

ARMSTRONG CREEK

GEELONG'S GROWTH AREA



ARMSTRONG CREEK

Social Interagency Infrastructure Delivery Plan (SIIDP)

Report - February 2009

Prepared by the City of Greater Geelong in collaboration with: -

Ambulance Victoria
Anglican Church
Barwon Health
Catholic Education Office
Country Fire Authority
Deakin University
Department of Education and Early Childhood Development
Department of Human Services
Department of Justice
Department of Planning and Community Development
G21
Geelong Regional Library Corporation
UDIA
Victoria Police

ENDORSEMENT BY INFRASTRUCTURE AGENCIES

The Agencies involved in the preparation of this Social Interagency Infrastructure Delivery Plan (SIIDP), endorse it as reflective of their strategic planning for community service infrastructure delivery at Armstrong Creek, and commit to continuing to work in partnership with other members of the Social Interagency Infrastructure Project Control Group to ensure coordinated, timely and streamlined implementation of the plan.

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SECTION 1 – INTRODUCTION

The vision for Armstrong Creek

Council, in conjunction with the Department of Planning and Community Development (DPCD) and Government agencies, has developed a comprehensive Social Interagency Infrastructure Delivery Plan (SIIDP) in order to ensure that planning for the growth area is properly considered and is able to deliver on Council's vision for the growth area as a liveable and sustainable community. Council, the State Government and agencies have recognised that they have a shared responsibility to plan for future community needs, along with recognising that community needs extend beyond that of hard infrastructure. This SIIDP will ensure that the growth area will be provided with the timely delivery of infrastructure and services, in line with the direction of Government which has, since March 2000, sought to emphasise the importance of the economic, environmental and social spheres.

The recently released Planning for all of Melbourne: The Victorian Government's response to the Melbourne 2030 audit sets out the importance of ensuring that the needs of the community are at the heart of all urban development planning. The SIIDP aligns with government policy which seeks to ensure adequate space is provided for active and passive recreation close to where people live, the co-location of services and infrastructure with planning for multiuse community facilities, and the allocation of land for education facilities. However, none of this can be achieved without a streamlined plan for the roll out of infrastructure items. The SIIDP sets out a 10 to 20 year plan for the servicing of the whole of the growth area, which will promote competition between developers and assist in improving housing affordability.

"The Armstrong Creek urban growth area will be developed into a sustainable community that sets new benchmarks in best practice urban development. Natural and cultural features will be protected and enhanced to create a distinct urban character. Armstrong Creek will become a highly sought-after location for living, working and recreation, forming an attractive addition to Geelong."

In recent times, an increasing amount of research has been undertaken to determine what makes a sustainable, attractive, liveable community where people have a strong sense of 'place'. It is known that the holistic well-being of individuals, families and communities is influenced by the environment in which they live. Planning and good design is fundamental to creating environs where people thrive.

In recognition of the enhanced wellbeing outcomes promoted by the Social Model of Health, the Social Interagency Infrastructure Delivery Plan (SIIDP) provides an outline of the concept plans of each of the Agencies to enhance the vision for 'liveability' in the Armstrong Creek Urban Growth Area emphasising the importance of:

- Education and Life Long Learning
- health and mental health;
- housing affordability and options;
- community facilities;
- recreation – active and passive;
- emergency services;
- movement and access.

“Armstrong Creek will offer a wide range of living and lifestyle options to meet the needs of a full cross section of the community. These will range from detached houses on family sized blocks to apartments close to major shops and services, and include accommodation for the aged, disabled and for students. Higher density housing will be clustered in areas close to public transport nodes and activity centres, maintaining the more traditional character of other residential areas. Affordable and social housing will be dotted through the development to integrate it with the community.”

The G21 alliance, which is made up of a variety of independent organisations with a shared vision for the Geelong region, has produced *G21– the Geelong Region Plan* which adopts five imperatives seen to assist in securing a bright and sustainable community. The Geelong Region Plan states that development must make environmental gains; use land wisely; increase access for social equity, creativity and learning; generate new business, raise skill and education levels and create more jobs; and maximise opportunities. The SIIDP aligns with these imperatives in bringing together government and other agencies to agree and resolve a way forward for infrastructure provision ensuring that land is used wisely and serviced appropriately to maximise opportunities for access to services and to allow opportunities for future innovation.

What has influenced the plan?

The Minister for Planning, via Amendment C138, approved the Armstrong Creek Framework Plan (refer Map 1) for incorporation into the City of Greater Geelong Planning Scheme with the key reference document being the Armstrong Creek Urban Growth Plan (Volume 1). The strategic direction for the growth area is contained within policy in the Planning Scheme. These documents set the context for future planning in the growth area. They set out the principles and objectives for subsequent and more detailed planning of the growth area and underpin the SIIDP and the precinct structure planning process.

The adopted Framework Plan and Urban Growth Plan set out that growth will:

- develop around a series of activity centres which form a hierarchy, with one Major Activity Centre, two Neighbourhood Activity Centres and a number of Local Activity Centres;

- be supported by urban design that achieves a walkable community - with local services, parks, education facilities, community facilities, public transport and recreation opportunities provided within reasonable walking distance of all homes;
- provide high quality local employment opportunities - with a target of one job per lot;
- support a healthy, safe and socially connected community - within sustainable built and natural environments;
- generate a thriving local economy;
- provide alternatives to car based travel through significant public transport provision, walking tracks and cycling networks; and
- have local convenience shops within a five minute walk of all homes.

The Armstrong Creek Urban Growth Plan (Volume 1) indicates that community infrastructure plays a central role in shaping the look of the development area; as neighbourhoods are planned around their community infrastructure. The design of community buildings and the way they will ultimately be accessed and used define the community's characters.

The strength and viability of these new communities is underpinned by focusing on the establishment of social networks, the availability of community and civic activities, the creation of opportunities for cultural and recreation participation and the encouragement of a very fundamental element - the operation of this community life through volunteering, civic pride and community leadership.

Community facilities are focal points for this community interaction. They are places where people can build relationships and a community identity; where resources are required to strengthen the life of the community and deliver community services. The layout and distribution of these facilities can influence sustainable behaviour patterns. That is, people walk or utilise public transport to access local opportunities and services and as a consequence build social networks that form the basis of strong, healthy and sustainable communities.

The economic benefits which can be gained through integrated infrastructure delivery is well recognised, however underpinning this dollar advantage is the gains made by the community in being able to access a wide range of services (education, retail, well-being and health, recreation, social and commercial service) in proximity to one another, particularly where this co-location is supported with public transport. Another influence is the need to facilitate collaboration across agencies for future facility development and service planning.

How is social infrastructure defined?

Social infrastructure is generally understood to mean infrastructure of a communal, human or social nature that is required progressively as a community grows. Social infrastructure provides for both informal and formal places and spaces providing physical resources that are used substantially for

community activities and services. Social infrastructure is the sum of both community facilities plus public open space.

For the purposes of this project, social infrastructure is defined as public and private, Federal, State and Local Government and non government facilities that accommodate access to community and individual programs, services and activities. Social infrastructure includes support **services** and **facilities** for the community generally and also for key groups within the community with recognised additional needs. These groups may include:

- families with young children;
- older adults and the frail aged;
- people with diverse cultural backgrounds;
- people with limited physical abilities;
- young people;
- homeless people;
- people in disaster and emergency situations;
- the unemployed and underemployed;
- aboriginal people.

Support **services** usually include social, recreational, educational, leisure, welfare and support programs, such as early childhood health, life long learning services and programmed activity aimed at improving quality of life of people with recognised needs such as new parents and their children, older adults and people with differing mobility needs.

Support **facilities** usually include venues from which these services might be provided. Ideally these should include multi-purpose community facilities located close to public transport and commercial facilities. Facilities may include community halls, libraries, maternal, child and health centres, child care facilities, kindergartens, leisure centres, recreation areas and amenity and sporting 'club house' facilities.

Why do we need a plan?

Planning for the development of social infrastructure is important to all communities and critical to localities where rapid population growth, urbanisation and increasing housing density is occurring. Collaboration at the local level between tiers of government, the private sector and across sectors is required to deliver sustainable economic, social and environmental outcomes. This document sets out a set of clear long term objectives for the provision of social infrastructure - just one component of the range of infrastructure requirements to deliver such outcomes. It is also the starting point for ongoing collaboration necessary to collectively realise a sustainable community into the future.

The aim of the Social Infrastructure Integrated Plan (SIIDP) is to identify the often complicated and conflicting issues which impact on growth areas and establish clear direction to respond to them. The project governance and process has engaged key stakeholders to agree on solutions that will make a difference to the new community. The SIIDP seeks to:

- increase consistency in planning for and future delivery of social infrastructure;
- establish a detailed framework for the delivery of social infrastructure across the whole growth area, utilising a staged and hierarchical approach to ensure a comprehensive range of social infrastructure is available over the long term;
- inform the Precinct Structure Planning process ;
- inform the land purchasing and capital development planning activities of the range of public and private investors; and
- respond to the requirements of the draft Precinct Structure Planning Guidelines developed by the Growth Areas Authority.

Project Governance - State Government, Local Government and Agency Partnership

The Armstrong Creek Project Team is a demonstration project of collaboration between the Department of Planning and Community Development and the City of Greater Geelong. Engagement with agencies is integral to the work of the team.

The Geelong Planning Working Group (GWPG) operates as a strategic partnership between the City of Greater Geelong (COGG) and State Government to achieve coordinated management of significant land use planning projects within Geelong. The GWPG is overseeing the work of the Armstrong Creek project Team to deliver a well-planned, sustainable community – connecting people to public transport, shops, schools and the services that people in Geelong really need. The State appointed Partnership Broker, whose objective is to expedite the objectives of the Armstrong Creek Project Group, provides a direct conduit to the Geelong Planning Working Group.

The overarching Armstrong Creek Integrated Infrastructure Delivery Plan (IIDP) currently has two parts (civil and social) that have been developed independently of each other. The high level outcomes of the civil IIDP and the social IIDP come together in this document creating a holistic view of the infrastructure requirements for the Armstrong Creek growth area.

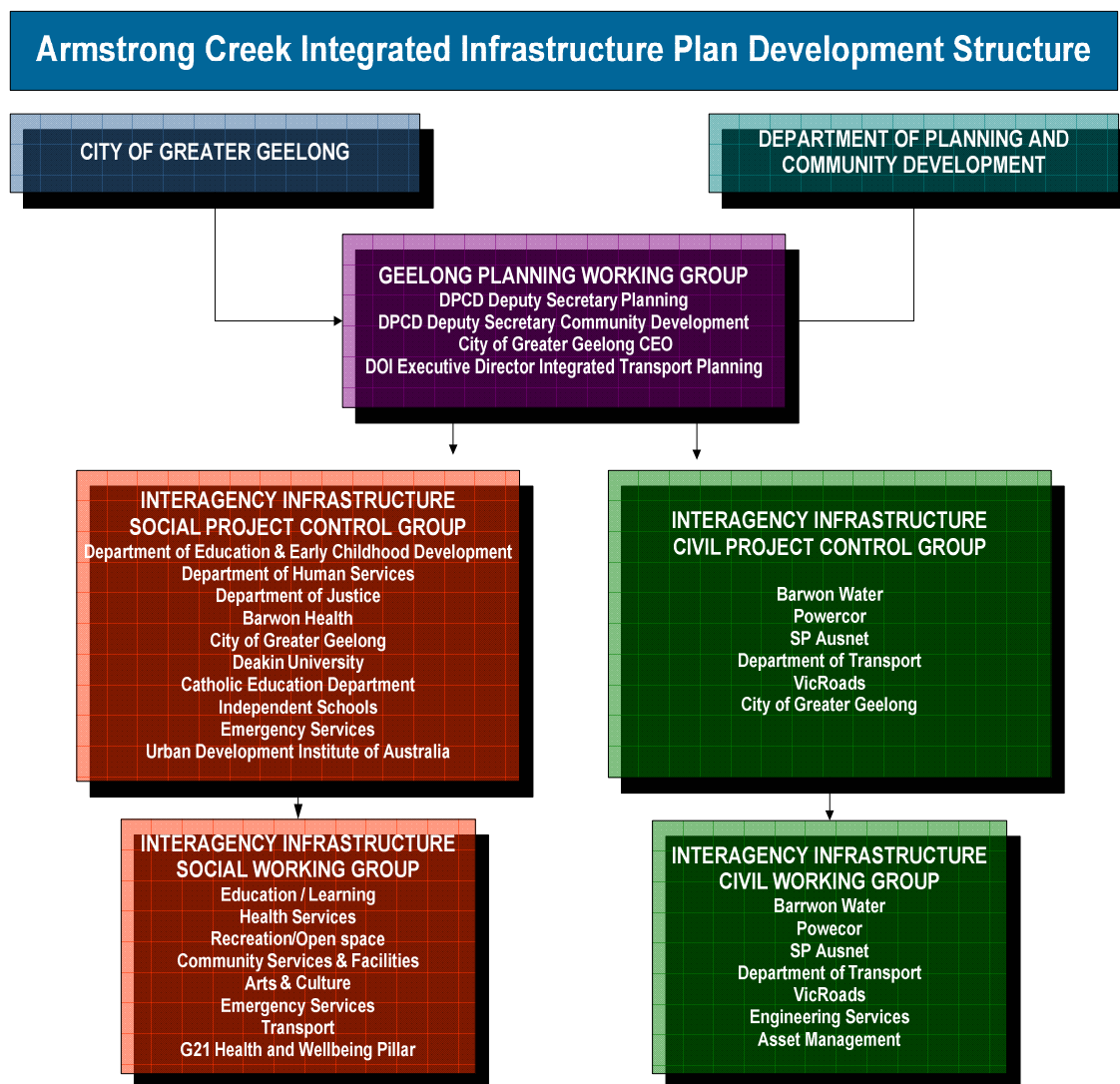


Figure 1 Armstrong Creek Integrated Infrastructure Plan Development Structure.

Methodology

There are multiple interdependencies between organisations and deliverables along the development path for the Armstrong Creek growth area. Council's deliverables are likewise interdependent with other organisations (e.g. agencies, developers) that will have significant impact on the timing and quality of the outcomes achieved. The SIIDP requires, therefore, a contemporary approach to develop highly productive partnerships between Council, State Government, agencies and the developer community that:

- Develops associations (e.g. strategic partnerships, networks, and working groups) that are established as strategic coalitions/alliances between organisations with a commitment to achieve a specific purpose and/or common goal. (These associations may have established governance frameworks to ensure their effectiveness, but members are not employees within

the same organisation and there are no direct managerial lines of accountabilities overseeing each others work).

- Involves authentic participation and collaboration rather than mere communication, and recognises difference of perspectives whilst working together to define problems, critical issues and opportunities to work towards common goals.
- Can evolve progressively in their possibilities, and develop mechanisms for bridging organisational and interpersonal differences to achieve real value from the partnership.

The process by which this plan was developed included six stages over a six month period from August 2008 to January 2009.

Stage 1 August 2008

- Literature review and desktop review. Documents reviewed included
 - *Armstrong Creek Urban Growth Plan, Volume 1*;
 - *Armstrong Creek Urban Growth Plan community and Social Technical Report*, February 2006. - Urbis JHD;
 - Traffic modelling for the Armstrong Creek network; Veitch Leister;
 - Cost estimate of movement and access works; GHD.
- Scope of Project
- Key Stakeholder analysis workshop
- Review of social planning tools including;
 - *Planning for Community Infrastructure in Growth Areas*, ASR Pty Ltd, April 2008;
 - *Best Practice Social Infrastructure Planning: Growth Area Investigation*, discussion paper, August 2005, DSE;
 - *Shared Facility Partnerships*, State of Victoria, Department of Education and Early Childhood Development, December 2007;
 - *Precinct Structure Planning Guidelines*, Growth Areas Authority.

Stage 2 September 2008

- Engagement of Department of Planning and Community Development, Spatial Analysis Unit to provide demographic and population profiling for the growth area.
- Council established the Armstrong Creek Social Infrastructure Interagency Project Control Group and the Social Infrastructure Working Group for delivery of collaborative solutions to social infrastructure. This is a new partnership that builds on, and compliments, the existing arrangements within each Agency for the provision of social infrastructure.

- Project Control Group initial meeting. Setting the scene for the working groups and establishing commitment to the work to follow.

Stage 3 October 2008

- Working Group Intensive Planning. The Social Interagency Infrastructure Working Group met for four hours, once a week for four weeks. (Further, the group has committed to working together on an ongoing basis to aid Precinct Structure Planning)

Stage 4 November 2008

- Development of draft Social Interagency Infrastructure Development Plan

Stage 5 December 2008

- Project Control Group Review of draft SIIDP.

Stage 6 January 2009

- Provision of SIIDP guideline to the developers and Project Control Group Members.

Each agency has their own internal planning processes for approval of development, funding and detailed design and delivery of infrastructure. The integration of these works through the SIIDP will be finalised in parallel with the development of the first Precinct Structure Plan in 2009. The finalised SIIDP will then be a key input into the remaining Precinct Structure Plans.

The aim of the Social Interagency Infrastructure Project Control Group is to coordinate the strategic planning and decision making required for more timely and collaborative delivery of social infrastructure in Armstrong Creek.

The Growth Areas Authority Precinct Structure Planning (PSP) Guidelines were used as an informing resource in drafting the SIIDP. The PSP Guidelines advise that consideration should be given to providing a range of infrastructure to ensure that unique new communities are created that are better places to live and able to respond to the challenges of the future. The PSP guidelines cover planning for:

- integrated neighbourhood design;
- housing¹;

¹ supporting the vision for housing options, G21, in collaboration with the City of Greater Geelong, are working to integrate public housing in the Armstrong Creek vision. The formation of a Public Housing Trust is well advanced with ongoing relationships ensuring collaboration and engagement as part of the developing community.

- community facilities;
- open space and natural systems;
- employment and activity centres;
- transport and movement;
- biodiversity management;
- heritage management; and
- utility services.

The SIIDP plan is based on practitioner analysis and experience. The SIWG used population projections across the whole of the growth area to plan for the anticipated need. Identified need was then applied to the precincts to provide parity. This approach fostered planning that was considerate of current service provision on the peripheral of the growth boundary.

The SIIDP nominates where facilities will be located, and when they will be required. This level of control through the planning process will ensure that new community services and amenities are established even in the very early days of development.

Using *Planning for Community Infrastructure in Growth Areas* and informing the work through group sessions outside of the Social Infrastructure Working Group Planning sessions, participants used population projections, current service demand, policy direction and internal strategic work to detail the quantity of facilities required to service the programs and community. Unique triggers of service provision (population, age cohorts, service response times, current service capacity and policy and protocol) are embedded in strategic planning throughout the various agencies however population is the most utilised tool to determine delivery. *Planning for Community Infrastructure in Growth Areas* provided both a basis and a check when applying standards of quantity (supply side standard linked clearly to assumptions about future demand) and quality (the size, configuration, location and cost of providing the community infrastructure). The SIWG was able to refer to this standards work and then test its application in the Armstrong Creek context.

In support of planning by population growth, the following table (Table 1, Development Rates) provides a calculated time estimate based on projected dwellings built per annum. The table uses previous peaks in Geelong's land demand and is supported by the growth rates experienced by the western suburbs growth areas (Wyndham and Melton) of approximately six percent growth per annum. Advice from the development community, coupled with Armstrong Creek's proximity to quality infrastructure (rail, road links, employment opportunity, higher education), and lifestyle amenity (beaches, bushland, city), suggests that the development table timeframe is conservative. The table suggests that dwelling building will peak at 1895 homes per year in 2020; however this figure could be significantly higher much earlier, seeing Armstrong Creek reach full dwelling development within a much shorter timeframe. The factors contributing to Armstrong Creek as a preferred liveable destination and the low levels of land available across Geelong in recent years has the potential to move the full development rollout from a projected 25 years to between 10-15 years.

Just as the timing of growth is dependant on complex forecasting, the number of persons per household is influenced by the mix and flexibility of housing stock, the demographic attracted to Armstrong Creek, infrastructure delivered and the timing of service provision.

The Social Infrastructure Working Group indicatively located facilities and services making reference to the Framework Plan, and utilising understanding from previous planning to best promote the aims of the Armstrong Creek project.

In promotion of accessibility and ‘multi-trip’ outcomes, regardless of land ownership, locating social infrastructure in proximity of each other promotes connection and social interaction. This plan serves to recognise the vision of each of the agencies in enhancing outcomes for the communities they service through creating opportunity to share. Strategic land alignments detailed in the Indicative Node Location Map Appendix 3 , displays the commitment of each of the agencies to achieve the goal of service co-location, with the built structure form enhancing this vision through potential ‘under the same roof’ facility sharing.

Accessibility to services and local amenity is enhanced through strategic positioning of higher order² social infrastructure in close proximity to the Major Activity Centre and through localised provision of convenience stores and local parks within neighbourhoods. The planning for social infrastructure does not provide indicative location of convenience store and local park amenity, this will be addressed through the Precinct Structure Planning phase of each precinct.

Distance between like services has a correlation to utilisation and delivery. It is acknowledged that land use planning can aid the creation of a liveable community through provision of services and proximity of these services according to frequency of use. People should be able to walk to shop for daily convenience foods, be able to walk to a local bus stop, be able to take public transport for weekly shopping and be able to access major transport options such as rail for employment.

Studies indicate that in general, most people will walk 400 metres or five minutes to a centre, or 800 metres (or ten minutes) to a major transit stop, if the route is pleasant and direct. Walkable catchments are maps showing the actual area within a five minute walk from local convenience, or 10 minutes from major public transport such as rail. The SIWG utilised the walkable guide to enhance access and promote sustainability in planning for the hubs. The walkable catchment map for both the Social Infrastructure Nodes and the Open Space and Recreation can be viewed at Appendix 5 and 6 respectively.

² Servicing populations in excess of 50,000 people, High order services also usually include cross catchment servicing providing amenity for residents outside of the immediate area (ie Surfcoast residents, Waurin Ponds etc.)

The location of the Major Activity Centre provides for access to higher order services not more than 3.6 kilometres from the mid point of the other activity centres across the growth area. This promotes the Major Activity Centre as a heart for larger gatherings, sports, shopping and cultural amenity. See Table 2 *Distance of Precinct Activity Hubs to Major Activity Centre* for approximate distances.

Table 1 **DISTANCE OF PRECINCT ACTIVITY CENTRES TO THE MAJOR ACTIVITY CENTRE**

PRECINCT	DISTANCE TO Major Activity Centre (km)
Major Activity Centre	-
Horseshoe Bend Neighbourhood Activity	2
East Neighbourhood Activity Centre	2.85
West Neighbourhood Activity Centre	1.4
Marshall Precinct Local Activity Centre	3.1
Horseshoe Bend Local Activity Centre	1.4
East Local Activity Centre	2.1
West Local Activity Centre	1.3
Horseshoe Bend Regional Recreation Reserve	2.8
East Regional Recreation Reserve	3.6
West Regional Recreation Reserve	3.3
Western Industrial Specialised Activity Centre	3.5
Western Industrial and West Specialised Activity Centre	2
Marshall and North East Industrial Precinct Specialised Activity Centre	3.2

Note: above table distances are from centre of activity centre to centre of activity centre using direct distance. This table needs to be read in conjunction with Appendix 3 – for location of nodes, Appendix 5 and 6 Walkable Catchment Maps and Appendix 8 - Arterial and Collector Roads (Public Transport routes).

Proposed pedestrian and cycling paths are shown in the framework of the Civil Infrastructure Plan (draft) in line with the objectives of the Armstrong Creek Urban Growth Plan, Volume 1. The proposed paths link the Activity Centres, railway stations, schools and key community facilities with a web of leisure trails and more direct walking and cycling. A high standard network of paths is envisaged to promote a walkable / cycling community that does not rely on motor vehicles as a primary mode of transport and contribute to the formation of a healthy and integrated community. The Pedestrian and Cycle Path Map is located at Appendix 7.

Safe, accessible and equitable transport beyond the walkable / cycling catchment is fundamental to providing for a diverse community and to embedding sustainability principles in a new community. Early provision of public transport in new growth communities is vital to support emerging communities and to provide links across education, employment, community services and recreation. Provision of social infrastructure at the local level becomes less critical when transport options are enhanced. Timely, safe and accessible public transport facilitates use of social infrastructure and

services. The Arterial and Collector Roads map (Appendix 8) provides a visual representation of the proposed public transport routes.

Understanding the walkable and cycleable catchments, the public transport catchment and the location of higher order services, supported the development of the Indicative Node Location Map (Appendix 3). The Indicative Node Location Map displays a commitment from each of the participating agencies to the principles of co-location with the proposed locations of nodes designed to better enhance community connection, walkability and 'multi-end point' trips in a manner that is seamless to the public.

Who will use the plan?

The SIIDP is an over-arching document designed specifically to facilitate interagency cooperation and to advance common goals. The SIIDP takes a broad approach, with the SIWG considering all potential scenarios affecting the area, and embraces the perspectives of both large and small stakeholders, to ensure the best possible outcome for the new communities. The process of developing the SIIDP was inclusive and involved agencies across both government and non government sectors and organisations which represent and work on behalf of the community.

The SIIDP focuses on providing land developers in the Armstrong Creek growth area with detailed information upon which to develop Precinct Structure Plans (PSPs). The plan also informs agencies of the potential requirements that relate to their service delivery so as to ensure forward planning occurs, rather than ad-hoc delivery and poorly integrated services. It provides direction for agencies in budgeting for the provision of services. This plan has a 20 year horizon to identify the long term requirements of the Armstrong Creek growth area. As such this plan is a priority tool for Government agencies and authorities and non government agencies for strategic planning, community building, resource allocation and budget preparation.

To this end the document has ownership beyond those involved in its development and is intended to support the communities represented, but also those not directly represented, through using best practice principles to serve the broad population.

How will the plan be used?

This plan is an information resource for parties involved in the development of the growth area. The SIIDP has established a common vision for Armstrong Creek through detailed and deliberative planning. Each of the agencies brought extensive knowledge and experience to the table during the planning phase of this project. The plan will be used to:

- facilitate consistency of service and infrastructure delivery;
- build communities where all people have equal access to amenity and service;
- assist in timely delivery of infrastructure and services;
- bring about sustainable change in peoples daily habits (enhancing health and longevity);

- set new benchmarks in collaborative planning;
- support agencies to explore new models of delivery and governance of facilities; and
- provide detailed information to developers to ensure the social vision for Armstrong Creek is achieved.

The plan identifies the level of service provision required and services that have synergies. Agencies can continue to plan using this informing work and the shared vision for Armstrong Creek to apply local solutions to integrated delivery.

The plan will guide the development of Precinct Structure Plans (PSP). It will ensure that regional facilities are provided and appropriately located, while also setting out the requirements for individual precincts based on population catchment and demand. The PSPs will lock in a high level of detail to ensure that the Armstrong Creek vision is achieved and that problems are anticipated and resolved up front. PSPs will be processed via a standard amendment process which allows for community engagement and input to occur. The process also allows for submissions to the amendment, which are ultimately reviewed and considered by an independent panel.

The stakeholders engaged as part of the SIIDP project, (along with other stakeholders identified as part of the project) will re-convene and will have significant involvement in shaping social infrastructure delivery at the precinct level. At this stage agencies will be encouraged to continue to plan for efficiencies and advancements in service provision and embrace new and evolving models of service delivery. Continued collaborative planning will facilitate timely delivery of infrastructure, enhance community liveability and generate enthusiasm for shared visioning for the Armstrong Creek growth area. Further, cross sector planning strengthens interagency relationships and enables the realisation of economies of scale through shared facilities and associated infrastructure.

SECTION 2– CONTEXT

Victoria's sixth growth area

Geelong is Australia's eleventh largest city, Victoria's second largest city and its most important provincial centre. Geelong is the principle settlement and economic centre for the South West region of Victoria, providing access to important primary services such as hospitals, specialist medical, tertiary education, retail shopping and other community and commercial facilities. It is well serviced by major infrastructure including Geelong Port and Avalon Airport; railway connections to Melbourne, Adelaide, Warrnambool and Ballarat; a road network which includes the Princes Freeway and Highway, Geelong Ring Road, the Hamilton Highway and the Midland Highway; significant health and education facilities including Deakin University; and a broad range of passive and active recreation opportunities, ranging from local scale to regional provision, including Skilled Stadium and the Waurin Ponds baseball complex.

Geelong is only a short distance from Melbourne and is well connected by road and rail services. Whilst Geelong currently has a very limited supply of broad acre land for urban development it is anticipated to be an increasingly attractive urban growth area for Melbourne. The Armstrong Creek growth area is the largest contiguous growth area in Victoria, consisting of 2,500 hectares of developable land, and is one of the largest growth fronts in the country. The State Government has consistently recognised the importance of the growth area in accommodating the unforeseen levels of population growth in Victoria at the moment, and the Armstrong Creek growth area is seen as Victoria's sixth growth area alongside the Growth Areas Authority Councils Wyndham, Hume, Casey-Cardinia, Melton and Whittlesea. The Geelong region itself is regional Victoria's fastest growing area.

A key priority for Council is, therefore, to rapidly increase the supply of developable land and the Armstrong Creek Urban Growth Area is one of the Council's largest and most important strategic projects. It aims to concentrate the majority of the urban growth of Geelong into a comprehensive community in the area south of the railway line at Grovedale and Marshall. Council seeks to ensure that the growth area functions as part of the broader municipality, rather than as a standalone new community.

Armstrong Creek has great potential to be a sustainable, liveable community with existing railway services and good road links to Melbourne, central Geelong, Barwon Heads, Torquay and the Surf Coast. A new railway station is planned in the west of the growth area along with a significant upgrade of the existing Marshall Railway Station and a new north-south transit corridor through the centre of the growth area. It provides the opportunity for future residents to take advantage of the employment opportunities and services offered by Geelong city, and within the employment areas of Armstrong Creek, whilst being only a short distance from the attractive beaches of the Surf Coast and the Bellarine Peninsula. Armstrong Creek itself has the potential to be a key asset for the growth area and traverses east-west through the site. This, combined with the undulating topography of parts of the land makes the area very attractive for a healthy residential and business environment. See Appendix 1, Armstrong Creek Urban Growth Plan Framework Plan.

Demographics

The DPCD Spatial Analysis Unit was engaged to support the planning work of the SIWG with regard to projected population and demographics. Armstrong Creek projections have been based on the current trends of the day. Local Government area and Statistical Local area current projections indicate an additional 95,000 people in Greater Geelong between 2006 and 2036 with Armstrong Creek estimates contributing between 50,000 to 60,000 people over this period.

Local Government Area	Population			Absolute Change		Av. Annual Change	
	1996	2001	2006	1996-2001	2001-2006	1996-2001	2001-2006
Greater Geelong	183,728	194,478	205,929	10,750	11,451	1.1%	1.2%
Greater Bendigo	84,515	90,449	96,741	5,934	6,292	1.8%	2.5%
Ballarat	79,109	83,599	88,437	4,490	4,838	1.1%	1.1%
Regional Victoria	1,276,148	1,332,519	1,383,328	56,371	50,809	0.87%	0.75%
Victoria	4,560,155	4,804,726	5,128,310	244,571	323,584	1.05%	1.31%

Table 2 Growth in regional Victoria occurring in regional centres

The table above indicates Geelong's growth as below the Victorian Average Annual Change, but above that of Regional Victoria.

Greater Geelong's population grew from 183,728 in 1996 to 205,929 in 2006. There was an additional 11,451 people between 2001 and 2006 representing a growth rate of 1.2%. This exceeded regional Victoria's growth rate of 0.75% and was close to Victoria's overall growth rate for the same period, 1.31%.

Victoria's population projections are currently being updated and will provide projected population totals for Local Government Areas. Large population growth is expected for Victoria and particularly Melbourne. This is because:

1. High levels of overseas migration are needed to sustain growth of the labour force, through a time when large numbers of baby boomers will be leaving the workforce as they reach retirement;
2. Fertility rates have risen over the last six or seven years. 2007 was a record year for births in Australia. Victoria had its greatest number of births since 1972.
3. Australia and many other countries are experiencing strong urbanisation – people moving to cities. Part of the reason for this is that the knowledge economy operates very effectively in the face to face environment of cities.

Strong future population growth is likely for Greater Geelong, as is expected for other regional centres such as Greater Bendigo (which had a growth rate of 2.5% 2001-2006) and the City of Ballarat.

Who lives in growth areas?

A possible clue to Armstrong Creek's occupants is to look at who generally lives in growth areas. Greenfield developments often follow a 'suburban life-course' involving:

- subdivision and development;
- initial settlement with many new families and young adults yet to have children;
- family formation – the families expand;
- maturation – the families age and children leave home to establish their own households while parents move into retirement;
- further ageing and regeneration as the original settlers die out and are replaced by a new generation of young people.

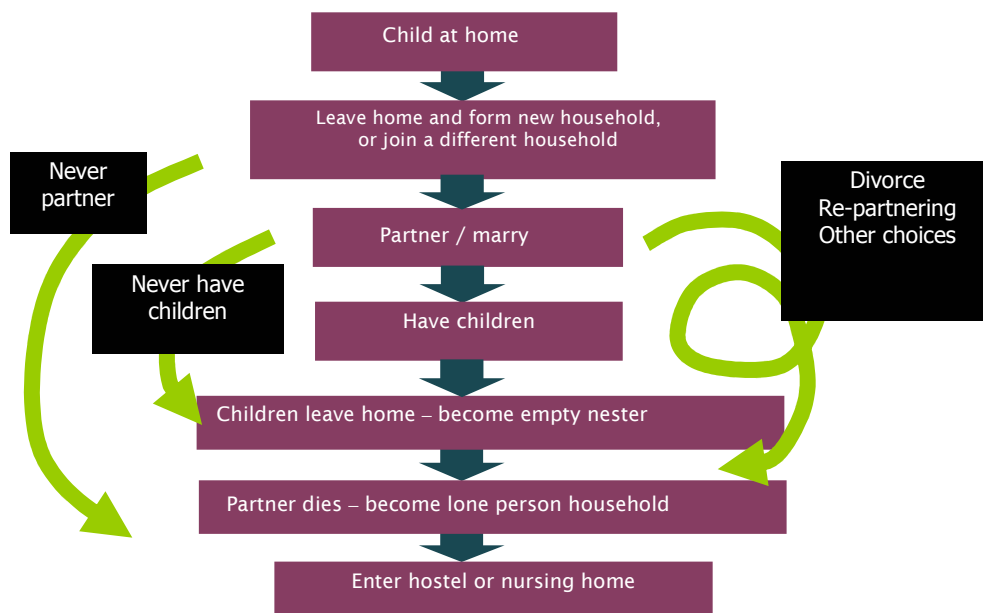


Figure 2 Suburban Life Course

Consequently there are waves of demands for facilities and services associated with different age groups – child care centres, kindergartens, primary schools, secondary schools and ultimately hostels and nursing homes.

The example of Caroline Springs shows strong net migration of young families between 2001-2006, but with some net gains in all age groups.

In its initial development stage, it is likely that Armstrong Creek will have a majority of young families. However over time a more diverse demographic will develop as families age, with some couples separating and with increasing numbers of children leaving home to form their own households. Some contingency planning is therefore needed for Armstrong Creek - allowing for future diversity in the initial planning, subdivision and development process.

The below figure supports the Framework Plan in its aspirations for higher density living with significant increase anticipated in couple families without children and lone person households.

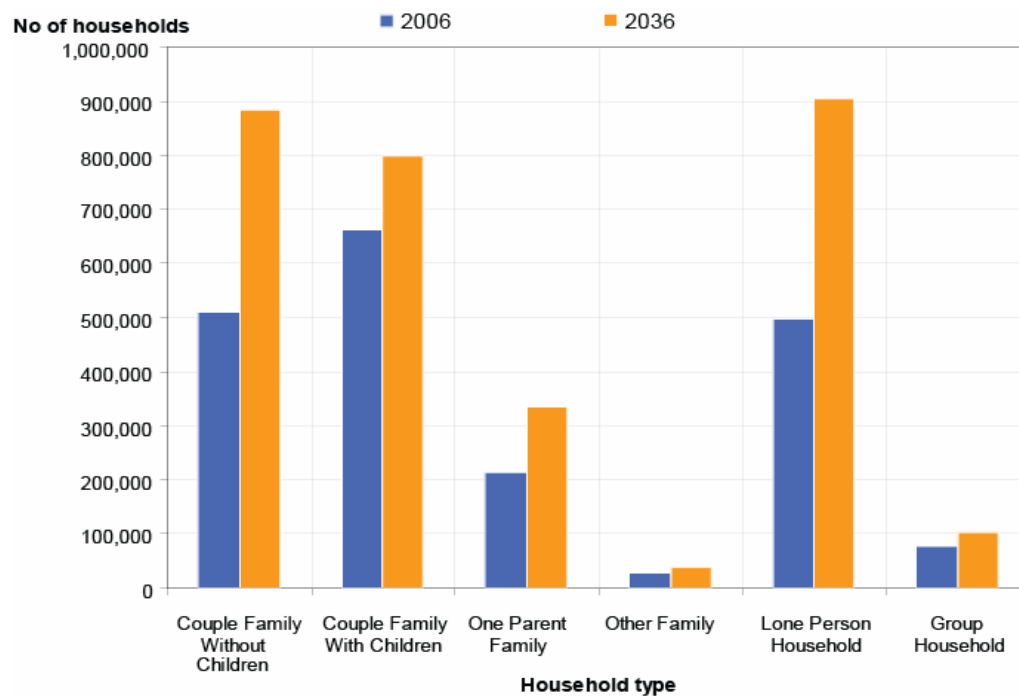
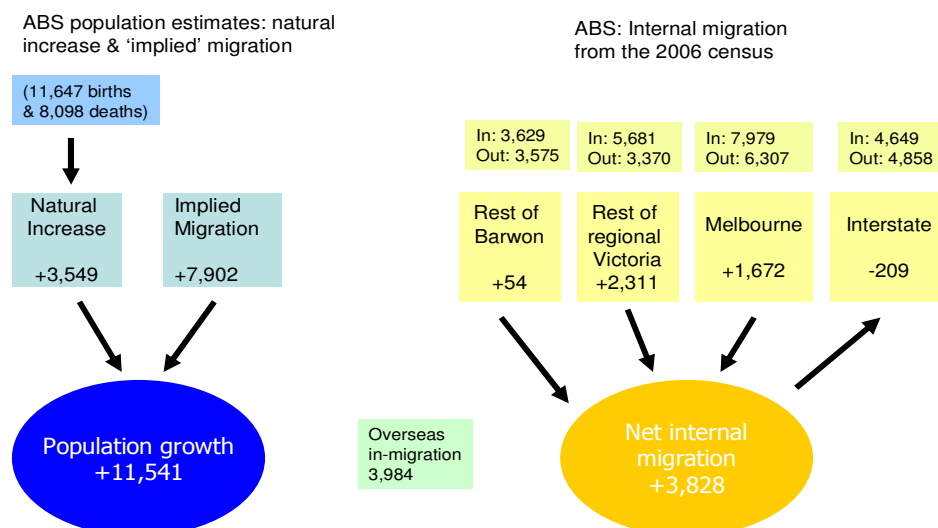


Figure 3 Projected changes to household types, Victoria, 2006-2036

Source: DPCD Interim household projections, October, 2007

Figure 4 (below) provides detail regarding population growth and net internal migration describing the components of change, Greater Geelong, 2001-2006.



Source: DPCD 2008

Figure 4 The components of change, Greater Geelong, 2001-2006 Source: DPCD 2008

Who will live in Armstrong Creek?

Demographic forecasting is limited in its ability to predict 'who' will be living at Armstrong Creek due primarily to the unique features of the Armstrong Creek area. As the largest contiguous growth area, there are no other areas to compare. Armstrong Creek is positioned to take advantage of major lifestyle factors such as world renowned beaches and is also located within close proximity of a major University. Further Geelong is critically short of land supply and indications suggest that this will see Armstrong Creek develop at a rate unprecedented in Geelong.

Although unique in comparison to other growth areas, the current migration story for Greater Geelong may provide clues to who could live at Armstrong Creek. Large regional centres like Geelong act as an important attractor of migration from within the G21 region as well as other regional areas. Between 2001 and 2006 it experienced a net gain of people from Surf Coast, Queenscliffe and Colac Otway. It experienced a net loss of people to the Golden Plains Shire, as well as to parts of Melbourne, particularly the inner areas.

Greater Geelong also has an unusual age specific net migration profile for regional Victoria. As with most regional locations in the past, Greater Geelong has lost youth to the bright lights of Melbourne where young people seek employment, educational and social opportunities. Between 2001 and 2006 however Greater Geelong had a net gain in migration of 15-24 year olds. This is significant and reflects increased opportunities for young people in Geelong. These young people could play a role in the growth area which is located in close proximity to Deakin University.

In December 2008 the Victorian State Government released "Melbourne 2030: a planning update Melbourne @ 5 Million". The report notes that "regional Victoria will continue to grow strongly and this growth needs to be planned". Regional Victoria is projected to grow by 477,000 people between 2006 and 2036, compared to 320,000 between 1976 and 2006. Around 40 per cent of this growth is projected to occur in Greater Geelong, Ballarat and Greater Bendigo. Within the context of Melbourne @ 5 million Armstrong Creek is endorsed as a significant growth area in Regional Victoria

The Victorian (State Government) Transport Plan (VTP) provides support for population growth at Armstrong Creek. The VTP outlines proposed investment to improve the quality of transport links, particularly train services, and continuing to create new local employment opportunities. Particular measures include:

- investigation of a transport corridor between Geelong and the Surf Coast Centre of Torquay;
- double the capacity of regional rail services with more tracks and more trains;
- completion of the Geelong Ring Road;
- improved bus services in regional including a new bus interchange in the Geelong CBD.

The program of work will help meet the transport needs of Geelong's growing population – the largest population growth in regional Victoria, and will increase the accessibility of Armstrong Creek to Melbourne for jobs, social and educational opportunities whilst offering the advantages of a regional lifestyle.

SECTION 3 – THE PLAN

Council's objective is to ensure that the supply of developable land is rapidly increased to allow urban development on multiple fronts driven by market demand that is not constrained by the availability of developable land. Members of the SIWG have adopted Council's planning targets for infrastructure delivery so that:

- at least 200 hectares of land will be serviced for subdivision by the end of 2011;
- social infrastructure provision will be master planned to inform a staged rollout; and
- social infrastructure will be delivered early in the development roll out to enhance opportunities for behaviour change and enhanced well being.

This Social Interagency Infrastructure Delivery Plan identifies not only what is required and where but also when and how it will be delivered, and the associated investment required across multiple agencies.

Provision of facilities – quantity and quality

Armstrong Creek includes seven precincts, one Major Activity Centre, two employment precincts, three major residential precincts and the existing residential precinct of Marshall.

The Precincts are known as:

1. Major Activity Centre
2. Armstrong Creek East Precinct (East)
3. Horseshoe Bend Precinct
4. Armstrong Creek West Precinct (West)
5. Marshall Precinct
6. North East industrial Precinct
7. Western Industrial Precinct

Appendix 9– Precinct Plan, provides a visual presentation of each of the seven precinct boundaries. Each precinct has a primary function, with the catalyst of the Armstrong Creek development project being realisation of enhancing residential land supply across the municipality of Geelong. Precincts are detailed in the table below, with shading indicating primary use, employment or residential.

Table 3 **Precincts by Primary Use, Employment and Residential**

	Major Activity Centre	Armstrong Creek East Precinct	Horseshoe Bend Precinct	Armstrong Creek West Precinct	Marshall Precinct	North East Industrial Precinct	Western Industrial Precinct
Employment							
Residential							

Precinct planning will enable agencies to understand the planned deliverables in any given area and provides opportunity to engage with developers in a meaningful way. Understanding the services and uses of community facilities across the whole of the growth area via the PSP process will enable provision at the precinct level to be reflective of local community need and also the broader municipality and regional need. For detail regarding the vision and elements of each precinct refer to Appendix 12- Precinct Elements.

Appendix 2- Analysis of Social Infrastructure Requirements for Armstrong Creek provides detail of the quantity of facilities based on both household and population projections.

While population projections are not failsafe, the use of population projections as a basis for infrastructure provision is readily applied by service providers. To enhance the chance of provision meeting need over time, flexibility of the built form is critical. The quantity of facilities becomes less important as the quality considerations (land allocation, access, and opportunity for space to be multi use) are explored. If transport and access is enhanced, the need for several outer lying libraries for instance is not as important as the provision of a well resourced library servicing the needs of the broad community. Individual smaller stand alone 'club' spaces become less desirable when synergies are created through shared administration at multifunctional, higher amenity facilities.

Where population and dwelling projections have served providers well, this basis has been applied to ensure adequate provision. State education, kindergarten provision and maternal child health provision are examples of services that have been planned for in this way. Appendix 2- Analysis of Social Infrastructure Requirements for Armstrong Creek, provides a basis for the quantity of facilities required using the household projection of 22,000 dwellings and the population projection of 54,000 people. Applying land size allocations to the number of facilities required projection, enables a comparison to be made both by hectares of land required and percentage of land required.

Table 4 **Social Infrastructure Requirements - Land and percentage of land required Armstrong Creek, household and population.**

	Hectares	% of Developable land
Armstrong Creek Developable Land	2580	100
Community Infrastructure Requirements Households	257.85	9.99
Community Infrastructure Requirements Population	231	8.95

Note: above figures do not include calculation for Aquatic Centre

Service Planning - from the Armstrong Creek growth area to the local level.

To apply service planning to Armstrong Creek it is necessary to understand the smaller pieces that build the picture. The flow diagram opposite is representative of the translation of service provision from the whole of the growth area to the local level.

The Urban Growth Area and the precincts are discussed in detail in Armstrong Creek Urban Growth Plan Volume 1, with the continuation of how services will be provided at the local level documented in this plan. The diagram below provides greater detail regarding the planning 'flow' from the whole of the growth area to individual service provision. (The chart is provided in larger print, see Appendix 10 – Growth Area to Local Service Planning).

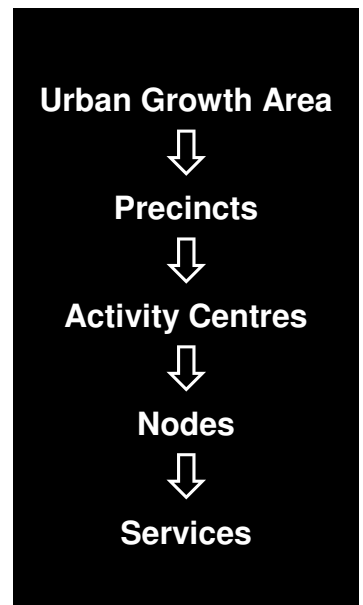
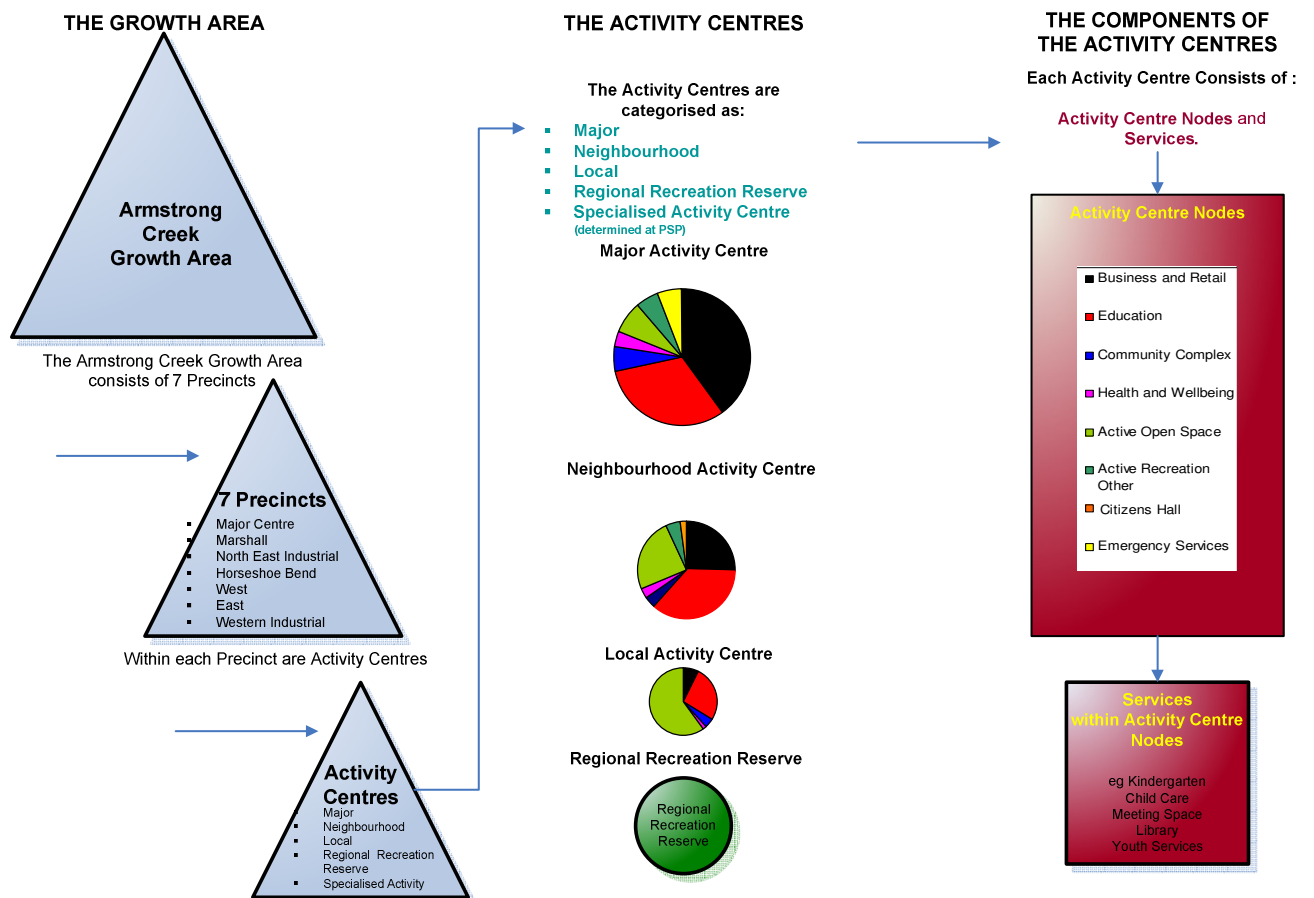


Chart 1 –Growth Area to Local Service Planning

Appendix 10 PLANNING - GROWTH AREA TO LOCAL SERVICES CHART



Activity Centres

The framework plan is based on one Major Activity Centre, two Neighbourhood Activity Centres, six Local Activity centres and three small Specialised Local Centres (convenience store) centres. The SIWG have utilised the Activity Centre base to work together a plan that services the intention of the Framework Plan. The SIIDP promotes Activity Centres as more than business and retail. They are the focal point of a community, providing a variety of options to interact and come together as a community. Activity Centres in this context are about the mix of activity that contributes to the heart of an area and provides opportunity for all people to play an active role in society. The language used to describe the activity centres in this plan is slightly differently, but is however congruent, with the provisions of the Framework plan.

The SIIDP categories are detailed below.

- **One Major Activity Centre**
- **Three Neighbourhood Activity Centres**
- **Four Local Activity Centres**
- **Three Regional Recreation Reserves**
- **Three Specialised Activity Centres.***
- Specialised Activity (SA) centres relate to business activity specific to the employment areas and typically will provide specialised supplies and staff amenity such as places to buy lunch and convenience shopping.

The East, Horseshoe Bend and the West residential precincts each include a larger activity centre, a smaller activity centre and a multiuse pavilion complex associated with a regional recreation reserve. A smaller activity centre is located within the Marshall precinct with specialised activity centres included in the North East and the Western Industrial precinct.

The Armstrong Creek Urban Growth Plan, Volume 1 document, sets out a requirement for local parks of 0.5 ha to be located within a 400m walkable catchment of dwellings. Local 'milk bar' convenience stores; the traditional corner store, are also referenced in Volume 1. The level of detail for local parks and 'corner store' provision has not been included in the SIIDP, but rather will be addressed through the PSP process.

The tables set out below (Table 6 and Table 7) show how each of the nodes³ are represented across the growth area by precinct with Appendix 4- Social Infrastructure, providing a visual representation of the location of major social infrastructure items across the growth area.

³ Nodes are component of the activity centres. See 'Nodes' page 30.

Node	Activity Centre			
	MAC ⁴	RRR ⁵	NAC ⁶	LAC ⁷
Business and Retail	✓	✓	✓	✓
Education	✓		✓	✓
Community Complex	✓		✓	✓
Health and Wellbeing	✓		✓	✓
Active Open Space	✓	✓	✓	✓
Active Recreation Other	✓	✓	✓	✓
Arts and Culture			✓	
Emergency Services	✓			

Table 5 Nodes within Activity Centres

Active Open Space & Active Recreation (other) Activity	Activity Centre			
	MAC	RRR	NAC	LAC
Active Open Space - Regional		✓		
Active Open Space - Local			✓	✓
Football/Cricket Football/Soccer		✓	✓	✓
Soccer Grass Pitch		✓	✓	
Soccer / Hockey Synthetic *1		✓		
Netball (multi-court) *2		✓	✓	
Tennis (multi-court) *3		✓		
All ability play space *4		✓		
Multi-purpose Stadium 4 Court (Basketball, Gymnastics)	✓			
Multi-purpose Stadium 2 Court (Basketball, Gymnastics)			✓	
Seniors Recreation (Bowls, Croquet) *5			✓	✓
Leisure Facility (Aquatic facility)	✓			
Athletics			✓	

*1 Located in the West Regional Recreation Reserve

*2 Located in the East Precinct

*3 Located in the East and West Precincts

*4 Located in the East Regional Recreation Reserve

*5 Located in the Local Activity Centre in the East and West Precinct, located in the Neighbourhood Activity Centre in the Horseshoe Bend Precinct.

Table 6 Location of active open space and active recreation (other) activity by activity centre

⁴ MAC – Major Activity Centre – see glossary for definition

⁵ RRR – Regional Recreation Reserve– see glossary for definition

⁶ NAC – Neighbourhood Activity Centre– see glossary for definition

⁷ LAC – Local Activity Centre– see glossary for definition

Nodes

The SIIDP enables refinement of the nodes within the activity centres on a service by service basis. Providing for flexible usage space will enable use of facilities to change as the community changes over time. There are eight nodes that can make any given activity centre. Nodes within the centres are:

- 1. Business and Retail**
- 2. Education**
 - i. State Education (not specified)
 - ii. State Secondary School
 - iii. State Primary School
 - iv. State Special Needs School
 - v. Non Government Education
- 3. Community complex**
- 4. Health and wellbeing complex**
- 5. Active open space**
 - i. Cricket, tennis, football, soccer, hockey
 - ii. Athletics Reserve
 - iii. Community pavilions
 - iv. Shelter and toilet amenity
- 6. Active Recreation (other)**
 - i. Stadium recreation (basketball, gymnastics etc)
 - ii. Seniors recreation reserve (bowls, croquet etc)
 - iii. Leisure Facility (Aquatic facility)
- 7. Citizens Halls**
- 8. Emergency services centre**

Specialised local activity centres, convenience stores and local parks will be part of the holistic planning from communities during Precinct Structure Planning.

The following table, table 8 - Nodes (and components of nodes) within Activity Centres by Precinct, provides a high level marker of each of the precincts and the nodes that are provided within any given centre by precinct.

Table 7 Nodes (and components of nodes) within Activity Centres by Precinct

Activity Centre by Precinct	Major Activity Centre Precinct	East Neighbourhood Activity Centre	East Local Activity Centre	East Regional Recreation Reserve	Horseshoe bend Neighbourhood Activity	Horseshoe bend Local Activity Centre	Horseshoe bend Regional Recreation Reserve	West Neighbourhood Activity Centre	West Local Activity Centre	West Regional Recreation Reserve	Marshall Local Activity Centre	North East Specialised Local Centre	Western Industrial Specialised Local Centre	Provision outside of activity centre areas
Node														
Active Open Space	✓	✓		✓	✓		✓	✓		✓	✓			
Business Activity	✓	✓			✓			✓						
Citizens Hall		✓			✓			✓						
Community Complex	✓	✓	✓		✓	✓		✓	✓		✓			
Community Pavilion		✓	✓	✓	✓	✓	✓	✓	✓	✓				
Convenience Store Provisional*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
Education	✓													
Emergency Services	✓													
Health & Wellbeing Complex	✓	✓	✓		✓	✓		✓	✓		✓			
Non Government School Provisional*			✓*		✓*	✓*			✓*		✓*			✓
Retail Activity	✓	✓	✓		✓	✓		✓	✓		✓	✓	✓	
Seniors Recreation Reserve		✓			✓			✓						
Shelter and Toilet Amenity		✓	✓	✓	✓	✓	✓	✓	✓	✓				
Specialised Local Centre												✓	✓	
Stadium Recreation	✓													
State Primary Education		✓	✓		✓	✓		✓	✓		✓			
State Secondary Education	✓	✓			✓			✓						
State Special Needs Education		✓												

See Indicative Node Location Map Appendix 3 for location of nodes.

The land size allocations detailed in this report are designed to ensure that a standard and conventional roll out of social infrastructure can be accommodated, however no allowance has been made for standalone facilities. Such a model provides for flexibility of service provision, as the specifics of the way in which services will be delivered have not yet been explored. The co location of various uses as shown on the community facilities plan reflects the collective willingness to better service populations through sharing and proximity of service delivery and social amenity. It is intended that efficiencies in service provision and opportunities for integration and co-location can be explored and possibly provided for in the PSP phase.

The land size allocations (detailed below and over page) provide for future adaptability and accommodate local solutions being applied in any activity node. The allocation is based on negating building of standalone facilities and the collective willingness to better service populations through sharing and proximity of service delivery and social amenity.

Major Activity Centre

▪ Business and retail activity	42 ha
▪ Education	8 ha
▪ Health and wellbeing complex	1.0 ha
▪ Community complex (including civic/cultural amenity)	1.5 ha
▪ Active recreation (other)	3.1

Neighbourhood Activity Centre

▪ Business and retail activity* ¹	3.5 ha	
▪ Secondary School	8.4 ha	
▪ Primary School	3.5 ha	
▪ Special needs education* ²	3.4 ha	
▪ Health and wellbeing complex	1 ha	
▪ Community complex	1.25 ha	
▪ Citizens hall	0.7 ha	
▪ Active open space (local)	8 ha	
▪ Multi-purpose stadium recreation	0.7 ha	
▪ Seniors recreation reserve* ³	0.9 ha	
▪ Community pavilion	1000m2	(floor space)
▪ Shelter and toilet amenity	100m2	(floor space)

*1 West precinct is local provision only.

*2 One Special Needs Education Site indicatively located in the East Precinct

*3 Provided at Local Activity Centre level in West Precinct

Local Activity Centre

▪ Business and retail activity	0.5 ha	
▪ Primary School	3.5 ha	
▪ Health and wellbeing complex	0.25 ha	
▪ Community complex	0.6 ha	
▪ Active open space *	8 ha	
▪ Community pavilion	500m2	(floor space)
▪ Shelter and toilet amenity*	100m2	(floor space)

* Excluding local activity centre located in the Marshall Precinct.

Regional Recreation Reserve (Sporting Fields)

▪ Active open space (regional)	18 ha	
▪ Athletics reserve (Horseshoe Bend Precinct)	3 ha	
▪ Community pavilion	1500m2	(floor space)
▪ Shelter and toilet amenity x 2 (100m2 ea)	200m2	(floor space)

Emergency Services Centre

▪ Victoria Police, Country Fire Authority, Ambulance Victoria	1.5 ha
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Specialised Local Centre

▪ Local convenience and services	1000m2	(floor space)
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Non Government School Centre

- Catholic Education pending
- Anglican Education (indicative) pending

Convenience Store provision

- Not detailed* pending

* developed through Precinct Structure Planning.

Services

The components of each of the nodes are provided as separate services enabling individualised development of any given node based on requirements. This provides flexibility while identifying potential sharing partners and common use areas (toilets, meeting spaces, cleaners' storage, etc). (See the service types table, Appendix 11 for services by type and providers of those services across government and non government streams).

The table below provides a reference of the number of service locations by precinct across the Armstrong Creek Growth Area.

Service	Precinct					Total
	East	West	H'Shoe bend	Marshall	Major Activity	
Anglican Education		1				1
Catholic Education (indicative)	1	1	2	1		5
Citizens Halls	1	1	1			3
Civic / Cultural Space					1	1
Consultation Rooms (visiting services)	2	2	2			6
Health and Wellbeing complex	2	2	2	1	1	8
Kindergarten (3 year old) Sites	2	2	2		1	7
Kindergarten (4year old) Sites	6	6	6	2	2	22
Library					1	1
Long Day Care Sites	2	2	2	1	1	8
Lutheran Education (existing) P-7	1					1
Maternal Child and Health Sites	4	4	3			11
Play Groups Sites	1	1	1			3
Sate Secondary Education Sites	1	1	1			3
State Primary Education Sites	2	2	2	1		7
State Senior / Pre Tertiary Education Site					1	1
State Special Needs Site	1					1
Toy Library Sites			1			1
Youth Services					1	1

Table 8 Services by precinct

Precinct						
Recreation Item	East	West	H'Shoe bend	Marshall	Major Activity	Total
Active Open Space – Local (8 ha)	2	2	2			6
Active Open Space – Regional (18ha)	1	1	1			3
All ability play space	1					1
Athletics Track & Field			1			1
Community Pavilions - Toilet Blocks	2	3	4	1		10
Community Pavilions - Large	1	1	1			3
Community Pavilions - Medium	1	1	1			3
Community Pavilions - Small	1	1	1			3
Football / Cricket Ovals	5	3	5			13
Football / Soccer Fields (joint use)		1	2			3
Hockey / Soccer - Synthetic		4				4
Leisure Facility (Aquatic Centre)					1	1
Multi Purpose Stadium - 4 court					1	1
Multi Purpose Stadiums - 2 court	1	1	1			3
Netball	2	4	7			13
Netball (Multi court facility)	9					9
Seniors Recreation Reserves (bowls, croquet)	1	1	1			3
Soccer - Grass	3	5				8
Tennis Complex - Pavilion & Admin	1	1				2
Tennis Courts	9	9				18

Table 9 Recreation services by precinct

The tables following note the gross floor area (GFA) requirements in metres squared for service provision and car parking at six of the nodes. The tables provide the basis for provision and denote the provision at each of the Activity Centres (Major, Neighbourhood, Local and Regional Recreation Reserve). Detailed below are the gross floor areas in metres squared for:

- Business and retail
- Community complex
- Health and wellbeing complex
- Active Open Space
- Active Recreation (other)
- Citizens Halls

The gross floor areas for the remaining nodes are not prescriptive and have not been provided. The nodes for which gross floor area have not been provided are:

- Education
- Emergency services

The service provision sizing has been planned to be flexible however there is rationale for the size and the quantity of the services that form the basis of the planning and should therefore be utilised as the guide upon which Precinct Structure Planning can progress. The configuration of any given service and its location within any given activity centre will be subject to collaborative planning between the City of Greater Geelong, the Project Control Group and developers.

Business and Retail	Space Provision m2			Basis for Provision
	MAC	NAC	LAC	
Business (office space)	35,000	1,400		Framework Plan
Retail	35,000	7,000	1,000* ¹	Framework Plan
Restricted retail	25,000			Framework Plan
Entertainment	7,000			Framework Plan
Total	102,000			

* 1 Up to 1,000 m2 local convenience amenity.

Table 10 Gross Floor Area requirements, Business and Retail Activity

Community Complex	Space Provision m2			Basis for Provision
	MAC	NAC	LAC	
Community rooms and meeting space	1,500	550	200	Comparative Analysis* ¹ , LG Testing* ² , ASR Guideline* ³
Library	3,000			Comparative Analysis, Testing, ASR Guideline
Kindergarten	1,612	3,224	1,612	Children Services Regulations, ASR Guideline
Three year old kindergarten	315	630		Children Services Regulations, ASR Guideline
Play group	355	355		Children Services Regulations, ASR Guideline
Youth services	500			LG Testing
Child care	1,525	1,525	1,525	Children Services Regulations, ASR guideline
Car parking	5,250	3,500	1,575	35m2 per space
Storage space	250	250	75	LG Testing
Toy library		120		ASR guideline, LG Testing
Consultation rooms		260* ⁴	100	ASR guideline
Open space		1,000	500	Accepted Practice
Total	14,307	12,254	5,687	

* 1 Comparative Analysis = provision based on other like provision service size based on similar population and demographics.

* 2 LG Testing = testing during social infrastructure working group sessions

* 3 ASR Guideline = Planning for Social Infrastructure in Growth Area communities

* 4 260m2 is the allocation in the East and West Precinct for a total of 5 consultation rooms, waiting room space and group rooms (2x50m2). The Horseshoe bend allocation is 225m2 – a total of 4 consultation rooms, waiting room space and group rooms (2 x 50m2)

Table 11 Gross Floor Area requirements, Community Complex

Health and Well-being Complex	Space Provision m2			Basis for Provision
	MAC	NAC	LAC	
Community health and well-being service provision	2,000	2,000	600	Comparative Analysis* 1
Car parking	4,500	4,500	1,575	Regulation
Open space / Landscaping	750	750	325	Accepted Practiced
Total	7,250	7,250	2,500	

* 1 Comparative Analysis = provision based on other like provision service size based on similar population and demographics.

Table 12 Gross Floor Area requirements, Health and Wellbeing Complex

Active Open Space	Space Provision (m2)				Basis for Provision
	RRR	MAC	NAC	LAC	
Cricket, tennis, football, soccer, hockey					LG Testing *1 ASR Research*2
Athletics Reserve (3ha)					
All ability play space (included in 18ha land allocation in the East precinct)	Size TBC				
Community pavilions					
Meeting and function space	450	250	100		LG Testing *2
Storage	350	300	175		LG Testing *2
Kitchen and bar	150	150	50		LG Testing *2
Meeting space (club)	200				LG Testing *2
Toilet and change rooms	350	300	175		LG Testing *2
Total community pavilions	1,500	1,000	500		
Shelter and toilet amenity	200*3	100	100		LG Testing *2

*1 LG Testing = testing during social infrastructure working group sessions

* 2 ASR Guideline = Planning for Social Infrastructure in Growth Area communities

*3 Provision for two facilities of 100m2 each.

Table 13 Gross Floor Area requirements, Active Open Space

Active Recreation (other)	Space Provision (m2)				Basis for Provision
	RRR	MAC	NAC	LAC	
Multi-purpose Stadium recreation					
Multipurpose courts		5,000	2,500		Comparative Analysis* 1
Gymnastics		300	200		Comparative Analysis* 1
Car parking		3,000	1,500		Comparative Analysis* 1
Total stadium recreation		8,300	4,200		
Seniors recreation reserve					
Bowls & Croquet			4,000	4,000	Comparative Analysis* 1
Car Parking			1,500	1,500	Comparative Analysis* 1
Total seniors recreation res			5,500	5,500	
Leisure (Aquatic) Facility					
Pool, Gym, Admin, Amenities		3300			Comparative Analysis* 1, LG Testing*2
Car Parking		5000			Comparative Analysis* 1
Total leisure facility		8300			

*1 Comparative Analysis = provision based on other like provision service size based on similar population and demographics.

*2 LG Testing = testing during social infrastructure working group sessions

Table 14 Gross Floor Area requirements, Active Recreation (other)

Citizens Hall	Space Provision m2			Basis for Provision
	MAC	NAC	LAC	
Community, cultural, performing arts	1,500			Comparative Analysis* 1
Car parking	3,000			Regulation
Open Space / Landscape	700			Accepted Practice
Total	5,200			

*1 Comparative Analysis = provision based on other like provision service size based on similar population and demographics.

Table 15 Gross Floor Area requirements, Citizens Hall

Cost Frame

Using information gathered from the agency's representatives and utilising industry building price standards (Rawlinsons) a total cost of provision of critical social and recreation infrastructure table has been derived. This financial table, (see Appendix 14 Social Infrastructure Costs), is indicative of costs only and pertains to market pricing as at October 2008. The spreadsheet provides detail at both the precinct level and also as a total picture for Armstrong Creek.

The spreadsheet builds the picture across each of the precincts, based on the land size allocation and the node service components for the built form.

The table below, (Node Infrastructure Cost, Armstrong Creek) provides a high level 'snap shot' of the costs for infrastructure provision at the nodes. Note these costs are indicative only, and are subject to change variables such as land pricing, component pricing, timing and sizing.

Node	Total cost \$M (rounding applied)
Business and retail	Determined at PSP Stage
Education	
State Education (Primary, Secondary, Special Needs and not specified)	246
Non Government schools	133
Community complexes	73
Health and wellbeing complexes	38
Active open space (regional and local)	74.5
Sporting amenity (football, cricket, tennis, hockey, soccer, etc)	30
Athletic Reserve	2.5
Community pavilions (inclusive of Shelter and Toilet Amenity)	30
Active Recreation (other)	
Multi-purpose stadiums	21
Seniors Recreation Reserve	2.6
Leisure Facility (Aquatic facility)	21
Citizens Halls	22.2
Emergency services	16
Specialised local centres	Determined at PSP stage
Convenience stores	Determined at PSP stage

Table 16 Node Infrastructure Costs, Armstrong Creek.

SECTION 4 – DELIVERING THE PLAN

The two streams of the Integrated Infrastructure Delivery Plan (social and civil) have been developed independently of each other, but will come together into a single document outlining the entirety of infrastructure requirements for the Armstrong Creek Growth Area.

Both the civil and social components of the Integrated Infrastructure Delivery Plan focus on delivery of shared infrastructure where possible. The IIDP has therefore been designed to ensure the area can be serviced in a timely and efficient manner, and obligations and responsibilities contained within the plan are clear.

Governance for timely and coordinated development

Within all agencies the question of governance posed some new challenges in relation to co-location or sharing of facilities and coordinated planning decisions. In recognition of the large capital outlay for social infrastructure and the community's expectations of a seamless and responsive service system, current government policy is seeking to support co-operative arrangements into the future. The '*Shared Facility Partnership – a Guide to Good Governance for Schools and the Community*', is one plan for developing and maintaining successful partnerships to encourage sharing of infrastructure between schools and other community institutions to make schools the heart of local communities. Similarly local councils have long recognised that the 'stand alone' facility model is not sustainable and that services can meet community needs in a more holistic way when combined in a single and accessible location.

As a green field site, the planning for Armstrong Creek provides a unique position to forge relationships early and to build upon the strength of the shared vision created in this plan. The Project Control Group and the Working Group have been instrumental in laying the foundation for better community outcomes and for recognising that there is need for a different way of doing things. The group has been vocal in their recognition for wanting to challenge practice of old and for ensuring that we are building not only for communities of today, but for communities that can be sustained over time as they change and as their needs change.

While it is recognised that there are limitations, the group explored a range of issues that will assist in establishing new foundations upon which new facility management models can be developed. In addition a range of issues were identified that warrant further exploration such as local area trusts and body corporate contributions the basis for new governance models but the common themes that require further examination generally always included:

- land ownership;
- single facility management;
- resourced management of single or multiple facilities;
- involvement of user groups in the development of governance arrangements.

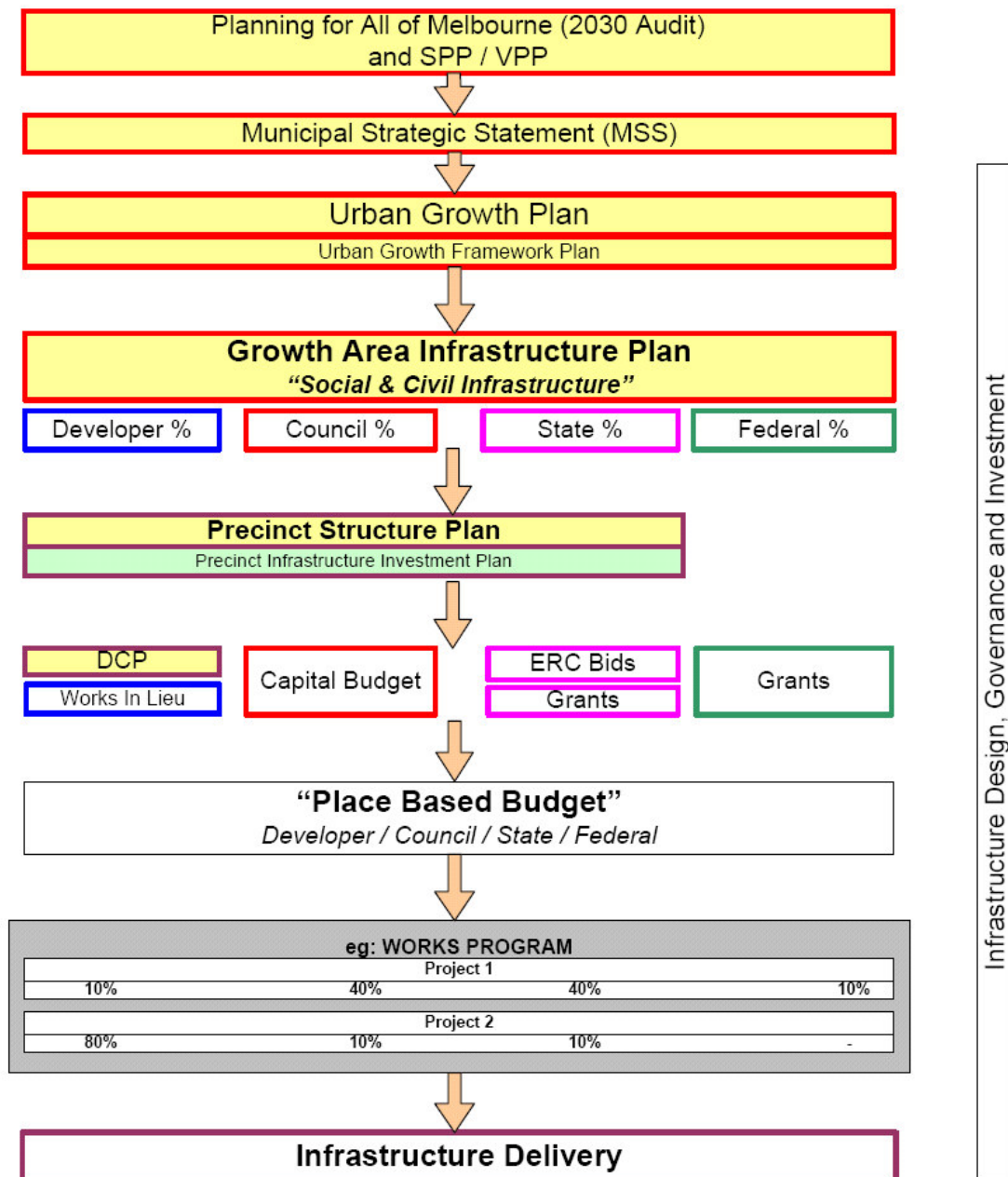
It is therefore necessary for the delivery of the strategic intentions of the IIDP that interagency groups ongoingly work on the key delivery issues surrounding governance models, detailed design and integrated service planning. In the case of the social infrastructure component it may be beneficial to utilize the resources of the G21 Health and Wellbeing, Education and Training and Sport and Recreation Pillars to maintain focus and engagement of key stakeholders over the next 12 – 18 months in this area of forward planning.

Translation to an Investment Plan

Investment in Armstrong Creek Social Infrastructure will come from both public and private sectors using a more diverse number of mechanisms and delivery arrangements than elsewhere in the municipality of Geelong. These mechanisms may include the use of development contributions, government appropriations and capital investments, private capital and other funding options.

The development of the social and recreation infrastructure (by Precinct) spreadsheet (attachment 14) provides a reference for all potential investors. It outlines the indicative costs and development time frames. This in turn informs strategic budget planning and can support joint venture and other collaborative development options.

Infrastructure “Place Based” Funding Model



Legend

Responsibility :

Developers

Council / Developers

Council

State

Federal

Planning Documents :

Incorporated Document

Reference Document

Chart 2 – Infrastructure “Place Based” Funding Model

Private Sector Investment

A requirement of precinct structure plan development includes the establishment of Development Contribution Plan under the provisions of Part 3 B Development Contributions, Planning and Environment Act, 1987. These plans outline the arrangements for the developer component of the investment plan. This group of investors will be required to work with the Armstrong Creek Project Team (City of Greater Geelong) to develop these plans as part of the delivery of their overall Precinct Structure Plan. As expected for all investors groups there is a requirement to continue to engage with all stakeholders (particularly end user / managers) as outlined by the City of Greater Geelong. This approach ensures engagement of key stake holders in the development contribution plan process.

Government Investment

Continued work will be required to ensure high level engagement in the delivery of the social infrastructure plan across local, state and federal government in order to achieve the most appropriate range of services in line with development. The SIIDP Project Control Group will have an ongoing role using a number of structures and mechanisms to continue this collaboration and challenge traditional models for funding to deliver integrated outcomes.

It is proposed that for the State Government level, the mechanisms to take forward infrastructure requirements will be aligned with a new approach proposed under the Governments response to the Melbourne 2030 review. That is, integrated infrastructure plans are considered on a growth area or precinct basis to ensure timely, coordinated and integrated delivery of government investment in facilities from a broad range of responsive services and opportunities.

ACRONYMS AND GLOSSARY

ABS	Australian Bureau of Statistics
COGG	City of Greater Geelong
DEECD	Department of Education and Early Childhood Development
DHS	Department of Human Services
DOJ	Department of Justice
DPCD	Department of Planning and Community Development
GDP	Gross Domestic Product
LAC	Local Activity Centre
LGA	Local Government Area
MAC	Major Activity Centre
NAC	Neighbourhood Activity Centre
NGO	Non Government Organisation
PSP	Precinct Structure Plans
RRR	Regional Recreation Reserve
SIIDP	Social Interagency Infrastructure Development Plan
SIPCG	Social Infrastructure Project Control Group
SIWG	Social Infrastructure Working Group
UDIA	Urban Design Institute of Australia
Athletics Track and Field	Purpose built amenity for practice of athletic and track sports.
Active open space	Land set aside for the specific purpose of formal outdoor sports by the community.*
Active Recreation (Other)	The collective term for multipurpose stadiums, senior's recreation reserves, and the leisure facility (aquatic facility).
Activity Centre	Provide the focus for services, employment and social interaction. They are where people shop, work, meet, relax and live. Usually well-served by public transport, they range in size and intensity of use.* They are often the heart of community vibrancy and interaction, extending beyond a retail and business activity to include social, passive, recreation, health and wellbeing service, arts and culture and education activity.
Business and Retail	Shops, offices and other services.
Citizens Halls	Flexible community space used for community gatherings, cultural

	activities, performing arts and civic ceremonies and celebrations.
Co-location	Adjoining land uses to enable complementary programs, activities, services and shared use of resources.*
Convenience Store	Small local 'milk bars' where convenience goods are sold.
Community Complex	Facilities for community use which may include meeting activity, maternal child and health services, kindergarten services, play group activities, toy library services, state and local government information, library services, youth activity, educational programs etc.
Community Pavilions	Pavilions for the use of community groups including sporting groups, service organisations and youth groups. Providing amenity for sporting events, meetings, functions and club activities.
Education	Government and non government pre-school, primary, secondary and tertiary schools.
Emergency Services	Police, fire and ambulance services.
G21	G21 is the alliance of a variety of independent organisations with a shared vision for the Geelong region. The Alliance includes the Borough of Queenscliff, City of Greater Geelong, Colac Otway Shire, Golden Plains Shire, Surf Coast Shire and more than 150 community and business organisations committed to securing a bright and sustainable future for the region.
Governance	Governance relates to decisions that define expectations, grant power, or verify performance. It consists either of a separate process or of a specific part of management or leadership processes. In the case of a business or of a non-profit organisation, governance relates to consistent management, cohesive policies, processes and decision-rights for a given area of responsibility. (http://en.wikipedia.org/wiki/Governance)
Health and Wellbeing complex	Health facilities including doctor's rooms, pathology services, private and public health service provision.
Leisure Facility	Facility including gymnasium, pool, spa and water play areas and group exercise space.
Multipurpose Stadium / stadium recreation	Facility providing for indoor recreation such as basketball, badminton, indoor cricket and netball. Inclusive of area for gymnastics and other indoor rhythmic activities (dance, callisthenics etc).
Node or Activity Centre Node	A component of the mix making up the activity centre. Activity centres consist of eight nodes (business and retail, education, community complex, health and wellbeing complex, active open space, active recreation, arts and culture and emergency service)
Non Government Organisation	All organised institutions of civil society (including business associations, professional and sporting societies, trades unions and so on), and both profit-orientated enterprises and non-profit organisations in the private sector. (www2.ecos.ch/archiv/johannesburg2002.ch/en/publikationen/2_2_6_glossar.php)
Passive Open Space	Open space that is set aside for parks, gardens, linear corridors, conservation bushlands, nature reserves, public squares and community gardens that are made available for passive recreation, play and unstructured physical activity including walking, cycling, hiking, revitalisation, contemplation and enjoying nature.*
Precinct Structure	A statutory document that describes how a precinct or series of sites within

Plan	a growth area will be developed over time. A precinct Structure plan sets out the broad environmental, social and economic parameters for the use and development of land within the precinct.*
Public Open Space	Land that is specifically set aside for the purposes of public recreation and public resort; or for similar purposes. Incorporates active and passive open space.*
Regional Active Parkland Service	Large land reserves The activity taking place within a node. Services include kindergarten, maternal child and health, library, youth, meeting space etc. An example would be the provision of kindergarten <i>services</i> at an education <i>node</i>.
Social Infrastructure	Community [service and recreation] facilities plus public open space.
Social Model of Health	A conceptual framework within which improvements in health and wellbeing are achieved by directing effort towards addressing the social and environmental determinants of health (Department of Human Services (DHS) 2002.).
Seniors Recreation Reserve	Land for bowling rinks or croquet courts.
Walkable Catchments	A technique for comparative evaluation of how easy it is to move through an urban area in order to get to and from amenity and facility.

* Precinct Structure Planning Guidelines, October 2008, definition.

REFERENCES

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APPENDICES

APPENDIX 1	ARMSTRONG CREEK URBAN GROWTH PLAN FRAMEWORK PLAN
APPENDIX 2	ANALYSIS OF SOCIAL INFRASTRUCTURE REQUIREMENTS FOR ARMSTRONG CREEK
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