

# AUSTRALIA'S SOUTH WEST

## Future Proofing Water

Presented by  
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Commission

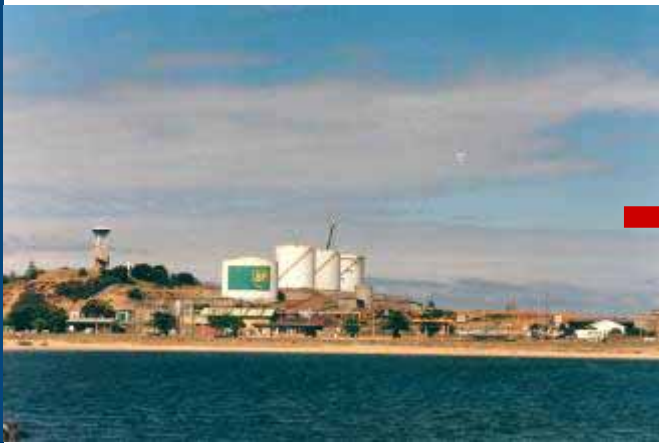
- Changing face of the South West
- Current drivers of the regional economy
- The challenge of water
  - How much do we need
  - How much is there and where
  - How do we make best use of it



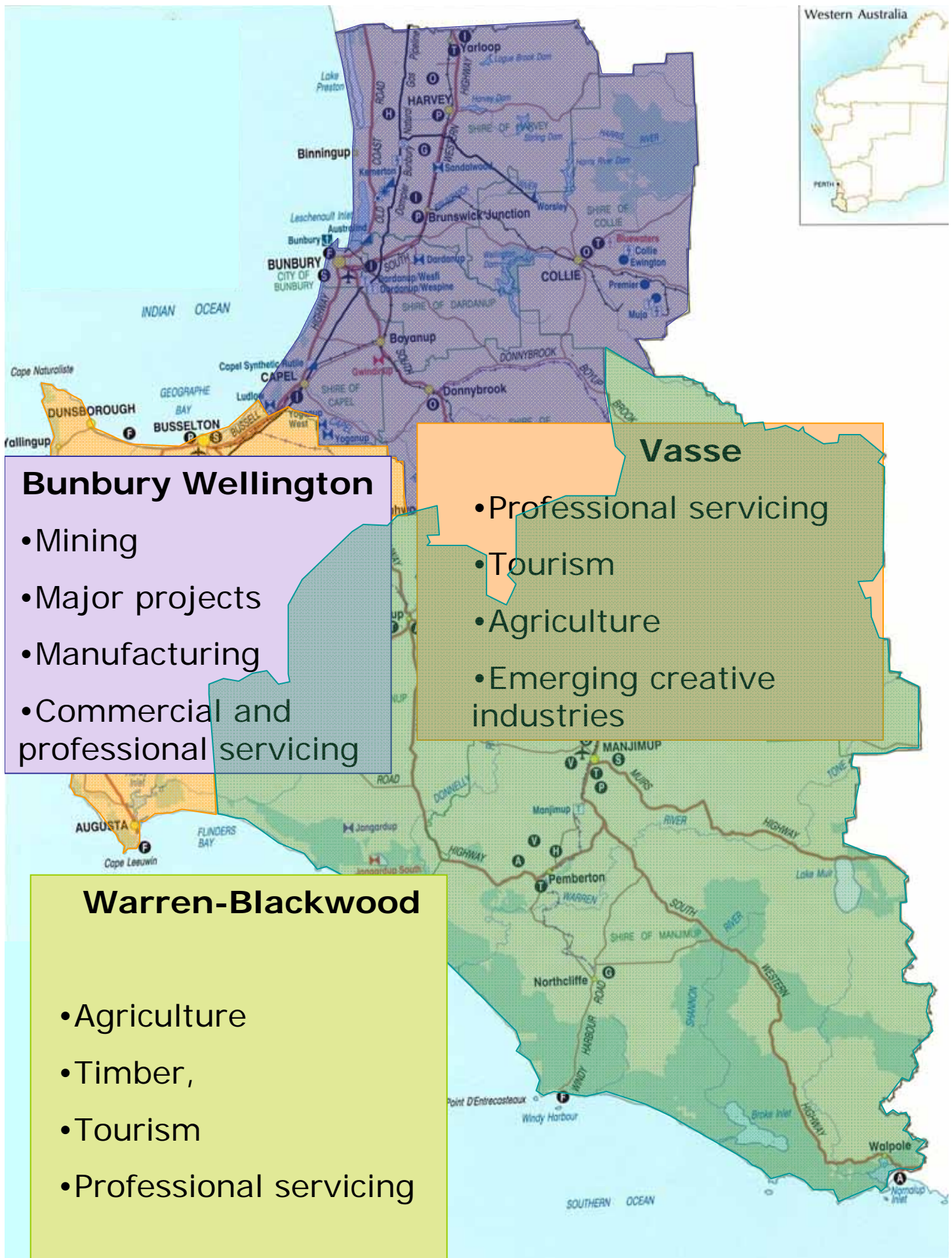
# Rival from the Latin “Rivalis” Using the Same Stream as another











# A Power Packed Economy

- Area: 24,000 sq km
- Climate: Mediterranean
- Population: 140,846
- Principal Urban Centres:
  - Greater Bunbury
  - Collie
  - Busselton
  - Manjimup
- Economy: \$9.1 billion annual GRP
- Key Contributors:
  - Agriculture
  - Mining and mineral processing
  - Manufacturing
  - Timber and forest products
  - Tourism
  - Retail
  - Building



# VALUE OF PRODUCTS

## Industry Sectors

- Agriculture: \$501m (04/05)
- Building & Construction: \$682m (06/07)
- Mining: \$2.1 billion (06/07)
- Retail: \$1.5 billion (06/07)
- Timber: \$73m (06/07)
- Tourism: \$569m (2007)



# MAJOR INDUSTRY

Supplying % of the world's minerals

- 55% Tantalum
- 60% Lithium Minerals (concentrated)
- 20% Alumina
- 32% Zircon
- 24% Rutile
- 20% Ilmenite





# GROWTH INDICATORS

- Population growth 2.7% (06/07)  
double the National average
- Unemployment 3.2% (March 2008)
- Value of building approvals \$682  
million (06/07)
- GRP \$9.0 billion (06/07)  
17.8% increase on the previous  
year



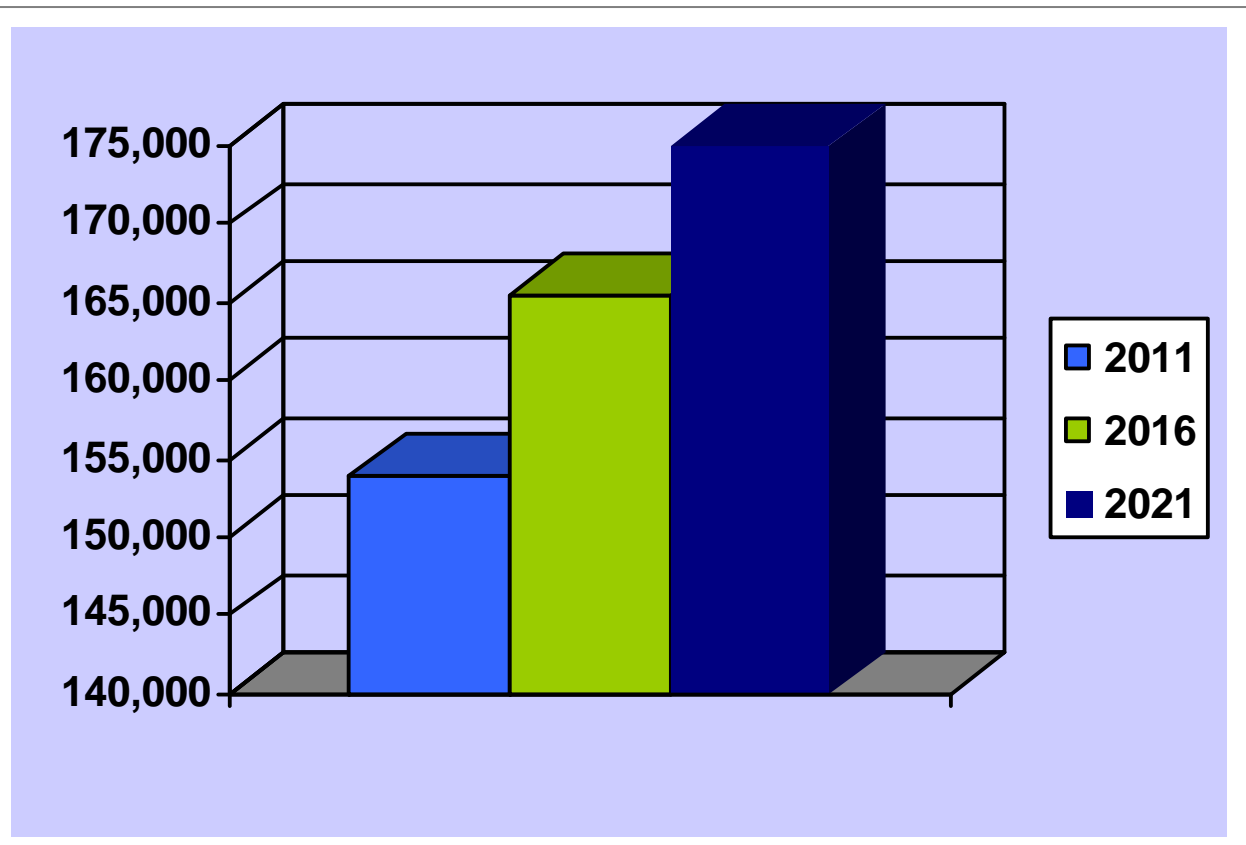
# POPULATION GROWTH

- South West Region  
2002-2007 2.7%
- Greater Bunbury  
2002-2007 3.4%
- Busselton (S)  
2002-2007 2.8%
- Augusta-Margaret River (S)  
2002-2007 1.9%

Note: growth data is calculated using the average annual growth rate for the period 2002-2007.

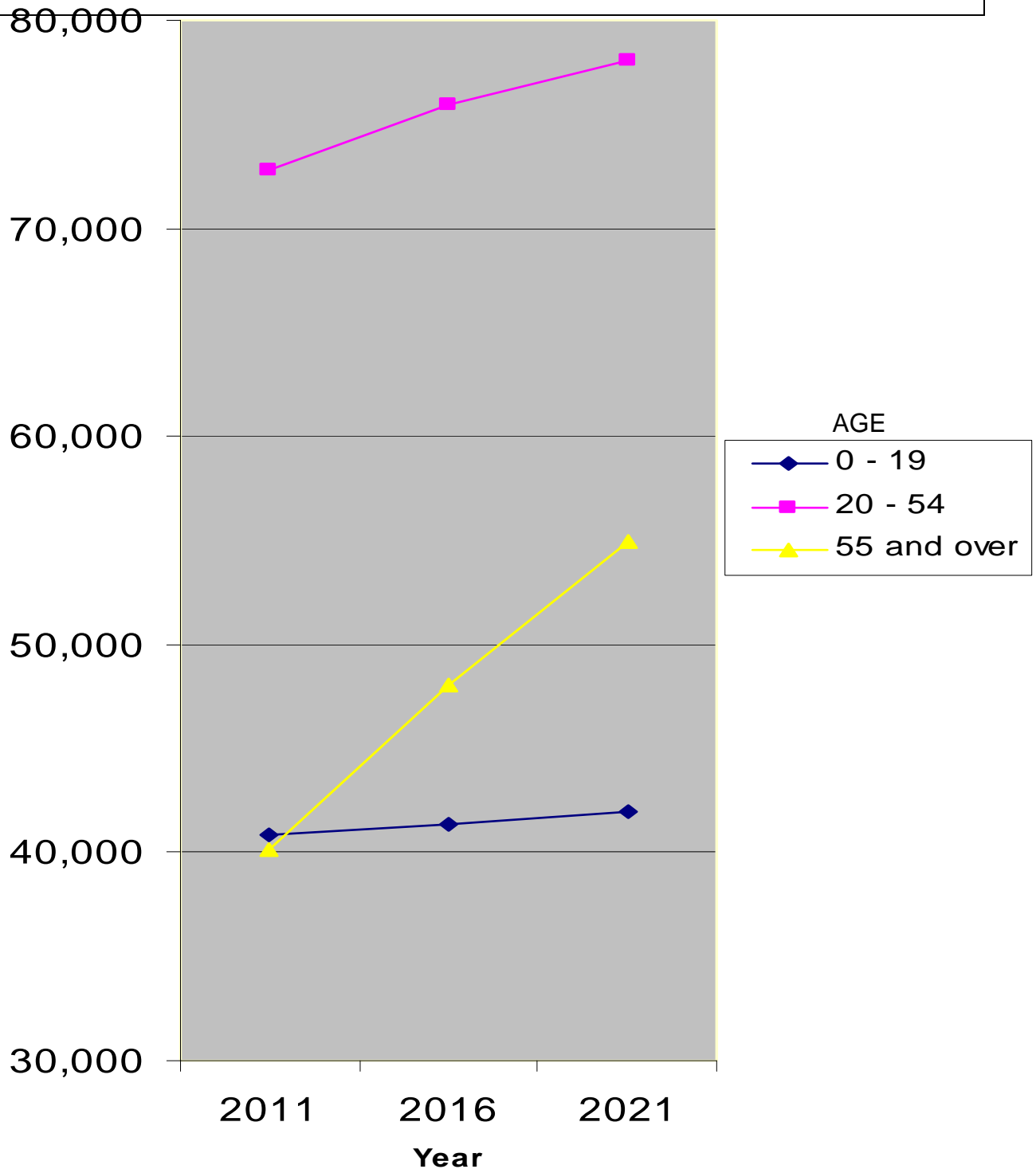
# POPULATION PROJECTIONS

## South West Region



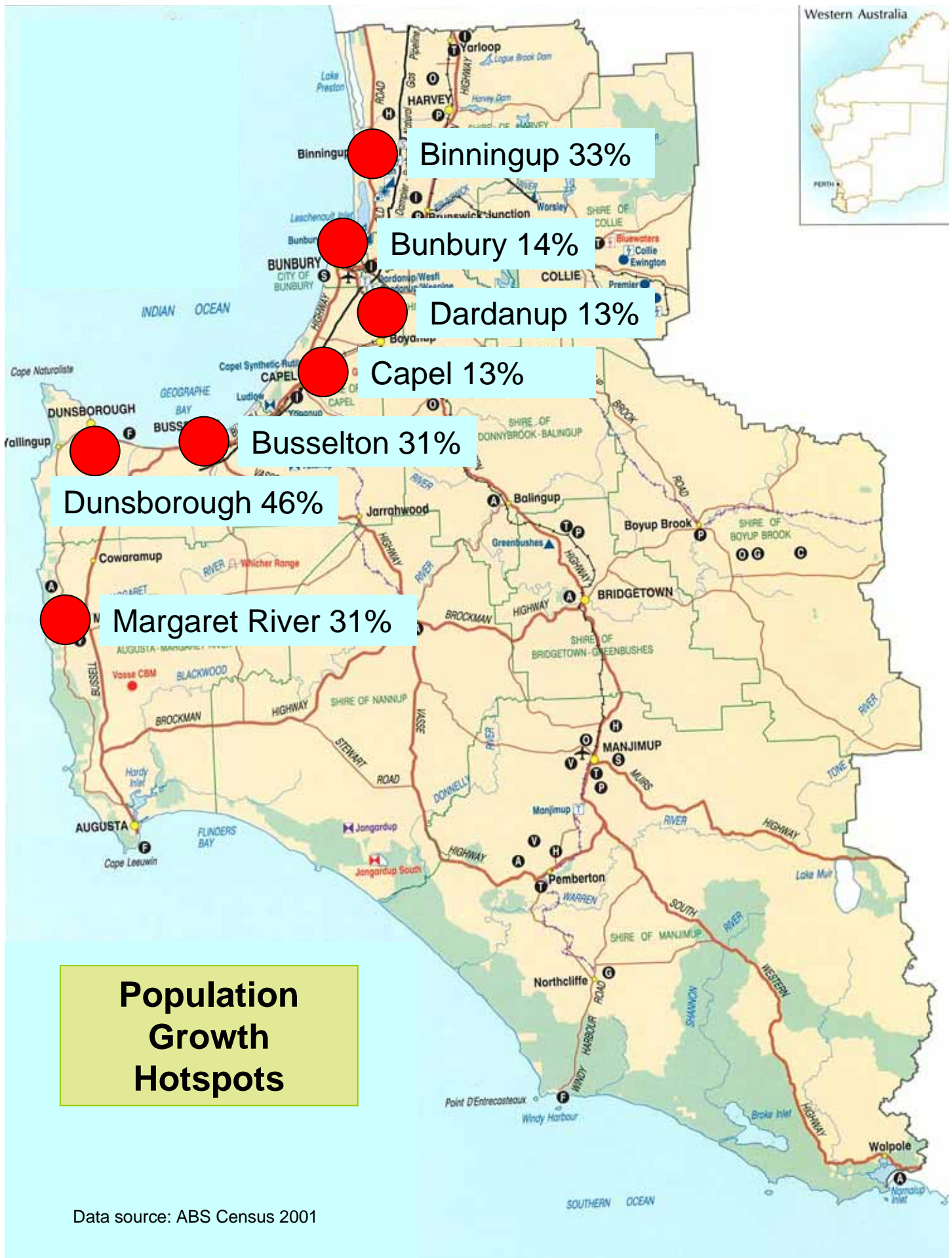


# POPULATION PROJECTIONS



Population

AUSTRALIA'S SOUTH WEST



Data source: ABS Census 2001

# **Our region is racing away Can we keep up?**





# WHO IS TURNING ON THE TAP?

Sector	2006 (GI)	2030 (GI)
Agriculture	240	370
Plantations	82	92
Mining / power and industry	107	140
Town supply	25.0	40
Other Sectors	28.7	68
Total all sectors	482.7	710



# HOW MUCH DO WE HAVE?

- Surface Water: 600 GI
- Ground Water: 220 GI
- Total 880 GI

Climate Change Effects will reduce supply to an estimated  
610 GI by 2030



Draft South West Water Plan  
2008

# SURFACE WATER AVAILABILITY

River Basin	Sustainable Yield	Total committed if allocations pending approved	
			Balance available
Harvey	149,400	147,810	1,590
Collie	165,000	111,723	53,277
Preston	50,000	6,532	43,468
Busselton	135,000	9,671	125,329
Donnelly	91,000	10,098	80,902
Blackwood	112,000	13,600	98,400
Warren	207,000	31,496	175,504
<b>TOTAL</b>	<b>909,400</b>	<b>330,930</b>	<b>578,470</b>





# SURFACE WATER REVISITED

River Basin	Sustainable Yield	Balance available	Adjusted Balance available	Question Mark Items
Harvey	149,400	1,590	147,810	Reliability issues exist and bulk of the sustainable yield appears to be downstream of existing dams
Collie	165,000	53,277	111,723	Remaining unallocated sustainable yield appears to be flow down the Brunswick or down stream from Wellington Dam. Reliability issues exist.
Preston	50,000	43,468	6,532	Reliability issues exist and substantial work would be required.
Busselton	135,000	125,329	40,500	Reduced to 30%. Capacity to divert is compromised.
Donnelly	91,000	80,902		Requires commitment to dam construction in National Park
Blackwood	112,000	98,400		Water is poor quality and dam construction in National Park would likely be required.
Warren	207,000	175,504		Requires commitment to dam construction in National Park
<b>TOTAL</b>	<b>909,400</b>	<b>578,470</b>	<b>306,565</b>	

# GROUNDWATER IN THE SOUTH WEST

Groundwater Area	Sustainable Yield	Committed if allocations approved	Balance available	Recovery & balance available
Bunbury	54,600	39,768	14,832	24,663
Busselton - Capel	131,850	142,749	-10,889	22,049
Blackwood	27,510	23,974	3,536	7,880
	<b>213,960</b>	<b>206,491</b>	<b>18,368</b>	<b>54,593</b>



# The Worst Case Scenario

- Demand : 710 GI
- Supply: 610 GI
- But supply is not where we may need it and
- Estimates need a lot more work and
- Climate change is in
- No Water efficiency measures

# FUTURE PROOFING

- Monitor and Measure Usage
- Water Efficiency
- Re-use Options
- Interconnection across catchments
- Trade Across Catchments
- Fit for use Infrastructure





# AUSTRALIA'S SOUTH WEST



The Future is Ours