6.1

Armstrong Creek
South West



# 1 - Investigation Area Context

# 1.1 Total area of land within investigation area

432.953 ha (gross land area).

## 1.2 Definition of investigation area:

The investigation area in Armstrong Creek South West (i.e. west of the Surf Coast Highway) is defined by the land parcels which are contiguous with the Urban Growth Zone land contained within the existing settlement boundary (refer Figures 6 and 7).

The land south-east of the Whites/Airport Road intersection adjoins land that is being developed for residential purposes under the Armstrong Creek West Precinct Structure Plan (PSP). This land therefore satisfies Principle 2 of the Long Term Boundary Review in that it is contiguous with urban residential areas.

The land south-west of the Whites/Airport Road intersection adjoins land that is identified as Employment Land in the Armstrong Creek Urban Growth Plan. This land therefore does not satisfy Principle 2 of the Long Term Boundary Review in that it is not contiguous with urban residential areas.

Notwithstanding the above, all of the land bound by the Surf Coast Highway, Mt Duneed Road Ghazeepore Road and the existing Settlement Boundary has been included within the investigation area, on the basis that this will enable a more holistic consideration of the landscape characteristics associated with Mt Duneed that must inform the boundary review.

The land to the west of Ghazeepore Road has been excluded from the investigation area on the basis that this land is not contiguous with urban residential areas (land east of Ghazeepore Road is identified for employment and regional open space purposes under the Armstrong Creek Urban Growth Plan).

## 1.3 Current Zoning and Overlays:

The land within the investigation area is primarily zoned Farming Zone (refer Figure 8).

The Mt Duneed Recreation Reserve is zoned Public Park and Recreation and the small land area in the northern part of Ghazeepore Road is zone Special Use Zone 7 (Earth and Energy Resources Industry).

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

- Vegetation Protection Overlay (roadside locations)
- Environmental Significance Overlay (Russells Road)
- Heritage Overlay (cemetery, and 'Hillside' residence)
- Specific Controls Overlay (Community care facility on Russells Road)
- Public Acquisitions Overlay (Anglesea Road widening)

(refer Figures 9 and 10).

A photo montage of the existing site context of the investigation area is shown at Figure 11.





## **Geelong Growth Investigation Areas**

Armstrong Creek South West



Figure 6. Armstrong Creek South West – Aerial Cadastral Plan.

## Geelong Growth Investigation Areas

Armstrong Creek South West Investigation Area

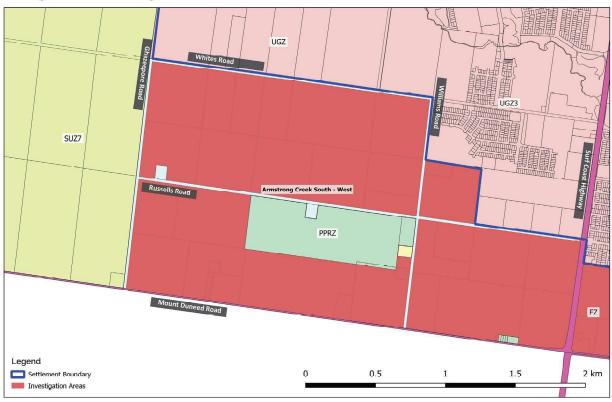


Figure 7. Armstrong Creek South West – Investigation Area Plan.



## Geelong Growth Investigation Areas

Armstrong Creek South West - Zoning

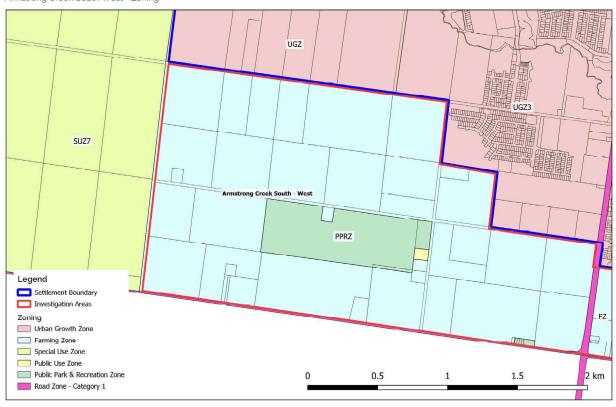


Figure 8. Armstrong Creek South West – Zoning Plan.

## Geelong Growth Investigation Areas

Armstrong Creek South West - Overlays

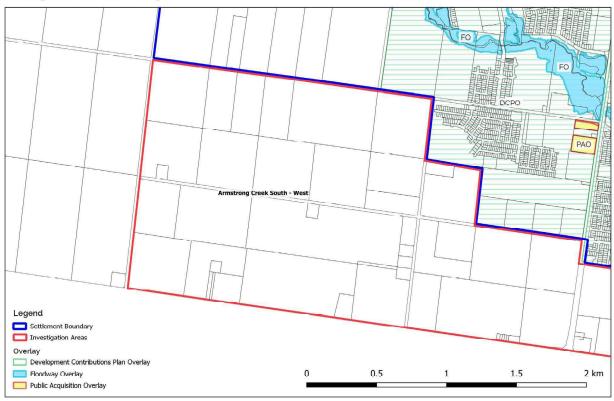


Figure 9. Armstrong Creek South West – Overlays Plan 1.





## Geelong Growth Investigation Areas

Armstrong Creek South West - Overlays

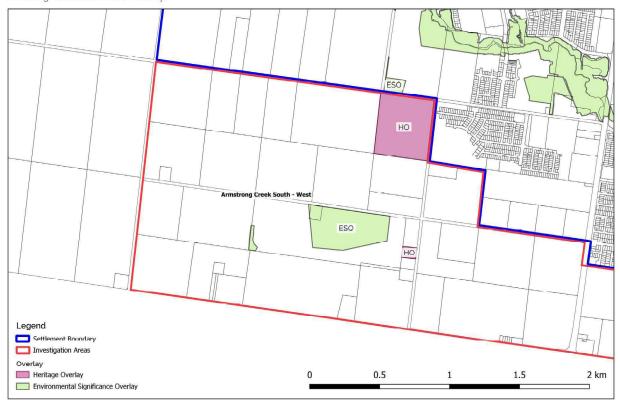


Figure 10. Armstrong Creek South West – Overlays Plan 2.





Figure 11. Armstrong Creek South West – Photo Montage.



## 1.4 Investigation Area & Surrounds:

Mt Duneed is the primary physical feature within the investigation area.

Mt Duneed is a prominent landscape feature which forms part of the wider landscape that delineates urban Geelong from the rural landscapes of the Surf Coast shire.

The rural hamlet at Mt Duneed includes a primary school, recreation reserve, pony club and cemetery located on the hilltop, as well as a series of farming and rural residential properties located across the investigation area. The Mt Duneed Hall reserve is located on the lower southern slope of Mt Duneed road.

The Armstrong Creek Growth Area and Armstrong Creek West PSP area are located to the north of the investigation area (refer Figures 12 and 13). Substantial residential development has already occurred in this part of the growth area. The land identified for employment purposes (north of Whites Road) is yet to be developed.

Land to the west of the investigation area comprises a circa 1,020 hectare land holding owned by Blue Circle. The north-west parts of this land holding have been used by Blue Circle and Boral for quarrying and concrete production, whereas the south and east parts of this land holding are rural in character and have not been subject to quarrying activities.

It is understood that the land will become surplus to Blue Circle and Boral's operational requirements, the existing cement works will be decommissioned, and site remediation works for the cement plant site and quarry will be undertaken in the coming years.

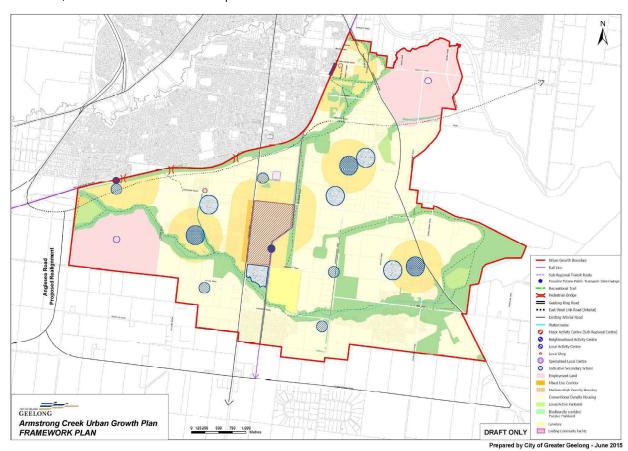


Figure 12. Armstrong Creek Urban Growth Plan (City of Greater Geelong [CoGG], 2015).



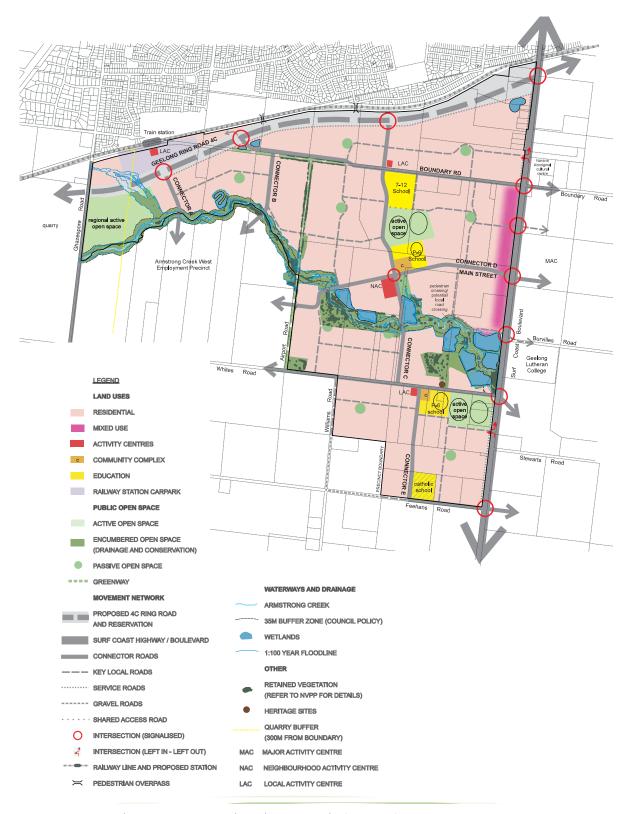


Figure 13. Armstrong Creek West Precinct Structure Plan - Urban Structure Plan (CoGG, 2012).



# 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 AmendmentC395 (Geelong Settlement Strategy):

#### Boral/Blue Circle:

Boral/Blue Circle have previously submitted that its 1020ha land holding should be designated as a growth area, included within Geelong's urban growth boundary, and rezoned to the Urban Growth Zone.

#### Victorian Planning Authority:

The VPA have previously submitted that the Boral/Blue Circle land within the SUZ7 could be a logical inclusion into Geelong's settlement boundary and that this area is a substantial long term opportunity as a future community of Geelong.

## 195 Whites Road (Landowner):

The owner of 195 Whites road has previously submitted that this land holding should be included within the Geelong Settlement Boundary on the basis that it adjoins the south western boundary of the Armstrong Creek Urban Growth Zone, it already drains into the existing Armstrong Creek Catchment and does not extend south into the escarpment that acts as a visual buffer between the City of Greater Geelong and the northern boundary of the Surf Coast Shire.

## 55 & 75 Williams Road (Landowner, Purdies Paddock):

The owner of Purdies Paddock has previously submitted that this land should be included within the Armstrong Creek Urban Growth area.

Their submission was that its inclusion would satisfy the anticipated 'logical inclusions' criteria for being included within the settlement boundary, and that its inclusion would not have any adverse impact on wider landscape values because the land cannot be seen from Mt Duneed Road and is set lower than other land being developed for residential purposes to the north.

# 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:

## Warwick & Julie Peel (address unidentified):

This submitter notes that Mount Duneed and Lower Armstrong Creek Corridor (COGG) has been included in the draft DAL based on the desire of Surf Coast Shire to maintain township separation between Torquay & Geelong. This can still occur without imposing the 50-year overlay of planning restrictions over the land within the City of Greater Geelong. Therefore, the Surf Coast DAL controls should stop at the boundary between Surf Coast Shire and the City of Greater Geelong (along Mt Duneed Road).

## 150-180 Williams Road, Mt Duneed (Peter and Christine Ashton):

The owner of 150-180 Williams Road, Mt Duneed opposed the inclusion of their land within the Surf Coast DAL Strategy or for the land to be subject to more restrictive planning controls. The submission challenges the proposition that all of the Mt Duneed landform is of such landscape significance to warrant it being kept free from further development.



## <u>David & Glennis Branagh (cnr Ghazeepore & Mt</u> Duneed Road):

The owners of the property on the corner of Ghazeepore & Mt Duneed Road opposed the inclusion of their land within the Surf Coast DAL Strategy or for their land to be subject to more restrictive planning controls. The submission stated that the Surf Coast DAL protected settlement boundary should be on the southern side of Mount Duneed Road.

## Cnr Surf Coast Highway & Feehans Road (Susan Wardrop):

The owner of the property at the corner of Surf Coast Highway & Feehans Road opposed the inclusion of their land within the Surf Coast DAL Strategy or for the land to be subject to more restrictive planning controls. The submission challenges the proposition that all of the Mt Duneed landform is of such landscape significance to warrant it being kept free from further development.

## Whites Road, Mt Duneed (Mr Hall and Ms Higgins):

These submitters requested that properties on the south side of White Road be excluded from the Surf Coast DAL strategy and the Geelong settlement boundary be amended to the higher escarpment ridge lines of Mt Duneed, where the inference of regional significance can be sustained.

## Mr Goonan (in relation to properties along Whites Road, Mt Duneed):

These submitters requested that properties on the south side of White Road be excluded from the Surf Coast DAL strategy, and that the settlement boundary extends too far north into Geelong than it needs to.

#### Whites Road, Mt Duneed (V & M Kelly):

These submitters considered that the inclusion of their land within the Surf Coast Declared Area under the DAL legislation was an error/ They submitted that the Land should be removed from the Declared Area and should not be identified within the proposed Statement of Planning Policy for that area. The submission also noted that If the Land is not removed from the declared area, then the protected settlement boundary should be aligned to include the Land in recognition that the land will be included in the urban growth boundary.

#### Boral:

This submitter requested that the Boral land within the Surf Coast DAL declared area should be identified as an "investigation area for future urban development".

## 55 & 75 Williams Road (Landowner, Purdies Paddock):

The owner of Purdies Paddock made a submission supporting the draft SPP provided that it clearly acknowledged that Greater Geelong Council will determine the southern boundary of its urban area at Armstrong Creek via the proposed logical inclusions process.





# 3 - Assessment of Investigation AreaAgainst Suitability Criteria

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

## 3.1 - Settlement:

<u>Criteria 1.1:</u> 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 on the lower northern slopes of Mt Duneed, between Ghazeepore Road and the Surf Coast Highway. It follows Whites Road before running south and east along cadastral boundaries and then along Feehans 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.<sup>1</sup>

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.<sup>2</sup>

The independent panel supported the above objectives and it generally endorsed the settlement boundary proposed by Council at that time, although it generally opted to extend development to the nearest property boundary on the Mt Duneed side of lots that were shown as being bisected by the proposed boundary.

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 following potential boundary locations have been identified as an alternative to the existing settlement boundary, and assessed against the abovementioned objectives:

#### Option 1 - Mt Duneed Road:

Mt Duneed road is the administrative boundary between the City of Greater Geelong and the Surf Coast Shire. It is also a busy road which provides an alternative means of travel between the Geelong Ring Road, the Surf Coast Highway and the Bellarine Peninsula.

Whilst Mt Duneed Road could act as a permanent edge to urban development, it would not function as a 'natural edge'. It is located on the lower southern slopes of Mt Duneed, and if residential development were to occur on these southern slopes then the existing non-urban character of this area would be lost. The existing character of Mt Duneed would be irrevocably changed, and the longer-distance views to this landscape feature from the south, south east and southwest would be significantly compromised.

<sup>2</sup> Ibid, page 74.



<sup>1</sup> Amendment C138 Panel Report, page 73.



## Option 2 – Mt Duneed hilltop and ridgeline:

The relative pros and cons of setting the settlement boundary along Whites road, Feehans Road and the cadastral boundaries between these roads were debated and tested as part of the Amendment C138 process. The settlement boundary in this location was ultimately adopted because it enabled the green skyline viewed from within the growth area and from land to its north to be maintained.

The settlement boundary location ensures that the majority of housing on the north-east slopes of Mt Duneed are located below the 50m contour line. The Mt Duneed slopes above this contour line are kept free of urban development so that they preserve a green skyline viewed from within the growth area and land to its north.

The gradient of the north and north-west slopes of Mt Duneed are less steep and the majority of urban development on these slopes are located below the 60m contour.

If the existing settlement boundary was relocated from Whites Road upslope towards Mt Duneed then the objective of retaining a green skyline viewed from within the growth area and land to its north and north-east would largely be lost.

Two properties are bisected by the 50m and 60m contour lines (Purdies Paddock and the northern part of 10-40 Williams Road – refer Figure 14). The impact of potentially including these properties (or part of them) on retaining the green skyline is a matter that warrants further visual analysis in order to determine whether any change to the settlement boundary should be considered.

The current settlement boundary satisfies this Criteria. Any change to the settlement boundary (other than minor changes) would have a <a href="negative">negative</a> impact on the satisfaction of this criteria.

The existing settlement boundary generally remains a logical and enduring settlement boundary. Further investigation of the potential landscape implications of including all or part of Purdies Paddock and the northern part of 10-40 Williams Road is suggested.

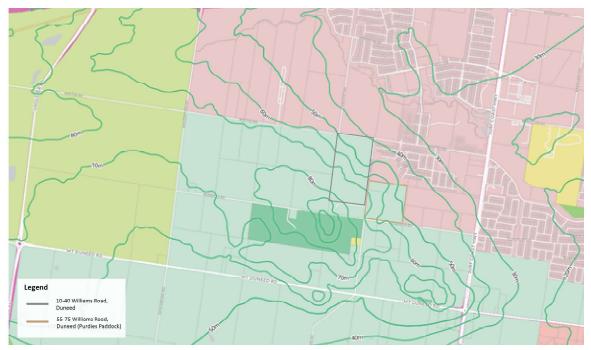


Figure 14. Contour Plan (base map source: Landchecker - see https://app.landchecker.com.au/properties/@?lng=144.31307285259504 &lat=-38.24151602634505)





## 3.2 - Managing Growth:

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

The inclusion of additional residential land south of Whites Road would have a generally adverse impact on the orderly development of the adjacent urban area, as that area is identified for employment purposes in the Armstrong Creek Urban Growth Plan.

It is unlikely that sufficient land would be established south of Whites Road to create a walkable neighbourhood (including local activity centre, school, etc.), and the western portion of this area is over 2km from the nearest (planned) local activity centre. The interface between residential and employment uses along Whites Road would also need to be managed to avoid land use conflict (including management of commercial and residential traffic movements).

The inclusion of smaller areas of residential land immediately adjacent to Williams Road is unlikely to impact on the orderly development of the adjoining area. However, a more detailed assessment of its impact on the provision of local open space, community services and infrastructure would be necessary to confirm any impacts and associated mitigation actions.

Any change to the settlement boundary (other than minor changes) would have a <u>negative</u> 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 West 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.

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

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 within Armstrong Creek 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 economic provision of existing development fronts, 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 <u>neutral</u> 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:

"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....

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>3</sup>

The Landscape Assessment (Volume 2) refines the description of the landscape significance of the wider area 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."

The open rural landscape between Armstrong Creek and Mount Duneed Road is an important part of the larger 'green break' that this Landscape Area forms, between the built up areas of Geelong and Torquay.<sup>4</sup>

Any change to the settlement boundary in this area would have a <u>negative</u> impact on the landscape values identified via the draft DAL Strategy for this area, and therefore it would have a <u>negative</u> impact on the satisfaction of this criteria.





<sup>3</sup> Surf Coast DAL Landscape Assessment Review Volume 1, page 129.

<sup>4</sup> Surf Coast DAL Landscape Assessment Review Volume 2, page 7.





Figure~15.~Armstrong~Creek~Urban~Growth~Plan~-~Roadside~Vegetation~&~Remnant~Vegetation~(ARUP, 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 identified two areas of remnant vegetation within the area, as well as areas of medium quality roadside vegetation (refer Figure 15).<sup>5</sup>

An Environment Significance Overlay applies to part of the western parcel of remnant vegetation.

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

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 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.

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

<sup>5</sup> Armstrong Creek Urban Growth Plan Flora and Fauna Technical Report (Ecology Australia, 2006).



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



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 Mt 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.

If the settlement boundary were to be moved south onto the upper north facing slopes of Mt Duneed Road then a non-urban break would be preserved.

Any change to the settlement boundary in this area would potentially have a <u>negative</u> impact on the preservation of a non-urban break within the municipal boundary (and therefore on the satisfaction of this criteria), depending on its location.

## 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.

The investigation 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 <u>neutral</u> impact on the satisfaction of this criteria.

Criteria 5.3 Impacts on/of floodplains.

The area is not located on or adjacent to a floodplain.

Criteria 5.4 Impacts on/of soil degradation.

The Geological Survey of Victoria (1:63,360) Geological Map Series Geelong Sheet indicated that the are is underlain by Newer Volcanics and Moorabook Viaduct Sands.<sup>6</sup>

No soil degradation impact risks have been identified in the desktop review for this area.<sup>7</sup>

Any change to the settlement boundary is expected to have a <u>neutral</u> 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.





<sup>6~</sup> See map sheet 9 - http://earthresources.efirst.com.au/categories.asp?cID=33  $\,$ 

<sup>7</sup> https://www.ccmaknowledgebase.vic.gov.au/nrmpp



Criteria 5.5 Impacts on/of erosion & landslip.

The area is identified as having a low-moderate risk of gully and sheet erosion.<sup>8</sup>

Any change to the settlement boundary is expected to have a <u>neutral</u> 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 or acid sulfate soil impact risks have been identified in the desktop review for this area.<sup>9</sup>

Any change to the settlement boundary is expected to have a <u>neutral</u> 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 no 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 located in proximity to the existing Boral/Blue Circle limestone quarry and concrete manufacturing facility. However, Boral has discontinued limestone quarrying at the site, and will soon relocate concrete activities to its new facility at the Port of Geelong. The site is now under active rehabilitation.<sup>10</sup>

The Geelong Pistol Club and Mt Duneed Pony Club are both located within the area, and consideration would need to be given to the compatibility of residential development with these 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 Mt Duneed Road. Any change to the settlement boundary is expected to have a neutral impact on the satisfaction of this criteria.

Any change to the settlement boundary is expected to have a <u>neutral</u> 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>11</sup>

The area 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. 12 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.

<sup>8</sup> https://www.ccmaknowledgebase.vic.gov.au/nrmpp

<sup>9</sup> Ibid

<sup>10</sup> Boral submission to Surf Coast DAL Standing Advisory Committee, 2021.

<sup>11</sup> Clause 21.07-4

<sup>12</sup> Assessment of agricultural land capability in Melbourne's green wedge and peri-urban areas (Agriculture Victoria, 2018).



The land holdings vary in size in the area, and the majority are under 30ha in area. There are a number of non-agricultural land uses located across Mt Duneed (including a school, recreation reserve, cemetery, pistol club, pony club and some larger rural lifestyle dwellings).

Any change to the settlement boundary is expected to have a <u>negative</u> impact on the availability of land for agricultural production and therefore the satisfaction of this criteria. However, given the existing subdivision and land use patterns in the area, the impact on the achievement of wider agricultural production objectives would be modest.

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

The northern part of the area drains towards Armstrong Creek and the southern part towards Thompsons Creek. Residential development within the area would impact on these waterways 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 <u>neutral</u> 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. Residential development in part of this area would be located close to nearby stone resources (west of Ghazeepore Road). However, the holder of the work authority for these resources (Boral) has discontinued limestone quarrying at the site, and the site is now under active rehabilitation.

Any change to the settlement boundary is expected to have a <u>neutral</u> impact on the protection of extractive resources and therefore the satisfaction of this criteria.

## 3.7 - Heritage:

Criteria 7.1 Impact on known Aboriginal cultural heritage values.

Aboriginal Victoria mapping shows the Armstrong Creek and Thompsons Creek waterways as areas of cultural heritage sensitivity. There are also a number of areas of cultural heritage sensitivity in the Mt Duneed recreation reserve.<sup>13</sup>

Any change to the settlement boundary is expected to have <u>neutral</u> 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 the Mt Duneed cemetery, and the 'Hillside' residence on Williams Road.

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



<sup>13</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 access to local bus services (except for services which run along the Surf Coast Highway). The area is 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 <u>negative</u> 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 area has access to an existing primary school and recreation reserve, and could be connected to the existing growth area via Williams Road and new local streets. The 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, and those facilities were not originally planned to cater for additional housing growth in this area.

Initial consultation with Barwon Water has identified the following:

- Land South of the PPRZ land drains away from the existing network and therefore would be difficult to service
- The land identified in Figure 14 could potentially drain into the existing sewerage system.

 Potential that a new pump station may be needed for recycled water

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 <u>negative</u> impact on the ability to cost-effectively provide urban services to the Armstrong Creek growth area, as it would be necessary to 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.