BARWON: A Region in Transition

Thursday 27th November, 1:30pm – 4:30pm
Committee Room (Club Cats); Kardinia Park Geelong

Geelong, Victoria’s second largest city is a vibrant hub experiencing significant population growth, a changing employment structure and high levels of commercial investment. Its location 70 kilometres south west of Melbourne and at the gateway to the Barwon Region (including the Bellarine Peninsula and Surf Coast) offers an increasingly attractive lifestyle and with it, an increasing demand for access to services.

This forum includes key local speakers presenting on:
• Water and other key infrastructure challenges
• Planning priorities being pursued for Greater Geelong
• Economic, social and land use opportunities resulting from the Geelong Ring Road

Our speakers today are...

Paul Northey
General Manager Capital Projects and Greenhouse, Barwon Water

Kate Sullivan
General Manager Development Sustainability, City of Greater Geelong

William Tieppo
Regional Manager South Western, VicRoads
Water Supply in the Barwon Region

Paul Northey
General Manager Capital Projects & Greenhouse

Barwon Water System
Water Use

Water Consumption By Customer Type

- Residential: 60%
- Industrial: 23%
- Commercial: 15%
- Other: 2%

Water Storage Levels

- Geelong System Total: 27.4% as at November 25
- Same week last year: 38.1%
Geelong System Storage Projection 2008/09
(based on return to 2006/07 Inflows)

Notes: 1. Based on Modified Stg 4 Restrictions
2. Groundwater at 31 ML/d

Minimum Projected Storage 15,600 ML

Project 1 Restrictions
Stage 2 Restrictions
Stage 3 Restrictions
Stage 4 Restrictions

Last 10 Year Low Flow Period
Impact on system yields
Total Bulk Consumption

Greater Geelong supply versus demand
Water conservation initiatives

- Water Secure Home – indoor retrofit program
- Water Secure Garden – outdoor retrofit program
- Business WaterMAPs
- Behavioural Change Program

New water source – Anglesea borefield project

- Designed to provide average 7000 ML/yr.
- Water pumped from lower aquifer approx 500 metres deep.
- Extensive hydro-geological, flora and fauna investigation carried out as part of approval process.
- All approvals obtained, BW to be allocated Bulk Entitlement to harvest water.
- $60 million capex, delivery late 2009
Proposed Northern Water Plant

Shell Refinery

10 km to Black Rock Water Reclamation Plant and ocean outfall

WATER CYCLE
Melbourne-Geelong Interconnection

Consumption vs ‘New’ Water

- 2007/08 consumption = 32 GL/a
- ‘New’ water (next 5 years)
  - Anglesea average 7 GL/a
  - Melbourne-Geelong Interconnector up to 16 GL/a
  - Northern Treatment Plant 2 GL/a
  - Total: 25 GL/a

This does not allow for:
- Any recycled water options at Black Rock
- A spell in usage of the Barwon Downs aquifer
Black Rock Recycled Water Plant

- Up to 12GL/annum available
- Not included in Water Plan
- Recycled water currently Class C, moderate salinity
- BW investigating salinity reduction and increase to Class A
- Potential uses: irrigation, third pipe, ASR
- $10 million potential funding from Federal government
- Business Case to be completed March 2009
- Commercial partners could be included for distribution works

Aquifer Storage and Recovery Research Project
Future biosolids facility
Key challenge  
- resourcing capital delivery

- Barwon Water’s annual capex expenditure to increase over the next 5 years – over $500m.
- Challenge of resourcing – internal project management, consultants, contractors, materials.
- Response:
  - Adopting alternate project delivery methods for large complex projects
  - Bundling of short term projects
  - Term Contracts
  - Consultant panel for planning
  - Program alliance for core projects

Future Directions

- Barwon Water strategies are based on a combination of water conservation and new water sources.
- Planned water resource options will add flexibility to the supply system.
- Funding of these projects has required increased water tariffs.
- Large focus on water conservation, which will become more cost effective.
- Future key direction will be energy efficiency, reducing greenhouse emissions.
Planning & Development Sustainability

Kate Sullivan
General Manager
Development Sustainability

The G21 Region

Five Municipalities
Key Regional Businesses
Business Agencies
Community Agencies
Statutory Authorities
Government Departments

Working together to foster and undertake actions that will support the sustainable growth and development of the Region.
G21 – Victoria’s fastest growing region.

- Population projected to increase from 270,000 to 350,000 by 2031 (80,000 additional persons, 60,000 dwellings).
- Strong possibility of much more rapid growth, potentially up to around 250,000 additional persons by 2031.
- Rapid growth driven by lifestyle attractiveness within striking distance of major urban services and facilities.

Some General Facts about Geelong

- Second city in the State and largest provincial City
- Population base of 206,000 residents out of a regional population of 270,000
- The region has over 13,000 businesses with a labour force of 120,000 (92,000 in Geelong)
- Investment in Geelong has been at unprecedented levels….will that remain?
A sample of key development activity

- Ring Road - $380M
- Westfield - $150M
- TAC Offices - $100M
- Edgewater - $50M
- Denny Lascelles – Deakin - $30M
- Gilligan’s site residential apartments - $15M
- Leopold Supermarket & shops - $7M
- Ropeworks Development – $12M
- Corio Quay - $20M expansion
- Emergency Dept – Geelong Hospital $26M

*Italics = constructed*

Some general stats on planning…..

- Top 4 across Victoria in no. of applications processed (average 2000)
- Around 92% of these are approved (2% VCAT)
- 2% of applications are refused
- 6% are withdrawn/lapsed or not required
- On par with state averages
- Building activity has been increasing steadily with total value of building activity for 06/07 maintaining a high of $752 M
**Key Priorities**

We are a rapidly growing regional city.....

- Managing our growth
  - Delivering the Armstrong Creek Growth area
  - Balancing the impacts of the Ring Road – it will open up Geelong and Surf Coast in a way we haven’t seen before
  - Setting clear growth boundaries for coastal towns

- Managing our changing economy – from traditional manufacturing to new industries
  - Supporting existing businesses to remain (Ford, Alcoa, Shell)
  - Ensuring there is a supply of land for new businesses
  - Bringing in new businesses and new industries (TAC, Satyam)

**Development Sustainability**

Comprises 3 key areas

- Planning Strategy & Economic Development
- City Development; Planning Scheme amendments, Statutory Planning and Building
- Health and Local Laws
Our Primary Goal

Put simply:

To facilitate appropriate development which is consistent with our strategic direction

Our Business Model

Set the Direction

Educate/Regulate it

Facilitate it

Implement it
Setting the Direction

A critical first step to good development is establishing the planning vision for the City. This includes:

- Our Municipal Strategic Statement (MSS)
- Structure Plans for key areas – coastal towns, Port of Geelong, Central Geelong
- Urban Growth Framework for Armstrong Creek

Facilitate it

Once the Direction has been established, our role is to facilitate appropriate development consistent with the vision through:

- Working with developers to encourage better outcomes
- Encouraging businesses to Geelong
- Working with State Government agencies such as DIIRD, RDV, DPCD
**Implement it**

Once we have identified the sorts of development we want to encourage our role is to assist them through the statutory processes whether that be:
- Planning scheme amendment
- Planning permit
- Building permit

**Educate/ Regulate**

One of other key roles is twofold we need to educate people on what they can/ can’t do in planning, building, health and local laws

…….And there are times we need to regulate - usually related to safety or health risk matters
Armstrong Creek
…… a live Case Study for achieving development sustainability

Vision: 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.

Location
The facts

- The Armstrong Creek Urban Growth Area is the largest contiguous growth area in the state and one of the largest growth fronts in the country.
- Around 2,500 hectares will be developed for urban purposes.
- The projected residential population is 55,000–65,000.
- 22,000 homes will be built at a range of housing densities.
- 22,000 jobs will be provided in the growth area.
- A major activity centre (sub-regional) centre, local activity centres, employment areas, transport networks and public open spaces will be developed.
- A total of three railway stations will be located in the growth area (1 existing, 2 new).
- It is anticipated that development in some precincts will commence in 2010.
- The project is a priority for Geelong and the State Government as Geelong has only four years residential land supply available.
- Development time frame - 15-20 years.
- Partnership with DPCD to ‘deliver’ the concept.

Armstrong Creek

- Sustainability
- Livability
- Accessibility
- Walkability
- Co-locatability
Non - Negotiables

- Providing opportunities for localised employment in a range of industries.
- Encouraging a transport network that is not just about cars and includes high quality provision for cycling and walking.
- Applying the housing diversity strategy to achieve diverse housing choices for each of the life stages.
- Proactively developing infrastructure that is integrated and socially, economically and environmentally responsible.
- Creating a sense of place and a connected community.
- Ensuring biodiversity corridors.

Precinct Plan

7 Precincts

Draft Interagency Infrastructure Delivery Plan complete.
Sewer from the east. Water from the west. Sewer most expensive.
Traditional infrastructure sequence results in delayed land release.
Looking at innovative approaches to water and sewerage infrastructure to expedite land release and deliver more sustainable development.
Planning commenced for 2 precincts.
Got the plan...now what

• The project is now focused on the next level of planning including:
  > Physical Infrastructure – water, electricity, gas, sewerage, drainage, roads
  > Planning processes – quickest way to get development on the ground
  > Community infrastructure – schools, community facilities, emergency facilities, etc

Key outputs of the project

• Partnership between State and Local government – joint project team
• Integrated physical and social infrastructure plan
• At least two precinct structure plans completed by December 2009 (gone through the planning scheme process) – residential and employment areas
• Advocacy for a change agenda for sustainability, water and transport and the planning approval processes
Princes Highway West

- Currently Geelong’s main north/south arterial road
- 20km through urban Geelong
- 52,000 vehicles/day
- 29 sets of traffic signals
- Congestion and delays, particularly in La Trobe Terrace
- 25-60 min travel time
- 378 casualty crashes between Corio Overpass and Anglesea Road in the 2003-07 period i.e. average of 76 per annum
- Amenity issues
Geelong Ring Road

- 23km from Corio to Waurn Ponds
- Urban freeway conditions
- 100 km/h speed limit
- 15 min travel time at freeway speeds
- Significantly improved safety
- Improved amenity
- 7 interchanges, 3 bridges and 4 overpasses

Geelong Ring Road - Future Links

- Stage 4a – Princes Hwy West to intersection of Anglesea and Hams Road, Waurn Ponds ($125M)
- Stage 4b – Hams Road to intersection of PHW/Draytons Road ($110M)
- Stage 4c – Hams Road to SurfCoast Highway (planning underway)
- Onward connection to Bellarine Highway (planning being undertaken by COGG)
Geelong Ring Road – Future Links

2011 modelled traffic changes after opening of Geelong Ring Road - Sections 1, 2, 3 & 4a

Daily Volume increases (000s Blue)
- Section 1, West of Bacchus Marsh Rd: 24.7
- Section 2, South of Midland Hwy: 18.1
- Section 3, South of Hamilton Hwy: 22.4
- Section 4, South of Princes Hwy: 7.3

Daily volume decreases (000s Red)
- Princes Hwy, South of Separation St: 9.5
Geelong Ring Road
Changing Traffic Patterns

- The Geelong Ring Road will provide significant benefits for tourists and through freight.
- In general terms:
  - there will be a reduction in traffic volumes on parallel routes.
  - routes leading to Ring Road interchanges will experience an increase in traffic volumes.

Princes Highway West

- 25km duplication from Draytons Road, Waurn Ponds to Hesse Street, Winchelsea
- $220M joint funding commitment
- Planning underway Winchelsea to Colac
- Other improvements west of Colac
Road Investment

- Largest group of infrastructure projects in the Geelong area in decades
- $380M for stages 1, 2 & 3
- $235M committed for sections 4a & 4c
- $220M committed for duplication to Winchelsea
- A total of $835M announced to date, with planning continuing for related road infrastructure.

- HOW CAN GEELONG CAPITALISE ON THIS INVESTMENT?

Western Ring Road

- Has led to a dramatic increase in suburban development in the northern & western suburbs of Melbourne, extending to outlying towns such as Bacchus Marsh.
- Has played a material role in the repositioning of Melbourne’s north-western suburbs.
EastLink

- EastLink projected to lead to a $15 billion boost to Victoria’s GSP over the life of the project
- Created about 7500 extra jobs during construction and will create 6500 jobs each year during operation
- Stimulating industrial and residential activity along the Mitcham-Frankston corridor. Residential property close to EastLink is in the midst of a property boom
  30-47% gain in market value in the past four years for areas adjacent, while most others have recorded price rises of more than 20%

Demographics
G21 Population Projections

Source: Victoria in Future 2004

<table>
<thead>
<tr>
<th>Municipality</th>
<th>2006</th>
<th>2016</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Greater Geelong</td>
<td>208,000</td>
<td>233,800</td>
<td>259,300</td>
</tr>
<tr>
<td>SurfCoast</td>
<td>23,500</td>
<td>28,200</td>
<td>32,500</td>
</tr>
<tr>
<td>Colac Otway</td>
<td>21,500</td>
<td>21,900</td>
<td>22,200</td>
</tr>
<tr>
<td>Golden Plains</td>
<td>16,500</td>
<td>18,700</td>
<td>21,000</td>
</tr>
<tr>
<td>Queenscliffe</td>
<td>3,200</td>
<td>3,300</td>
<td>3,300</td>
</tr>
</tbody>
</table>

Note: Population projections have historically been found to be conservative.
Where do people work?
Travel in/from the City of Greater Geelong

- 84,993 total workers
- 63,740 travelled within Geelong
- Employment exports from Greater Geelong to:
  - 6,452 to Melbourne (total)
  - 1,787 Whyndam
  - 1,212 SurfCoast
  - 711 Queenscliffe
  - 317 Golden Plains
  - 216 Colac Otway
  - 211 Ballarat

Where do people work?
Travel in/from Surf Coast Shire

- 10,036 total workers
- 4,247 travelled within Surf Coast Shire
- Travel from Surf Coast to:
  - 3,519 Geelong
  - 650 Melbourne (total)
  - 188 Colac Otway
  - 27 Golden Plains
  - 26 Ballarat
How do people in the City of Greater Geelong travel to work?

- 56,743 as a car driver
- 4,597 as a passenger
- 2,611 walk only
- 1,168 train only
- 919 bus only
- 889 bicycle only
- 784 truck only
- 315 motor bike/scooter
- 304 all others (includes combined trips)

DSE Urban Growth Program

- Strong growth predicted in the Geelong Region over the next 10 years.
- 25 years supply of land identified in the Geelong Region
- 4-5 years of zoned land available.
- Rezoning of Armstrong Creek accelerated to meet supply needs.
Land Identified for Future Residential and Industrial Growth

- Key residential growth at:
  - Armstrong Creek
  - Spring Creek
  - Ocean Grove
  - Jetty Road

- Industrial growth at Heales Road & Armstrong Creek Creek

Land Identified for Future Residential and Industrial Growth - Armstrong Creek

- Growth Area catering for 52,000 people
- Includes commercial & industrial nodes
- Arterial road developments/improvements to support Growth area.
- Possible rail station at Rossack Drive
- Possible rail marshalling yard
- Possible deviation of Anglesea Road (Blue Circle Cement)
Land Identified for Future Residential and Industrial Growth . . . cont

- Spring Creek, Torquay – 25,000 people
- Jetty Road, Drysdale – 8,000 people
- Kingston Downs and Oakdene subdivisions, Ocean Grove – 6,500 people
- Approx 65% of the 500 hectare Heales Road Industrial Estate remains undeveloped. A new Framework Plan, which permits smaller lots, is set to revitalise the estate.

Long term growth pressures – City of Greater Geelong

- The Geelong Ring Road currently defines outer edge of metro Geelong.
- Potential Pressures for:
  - Industrial and residential development adjacent to the Ring Road.
  - More intense use of existing rural zoned land.
- Long term view (20yrs +) is needed to look beyond current growth areas to meet future requirements.
- City of Greater Geelong identified need to assess impacts/opportunities associated with the Ring Road.
  - Study not likely to start until 2008/09
Long term growth pressures – Golden Plains

- Within the influence of the wider Melbourne metropolitan area.
- Potential Opportunities
  - Improved & quicker access esp. to Melbourne & Geelong
  - Close to interstate rail route & other highways
  - Potentially suitable for commercial & industrial use
  - Stimulate further residential growth
  - Increased employment opportunities (approx. 4,400 jobs by 2031)
- Golden Plains Shire Planning Review underway to identify likely impacts & opportunities resulting from the Ring Road.
Benefits of the Geelong Ring Road

- Expected reduction in vehicle costs:
  - crashes
  - running costs including fuel savings
  - travel time
  - greenhouse gases
- Construction effects: 960-1300 jobs pa
- Household spending effects: 203 million pa
- Business effects: 1245 jobs pa
- Visitor effects: 264,000 extra visitors, $22 milllion and 165 extra jobs.
- (See next slide for detail).

Geelong Ring Road - Regional Economic Effects

<table>
<thead>
<tr>
<th></th>
<th>Western Bypass</th>
<th>Western Bypass + Surf Coast Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct employment per annum</td>
<td>380 - 520</td>
<td>290 - 410</td>
</tr>
<tr>
<td>Indirect employment per annum</td>
<td>580 - 780</td>
<td>430 - 620</td>
</tr>
<tr>
<td>Household spending effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retained household spending</td>
<td>$122M</td>
<td>$122M</td>
</tr>
<tr>
<td>Retained retail spending</td>
<td>$75M</td>
<td>$75M</td>
</tr>
<tr>
<td>Potential net State benefits</td>
<td>$5 - $13M</td>
<td>$5 - $13M</td>
</tr>
<tr>
<td>Business effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment generation - direct</td>
<td>830</td>
<td>840</td>
</tr>
<tr>
<td>Employment generation – indirect</td>
<td>415</td>
<td>430</td>
</tr>
<tr>
<td>Visitor effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incremental visits</td>
<td>227,000 – 304,000</td>
<td>227,000 – 304,000</td>
</tr>
<tr>
<td>Spending by visitors</td>
<td>$18 - $25M</td>
<td>$18 - $25M</td>
</tr>
<tr>
<td>Potential employment growth</td>
<td>140 - 190</td>
<td>140 - 190</td>
</tr>
<tr>
<td>Total ongoing employment (persons per annum)</td>
<td>1,415</td>
<td>1,430</td>
</tr>
</tbody>
</table>

- Source: Essential Economics P/L for VicRoads ‘Geelong Ring Road Strategic Study’, 2002
- Estimates have been corrected to 2008 $’s.
Freight Growth

- The National freight task is predicted to grow by 5% pa till the year 2022.
- The Geelong Ring Road will significantly improve freight efficiency and cater for growth into the future.

Freight through the Port of Geelong

- Approximately 12 million tonnes cargo worth $5.6 billion passes through the Port of Geelong every year.
- Main commodities include:
  - Petroleum products
  - Grains
  - Timber
  - Fertiliser
  - Aluminium
The Geelong Ring Road will provide improved access to:

- Heales Road Industrial Estate
- Avalon Airport
- any future Intermodal terminal in the Lara area.
### Avalon Airport Growth

<table>
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<tr>
<th>Year</th>
<th>Passenger Numbers</th>
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<tbody>
<tr>
<td>2004/05</td>
<td>465,000</td>
</tr>
<tr>
<td>2005/06</td>
<td>650,000</td>
</tr>
<tr>
<td>2006/07</td>
<td>800,000</td>
</tr>
<tr>
<td>2007/08</td>
<td>987,000</td>
</tr>
<tr>
<td>2008/09</td>
<td>1,200,000*</td>
</tr>
<tr>
<td>2009/10</td>
<td>1,500,000*</td>
</tr>
<tr>
<td>2010/11</td>
<td>1,800,000*</td>
</tr>
<tr>
<td>2011/12</td>
<td>2,000,000*</td>
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</tbody>
</table>

* Estimated passenger numbers.

#### Avalon Airport Growth . . . cont

- 60% of passengers are inbound visitors (non-Victorian)
- Current numbers are comparable with Hobart/Darwin Airports
- 1200 workers on site (Qantas/Jetstar/Airport retail etc)
- Every year passenger growth has exceeded initial estimates
- International Airshow every two years (next one in March 2009)
Eddington Report

- The Geelong Ring Road compliments recommendations for major infrastructure improvements including, amongst other things:
  - A new 17 km rail tunnel linking NW to SE suburbs
  - New rail connection Werribee to Sunshine
  - Bus and cycle improvements
- New 18km cross city road connection from the western suburbs to the Eastern Freeway

Outer Metropolitan Ring

- Planning for a road/rail transport corridor potentially linking Werribee, Melton, Tullamarine and Mickleham
- Aims to serve key international transport hubs such as Melbourne and Avalon Airports, Port of Geelong & other intermodal freight hubs
- Support WRR, equivalent to Warrigal Rd
The Future

- How can we support the population estimates predicted for the Geelong Region including the west of the GRR, Surf Coast & Bellarine?
- Transport options – Geelong is experiencing growing pains which we cannot necessarily build our way out of. We need a paradigm shift to alternative transport.
- Controlled and strategic land use change arising from improved access – eg Bellarine Peninsula and Golden Plains pressure for growth.

The Future . . . . cont

- Leveraging visitation numbers to the Great Ocean Road Region and Avalon with the Geelong Ring Road in place – positive or negative opportunity?
- Do we want a society based on residential growth fed from overflow and prices in Melbourne where workers are exported every day?