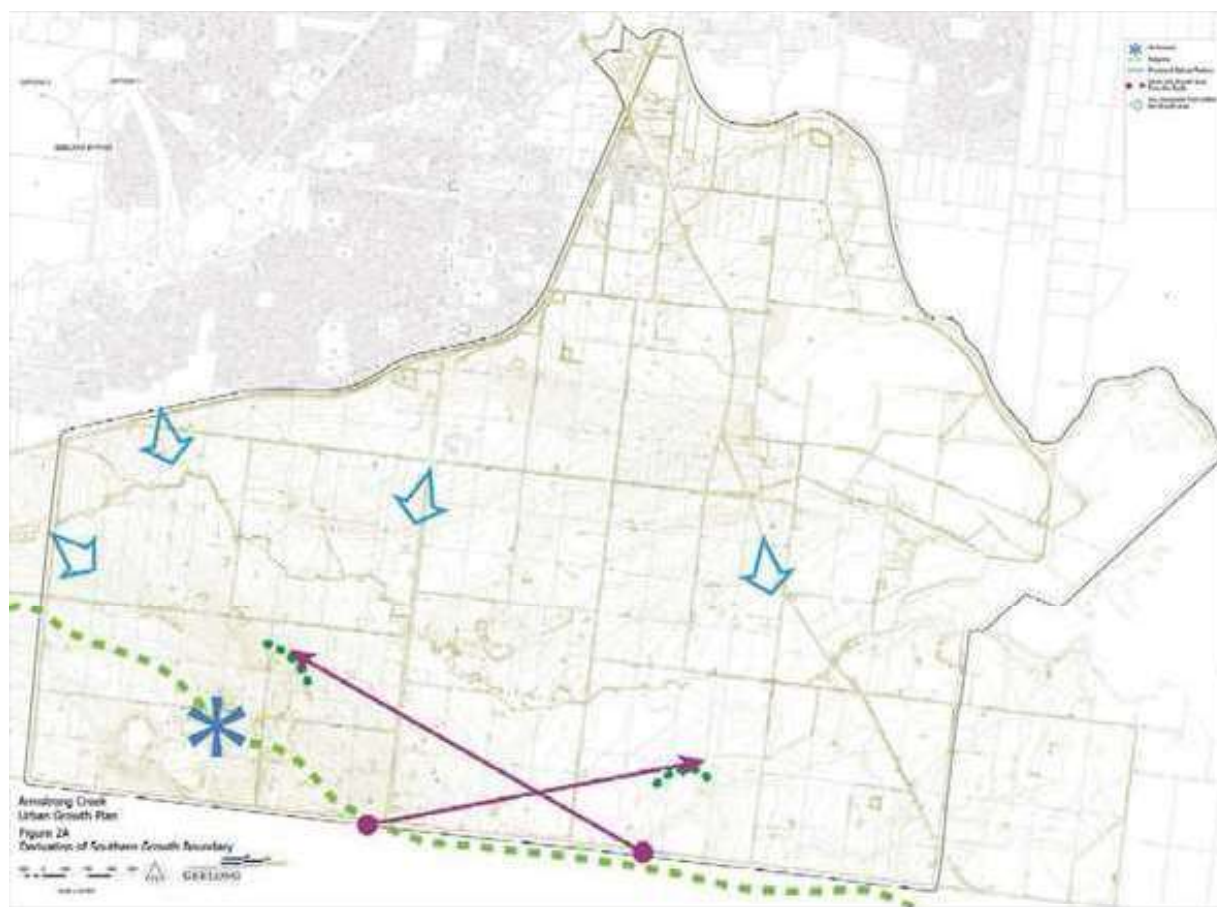


Figure 23. Diagram illustrating the derivation of the southern growth boundary (Mark Sheppard Evidence Statement, Amendment C138 Panel hearing, 2007)

Table 1. Settlement Boundary Options – Armstrong Creek South Central.

Option	Title	Description
1	Lower Duneed Road	Move the boundary to Lower Duneed Road and rezone land within it to Urban Growth Zone
2	Lower Duneed Road Hybrid	Move the boundary to Lower Duneed Road and rezone part of the land within it to Urban Growth Zone, and land closest to the road to Low Density Residential
3	Minor boundary change	Make minor boundary changes to marginally encroach into the view corridors identified in the original ACGU study
4	Rural Living	Rezone land to Rural Living Zone

### Option 1 - Lower Duneed Road:

This option is to move the boundary to Lower Duneed Road and rezone land within it to Urban Growth Zone. It would result in the inter-urban break between Geelong and Torquay being moved to the municipal boundary.

Clause 21.06-2 of the Greater Geelong Planning Scheme contains the following policy in relation to inter-urban breaks:

“Maintain the non-urban breaks between Geelong and Melbourne (Wyndham), Geelong and the Surf Coast, urban Geelong and the Bellarine Peninsula, and the townships on the Bellarine Peninsula.”

The intention of the above policy is that land within the Geelong municipal boundary would be set aside for the purposes of contributing towards the maintenance of the non-urban break.

Maintaining a non-urban break between the ACUGA and the Surf Coast Shire is also identified as a key issue to be addressed via the Armstrong Creek Urban Growth Plan (Clause 21.01-1).

The existing settlement boundary that was established via Amendment C138 sets land aside between the growth area and the municipal boundary to give effect to these non-urban break policy aspirations (and the equivalent policies which pre-dated them back in 2007).

Moving the settlement boundary to Lower Duneed Road is not consistent with the above policy expectations. Whilst certain subdivision, urban and landscape design treatments could be applied to the settlement boundary to visually soften this edge, the policy intent is to maintain an urban break on land within the municipality, rather than treat the municipal boundary itself as the edge between urban and non-urban uses.

### Option 2 - Lower Duneed Road Hybrid:

This option is to move the boundary to Lower Duneed Road, rezone part of the land within it to Urban Growth Zone, and rezone land closest to the road to the Low Density Residential Zone (LDRZ).

Under the LDRZ, each lot must be at least the area specified for the land in a schedule to this zone, and any area specified must be at least:

- 0.4 hectare for each lot where reticulated sewerage is not connected.
- 0.2 hectare for each lot with connected reticulated sewerage.

The Geelong Settlement Strategy defines the term ‘rural residential development’ as including land in the LDRZ and it notes that this form of development is discouraged, as it is not sustainable and results in high servicing costs.<sup>1</sup>

Clause 21.06 of the Geelong Planning Scheme seeks to limit rural-living developments to existing zoned land in Lara, Drysdale/Clifton Springs, Wallington, Waurin Ponds, Lovely Banks, Batesford, Fyansford, Leopold, Newcomb, Moolap, Curlewis, Portarlington and Ocean Grove.

Notwithstanding the lack of policy support for using the LDRZ this location, it is nonetheless a tool that could be used to create a more sensitive interface along the settlement boundary. If applied in conjunction with siting, design and landscaping guidelines, then zoning which allowed low density residential lots of between 0.2 and 0.4ha could result in a more sensitive transition between rural and urban land uses in this location.

The LDRZ is an urban rather than a rural zone under the Victoria Planning Provisions, albeit one that is intended to facilitate low density residential outcomes.

<sup>1</sup> Geelong Settlement Strategy, pages 50 & 65.

Whilst this type of outcome would result in a better landscape interface than would be the case if an urban zone was applied to this edge, the outcome would still not be consistent with the intent of setting of an genuinely non-urban break on land within the Geelong municipal boundary.

### Option 3 – Minor boundary change:

This option is to make minor boundary changes to marginally encroach into the view corridors identified in the original ACGU study and create an alternative rural-urban edge condition along the revised boundary.

This option would still necessitate land within the western and eastern flanks of the area remaining in a non-urban zone, but would provide for an extension of the existing settlement boundary at the margins of the view-corridors identified in the original ACUGA study.

This could be achieved by 'squaring off' the existing boundary location or (preferably) creating a more curvilinear edge (refer Figure 24), each of which could incorporate extensive landscaping at the interface to create a stronger green edge to the boundary in this area.

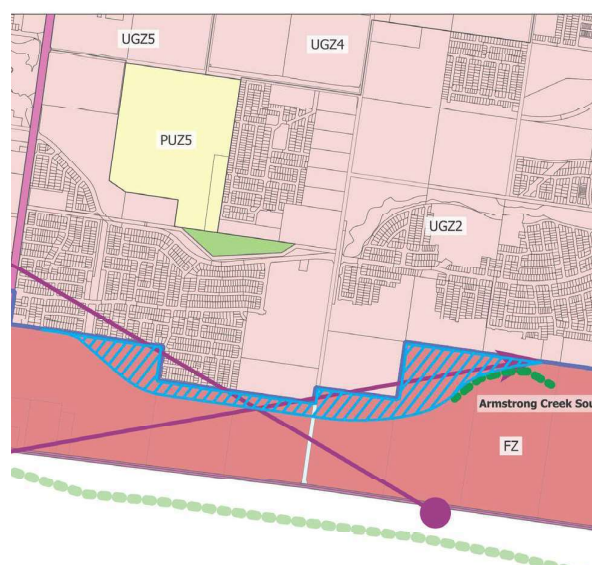


Figure 24. Option 3 – Minor boundary change (based on view corridors identified within original ACGU study).

This type of boundary change would not follow any natural features or roads, and it would only be more logical and enduring than the existing boundary if the edge that was created took the form of a public open space link (such as a cycling or bridle trail).

There would be relatively limited benefit in making minor boundary changes, other than to potentially create opportunities to establish a more substantial green edge than is provided for within the existing PSP for this area.

The benefit in creating this type of open space link in this location would need to be demonstrated, given the cost associated with creating and maintaining such a link and given that the Armstrong Creek corridor is only 400-800m from the existing settlement boundary.

Further analysis would be required of both the degree of encroachment into the non-urban landscape that would be acceptable (when measured against the original objectives for setting the boundary referred to earlier in this chapter) as well as the merit and design parameters of any linear landscaped public open space treatment along this alternative edge. Additionally, consideration would need to be given to the feasibility and cost/benefit of this option.

### Option 4 – Rural Living:

This option is to zone land between the existing settlement boundary and Lower Duneed Road to a Rural Living Zone (RLZ).

Under the RLZ, each lot must be at least the area specified for the land in a schedule to this zone. If no area is specified, each lot must be at least 2 hectares.

The planning panel that considered Amendment C138 found that there was no strategic support at that time for a rural living designation for the areas south of the settlement boundary. It also found that there was no reason for it to recommend a further strategic review given that the Rural Land Use Strategy had only recently been completed just prior to the Panel hearing.<sup>2</sup>

<sup>2</sup> Amendment C138 Panel report, page 81.



The Geelong Settlement Strategy defines the term 'rural residential development' as including land in the RLZ and it notes that this form of development is discouraged, as it is not sustainable and results in high servicing costs.<sup>3</sup>

The Geelong Planning Scheme seeks to limit rural-living developments to existing zoned land in other locations across the municipality, and it also supports the use of the land within the southern rural areas for productive agriculture.<sup>4</sup>

Rezoning the area to RLZ would be contrary to these policies.

Notwithstanding the lack of policy support for using the RLZ this location, it is nonetheless a tool that could be used to create a more sensitive interface along the settlement boundary. If applied in conjunction with siting, design and landscaping guidelines, then zoning which allowed large (notionally 2ha) lots could result in a more sensitive transition between rural and urban land uses in this location. Notwithstanding the lack of policy support for using the RLZ in this location, it is nonetheless a tool that could be used to create a more sensitive interface along the settlement boundary.

At present, there are long and mid-range views from Mt Duneed Road to the edge of residential development further north across the open, relatively flat intervening rural land. Including this land in a zoning which allowed large (notionally 2ha lots) along with the use of siting, design and landscaping guidelines could potentially result in a more sensitive transition between rural and urban land uses in this location than the current situation.

This outcome would be relatively more consistent with the intent of setting of a non-urban break on land within the Geelong municipal boundary than Options 1-3. The outcome might be expected to be similar to the development in the RLDRZ subdivision located on the south side of Lower Duneed Road (refer Figures 25–28)<sup>5</sup>. The streets within this estate have a semi-rural in character,

<sup>3</sup> Geelong Settlement Strategy, pages 50 & 65

<sup>4</sup> Clause 21.06; Clause 21.07-4.

<sup>5</sup> Noting that overlay controls would be required to ensure that the landscape, site and design controls created an appropriate non-urban break

but they have a very different character to present-day the open farmland character that makes up most of the present-day inter-urban break.

Low density rural development would also need to be able to support services in a cost effective and sustainable manner. This would include being able to support either reticulated or septic waste systems, drainage, water and power supply and road access. It would be necessary to undertake a feasibility study to determine whether this form of subdivision would be cost effective and sustainable, having regard to State infrastructure policies relating to these matters (Clause 19).

The current settlement boundary satisfies this Criteria. Options 1 and 2 would have a negative impact on the satisfaction of this criteria. Options 3 and 4 could potentially satisfy this criteria, depending on the layout, building and landscape design strategies adopted. Further concept development and assessment of these options would be needed in order to determine whether these options could satisfactorily address this criteria.



Figure 25. Example rural living dwelling 1 (source: Google Street-View).



Figure 26. Example rural living dwelling 2 (source: Google StreetView).



Figure 27. Horseshoe Bend Road Rural Living Area Aerial.  
(source: Google Satellite)



Figure 28. Example Horseshoe Bend Road rural living streetscape.  
(source: Google StreetView)

### The Settlement Boundary along Barwon Heads Road.

Barwon Heads Road (south of Lake Road) forms the eastern boundary of Geelong's settlement boundary in the investigation area.

Land to the north of this point is partially located within the settlement boundary and partially located within a Farming Zone. This land is impacted by flooding and a substantial portion of this area (both within and outside the settlement boundary) is included within a Flood Overlay.

Barwon Heads road is an important connection between urban Geelong and coastal areas to the south, and it represents a logical and enduring settlement boundary.

Baensch's lane is the next nearest physical feature west of Barwon Heads road that could be considered as an alternative settlement boundary in this location.

The triangle of land bound by Baensch's lane and Lake Road is located in a Farming Zone and is partially affected by a Flood Overlay (northern edge), Land Subject to Inundation Overlay and Environment Significance Overlay - 'Areas of flora and fauna habitat and geological and natural interest' (central area).

This area does not contain sufficient land to accommodate a self-contained neighbourhood and any residents in this area would be reliant on infrastructure and services located in on land to its north and west. However, this area is physically separated from the Armstrong Creek Growth Area by Barwon Heads Road and it is located between 1-3km from the nearest town centre to the north. As a result, future residents in this area would not enjoy walkable access to local community infrastructure.

For the above reasons, Baensch's lane is not a more logical or enduring settlement boundary than Barwon Heads Road. Additional factors against the use of Baensch's lane as an alternative settlement boundary include the following:

- Urban development within this area will result in an encroachment onto fringes of the environmentally sensitive Reedy Lake/ Lake Connewarre environs. This would require sensitive management to ensure that the habitat values of these adjoining areas are not adversely affected.
- The Geelong Settlement Strategy calls for green breaks to be preserved between urban Geelong and other settlements within the Bellarine Peninsula. The existing rural/ urban transition is at the Barwon Heads Road intersection with Lake Road, and including this area within the settlement boundary would relocate this transition 2km south to the Barwon Heads Road intersection with Mt Duneed Road.

The current settlement boundary satisfies this Criteria. The alternative settlement Boundary (Baensch's Road) is not a more logical or enduring boundary than Barwon Heads road, and expanding urban development across this land will not contribute to other policy outcomes relating to walkable neighbourhoods, urban breaks and protecting the environmental values of the adjoining wetlands environs.



### 3.2 - Managing Growth:

Criteria 2.1: Impact on the orderly development of the adjoining urban area.

Significant research and analysis has gone into determining the physical and social infrastructure that is needed to support urban growth within the wider Armstrong Creek Urban Growth Area. The outcomes are reflected in the PSPs and DCPs that have been put in place to guide the delivery of urban development in this growth area.

The inclusion of all or a substantial portion of the area into the settlement boundary would potentially have a significant impact on the orderly development of the adjacent urban area, as described below.

Using the social infrastructure benchmarks set out in the methodology chapter of this report, the potential for residential development to generate demand for additional infrastructure on the western and eastern portions of the PSP area has been assessed.

Land on the west side of the area will be relatively proximate to the southern community hub identified in the Armstrong Creek East PSP. This hub comprises a primary school, sporting ovals and a local activity centre. Notwithstanding, inclusion of all of the land in the western portion of the area could potentially generate the need for an additional government primary school, Level 1 community centre and active open space reserve.

Land on the east side of the area is not proximate to any of the community hubs identified in the Armstrong Creek East PSP. The closest town centre is almost 3km from the south-east edge of the area, and the majority of the social infrastructure (other than a local open space and Catholic primary school) is located on the north side of Armstrong Creek, which is circa 1.6+km from Lower Duneed Road).

The inclusion of all of the land in the eastern portion of the area is highly likely to generate the need for an additional government primary school, Level 1 community centre and active open space reserve. This area is located sufficiently far away from existing and planned infrastructure that it would be necessary to create a new community hub (including local activity centre) in order to provide residents with reasonable walkable access to social infrastructure.

The above is only a desktop analysis for the purposes exploring the broad likelihood of including this land impacting on the orderly development of adjacent areas. The likely impacts would ultimately depend on how much land was included within the settlement boundary, the extent to which the capacity of existing/planned infrastructure could be re-sized to accommodate additional growth, and how close the additional land is located to existing and planned infrastructure.

However, the desktop analysis suggests that:

- There is unlikely to be sufficient capacity for the social infrastructure in the existing/planned residential areas to the north of the south-east portion of the investigation area to cater for substantial additional population growth.

If the concept of the 20 minute neighbourhood and 800m walking catchments is maintained in the planning of this part of the Armstrong Creek growth area then it will be necessary to plan an entire new community in the south-east portion of the area.

- There may not be capacity for the social infrastructure in the existing/planned residential areas to the north of the south-west portion of the investigation area to cater for substantial additional population growth.

This is a smaller area than land in the north-east portion of the investigation area, and it is located significantly closer to planned activity centre and social infrastructure south of Armstrong Creek.

So whilst it should not be necessary to have to plan an entire new community in the south-west portion of the area, it would be necessary to provide additional social infrastructure, including increasing the capacity of schools, community and active open space facilities.

These features are relatively fixed now within the adjacent PSP, and so re-casting the plan for an expanded settlement boundary in this location will not be a straightforward task.

Any change to the settlement boundary (other than minor changes) would have a negative impact on the satisfaction of this criteria.

Criteria 2.2: Impact on management of the sequence of development and the early provision of services.

A substantial proportion of the residential land within the Armstrong Creek East PSP has already been completed or is currently under development. The inclusion of additional residential land south of Whites Road would not have any major impact on the management of sequencing of development or the early provision of infrastructure.

However, it is likely to have a significant impact on the demand for infrastructure and services, and resolving how this demand is met (either via existing/planning facilities or via the creation of new facilities) would be challenging. It would be essential that the inclusion of any additional land within the settlement boundary was accompanied by a strategy for ensuring the timely delivery (and funding) of the additional infrastructure and services required to meet the needs of a larger population in this location.

Any change to the settlement boundary would potentially have a negative impact on the satisfaction of this criteria, depending on how the provision and funding of services was addressed.

Criteria 2.3: Impacts of any proposed boundary changes on the economic provision of other development fronts.

A substantial proportion of the residential land within all of the residential PSPs has already been completed or is currently under development. The inclusion of additional residential land in this area would not have any major impact on the economic provision of existing development fronts in the growth area or elsewhere in Geelong, as the additional land is likely to be available to the market in the final phases of other PSP areas exhausting their land supply.

Any change to the settlement boundary would have a neutral impact on the satisfaction of this criteria.

### 3.3 - Planning for Places – Distinctive Areas & Landscapes:

Criteria 3.1: Impact on any identified unique features or special characteristics within a declared area.

The area is located within a Declared Area under the Distinctive Areas and Landscapes legislation. The area has been assessed under the draft DAL Strategy as forming an important part of the wider Mt Duneed Volcanic Plain Landscape Area, Mt Duneed is an important landscape feature in this part of the Declared Area.

The landscape assessment undertaken as part of the draft DAL Strategy describes the landscape significance of the wider area as follows:

“The geographical location of the northern part of the Thompson Valley green break (north of Mount Duneed Road/Lower Duneed Road), immediately abutting the southern development front of Geelong makes it vulnerable to development pressure and future change.

This area is very important visually and geographically for the role it plays as part of a broader strategic landscape area i.e. as an integral part of the Mount Duneed Volcanic Plain Landscape Area, and as an open rural green break between settlements, and between Geelong and the Great Ocean Road landscapes.

An assessment of the visual significance of the landscape has found that it is of regional significance.

When travelling along Mount Duneed Road/ Lower Duneed Road, the Thompson Valley green break to the north acts as an important 'distance barrier', mitigating the visual impact of the southern development front of Geelong.

It also relates visually and geographically to the open landscape to the south of the City of Greater Geelong municipal boundary, the two areas combining to form the whole 'landscape experience' when driving along Mount Duneed Road.

As such, the wider Thompson Valley green break has a direct relationship with the coastal landscapes of state significance further south, in that it separates them (and specifically Torquay) from the built-up urban edge of Geelong.

In order to maintain the open rural green break, particularly from the area where it is most frequently viewed and experienced, i.e. Mount Duneed Road, there should be no policy change or rezoning of agricultural land beyond the current Greater Geelong Urban Growth Boundary.

If residential development were to occur closer to Mount Duneed Road it would erode the rural views and experience of travelling to Barwon Heads/the Bellarine Peninsula via this route, and this scenario would need to be mitigated with a substantial distance buffer and indigenous screening vegetation.

If residential development were to occur immediately adjacent to Mount Duneed Road, the rural green break as experienced by most would cease to exist.”<sup>1</sup>

Volume 2 of the landscape assessment work undertaken as part of the draft DAL Strategy went on to clarify the different landscape significance of different parts of the Mt Duneed Plain and Surrounds landscape, as follows:

“The majority of the Mount Duneed Plain and Surrounds landscape is considered to be of low regional significance with areas of higher (moderate regional) significance coinciding with landscape features such as the Thompson Creek corridor, Mount Duneed itself, and the interface with the adjacent landscape of state significance.”<sup>2</sup>

Given that the area is located some distance away from Mt Duneed, the Thompsons Creek Corridor and any landscapes of state significance, it is understood that the area forms part of a landscape rated as being of 'low regional significance' in the abovementioned DAL landscape assessment.<sup>3</sup>

Any change to the settlement boundary in this area would have a negative impact on the landscape values identified via the draft DAL Strategy for this area (albeit that these values are rated as being of low regional significance), and therefore it would have a negative impact on the satisfaction of this criteria.

1 Surf Coast DAL Landscape Assessment Review Volume 1,

page 129.

2 Surf Coast DAL Landscape Assessment Review Volume 2, page 7.

3 Armstrong Creek Urban Growth Plan Flora and Fauna Technical Report (Ecology Australia, 2006).

### 3.4 - Environmental & Landscape Values:

Criteria 4.1 Impact on the protection of biodiversity values.

The flora and fauna study commissioned for the Armstrong Creek Urban Growth Area identifies some areas of medium quality roadside vegetation (refer Figure 29).<sup>4</sup> An Environment Significance Overlay has been applied to these areas of roadside vegetation.

Any change to the settlement boundary would have a generally neutral impact on the satisfaction of this criteria, as the relevant biodiversity values could be protected by planning and management measures.

Criteria 4.2 Impact on the protection of coastal areas & wetlands.

Not Applicable.

Criteria 4.3 Impact on the protection of significant landscapes.

The area is considered to contain a significant landscape, given that it is located within a Declared Area under the Distinctive Areas and Landscapes legislation (and has therefore met the criteria for inclusion under that legislation).

The area has been assessed by the landscape significance assessments undertaken as part of the draft DAL Strategy as being of 'low regional significance'.



Figure 29. Armstrong Creek Urban Growth Plan - Roadside Vegetation & Remnant Vegetation (ARUP, 2006).

<sup>4</sup> Armstrong Creek Urban Growth Plan Flora and Fauna Technical Report (Ecology Australia, 2006).



Any change to the settlement boundary in this area would have a negative impact on the satisfaction of this criteria, for the reasons set out under Criteria 1 and 3.1.

Criteria 4.4 Impact on the preservation of identified urban breaks.

The Greater Geelong Planning Scheme (at Clause 21.06-2 and at Clause 21.11) seeks to maintain the non-urban breaks between the Armstrong Creek Growth Area and the Surf Coast.

The existing settlement boundary satisfies this objective by setting land aside between the settlement boundary and the municipal boundary as non-urban land.

If the settlement boundary were to be moved to Lower Duneed Road then there would no longer be a non-urban break within the Greater Geelong municipal boundary. This would be contrary to the intent of the non-urban break policies contained within the Greater Geelong Planning Scheme.

Alternative settlement boundary options are explored in the discussion against Criteria 1.

Any change to the settlement boundary in this area would potentially have a negative impact on the preservation of a non-urban break within the municipal boundary (and therefore on the satisfaction of this criteria), depending on its form and its location (refer discussion under Criteria 1).

### 3.5 - Environmental Risks:

Criteria 5.1 Climate change – impacts of coastal inundation & erosion.

The area is not affected by coastal inundation or erosion.

Criteria 5.2 Bushfire risks in the location.

This area is within a Bushfire Prone Area but is not located within or proximate to a Bushfire Management Overlay. Bushfire risk is not likely to be determinative of the suitability of urban development in the area. A Bushfire Management Plan could be prepared to manage the potential risks posed by bushfire on urban development in the area.

Any change to the settlement boundary would have a neutral impact on the satisfaction of this criteria

Criteria 5.3 Impacts on/of floodplains.

Any urban development within the area would need to be designed to ensure that it did not adversely affect either existing floodplains or residential areas that are downstream of the area.

The land immediately west of Horseshoe Bend Road is located within a Flood Overlay, and the land immediately east of Barwon heads Road is located within a Land Subject to Inundation Overlay. The constraints imposed by these controls on urban development would need to be further investigated before these areas could be identified as being suitable for urban development.

Any change to the settlement boundary would have a minor and potentially neutral impact on the satisfaction of this criteria

#### Criteria 5.4 Impacts on/of soil degradation.

The Geological Survey of Victoria (1:63,360) Geological Map Series Geelong Sheet indicated that the area is underlain by Newer Volcanics geology.<sup>1</sup>

No soil degradation impact risks have been identified in the desktop review for this area.<sup>2</sup>

Any change to the settlement boundary is expected to have a neutral impact on the satisfaction of this criteria, however If development was approved in this area further analysis would be required to investigate soil conditions and the impact development might have on soil degradation.

#### Criteria 5.5 Impacts on/of erosion & landslip.

The area is identified as having a moderate risk of gully and sheet erosion.<sup>3</sup>

Any change to the settlement boundary is expected to have a neutral impact on the satisfaction of this criteria, however If development was approved in this area further analysis would be required to investigate soil conditions and the impact erosion and landslip might have on development.

#### Criteria 5.6 Impacts on/of salinity, acid sulfate soils.

No salinity impact risks have been identified in the desktop review for this area.<sup>4</sup> The eastern portion of the area has been identified as being potentially affected by coastal acid sulfate soils.<sup>5</sup>

Any change to the settlement boundary is expected to have a neutral or low impact on the satisfaction of this criteria, however if development was approved in this area further analysis would be required to investigate soil conditions and the impact salinity and acid sulfate soil conditions might have on development.

#### Criteria 5.7 Land use compatibility – compatibility with nearby agricultural, industrial, extractive industry, tourism and other established and valued land uses.

The area is not located in proximity to industrial, extractive industry, tourism and other established and valued land uses that require separation from residential or other sensitive uses.

Land to the immediate south of the area is in a Farming Zone and currently used for grazing and other rural purposes. There are no land uses that require separation from residential or other sensitive uses within 1km of Lower Duneed Road.

Any change to the settlement boundary would have a neutral impact on the satisfaction of this criteria.

#### Criteria 5.8 Impacts on/of major hazard facilities.

There are no major hazard facilities located in proximity to this area.

### 3.6 - Natural Resource Management:

#### Criteria 6.1 Impact on the protection of agricultural land.

The Greater Geelong Planning Scheme seeks to support the use of the land within the southern rural areas for productive agriculture.<sup>6</sup> The area south of urban Geelong has been identified as having a combination of Class 3 (moderate-high) and Class 4 (Moderate) land capability, as have all of the rural areas within the Bellarine Peninsula and Surf Coast Shire.<sup>7</sup>

1 See map sheet 9 - <http://earthresources.efirst.com.au/categories.asp?clD=33>

2 <https://www.ccmaknowledgebase.vic.gov.au/nrmpp>

3 Ibid.

4 Ibid.

5 Ibid.

6 Clause 21.07-4.

7 Assessment of agricultural land capability in Melbourne's green wedge and peri-urban areas (Agriculture Victoria, 2018)

These are defined as follows:

Class 3 - Land that is inherently capable for soil-based agriculture at moderate to high intensity. The potential/capability may vary (e.g. according to slope, inherent fertility and drainage) but is often realised with access to a constant water supply.

Class 4 - Land that is not as inherently capable for intensive soil-based agriculture. Extensive agriculture (including broadacre cropping with suitable land management practices) and non-soil utilisation activities are often most appropriate, and more intensive grazing is possible in some higher rainfall areas or where consistent water supplies are available.

The land holdings vary in size in the area, ranging from circa 1ha to 100 ha, and the land is primarily used for agricultural production with associated farm dwellings.

Any change to the settlement boundary is expected to have a negative impact on the availability of land for agricultural production and therefore the satisfaction of this criteria.

Criteria 6.2 Impact on the protection of catchments, waterways, estuaries, bays, and the marine environment, protection of extractive resources.

The area drains towards Armstrong Creek. Residential development within the area could potentially impact on this waterway but these impacts could be readily mitigated through the design of any urban stormwater infrastructure within the area.

Any change to the settlement boundary is expected to have a neutral impact on the protection of nearby catchments and therefore the satisfaction of this criteria.

Criteria 6.3 Impact on the protection of extractive resources.

The area is not identified as an Extractive Industries Interest Area, and there are no quarries located within 1km of the area.

### 3.7 - Heritage:

Criteria 7.1 Impact on known Aboriginal cultural heritage values.

Aboriginal Victoria mapping shows the Armstrong Creek as an area of cultural heritage sensitivity. There is also an areas of cultural heritage sensitivity located in the eastern portion of the area.<sup>8</sup>

Any change to the settlement boundary is expected to have neutral impact on the protection of known areas of Aboriginal cultural heritage sensitivity. However, consultation with Traditional Owners and further assessment of other potential areas of Aboriginal cultural heritage sensitivity should be undertaken if land within this area was to be further considered for inclusion within the settlement boundary.

Criteria 7.2 Impact on known post contact heritage values.

A Heritage Overlay currently applies to a farming residence and associated structures at 21 Lower Duneed Road).

Any change to the settlement boundary is expected to have a neutral impact on the protection of known areas of Aboriginal cultural heritage sensitivity.

<sup>8</sup> See <https://achris.vic.gov.au/#/onlinemap>

### 3.8 - Transport:

Criteria 8.1 Accessibility of the location, including the feasibility and cost of providing adequate public transport and roads access.

The majority of the area currently does not have walkable access to local bus services (except for services which run along the Surf Coast Highway and Barwon Heads Road). The eastern and western portions of the area are not located within walking distance of existing and planned activity centres within the Armstrong Creek Growth Area, and it would be necessary to re-route local public transport services to the area in order to connect residents to regional employment, health, education and other services.

Any change to the settlement boundary is expected to have a potentially negative impact on the ability to cost-effectively provide public transport services to the Armstrong Creek growth area, as it would be necessary to extend and re-route existing bus services to connect to this area.

### 3.9 - Infrastructure:

Criteria 9.1 Ability to cost-effectively provide urban services including both utility, community services and drainage.

The social and recreational facilities constructed and proposed within the Armstrong Creek Growth Area were not originally planned to cater for additional housing growth in this area.

The western portion of the area will in future have access to a local activity centre, sporting oval and primary school, and could be connected to the existing growth area via Horseshoe Bend Road and new local streets. A preliminary analysis of the potential additional community services needed to support additional residential growth in this area indicates that some significant upgrades or even new facilities might be required to accommodate additional growth in this location.

The eastern portion of area is not located within walking distance of existing or planned secondary schools, activity centres or other community facilities within the Armstrong Creek Growth Area. A preliminary analysis of the potential additional community services needed to support additional residential growth in this area indicates that a number of additional facilities are likely be required to accommodate additional growth in this location.

(Refer assessment against Criteria 2 for further discussion)

Initial consultation with Barwon Water has identified the following:

- The investigation area could be serviced by water, sewerage and recycled water.
- The land drains into the existing sewer infrastructure.
- Potential capacity in the network to accommodate additional growth. However, constraints would need to be addressed
- Triangular parcel to the east would be difficult to service from a sewer perspective as the land is too flat and potentially falls in the wrong direction. A new pump station would be needed.

The preliminary assessments undertaken as part of this review suggest that some significant additional community infrastructure might be needed to support additional residential growth across the whole area. The technical feasibility and cost-effectiveness of providing additional urban services to cater for additional housing growth in this location has not been examined as part of this desktop review.

However, any change to the settlement boundary in this area is anticipated to have a negative impact on the ability to cost-effectively provide urban services to the Armstrong Creek growth area, as it would be necessary to upgrade and /or construct at least some new community facilities and utility services to cater for the additional demand, rather than being able to rely on available capacity within existing/ planned urban services.