



Government of **Western Australia**
Department of **Mines and Petroleum**

AUSTRALIA – INDIA ENERGY AND MINERALS FORUM

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WA ENERGY SUPPLY PRINCIPLES

Competition The choice of fuels should be driven by commercial considerations in a competitive environment.

Fairness and Consistency fuels for power generation must be able to compete on a consistent and equitable basis.

Environmental Sustainability Electricity production should strive for best practice in environmental responsibility.

Security of Supply Encouraging a diversity of fuel types and fuel sources for electricity generation will enhance security of electricity supply

BREAKING THE MONOPOLY

Western Power restructured on 21 March 2006

- Synergy: Electricity sales in the South West Integrated System (SWIS)
- Horizon Power: Regional business outside SWIS
- Western Power: Electricity transmission and distribution
- Verve Energy: Power generation within SWIS



COAL IMPORTANT FOR ELECTRICITY

- 2194 MW Coal Generation Plant
- 2694 MW Natural Gas Plant
- 83 MW Distillate
- 640 MW Coal or Gas (460MW coal only)
- 1189 MW gas or distillate
- 4.2% renewable

COAL SUPPLIES APPROXIMATELY 35% OF WA ELECTRICITY (85% IN EASTERN AUSTRALIA)

CURRENT COAL

- Two producers based in Collie:
 - The Griffin Group
 - Wesfarmers Premier Coal
- 2007 5.8MTPA \$265 million
- 2008 6.7MTPA \$305 million

THE FUTURE OF COAL

A world map is visible in the background of the top red banner, showing the continents in a light red color against a darker red background with a grid of latitude and longitude lines.

- **GASIFICATION**

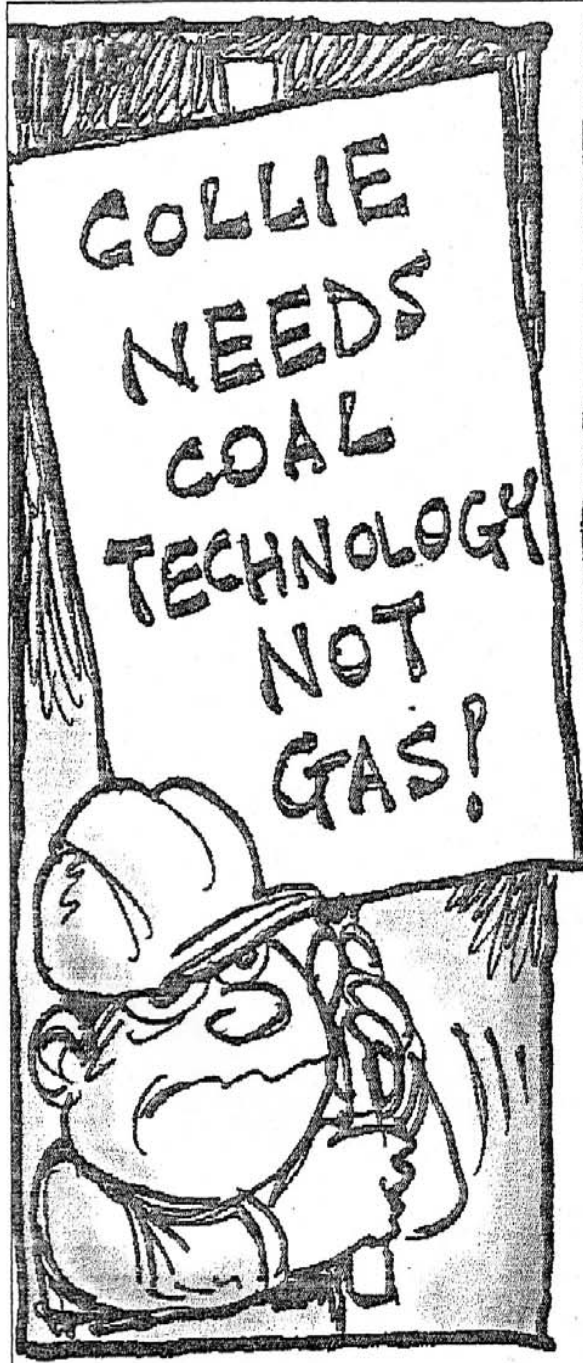
- Collie Coal performs best of the Australian black coals

- **GEOSEQUESTRATION**

- Potential in the Lesueur Measures of the Southern Perth Basin

- **EXPORTS**

- Griffin has now exported over 1 million tonnes to India



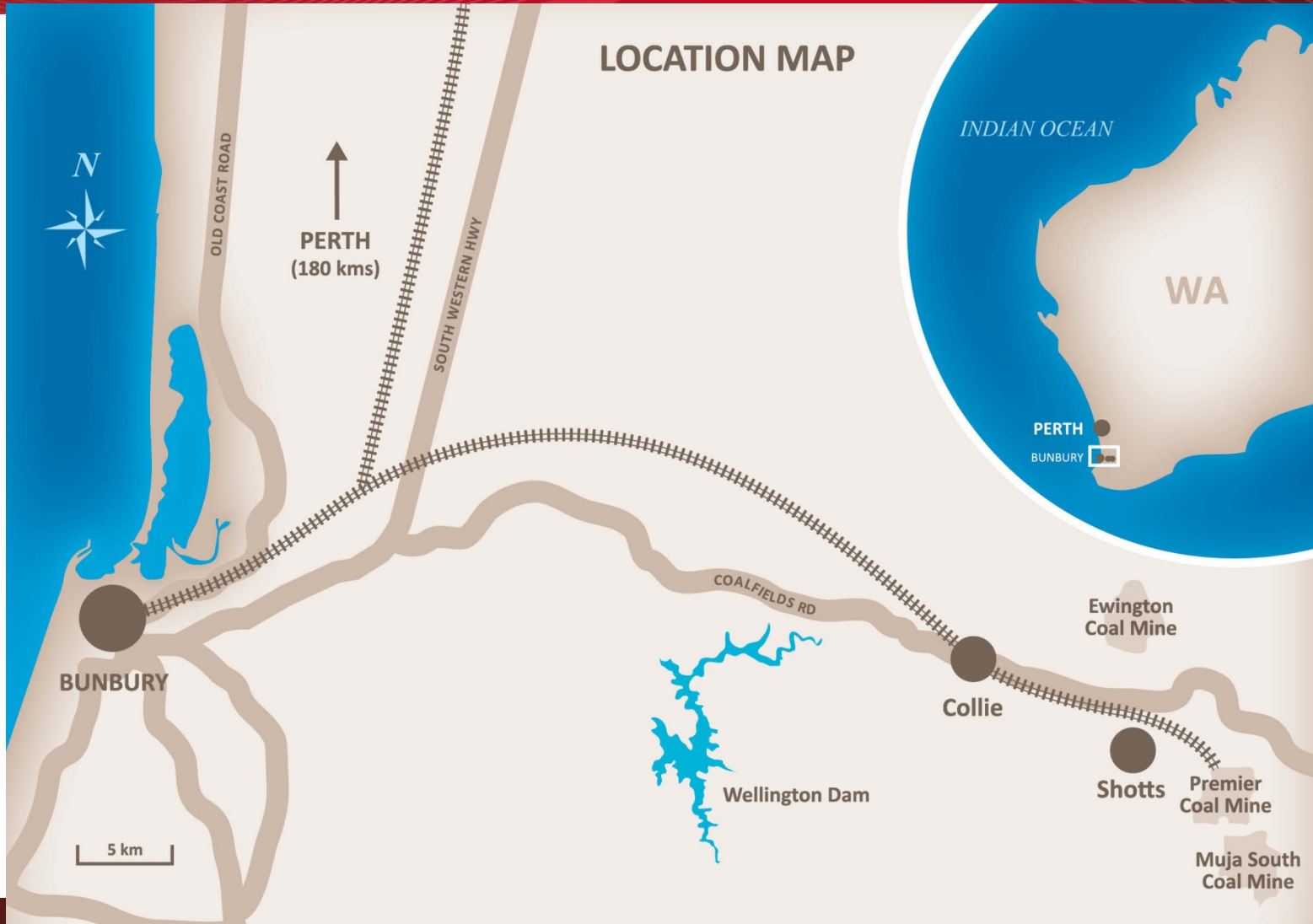
A NEW COAL INDUSTRY



PERDAMAN

CHEMICALS & FERTILISERS

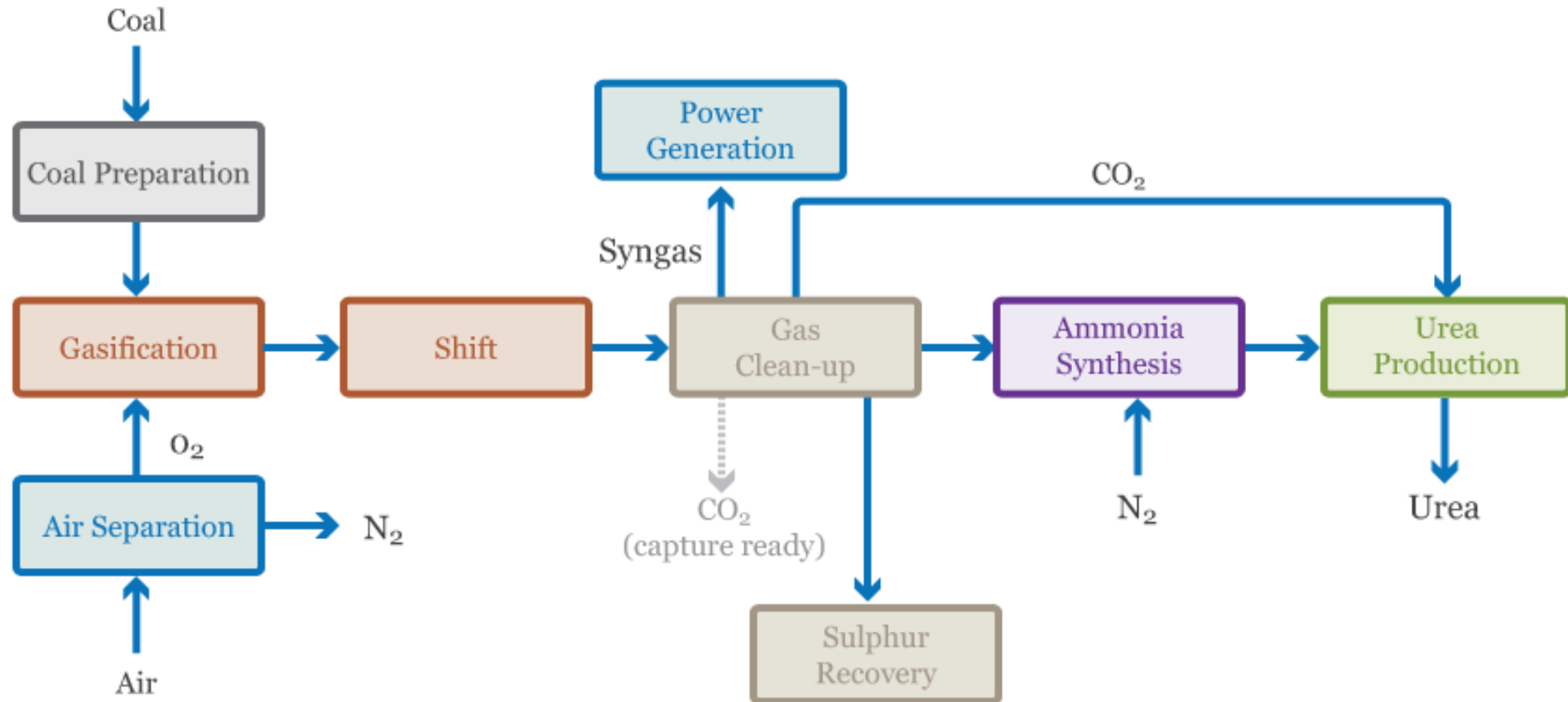
ADJACENT TO INFRASTRUCTURE



THE PLANT

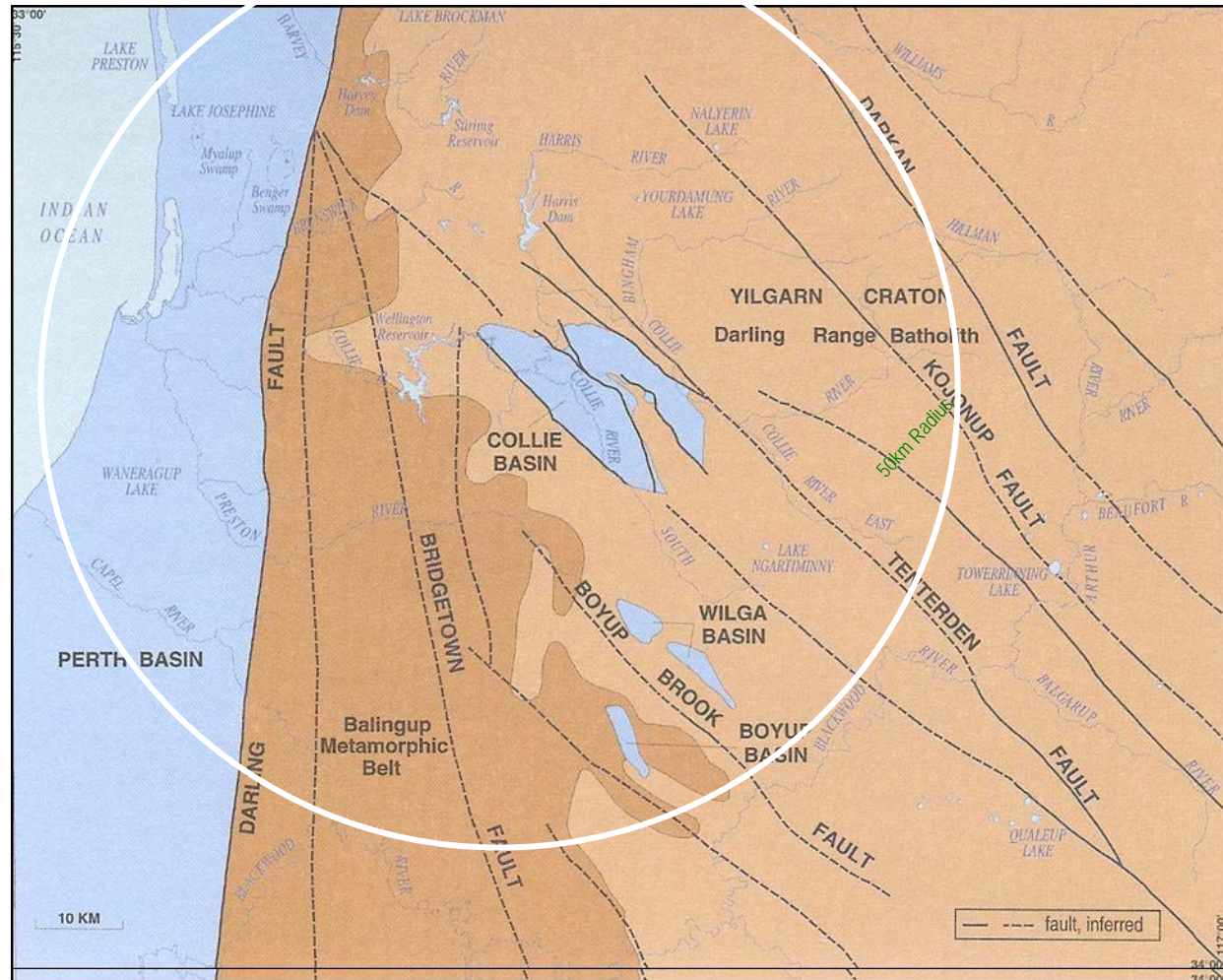


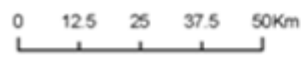
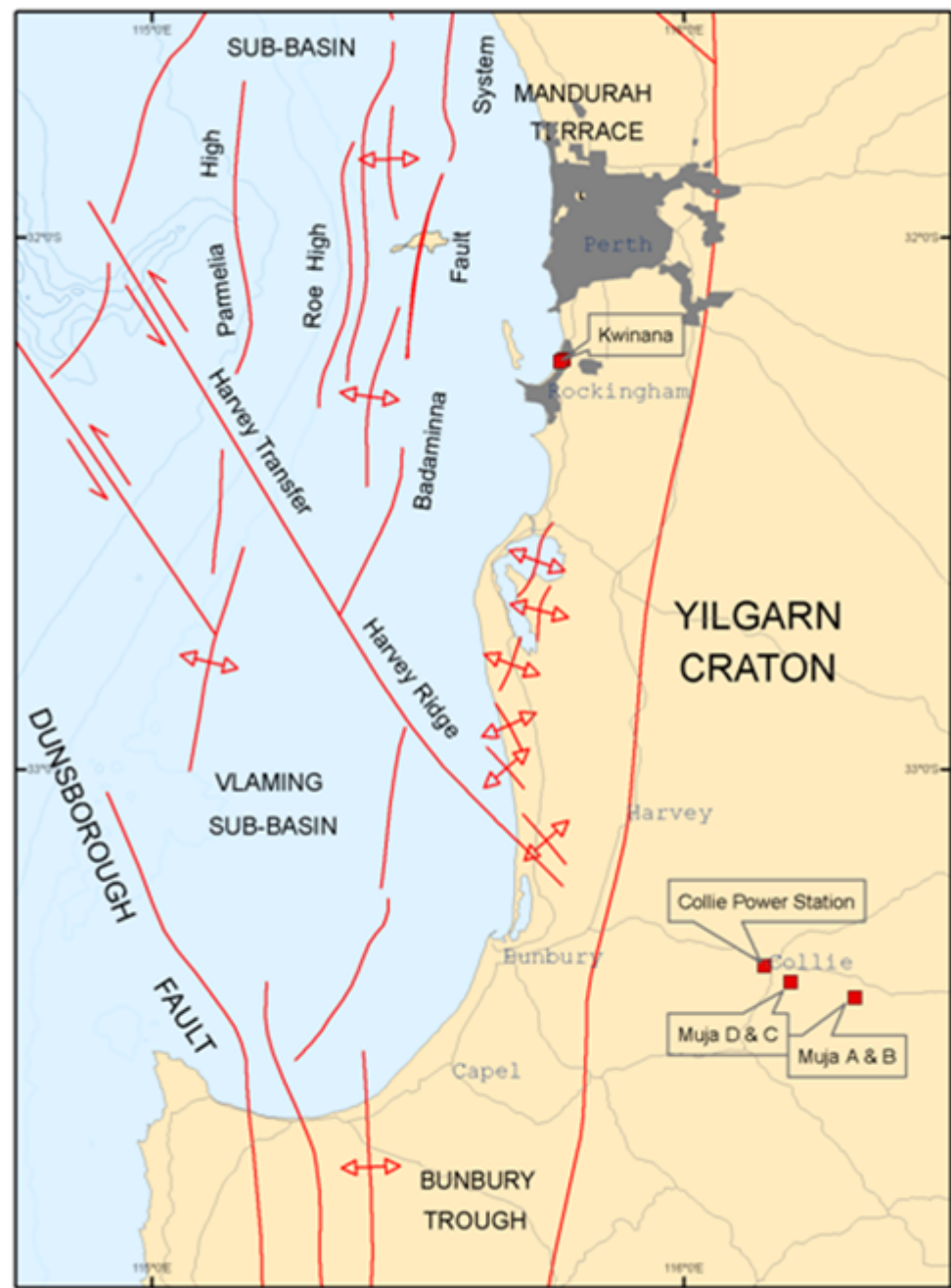
PERDAMAN – COLLIE UREA PLANT



GEOSEQUESTRATION

REGIONAL GEOLOGICAL SETTING

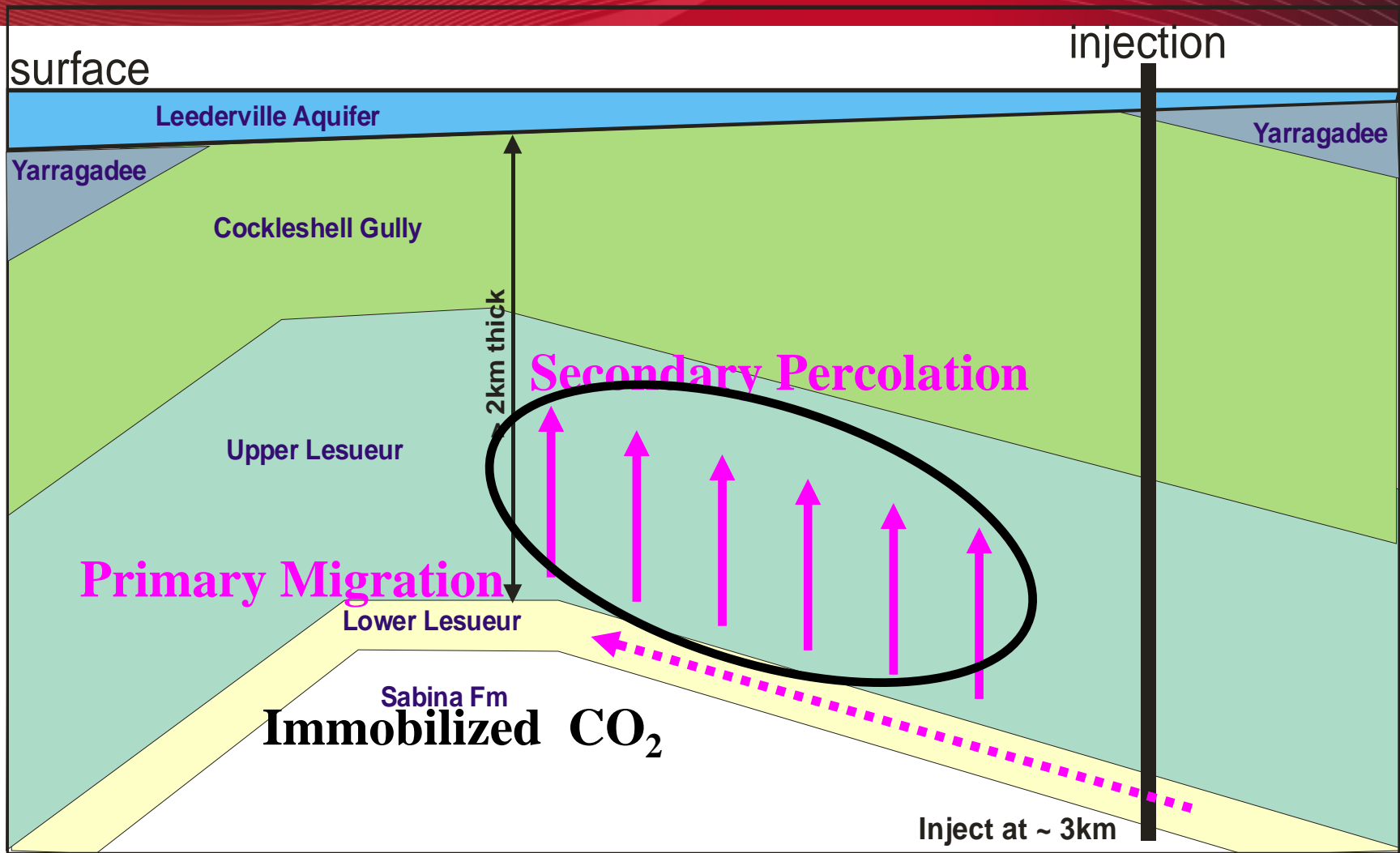




Perth Boundary
 Roads
 Major CO2 Sources



LOWER LESUEUR CCS CONCEPT



LESUEUR GEOSEQUESTRATION

- Australian Carbon Capture and Storage Flagship project
- Desk top analysis completed by end June 2010
- Next stages
 - Seismic
 - Stratigraphic well
 - CO2 trial well
- Target: 270 million total @ 9 mtpa for 30 years

THE CONCEPT

COLLIE HUB

- Integrated industrial CO2 geosequestration system
- Red mud sequestration (alumina)
- 2.5 mtpa Perdaman CO2
- Potential for up to 7 mtpa for future power generation

