



# ambreCTL

Community Information Sessions  
September/October 2010

# Outline

- Introduction to Ambre Energy
- ambreCTL overview and progress to date
- EIS process and state review processes
- Summary

# Ambre Energy

- **Australian Company** founded in 2005
- **Based in Brisbane** – office in Salt Lake City USA
- **\$60 million+** invested to date in company development



# Ambre Energy track record



- **Previous Project – Millennium Coal Project**
  - Developed and sold by Ambre Energy team members for >\$100million in 2004/5
  - Now a \$1billion project owned by Peabody Energy
- **Resource Acquisition and Development**
  - 840 km<sup>2</sup> of coal exploration tenements in Australia
  - 33,000 acres of oil shale leases in USA
  - 500 million tonne Felton North coal deposit within 2000 hectare footprint

# Ambre Energy track record

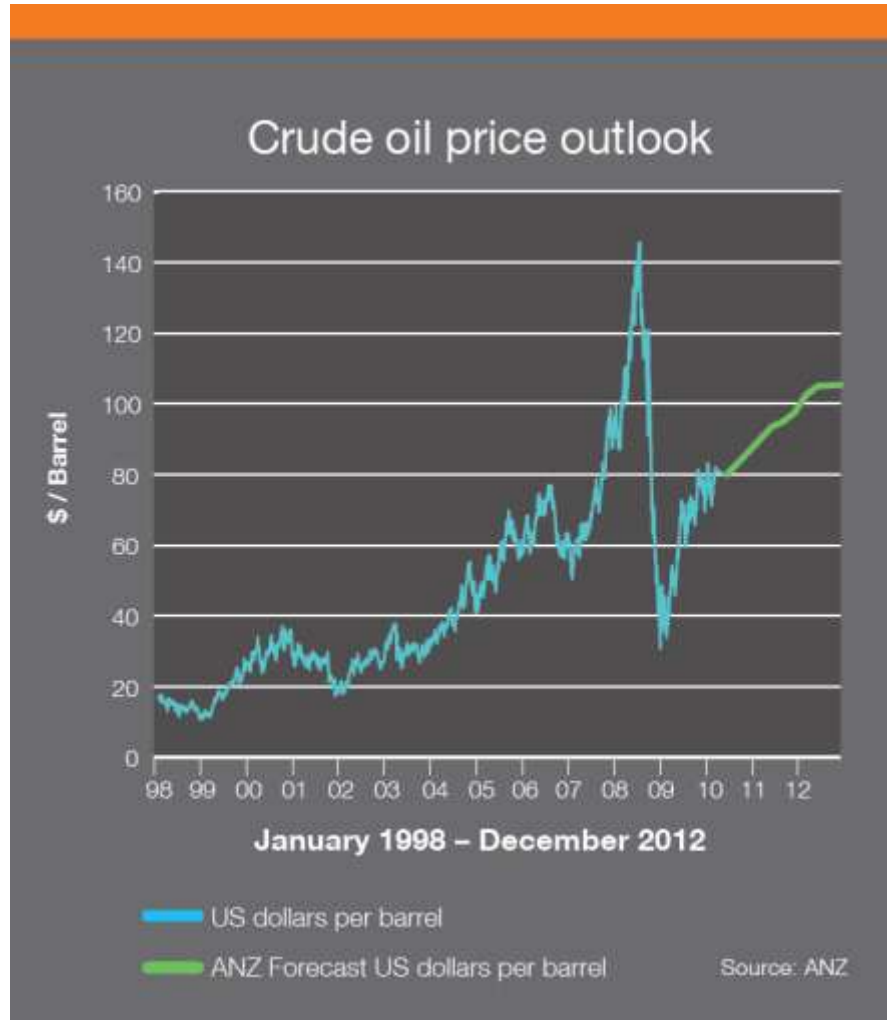


- **US Coal Asset Acquisition**
  - Identification of export opportunity from USA to Asia
  - Acquisition of Port facilities on US West Coast
  - Acquisition of large operating coal mines in USA in Joint Venture with a major Asian Coal customer

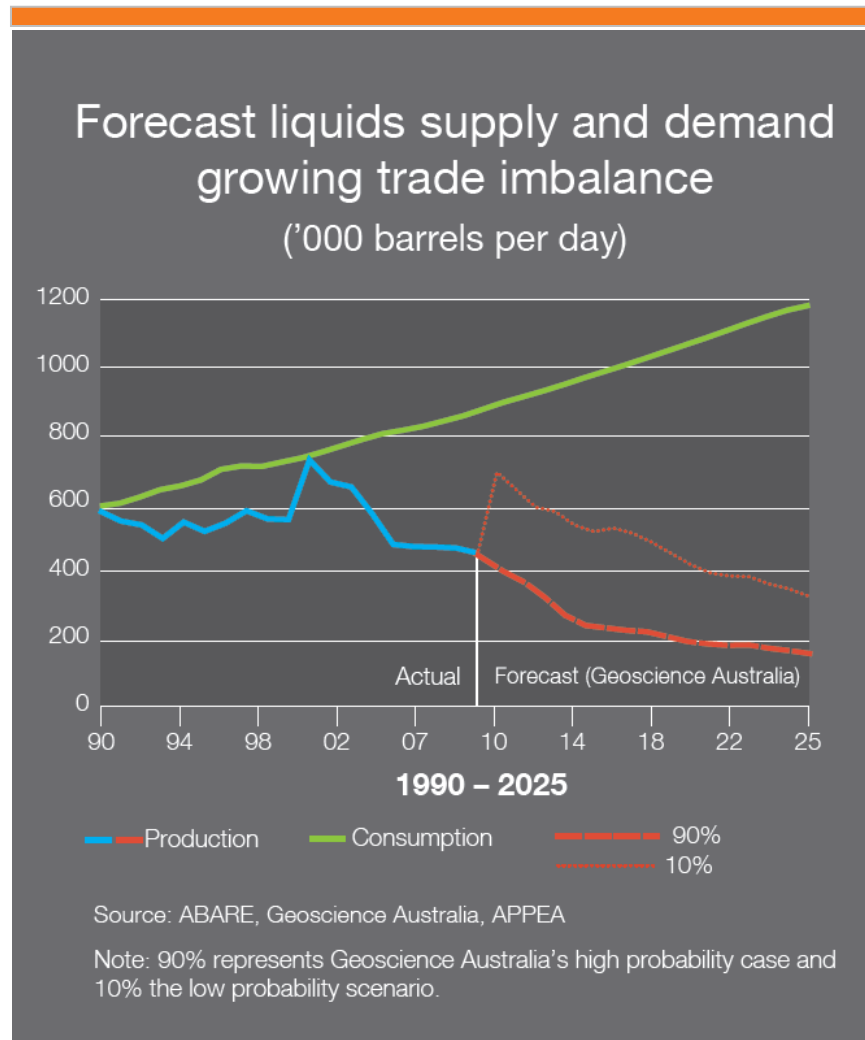


Coal-to-liquids

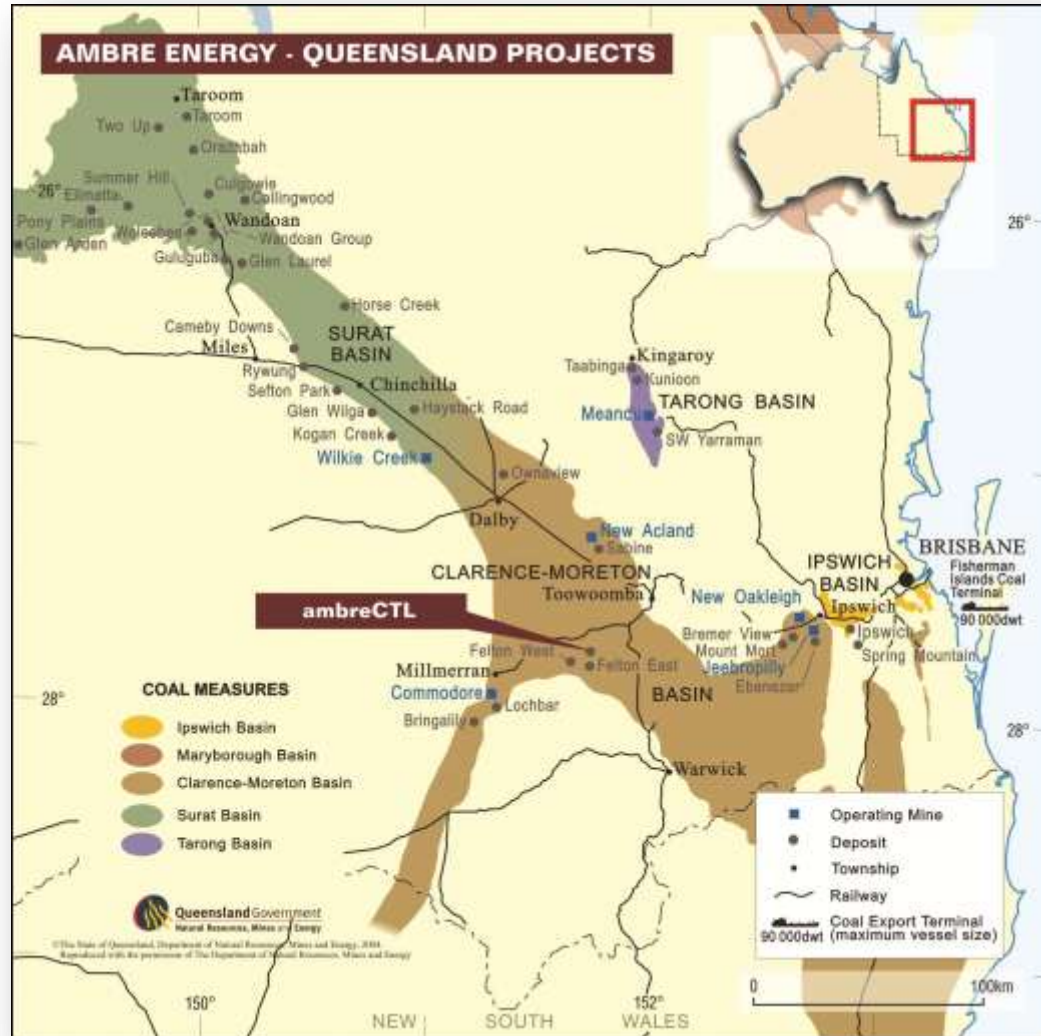
# Crude oil price outlook



# Growing imbalance



# ambreCTL location





**ambreCTL**

PITTSWORTH - FELTON ROAD

AEF 4

MLA 50245

MLA 00246

AEF 3

ROAD

KARARA ROAD

TOOWOOMBA

GORE HIGHWAY

Toowoomba - Millmerran Road

370 000 E

380 000 E

To Toowoomba  
30km

Cariboua

Pittsworth

6 930 000 N

Pepper Creek

CLETON ROAD

6 920 000 N

Swain Creek

Hedgcock Creek

N

**ambreenergy**

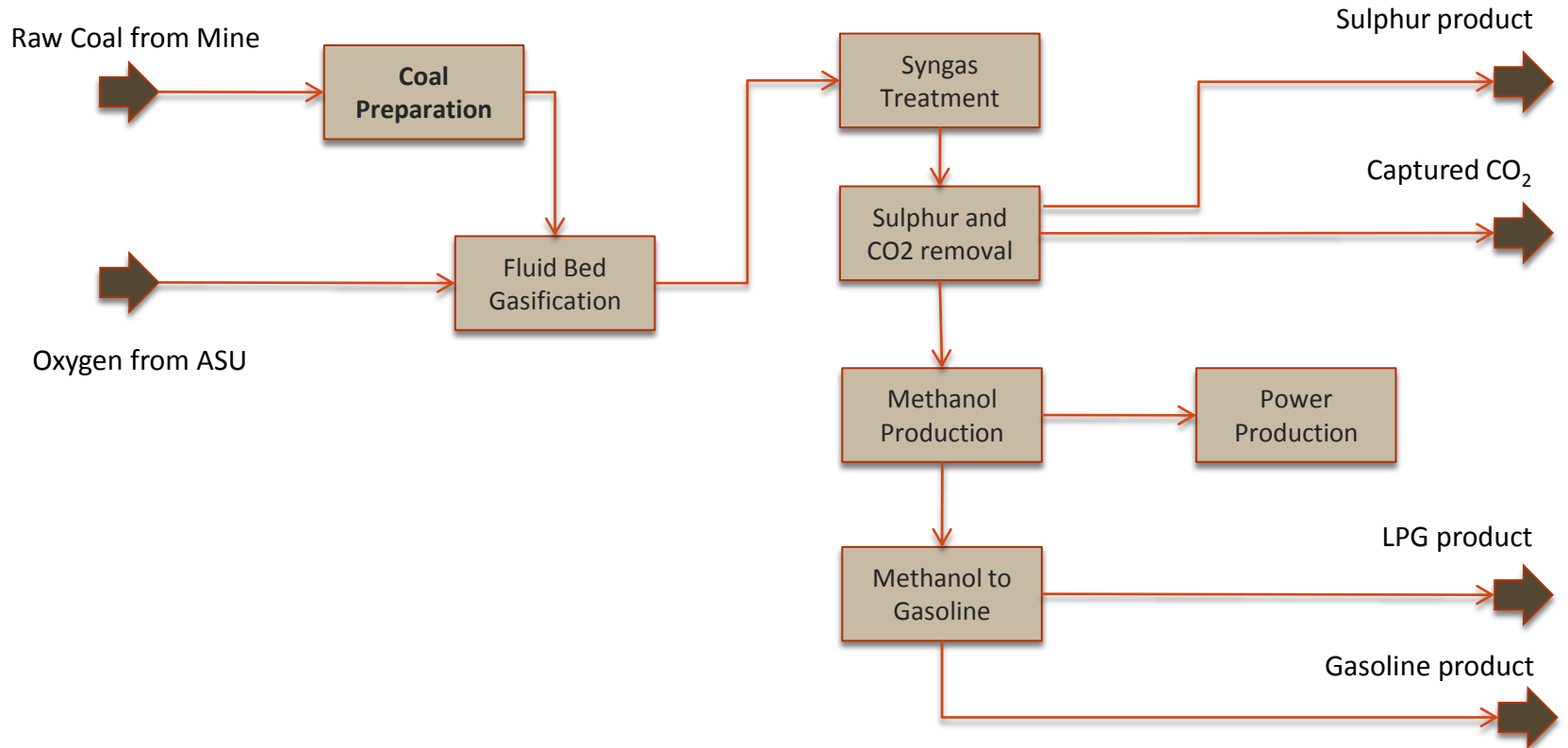
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# Project development to date



- Total coal resource = 500Mt
- EIS studies commenced
- \$10 million+ spent on drilling, laboratory testing, mine design, EIS studies, R&D and land acquisitions
- \$1 million+ spent in surrounding towns such as Pittsworth & Toowoomba

# Process Block Flow Diagram



# Project parameters



<b>Feed coal (source)</b>	8.0 Mtpa coal and interburden material extracted, crushed and washed each year to supply 4.0 Mtpa of feed coal
<b>Outputs</b>	Commercial-scale coal gasification facility, proven technologies <ul style="list-style-type: none"><li>• 18,000 barrels per day (940 ML/yr) of unleaded petrol</li><li>• Co-production of 248 tonnes per day LPG and 54 tonnes per day sulphur</li><li>• Capture of 10,000 tonnes per day CO<sub>2</sub> available for use in enhanced oil recovery and sequestration</li></ul>
<b>Estimated capital expenditure</b>	In the order of \$3.5 billion

# Specifications and comparisons



Capacity	ambreCTL Annual Quantities	Total Annual Australian Consumption	% supplied by ambreCTL	Total Queensland Consumption	% supplied by ambreCTL
Feed Coal	4.0 Mt				
Unleaded Petrol	940 ML (18,000 bbl/day)	18,734 ML <small>(2008/09)</small>	5%	4,293 ML <small>(2008/09)</small>	22%
LPG	150 ML	4,024 ML <small>(2007/08)</small>	3.7%	613 ML <small>(2007/08)</small>	24%
Sulphur by-product	20,000 tonnes				

# Employment



- 1,880 jobs during peak construction averaging 1,170 over two year period
- 530 ongoing jobs in the Darling Downs, 1,600 jobs ongoing Australia-wide

# Transport



- Trucks will transport petrol, LPG and sulphur from ambreCTL site
- Initial estimates of 50-60 trucks a day transporting fuel
- Trucks will head in all directions not just along one transport route
- Transport/impact on road networks will be a critical part of the ambreCTL EIS process

# Water

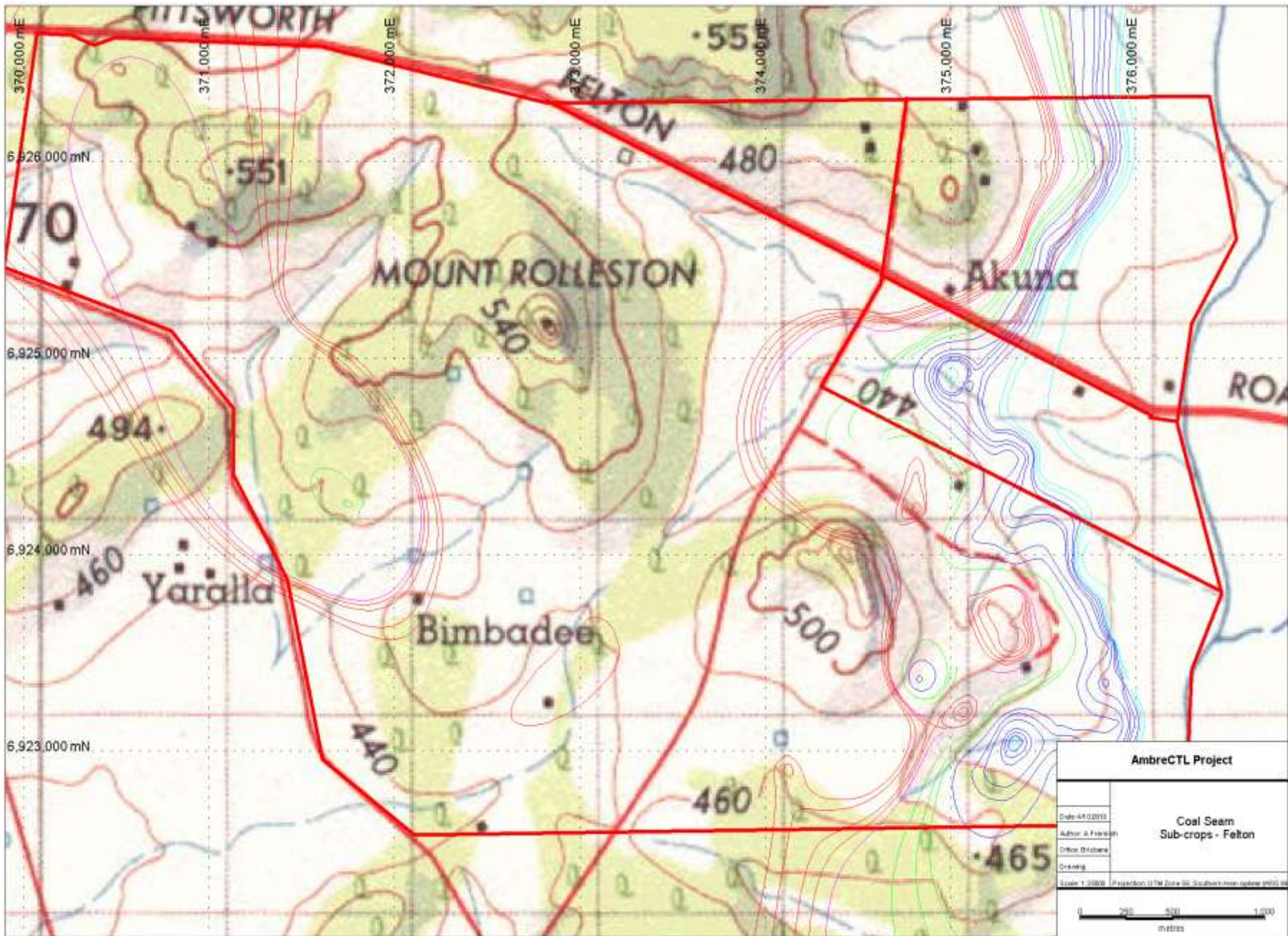


- Potential sources of water for the project include the following:
  - recycled water from the South East Queensland water grid
  - wastewater from water treatment plants in the Toowoomba region
  - water harvesting on-site and
  - other government-controlled sources.
- ambreCTL will use 22ML of water per day
- No intention to extract groundwater for the operation

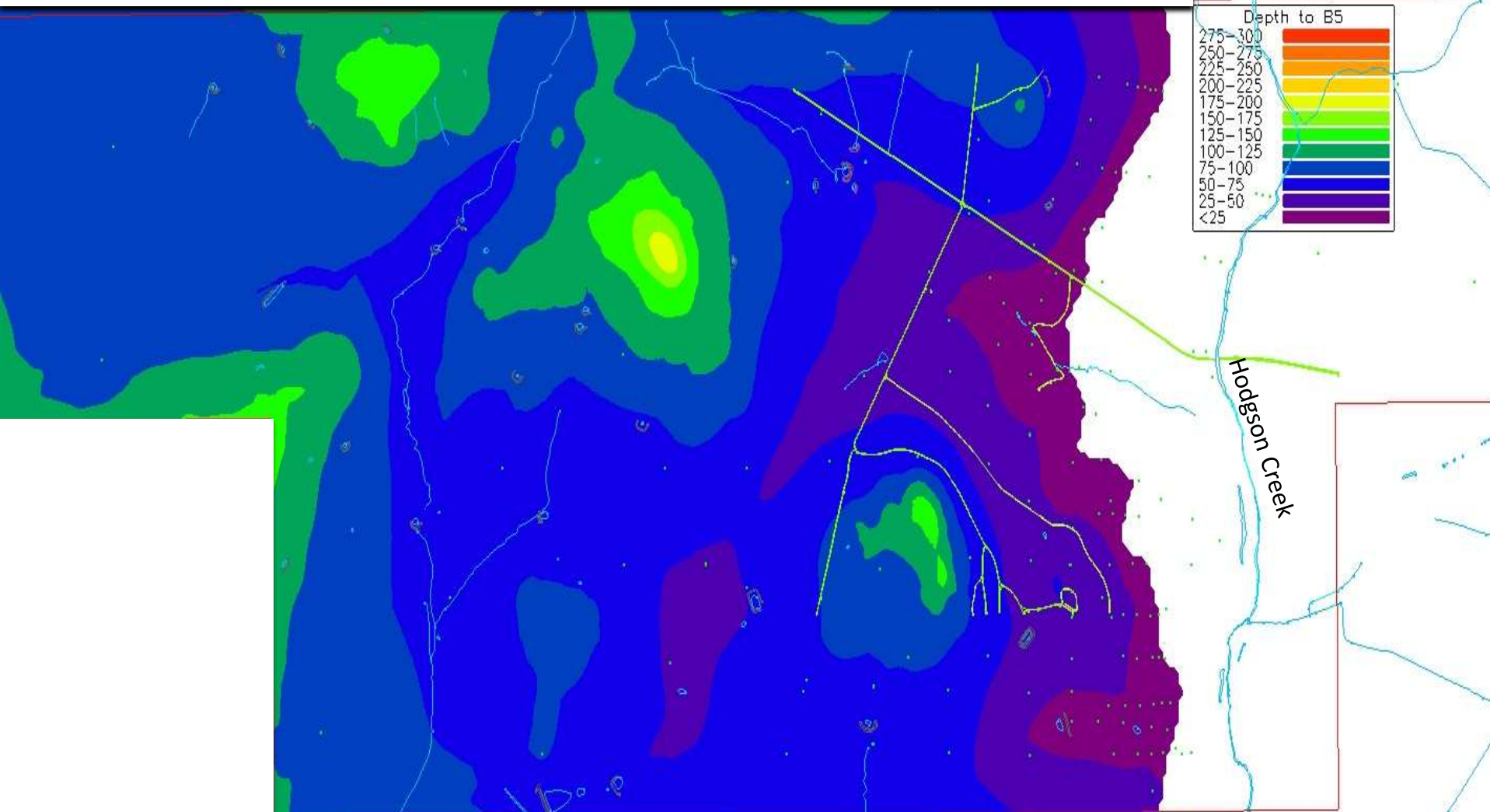
# Progress to Date – Exploration and Applications



- Eight drilling programmes completed to establish 500 million tonne, JORC compliant, resource at Felton North
- Mining concept study completed providing a mine plan, capital and operating cost to extract coal as a feed to a CTL plant
- Lodged Mining Lease Applications MLA 50245 and MLA 50246
- In the process of applying for Mining Leases to cover remaining areas of the site (AEF3, AEF4)



# Depth to lowest economic coal seam



# Progress to Date – Environmental Approvals



- Application pending with the Queensland State Government regarding significant project declaration
- EIS commenced with Sinclair Knight Mertz (SKM) to determine project environmental impact
- Environmental background monitoring including noise surveys, water borehole monitoring, soils study and flora/fauna studies well progressed and scheduled for completion by the end of 2010
- EPBC referral and draft EIS Terms of Reference documents drafted

# Progress to Date – Local Community



- Consultation and community engagement strategy developed and being implemented
- 1<sup>st</sup> round stakeholder briefings week of 13 September
  - Toowoomba Chamber of Commerce
  - State government departments etc.
- Landowners in the project area are being approached to discuss the company's interest in land purchases
- Community engagement has involved participation in and sponsorship of numerous events, shows, clubs, charities, school programmes

# Progress to Date – Technical and Engineering



- Extensive analysis of coal properties with respect to coal gasification performance and quality variations across the resource
- Coal gasification pilot plant testing completed by Uhde / RWE at University of Aachen in Germany
- Engineering concept study completed by Uhde Shedden providing capital and operating costs associated with the CTL plant
- In the process of negotiating an overall EPC contract for the entire project

# Progress to date - economics



- Macro-economic impact of the project quantified through a study by ACIL Tasman
- Purvin and Gertz about to commence a marketing study to verify product revenue assumptions
- Preliminary economic modeling completed for the project

# Environmental Impact Statement (EIS)

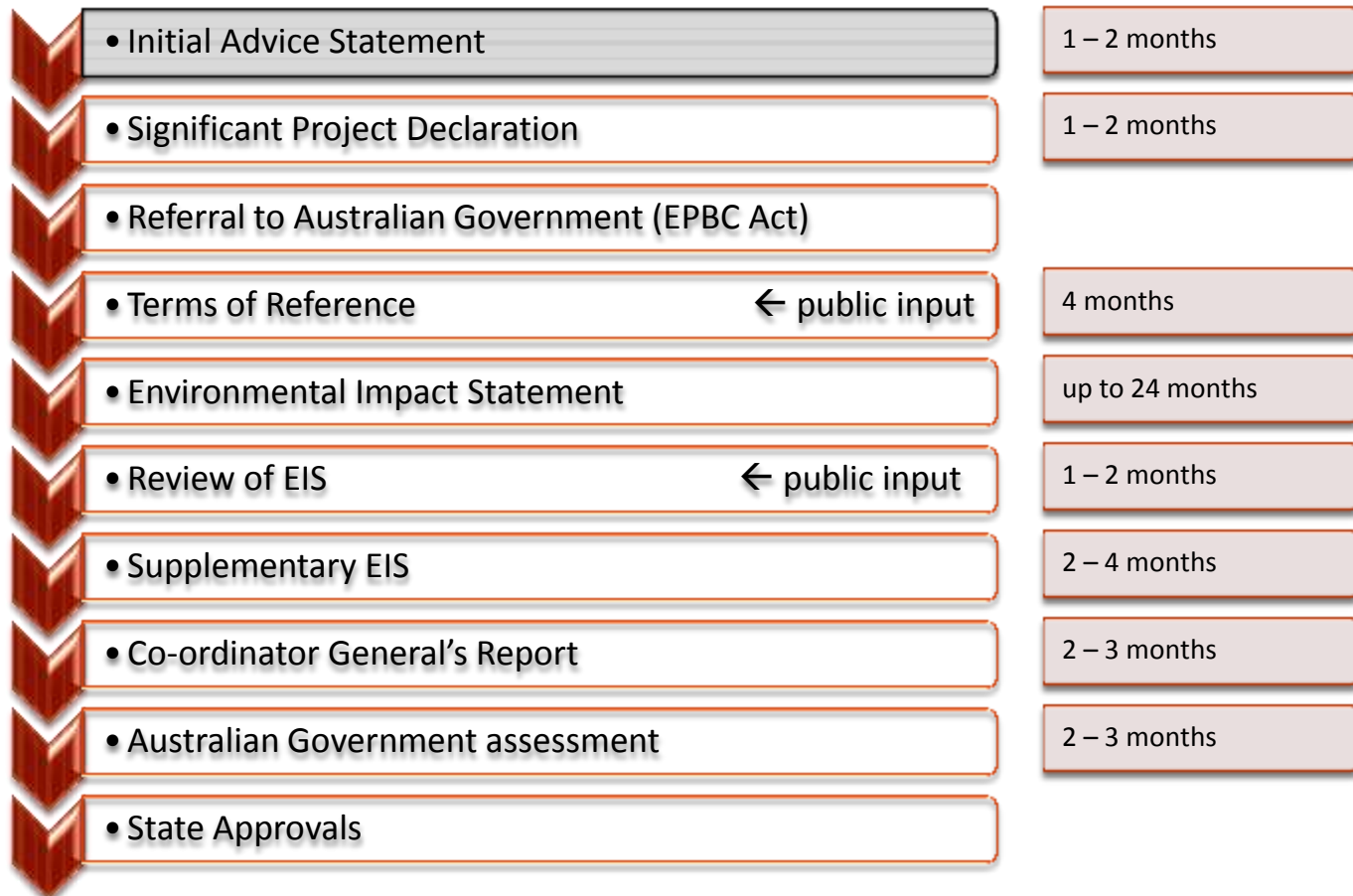


- Environmental consultants, Sinclair Knight Merz (SKM), to coordinate EIS studies
- SKM to build on studies from the Felton DME project
- JTA Australia developing and implementing a comprehensive stakeholder engagement and consultation program

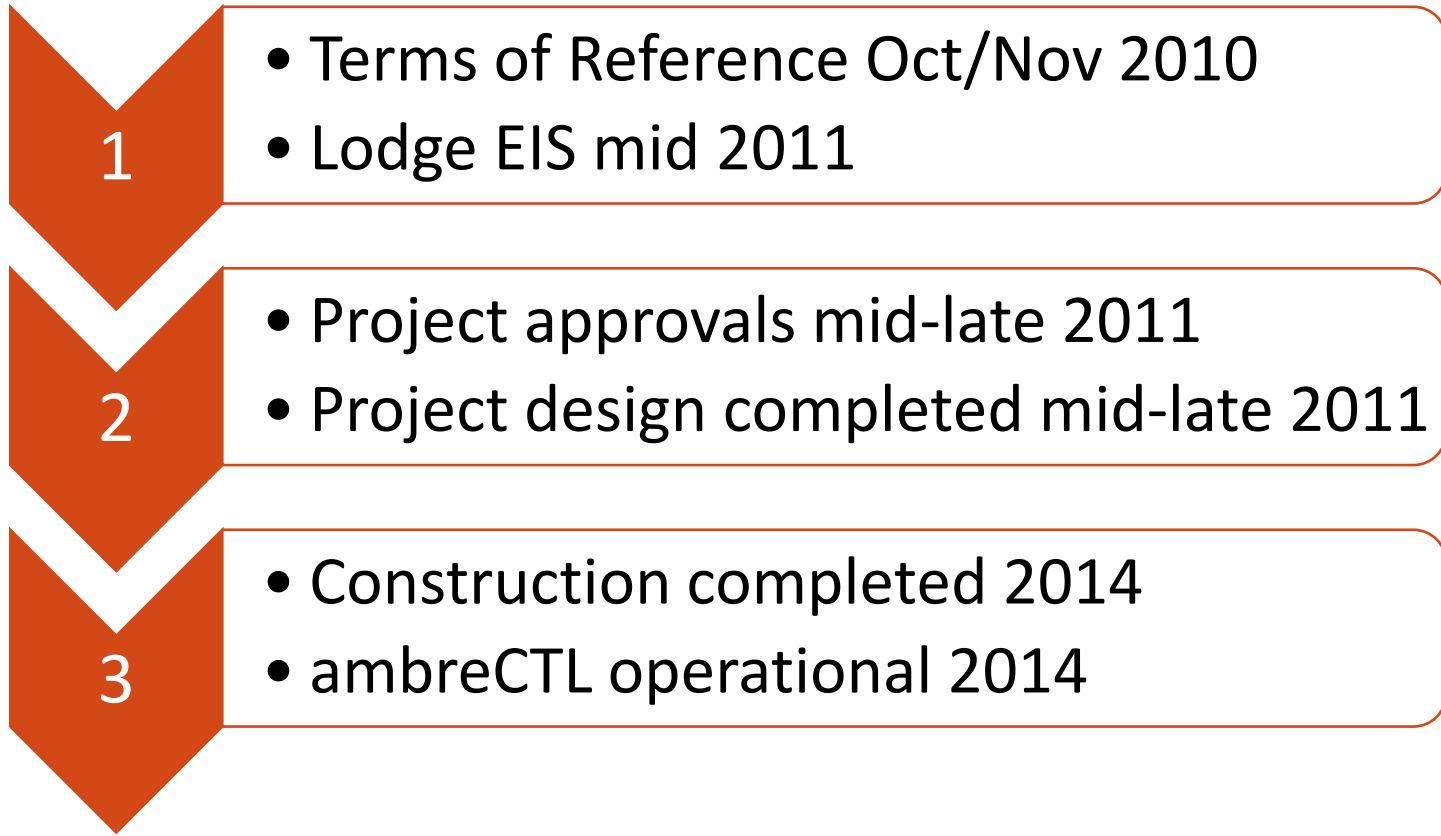


# EIS process overview

- *State Development and Public Works Organisation Act 1971*



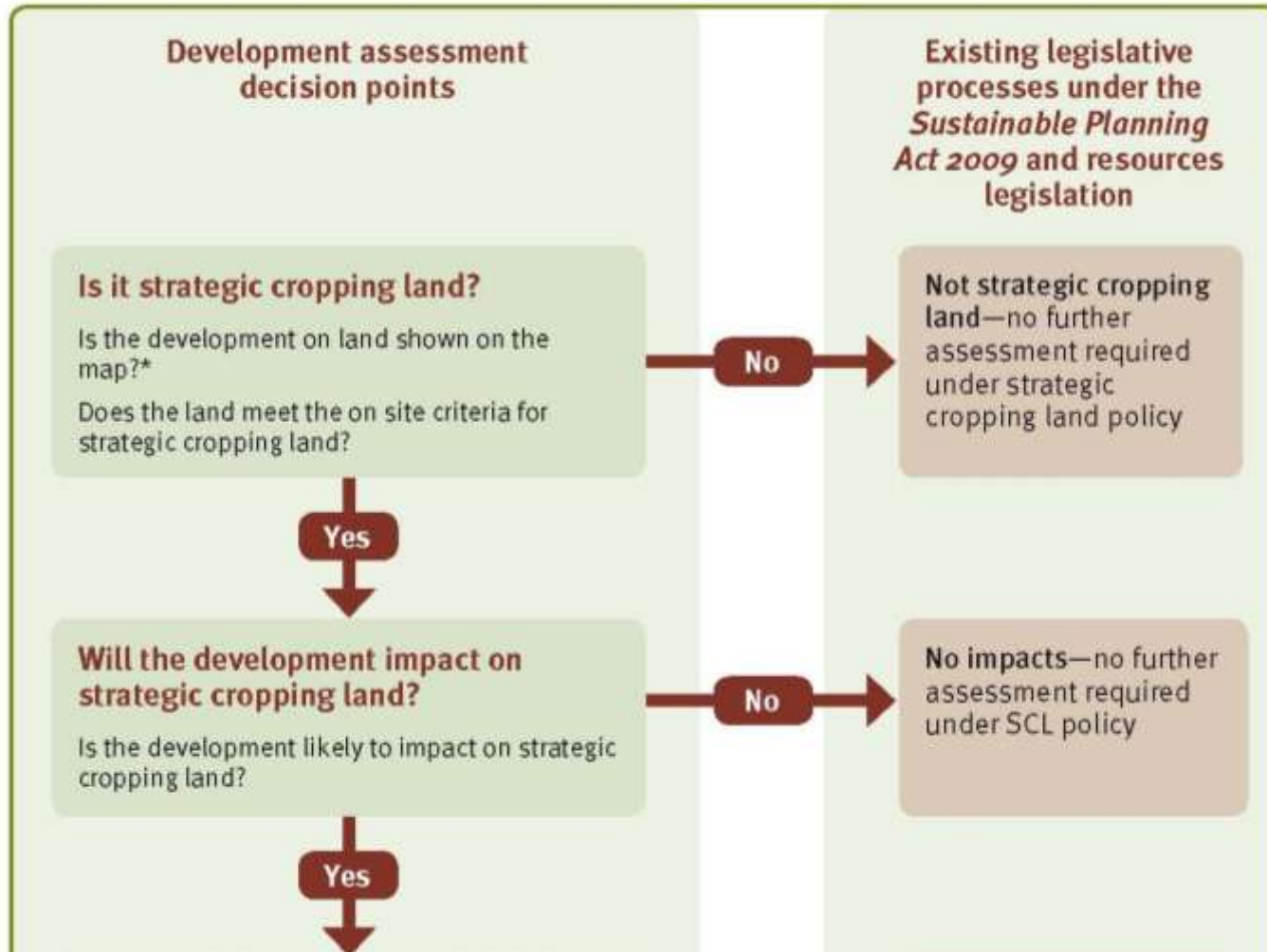
# ambreCTL timeline



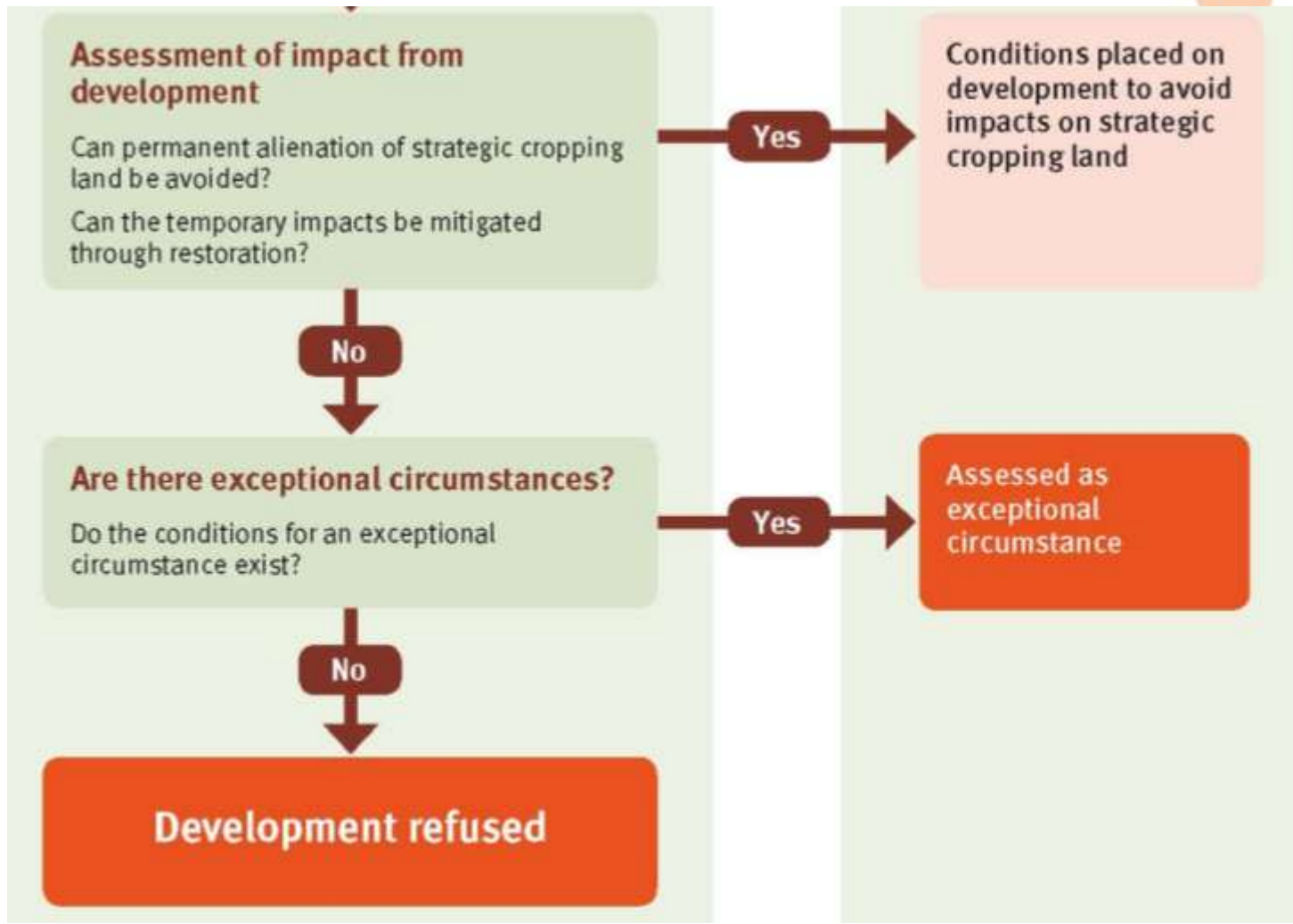
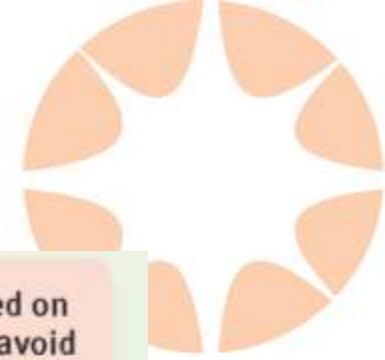
# Strategic Cropping Land



Figure 3: Decision points for development on strategic cropping land.



# Strategic cropping land cont.





## Summary

- Technical and environmental work advancing well
- Increasing regulation will place timelines under pressure - is already having an impact
- Project funding is the key challenge
- ambreCTL presents a wonderful opportunity for the Toowoomba region, to boost its economic strength and diversity, and introduce world-class technology and skills



# ambreCTL

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