

ARMSTRONG CREEK GEELONG'S GROWTH AREA

INTEGRATED INFRASTRUCTURE DELIVERY PLAN (IIDP) ADOPTED 10 MARCH 2009

PREPARED BY:
THE ARMSTRONG CREEK PROJECT TEAM



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INTRODUCTION

Council, the Department of Planning and Community Development (DPCD) and other Government agencies, have developed a comprehensive Integrated Infrastructure Delivery Plan (IIDP) to ensure Council's vision of a liveable and sustainable community can be delivered. Council, the State Government and agencies recognise they share the responsibility to plan for future community needs beyond merely hard infrastructure. This IIDP aims to ensure the growth area is provided with the timely delivery of infrastructure and services.

The IIDP clearly recognises that the delivery of civil and social infrastructure items are inter-related, particularly physical design and its health implications. Thus, the emphasis has been on encouraging transit oriented development through road networks that result in permeable neighbourhoods, encouraging walking and assisting in decreasing car dependence. Planning can occur across disciplines, enabling many of the development challenges and contemporary problems to be addressed. Nominating an 800 metre grid collector street network provides for excellent connectivity and permeability throughout the growth area and encourages walking and cycling. Planning for public transport has also been undertaken, and social infrastructure items have been located with the walkable catchments in mind. This focus should assist in improving housing affordability. A study conducted by the Australian Financial Review, showed that reducing one car per household could cut 13 years off mortgage payments, allow people to retire 10 years earlier, or providing an extra \$400,000 in mortgage purchase-ability.

The IIDP is critical to achieving liveable communities within Armstrong Creek. Elements such as affordable and appropriate housing, supportive community features and services, and adequate and diverse transport and movement options facilitate personal independence and the engagement of residents in civil and social life. The IIDP provides the basis for planning for all forms of infrastructure in the growth area, including budget planning and resource allocation.

The IIDP has been developed via a collaborative approach with stakeholders, and there is a shared commitment to using it as a blueprint for creating liveable communities. It is fundamental for ensuring the Armstrong Creek growth area is a great place to live both today and in the future.

The application of the Urban Growth Zone to the Armstrong Creek growth area places a greater emphasis on the use of Precinct Structure Plans (PSPs) to guide development and the need for integrated planning to be undertaken at an early stage in the process. The IIDP guides the development of precinct structure plans and ensures infrastructure is appropriately allocated and considered.

It is anticipated the IIDP will provide a reference for all investors in the growth area, outlining the indicative costs, development timeframes and infrastructure phasing. Investment will come from both the public and private sectors, using a diverse number of mechanisms and delivery arrangements not seen before 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 indicative costs of infrastructure and timeframes for delivery will inform strategic budget planning, and also support joint venture and other collaborative development options.

It is proposed the State Government will use a new approach proposed under the Melbourne 2030 review to determine appropriate mechanisms to ensure timely, co ordinated and integrated delivery of government investment for facilities to deliver best practice outcomes.

The growth area will ultimately accommodate 55, 000 to 65, 000 people. Forecast delivery rates of 2,000 lots per year have been planned for. Should this happen, the growth area will be fully developed in 11 years. If the delivery rate is slower, the growth area could take up to 25 years to be fully developed.

POLICY CONTEXT

Planning for all of Melbourne: The Victorian Government's response to the Melbourne 2030 audit notes the importance of ensuring the needs of the community are at the heart of all urban development planning. The IIDP aligns with government policy seeking to ensure adequate space is provided for active and passive recreation close to where people live, the co-location of services and infrastructure.

Melbourne @ 5 million has determined that Melbourne will be home to five million people faster than previously anticipated, while Greater Geelong, Ballarat and Greater Bendigo will have to accommodate around 40 percent of regional Victoria's growth. The State is experiencing record growth and household growth is stronger than population growth due to household sizes reducing, with an ageing population and social change. Geelong is located in proximity to Melbourne, suggesting that Armstrong Creek will be an attractive option for home buyers from Melbourne, thus becoming Victoria's sixth growth area.

A Fairer Victoria, Strong People Strong Communities, recognises the value of community assets in building better places to live and work, and attracting skilled labour and capital investment. It suggests assets are not restricted to physical items like transport, public spaces and housing, but include social capital and the strength of local community and leadership. The IIDP recognises that the role civil and social infrastructure items play in ensuring the creation of a liveable community where people feel safe, where there is a sense of belonging, job opportunities, affordable housing, good services and facilities and attractive environments.

G21 an alliance, of a variety of independent organisations with a shared vision for the Geelong region has produced G21– The Geelong Region Plan. The plan has five imperatives for securing a vibrant and sustainable community. The imperatives set out 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 IIDP approach to infrastructure provision aligns with these imperatives ensuring land is used wisely and serviced appropriately to maximise opportunities for access to services and allow for future innovation.

Moving Forward– Making Provincial Victoria the Best Place to Live, Work and Invest focuses on the need to ensure a supply of affordable housing in regional Victoria. It also emphasises the need for housing diversity to meet the needs of residents and reduce the impacts of urban expansion. The IIDP takes these important issues into account.

PLANNING CONTEXT

As described in the recently released Precinct Structure Planning Guidelines (Consultation Draft, October 2008), precinct structure plans sit within the planning hierarchy that comprises a framework of State, regional and local policies, and enables decisions to be made about the use and development of land, including:

- The State Planning Policy Framework (including Melbourne 2030)
- The Armstrong Creek Framework Plan and Urban Growth Plan (Volume 1)
- Precinct Structure Plans
- Subdivision and planning permit applications.

The Urban Growth Zone has been applied to the bulk of land located within the Urban Growth Boundary of the Armstrong Creek growth area. Application of the Urban Growth Zone requires the preparation and approval of a precinct structure plan before urban development can commence.





INTRODUCTION

Precinct structure plans for each of the seven precincts which make up the Armstrong Creek growth area will set the future direction for each of the precincts. Each precinct structure plan will show (as appropriate):

- Housing yields
- Local open space
- Employment provision
- Activity centres
- Local transport networks
- Community facilities.

The precinct structure plans will be incorporated into the planning scheme to guide the use and development of the precinct over the long term. Planning permits can be issued where the proposal is generally in accordance with the precinct structure plan.

PURPOSE

The primary purpose of the IIDP is to inform the budget planning and resource allocation process of all stakeholders who have been engaged in the development of the Social Interagency Infrastructure Delivery Plan (SIIDP) and the Civil Interagency Infrastructure Delivery Plan (CIIDP). The IIDP considers the delivery, phasing and triggers for the provision of all infrastructure and provides a blueprint for development and investment that will occur over many years. A place based bid in four year increments will be facilitated based on the IIDP, ensuring accessible, integrated and adaptable community infrastructure is delivered to the growth area.

The IIDP has a key role in determining local and regional infrastructure provision at the Precinct Structure Plan phase, ensuring a planned and logical roll out and appropriate allocation based on population numbers, accessibility and the projected needs of the new community.

APPROACH TO THE PREPARATION OF THE IIDP

The IIDP is the result of combining the SIIDP and the CIIDP into a combined vision. The IIDP explores the key principles and issues from both documents and transforms these into a strategic vision and direction for all forms of infrastructure provision in the growth area.

Both the SIIDP and CIIDP were developed through extensive engagement within council and with service providers, non government agencies and government, and through the establishment of specific working groups for each of the disciplines. The stakeholders involved in the preparation of the SIIDP and the CIIDP will be further engaged in the precinct structure plan phase. The CIIDP and the SIIDP have been endorsed by the agencies involved. The stakeholders are:

SIIDP	CIIDP
Ambulance Victoria	Barwon Water
Anglican Church	City of Greater Geelong
Barwon Health	Department of Transport
Catholic Education Office	Powercor
City of Greater Geelong	SP Ausnet
Country Fire Authority	Telstra
Deakin University	VicRoads
Department of Education and Early Childhood Development	
Department of Human Services	
Department of Planning and Community Development	
G21	
Geelong Regional Library Corporation	
UDIA	
Victoria Police	

The IIDP has been guided by the approved Armstrong Creek Urban Growth Area Framework Plan and the Armstrong Creek Urban Growth Plan, Volume 1, 13 May 2008. The vision for the growth area is as follows:

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.

The framework plan (Appendix 1) provides high level direction for the development of the growth area. It designates a total of seven precincts including two employment precincts, a major activity centre and four residential precincts. The growth area is divided into seven precincts, which are generally based on drainage catchments, serviceability and co-ordinated land holdings (Appendix 2). The civil infrastructure roll out and baseline servicing strategy have a direct relationship with the precinct plan.

STRUCTURE

The IIDP draws out the key issues from the CIIDP and the SIIDP, addressing them in a clear, strategic manner. A priority is integrating the streams of infrastructure provision and recognising the crossover between the engineering focus of the CIIDP and the social planning focus of the SIIDP. Those interested in detailed issues can refer to the CIIDP and the SIIDP located on Council's website at www.geelongaustralia.com.au/armstrongcreek/





INFRASTRUCTURE CONTEXT

The infrastructure planning for Armstrong Creek is focussed on delivering what is necessary to ensure a wide range of living and lifestyle opportunities are provided to meet the anticipated community needs. A healthy, active community is at the forefront.

Providing safe, accessible and equitable transport options beyond walkable catchments is also paramount, as it is fundamental to developing a diverse community with links across education, employment, community services and recreation. The plan ensures the delivery of timely, safe and accessible public transport to facilitate maximum use of social infrastructure and sets out the funding commitments required.

The IIDP funding model and baseline roll out are based on the premise that community services and facilities should be provided as early as practicable to ensure convenient access for new residents. This will assist in establishing sustainable lifestyle habits and enable community groups to establish with a sense of community and inclusiveness. The IIDP recognises the growth area is separated from Geelong and its amenities and the early stages of development will be remote from the existing urban area. Community services and facilities are thus necessary pre-requisites.

The IIDP focuses on meeting the needs of the present, without compromising the needs of the future. Opportunities for future innovation are reflected in the IIDP given it could potentially have a life of 25 years, and community expectations and delivery models could change over that period.

Excellence in design and best practice standards have been highlighted as opportunities to create landmarks and focal points in the development of community buildings and parkland.

The IIDP recognises there are strong links between co-ordinated infrastructure provision and housing affordability, community health, sustainability, place making and liveability, and the plan has been developed with these issues firmly in mind. The strategic principles of the plan are:

- Deliver community infrastructure in the early days of development to create a sense of community.
- Achieve excellence in design for community buildings
- Allow for future innovation so that changes to infrastructure delivery and models can be accommodated
- Provide a co-ordinated and thought out approach to infrastructure provision to enable multiple development fronts to be achieved, which will assist in providing more affordable housing and housing choice.
- Create walkable communities with easy access to local services, parks, education, community facilities and public transport.
- Provide high quality local employment opportunities, with a target of one job per residential lot.
- Provide alternatives to car based travel through significant public transport provision

See Appendix 3 - Infrastructure Description, and Appendix 4 - Infrastructure Design Principles for further detail.

COMMUNITY FACILITIES

A sense of community is dependent on having opportunities for people to form relationships with their neighbours, and a sense of ownership related to their surroundings. Planning for the development of social infrastructure is vital.

The IIDP has developed a clear set of long term objectives for the provision of community facilities and social infrastructure. Social infrastructure provision has been master planned to inform a staged rollout and delivered in the early days of the development to enhance opportunities for change and enhanced wellbeing.

To promote accessibility, multi-trip outcomes, connectivity and social interaction, all social infrastructure is co-located, with schools as focal points for communities. Schools are planned to be located adjacent to activity centres and close to recreation facilities. Opportunities to share via strategic land alignments have been explored through the IIDP.

No provision has been made in the IIDP for standalone community facilities as they are not viable or sustainable. The plan is based on the premise that new community buildings can accommodate multiple uses thus no particular community group will have 'ownership' of a building. This model of service provision will require new ways of structuring governance. The Community Facilities Plan can be seen at Appendix 5.

The plan provides for people walking to shops for local convenience items and locates bus stops and parks locally. Convenient local public transport will allow for easy access to bigger retail facilities and major transport opportunities such as rail for employment or other needs. Generally higher order social infrastructure has been located within or in close proximity to the Major Activity Centre promoting the centre as a place for larger gatherings, sports, shopping and cultural amenity. A high standard walking and cycling network has been to reduce a reliance on motor vehicles as a primary mode of transport and contribute to the formation of a healthy and active community.

In summary, community facilities are designed to:

- promote strong communities;
- provide opportunities for integration and innovation;
- use land efficiently;
- provide for the needs of diverse communities;
- provide for co-location and integration to enable shared community use and flexibility in service provision as each precinct evolves;
- include land for community facilities in Local Activity Centres, or Neighbourhood Activity Centres and on future public transport routes;
- have allocated land for primary schools (government and non-government) which can be located on connector streets;
- have allocated land for secondary schools (both government and non-government) which will have direct access to the Principle Public Transport Network, where possible;
- accommodate emergency services which are planned to be located on the Surfcoast Highway (an arterial road) adjacent to the Major Activity Centre;
- have designated land allocation which allows for the flexible use of space to adapt to the changing needs of the community over time;
- co-locate non government schools with government schools where possible, to enable sharing of facilities;
- integrate early childhood learning and care facilities with primary schools; and
- provide for local indoor recreation facilities and performing arts and other specialist uses to be integrated with schools, where possible.





SOCIAL HOUSING

The creation of a sustainable community is dependent on the accessibility and appropriateness of the housing stock. Australia's rapidly changing demography means it is essential to provide a range of housing options to meet the needs of a diverse population. Smaller one and two bedroom dwellings located in higher density environments close to neighbourhood and activity centres create real choice for smaller households and enhance affordability through the combined benefit of both reduced housing outlays and living costs such as transport.

The housing market does not always ensure that lower income households access available affordable housing. New growth areas need a deliberate strategy to require the market to produce more affordable housing products as well as direct intervention in the market to ensure access and affordability for low income households. The G21 Alliance is sponsoring the development of a regional approach to affordable housing through preferred Registered Housing Association (RHA) partnering with each municipality. Developers within the growth area have the opportunity to develop a strategic partnership with the preferred RHA. The RHA with financial support from the State and/or Commonwealth governments may acquire appropriate lots for development as affordable rental housing or assisted home ownership.

This plan supports establishing an Armstrong Creek Affordable Housing Working Group comprised of Council, the Victorian Government (Office of Housing), the preferred RHA and developers with land holdings to plan for the inclusion of affordable housing in each PSP. Providing rental and ownership opportunities for low income elderly people, people with disabilities, single persons and families is a high priority.

INTEGRATED OPEN SPACE NETWORK

Open space takes many different forms, from local parks to regional facilities. In this plan open space networks include waterways, wetlands and areas of bushland. The different forms of open space are necessary to ensure the recreational and leisure needs of a diverse community can be met, and to protect environmental assets. Opportunities are provided in the open space network for biodiversity links and native parkland to complement other activities giving some open space areas a dual purpose.

Open space can have many different functions, including active and passive functions. The locations of open space areas have been considered in light of accessibility and equitable distribution across the growth area. It is planned there will be local parks within a 400 metre walk of all dwellings in the growth area. The exact location of these parks will be determined during the PSP phase. The principles of equitable distribution and access have been considered and opportunities to create synergies with schools and activity centres have been included where possible. The location of neighbourhood and regional parks recognises the benefits of clustering recreational uses, thus providing opportunities for multiple uses to achieve those benefits. These include: car parking facilities, club houses, toilet blocks and change rooms, and maintenance. Community pavilions take the place of traditional sports pavilions, allowing for use by various community groups, including sporting groups. It is anticipated that new models of management and governance will be needed for these pavilions, as they will not be 'owned' by any one sporting group, which occurs under the current model.

A regional soccer/ hockey facility has been located in the Armstrong Creek West Precinct, with 18 hectares of land set aside for seven soccer fields, including two synthetic fields, and two synthetic hockey fields. District level facilities (which it is anticipated will cater for the whole of the growth area) are located in the Horseshoe Bend Precinct, including an athletics facility and three ovals over 21 hectares, and a district football/ soccer facility in the Armstrong Creek East Precinct.

The integrated open space network and location of all district and regional parkland can be seen in the Integrated Open Space Network Plan as part of the community facilities plan (Appendix 5) and provides for:

- residents and workers to have access to a variety of open spaces for relaxation and recreation;
- public spaces to promote healthy lifestyles and strong communities;
- safe and efficient walking and cycling opportunities to connect residents directly to activity centres, employment areas, community facilities and other active open space areas;
- opportunities for people to maintain healthy lifestyles;
- local indoor recreation facilities and performing arts and other specialist uses which are integrated with schools, where possible;
- sports fields which are to be co-located with aquatic facilities, playgrounds, lawn and tennis courts, where possible; and
- a network of quality and well distributed open space.





TRANSPORT AND MOVEMENT

Access to sustainable and active transportation infrastructure influences travel choices and improves the health of those living in urban areas. Safe and walkable neighbourhoods have been included with permeable grid street networks and easy access to public transport services. These promote walking and cycling and opportunities for incidental exercise, resulting in health benefits. Walkable neighbourhoods are also sustainable because they reduce the incentive to drive, conserve resources and reduce environmental impacts.

In the past suburban neighbourhoods have often been characterised by looping streets and cul de sacs, often without footpaths, making walking and cycling less attractive and public transport provision difficult. An 800 metre grid street network has been included (Appendix 6). This street network will improve the ease, speed and safety with which people can walk to local destinations, and street widths are wide enough to accommodate buses. The local bus network will link with the urban and regional transport network at the nearest railway station or transport interchange. A comprehensive and diverse transport network and permeable street network will together assist in reducing carbon emissions and detrimental impacts on the environment.

Opportunities to use the heavy rail network have been optimised with new stations proposed to the west of the growth area (Armstrong Creek West Station), and in the Major Activity Centre (Armstrong Creek Central Station). Eventually this line will link to Torquay and the Surfcoast. Provision has been made for the existing Marshall Station to be upgraded with new carparking facilities and a higher amenity station. The road network plan and public transport plan can be seen at Appendix 6:

In summary, the transport and movement network is designed to:

- provide an 800 metre collector road network;
- promote active and healthy communities;
- include bus networks which connect all areas to jobs, goods and services;
- optimise the use of the existing heavy rail system and provide new opportunities for heavy rail within the growth area and further south;
- assist in reducing the extent of car use and facilitating alternatives; and
- include walking and cycling paths to link residents to community facilities and active open space areas.

INTEGRATED WATER MANAGEMENT SYSTEMS

Water security is a key challenge for the growth area, requiring an emphasis on integrated water management so that development in the growth area is designed to encourage efficient and sustainable water use. An integrated approach to water management will ensure adequate supply while managing demand.

RECYCLED WATER

The opportunity to include a third pipe within the development should be pursued to ensure that water recycling can occur. Should the opportunity not be taken up, the ability to retro-fit developed areas would be difficult and the aim for sustainability would be severely affected. Developers are encouraged to investigate options for the provision of reticulated recycled water with Barwon Water, and Council is committed to working with developers.

Barwon Water is seeking to fast track a conventional water and sewerage strategy, improve the water treatment facility at Black Rock and install a recycle pipeline from Black Rock to Armstrong Creek. Provision of accelerated infrastructure for water and sewerage across the growth area will deliver more affordable housing and directly impact the price of recycled water on an ongoing basis, thus delivering explicit savings to the household level.

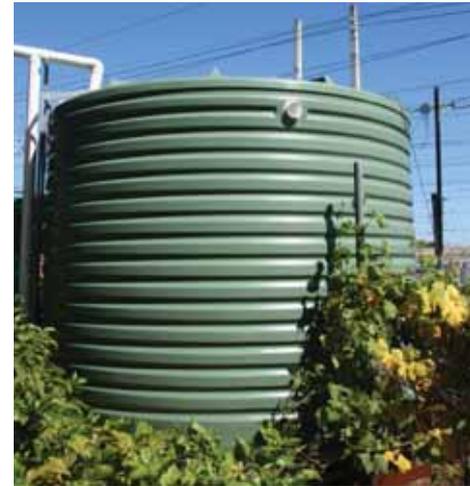
STORMWATER MANAGEMENT

Stormwater runoff is a critical resource which can be reused in landscaping and open space irrigation and in the creation of artificial water bodies. There is potential for sustainable water cycle management design and construction practices including the use of rainwater tanks and water sensitive urban design . The approach to stormwater management is designed to:

- provide for an integrated approach to stormwater management that meets objectives for hydraulic capacity, water quality treatment and reuse;
- minimise disturbance to waterways created by altered flow regimes and protects natural drainage and aquatic ecosystems;
- maintain and protect water quality in receiving waters, the downstream environment and Ramsar wetlands;
- enhance the value and public amenity of the existing stream corridor, biodiversity and environment of Armstrong Creek;
- include the principles of water sensitive urban design; and
- allow for a full range of urban design, water conservation and local stormwater infrastructure alternatives.

The stormwater management strategy enables developers to choose one of the defined stormwater management strategies and provide the required additional detention and constructed wetland storage within each precinct. Alternately, the opportunity is provided for a 'regional approach' which allows developers to make proportional financial contributions to construct detention basins and wetlands at an appropriate downstream location. All landholders in a given catchment will contribute financially to the cost of restoring streams within the catchment. The contribution will be calculated based on the extent of land holdings.

The opportunity exists for Council to take a proactive approach in relation to a regional based solution to stormwater within the growth area through the use of Sparrowvale Farm, see Appendix 7 for location of this site. Sparrowvale Farm has been used for limited agricultural purposes and is currently in a degraded environmental state. Along with providing opportunities for a regional based stormwater solution, the use of this land would result in improvements to the environmental values of the land, and also improvements to the interaction and interface that the site has with the Barwon River and the Ramsar wetlands.





UTILITIES PLAN

Certainty in the provision of essential utilities networks to support communities and well planned and strategically located infrastructure will influence future development patterns, and, specifically, the roll out of development. There is recognition that we are moving into a carbon constrained future and opportunities for innovation over the life of the growth area are most likely. Detailed planning has been undertaken for four core infrastructure components:

- Electricity and gas supply;
- Telecommunications;
- Water and sewer (see Integrated Water Management Systems section of the report)
- Roads (see Transport and Movement section of report).

Planning for the provision of water, sewer, gas, electricity, sewerage, roads and telecommunications has been undertaken in detail to ensure services can be provided in a coordinated manner. There are two choices in relation to infrastructure provision; there is the 'business as usual' approach or the provision of infrastructure which better supports a sustainable urban environment. The business as usual approach is tangible and can be explored with servicing agencies and a rollout determined. The Infrastructure Rollout Plan (Appendix 8), shows the logical roll out of essential service infrastructure based on the advice of the Inter-agency Infrastructure Working Group, however it is not intended that this roll out will preclude opportunities for innovation which could include:

- new technologies in the water and waste water sector, including water recycling;
- new approaches to the reduction of costs in energy consumption by households through new forms of supply of electrical infrastructure, better designed buildings, and new forms of energy generation, including co-generation; and
- land size allocations enable flexibility of service provision and governance, while providing for future adaptability and enabling local solutions to be applied in any situation.

Developers are encouraged to pursue alternative methods of infrastructure provision provided that the alternative:

- supports the delivery of the intent of the Armstrong Creek Urban Growth Plan;
- decreases greenhouse emissions and/ or demand on regional infrastructure;
- expedites the delivery of the baseline sequence of fully serviced precincts; and
- facilitates sustainable urban growth that is founded on good design.

TELECOMMUNICATIONS

The provision of optic fibre to each lot in the growth area is encouraged as this will result in a smart community and will assist in providing the right environment for home occupations to start in the growth area, with the ultimate aim of these businesses growing and moving onto employment land. The growth area will be serviced by telecommunications services infrastructure including employment land. This issue will be addressed in detail in the Precinct Structure Planning phase.

DEVELOPMENT PRINCIPLES

OPPORTUNITIES FOR INTEGRATION AND INNOVATION

There are significant opportunities for integration and innovation in relation to all infrastructure items. While the plan at Appendix 5 shows the land size required for each particular infrastructure item, it is not intended that this plan will preclude opportunities for innovation. At present the land sizes nominated are the maximum necessary to ensure that infrastructure items can be built and have an appropriate degree of amenity. It is envisaged that through the PSP, where detailed planning is required, new approaches and different models to provision will be explored ensuring that the maximum area in the precinct is available for residential development, and the necessary infrastructure is available to ensure the creation of communities. Obvious areas where integration and innovation can occur, reducing the area required for infrastructure items include:

- Car parking
- Change rooms
- Areas necessary for administration
- Kitchen facilities
- Common areas.

INFRASTRUCTURE DELIVERY

Principles for early infrastructure delivery

The growth area is quite remote from the existing urban area of Geelong. The Geelong to Warrnambool railway line is a physical barrier to existing development, the existing community and existing services. Accordingly, while the growth area forms part of Geelong and has a role to play within Geelong it must be developed in recognition of its standalone nature.

Early delivery of important infrastructure items is critical as it enables individuals in communities to interact and ensures environmentally friendly and healthy habits are formed. For instance, if local public transport services are not provided from the outset more people may be compelled to drive, raising local traffic volumes and impacting on the amenity of local areas. Similarly, if local schools and services are not provided, the need to drive cars will become part of resident's routine and mindsets will be developed. This also has the potential to undermine the design and amenity goals of the new communities, even if temporary solutions are provided to address some of the issues, such as larger intersections and more car parking facilities, there is significant potential for these 'temporary solutions' to become permanent fixtures.

Accordingly, there is a roll out based on lot number triggers, ensuring critical social infrastructure such as a community centre and schools are provided early. It is envisaged that a budget commitment needs to be in place to provide the critical infrastructure items from 'day 1', while the roll out of additional infrastructure items will be triggered by lot numbers and this roll out can be seen at Appendix 10.

Table 1 - Critical precinct level infrastructure Items needed to develop communities

Critical infrastructure item	Funding Source	Funding required
Primary School	State Government	\$12.2 M per school
Secondary School	State Government	\$31.5 M per school
Community complex	Council/ Developer/ State Government	\$11- \$15 M per complex depending on site
Cultural facility	Council/ Developer/ State Government	\$7.5 M per facility
Active public open space	Council/ Developer/ State Government	TBC





DEVELOPMENT PRINCIPLES

The following infrastructure items are critical to ensuring that a sustainable and active community is created from the first stages of development. A funding arrangement is necessary to ensure that these items can be delivered in a timely manner and to ensure the vision for the growth area is achieved.

Table 2– Critical infrastructure projects across the whole of the growth area

Critical infrastructure item	Funding Source	Funding required
Purchase and develop Armstrong Creek West Station	State/ Federal Government	\$70 M
Purchase and develop Armstrong Creek Central Station	State/ Federal Government	\$50 M
Upgrade Marshall Station	State/ Federal Government	\$10 M
Purchase and develop cycling networks and railway overpass/links	State/ Federal Government/ Developer	TBC
Bus services	State/ Federal Government	TBC
Purchase land and develop East West Link Road	State/ Federal Government	TBC

Note: Detail provided in attachment, with full explanation provided in the SIIDP and the CIIDP.

FUNDING

The IIDP is designed to be a reference for all investors in the growth area, outlining the indicative costs and development timeframes. Investment in Armstrong Creek will come from both the public and private sectors. Appendix 9 'Infrastructure Estimated Costs, Funding Rate and Apportionment' identifies the agents and infrastructure items within the growth area in detail. The Table includes a 'state' column and a 'federal/ state' column, the distinction between these columns is the 'State' column is for items which are the sole responsibility of the State Government such as education, while the federal/ state column recognises that there are opportunities available for grants and agreements for both of these levels of government to fund these infrastructure items.

The six areas from which funding can be sourced for infrastructure for the growth area are:

- Victorian Government – whole of Victorian Government place based budget plus Essential Services Commission;
- Developers – Developer Contribution Fund (DCP);
- City of Greater Geelong;
- Commonwealth Government - grant streams;
- Private Sector; and
- Philanthropy.

State Government - Whole of Victorian Government place based bid

The IIDP provides the basis for a Whole of Victorian Government place based bid. A successful bid will enable a pool of funds for the growth area to be allocated, and ensure that the roll out of infrastructure can occur over the lifecycle of the growth area. A place based bid in four year increments has been established (Appendix 9). A Whole of Victorian Government approach has been adopted, as it is possible that the various infrastructure items could be in competition with one another. Integrated infrastructure delivery for the entire growth area can only occur through co ordinated delivery of government investment from a broad range of responsive services.

State Government- Essential Services Commission

The Essential Services Commission (ESC) is responsible for the funding of essential services items such as gas, telecommunications, power, water and sewer. Each of these infrastructure items require a significant allocation of funds with electricity, gas, telecommunications, water and sewer generally funded through the Essential Services Commission, will be pursued independently by the respective utility providers. For this reason the cost estimates of utilities, with the exception of water and sewer are excluded. However the total estimate for all utilities is in the vicinity of \$500 million.

Developer Contribution Plan (DCP)

Developer Contributions are payments or in-kind works, facilities or services provided by developers towards the supply of infrastructure required to meet the future needs of a particular community, of which the development forms part. Developer Contributions are levied through the Planning Scheme. Levies can be raised through Development Contributions Plans (DCPs) for a range of State and Local Government-provided infrastructure including roads, public transport, storm water and urban run-off management systems, open space and community facilities. In the case of the Armstrong Creek growth area, a simplified approach will be taken to DCPs, with local roads and stormwater systems being provided by developers and only included in DCPs where there is fragmentation in land ownership.

The Planning and Environment Act 1987 requires infrastructure projects to be classified either as development infrastructure or community infrastructure. The distinction is important because there is a maximum development contribution levy that can be charged for community infrastructure and the timing and payment of each levy is different. Processes for collection and the person responsible for payment are also different. The funding table in Appendix 9 sets out the allocation of funds for each funding agent. The total contribution required for developers is in the order of \$240 million, which equates to \$10, 909 per lot (based on 22, 000 lots) or \$163, 600 per hectare. This figure has been benchmarked against recent DCPs associated with Precinct Structure Plans, as follows:

Planning Scheme	Levy per hectare
Casey (Cranbourne West, current amendment)	Ranges between \$173, 356 and \$161, 705 per hectare
Cardinia (Cardinia Road, DCPO2)	Ranges between \$130, 926 and \$193, 449 per hectare

It is noted that these DCPs include stormwater and collector roads, while the figure for Armstrong Creek does not include these items. The Armstrong Creek DCPs will not include roads, cycle paths, pedestrian footpaths or public transport as these will be provided directly by developers. However, it is still considered that the rate is reasonable and can be justified.

The approach taken for DCPs in Armstrong Creek is that all infrastructure required in each of the precincts will be classified as 'developer infrastructure' as this infrastructure is required directly as a result of the development occurring. Therefore the levy attributed to developers includes levies for the development of community infrastructure and open space areas. It is intended that there will be an additional \$900 per residential lot for community infrastructure that will be used for growth area wide community infrastructure most of which is located in the Major Activity Centre Precinct. This approach will ensure that community infrastructure required at a precinct level and whole of growth area level is provided for in the funding model.

City of Greater Geelong

Council will take the lead role in facilitating the funding for the development infrastructure required across the growth area. This facilitation will be via management of the DCPs for each of the precincts in the growth area, and engagement with State agencies to deliver required infrastructure. There will be capital costs which are the direct responsibility of Council.



DEVELOPMENT PRINCIPLES

Council will meet a proportion of costs associated with development infrastructure where the nexus for this infrastructure is not clearly established as being the responsibility of individual development consortia. This will occur in circumstances where the catchments identified for relevant infrastructure extends into existing urban areas or where infrastructure is considered to be of a regional nature servicing broader catchments beyond Armstrong Creek. It is envisaged that there will be significant negotiation at the PSP phase to implement a funding strategy across the State agencies, local government and development interests to achieve equitable outcomes individual precincts.

The ten year financial model for the City of Greater Geelong assumes that for every \$1.00 collected in developer contribution levies there will be an additional 30 cents for every dollar required to be spent by Council in the delivery of development infrastructure. This projection provides for contingencies and additional capital costs. The attached summary spreadsheets (Appendix 9-11) provide indicative schedules which will inform the precinct structure planning work, with an emphasis on the DCP which form part of the PSP, State budgets for the delivery of physical and social infrastructure and local Council budget streams which will be essential to deliver this range of infrastructure.

Commonwealth Government

Council will pursue, where appropriate, Commonwealth investment in Armstrong Creek infrastructure through available grants programs in order to:

- fast track critical infrastructure;
- deliver more affordable housing by reducing lag time;
- capture innovation that will directly impact the price of utilities for residents, such as recycled water, on an ongoing basis; and
- stimulate economic activity and instigate employment projects for the entire municipality.

Private sector

An important provider of infrastructure is the private sector, which may occur through the development of private schools and the like.

Philanthropy

Philanthropic Trusts and Community Banks are potential sources of funding for community infrastructure. Some Trusts are already expressing an interest in projects that will build a sense of community and recognise cultural heritage. Council and service providers will explore opportunities for investment; however the IIDP is unable to factor in these contributions at the planning stage.

Phasing

The Infrastructure Delivery- Four Year Phasing table (Appendix 10) sets out the delivery phasing of infrastructure required as per the principles of this plan. To this end services/ facilities have not been linked to particular precincts, but to lot numbers. It is considered that lot numbers are a tangible way of determining the need for particular infrastructure items. The phasing regime is not linked to particular precincts, to enable flexibility in infrastructure provision, and to recognise that development is likely to occur on multiple fronts.

The phasing and funding models ensure that the area won't be over-serviced in any four year phase. It also allows for a fast 'take up' of lots, with service provision linked into lot numbers. Each of the four year units contribute to an appropriate overall level of service for the growth area.

Table 3 sets out the funding agent contributions, the more detailed table can be seen at Appendix 11.

Table 3–Agent infrastructure funding contributions

Funding Agent	Estimated Contribution (\$M)
Developer	240
COGG	34
State Govt	282
Federal/ State	197
Private sector	154
Service Authority	83
Total	989

Governance

The IIDP has not addressed the issue of governance. It is noted that with changes and innovation in service delivery agencies will be assisted to determine the best way forward for their agency, based on their own legislation, needs, complexities and constraints in delivery. The SIIDP Project Control group will reconvene to work on governance models for collocated infrastructure. The IIDP has focussed on innovation, and encourages innovation, and for this to be achieved there are a number of particular items requiring consideration by various agencies including:

- Management of community pavilions
- Co location
- Sharing of land for efficiencies
- Delivery of youth and maternal child health services.

REFERENCES

Armstrong Creek Social Interagency Infrastructure Delivery Plan (SIIDP), draft report January 2009

Armstrong Creek Civil Interagency Infrastructure Delivery Plan (CIIDP), final report October 2008

A fairer Victoria, strong people, strong communities, Published by the Victorian Government, DPCD, May 2008 G21- The Geelong region plan, G21, Sept 2007

Melbourne 2030– A Planning Update Melbourne @ 5 million Published by the Victorian Government, DPCD, Dec 2008

Moving forward- Making Provincial Victoria the best place to live, work and invest, Published by the Victorian Government, RDV DIIRD, Nov 2005.

APPENDICES

Appendix 1: Armstrong Creek Framework Plan

Appendix 2: Armstrong Creek Precinct Plan

Appendix 3: Infrastructure Description

Appendix 4: Infrastructure Design Principles

Appendix 5: Community Facilities Plan

Appendix 6: Road and Public Transport Network Plan

Appendix 7: Location of Sparrowvale farm

Appendix 8: Infrastructure Roll out Plan

Appendix 9: Infrastructure Estimated Costs, Funding Rate and Apportionment Table

Appendix 10: Infrastructure Delivery- Four Year Phasing Table

Appendix 11: Agent Infrastructure Funding Contributions.

CITY OF GREATER GEELONG
PO BOX 104
GEELONG 3220 AUSTRALIA
GENERAL ENQUIRIES:
TELEPHONE: 03 5272 5272
TTY: 03 5227 4973
www.geelongaustralia.com.au