

Drought, Energy and Farming in Tasmania

Wes Ford

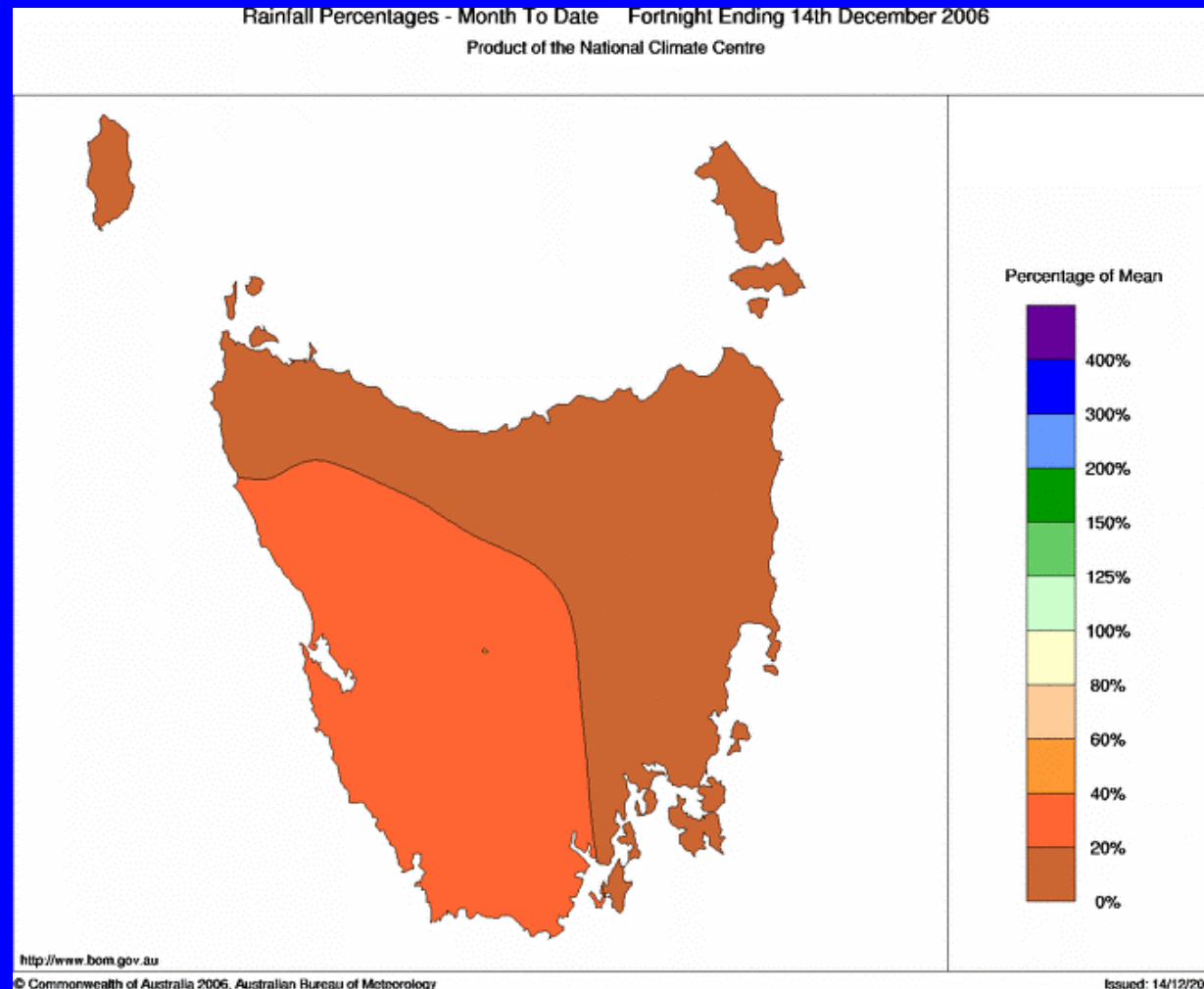
General Manager - Primary Industries
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Water



Drought in Tasmania

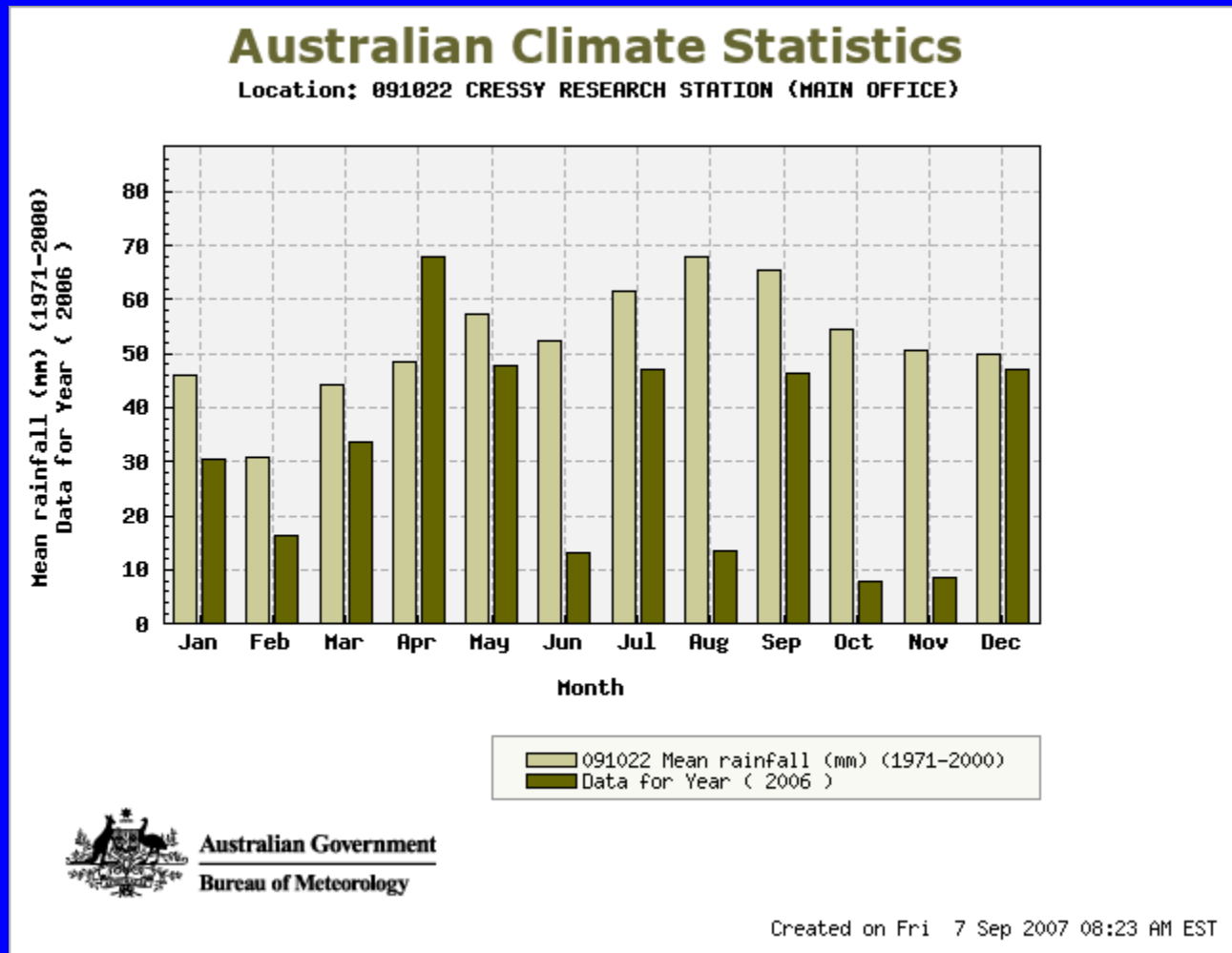
- How do we know we are in drought
- What is the impact of drought on farmers
- What is the impact of drought on the community
- What is the Government doing to help
- What does the future hold

Rainfall in December 2006

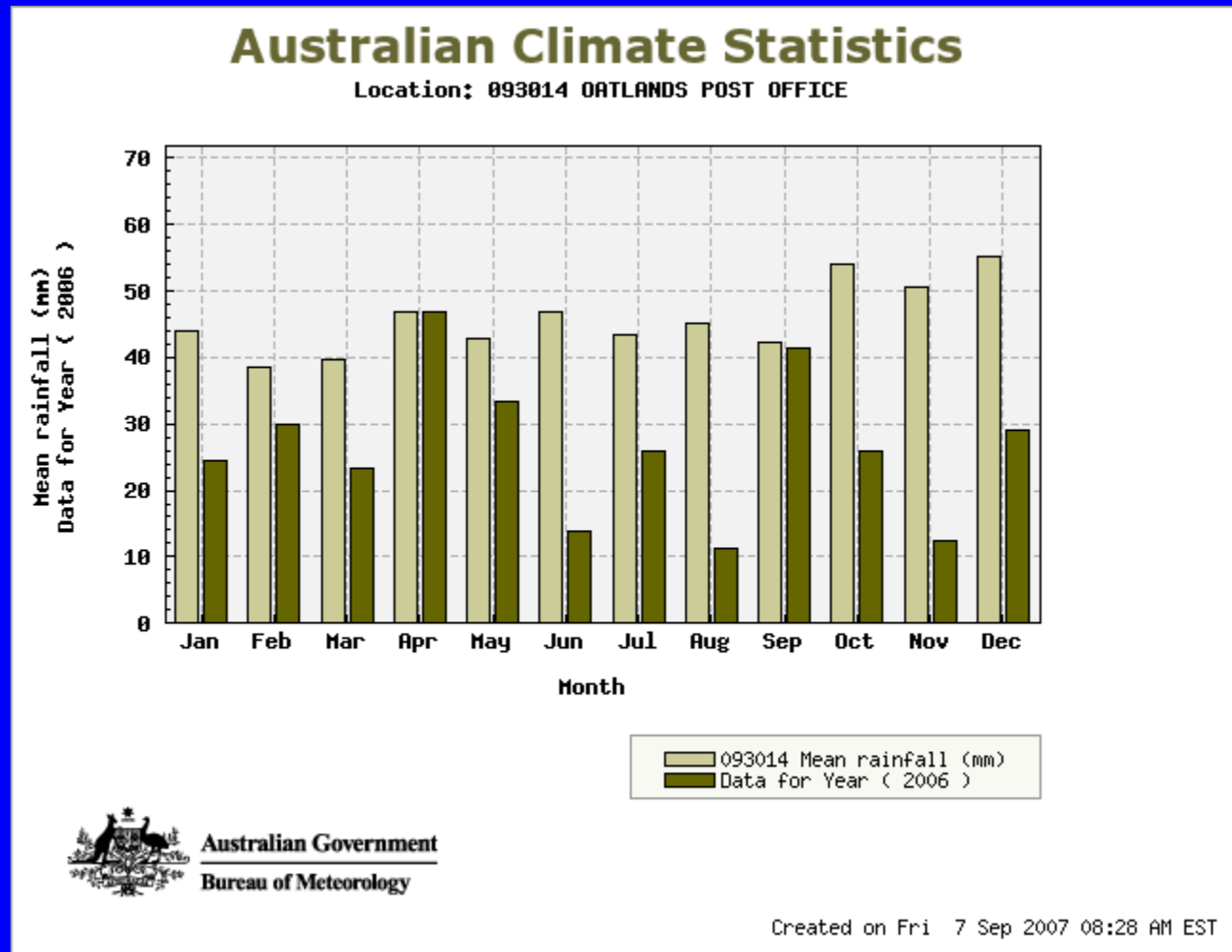


Rainfall 2006 vs 30 Year average

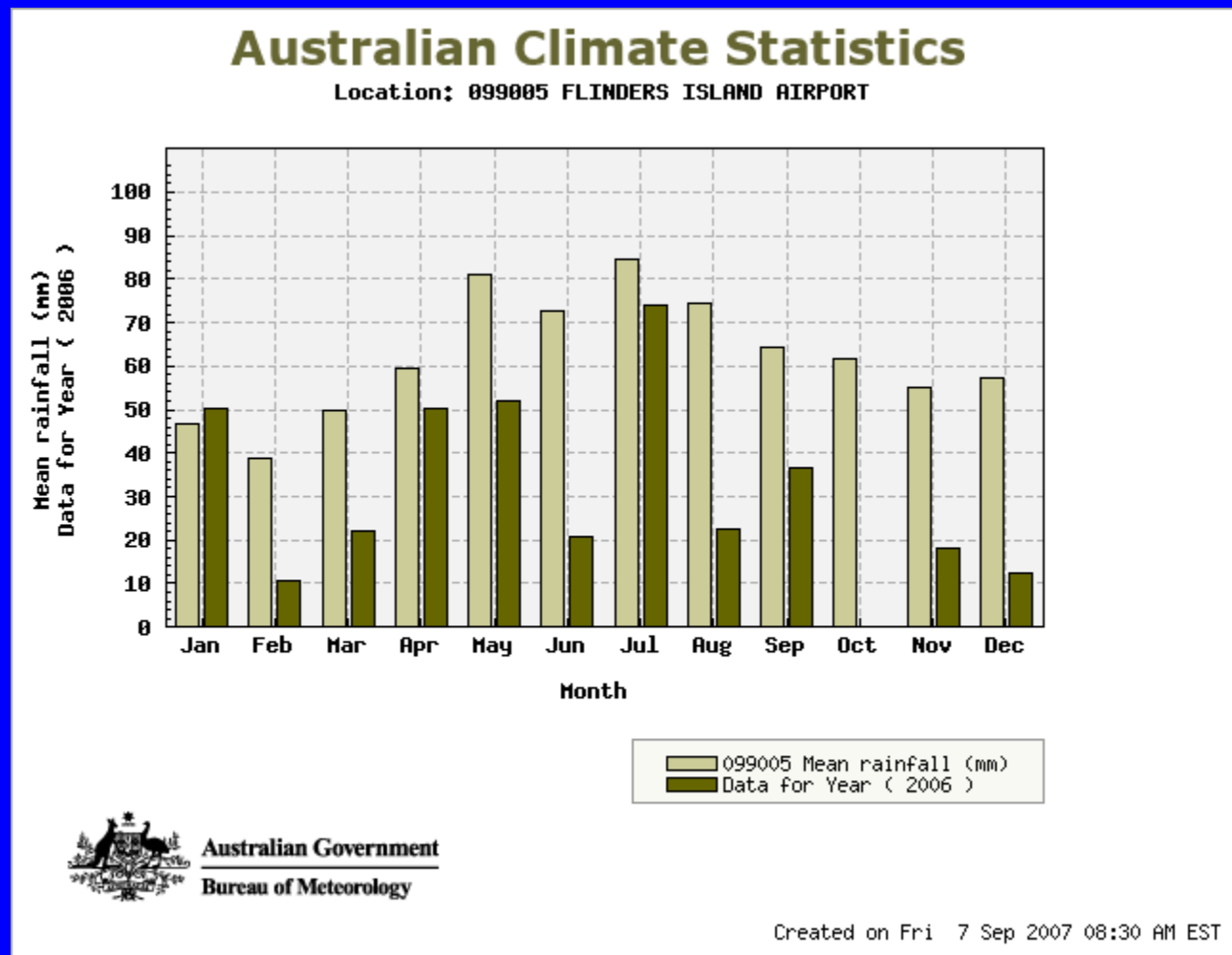
Cressy



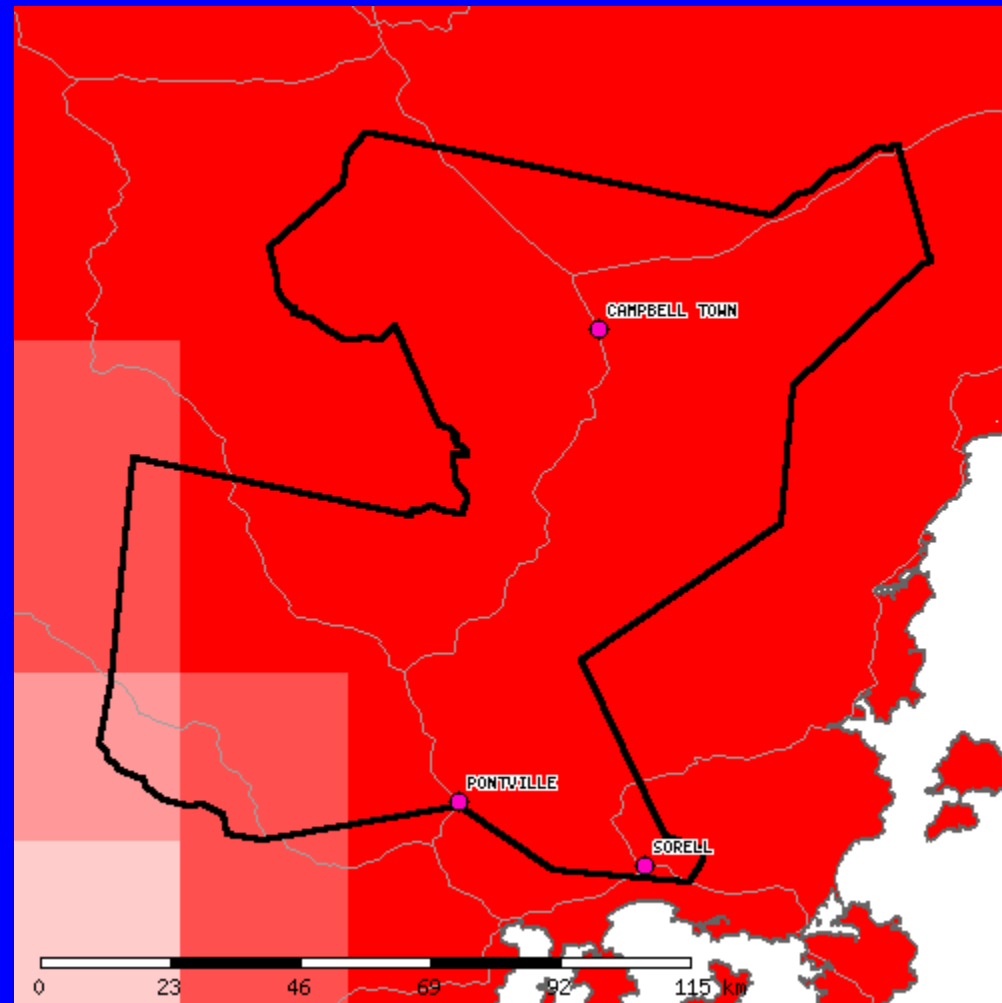
Rainfall 2006 vs 30 year average Oatlands



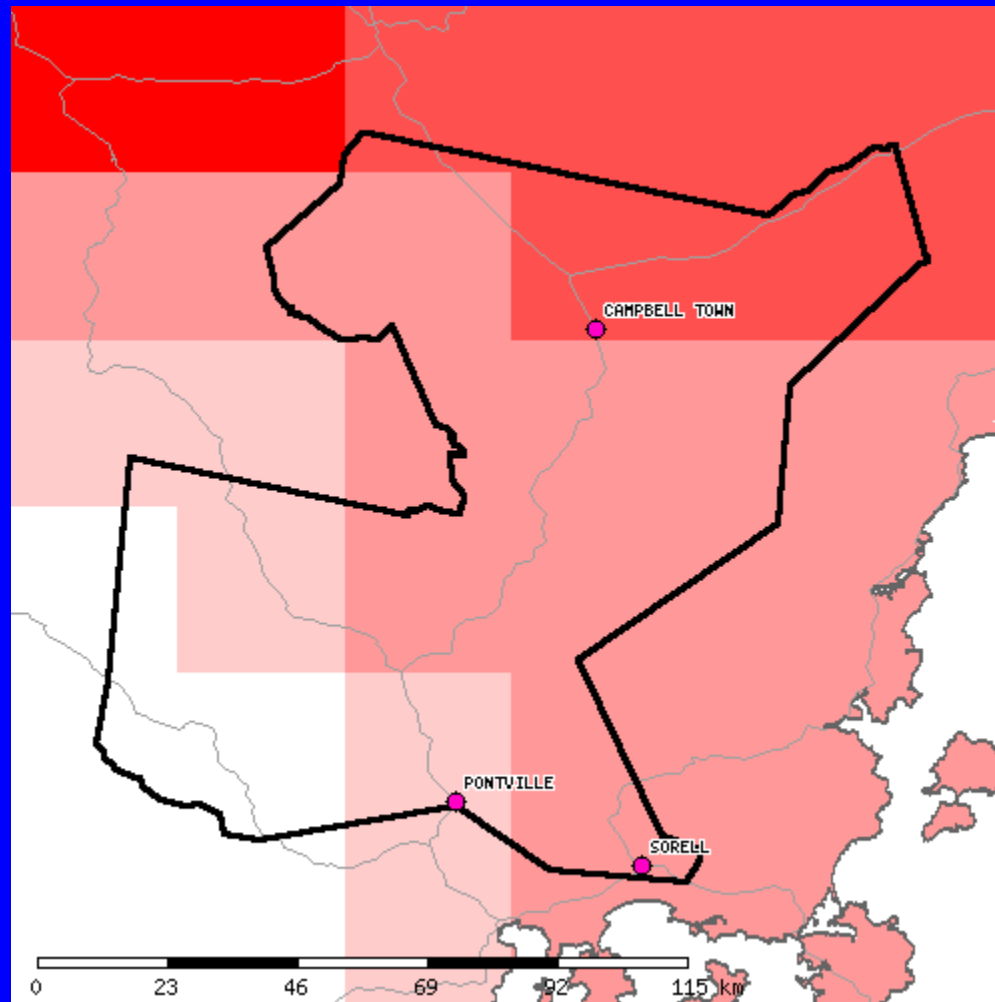
Rainfall 2006 vs 30 Year average Flinders Island



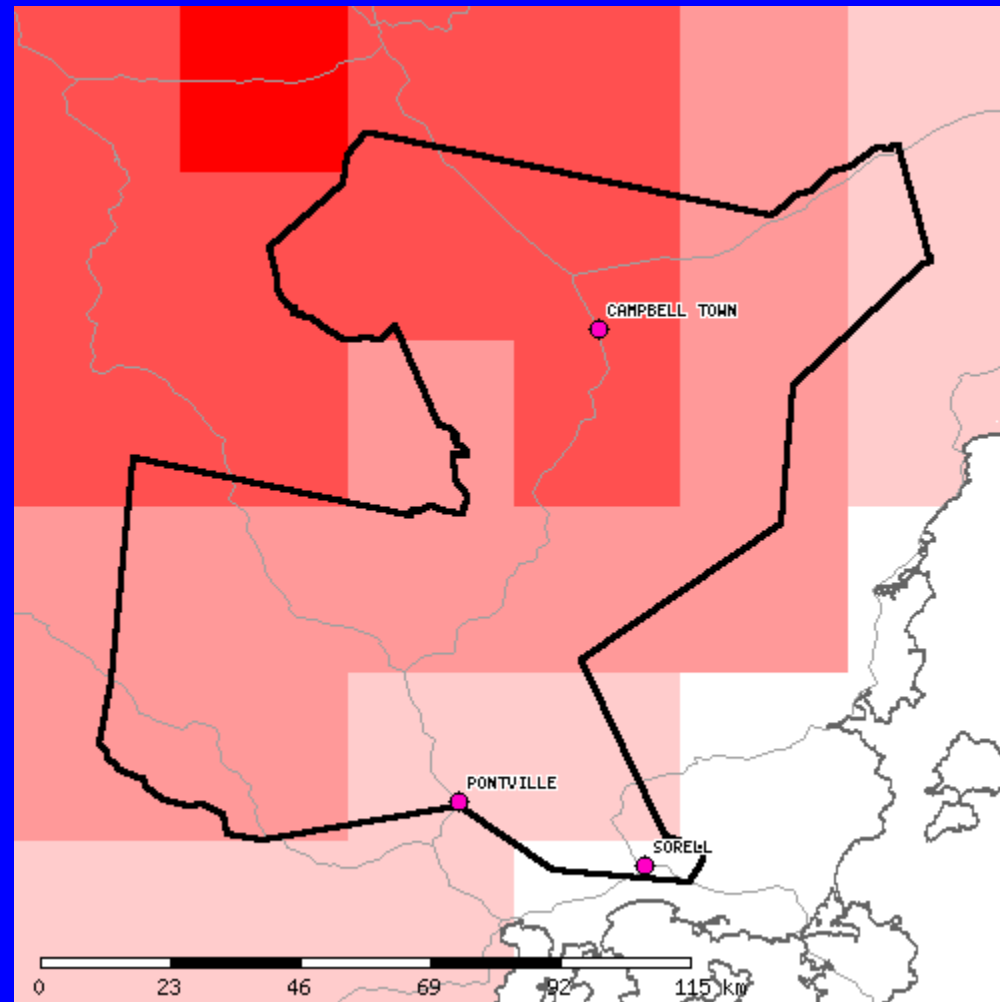
Rainfall - Winter 2006



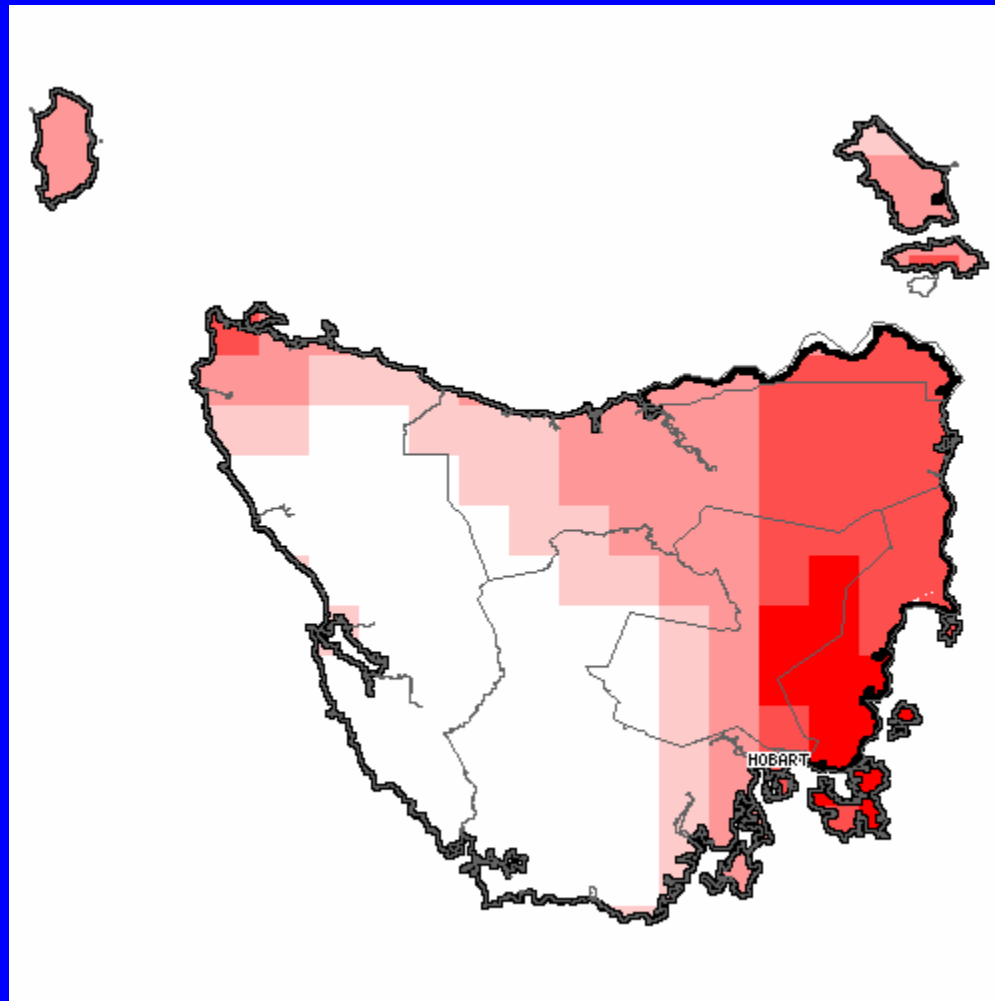
Rainfall - Spring 2006



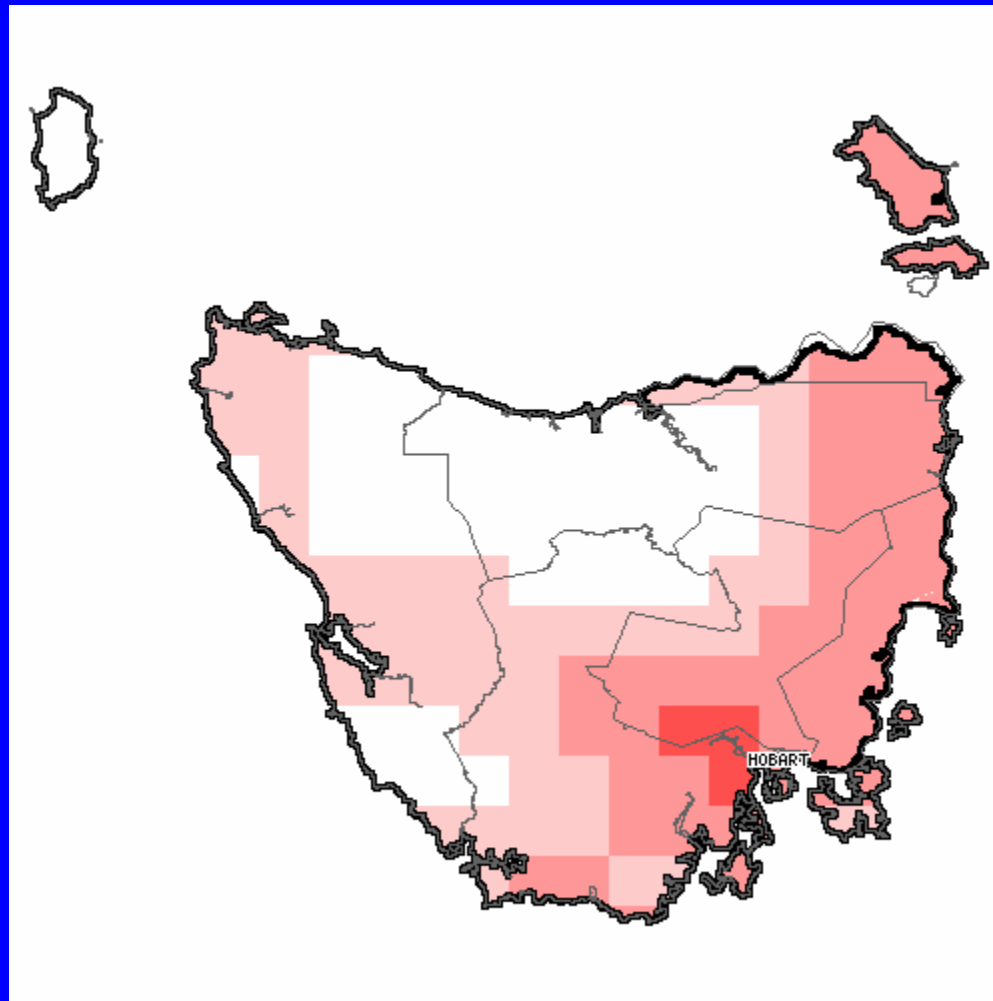
Rainfall - Winter 2007



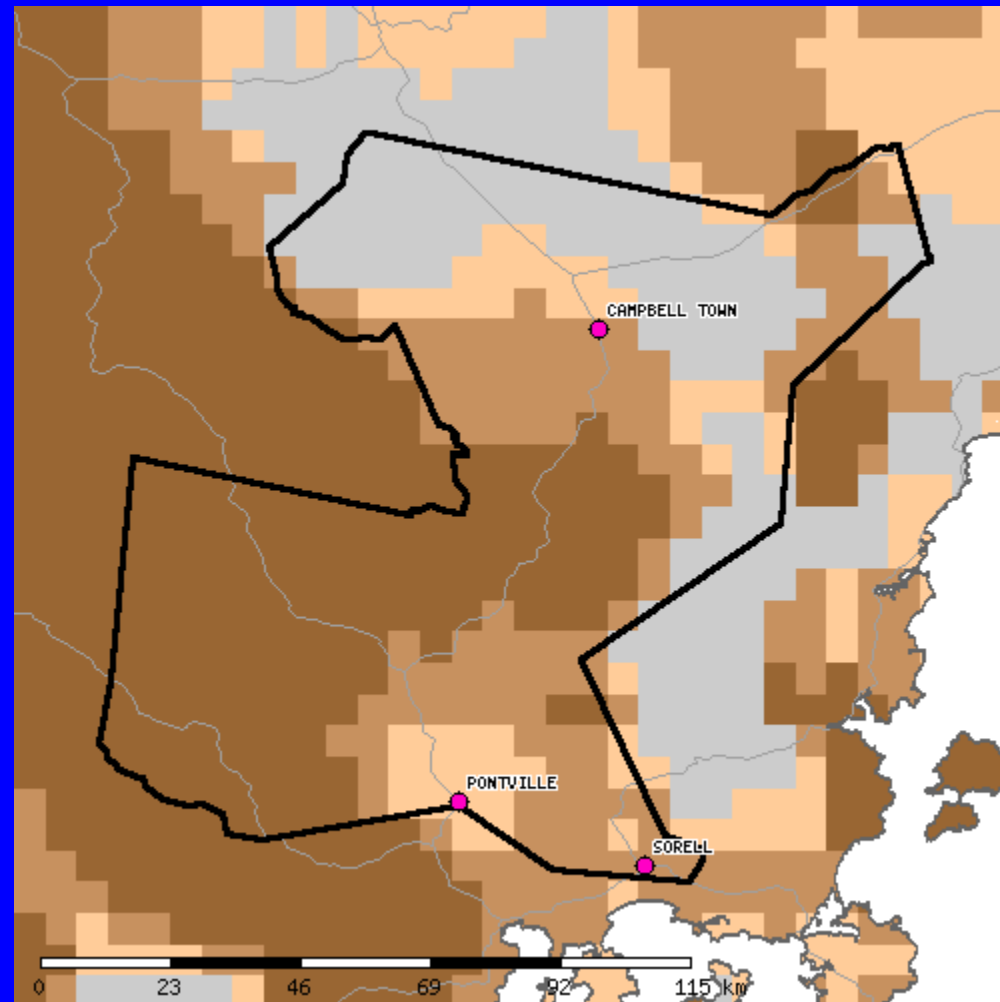
Rainfall - Spring 2007



Rainfall - April 2008



Pasture growth - past 12 months



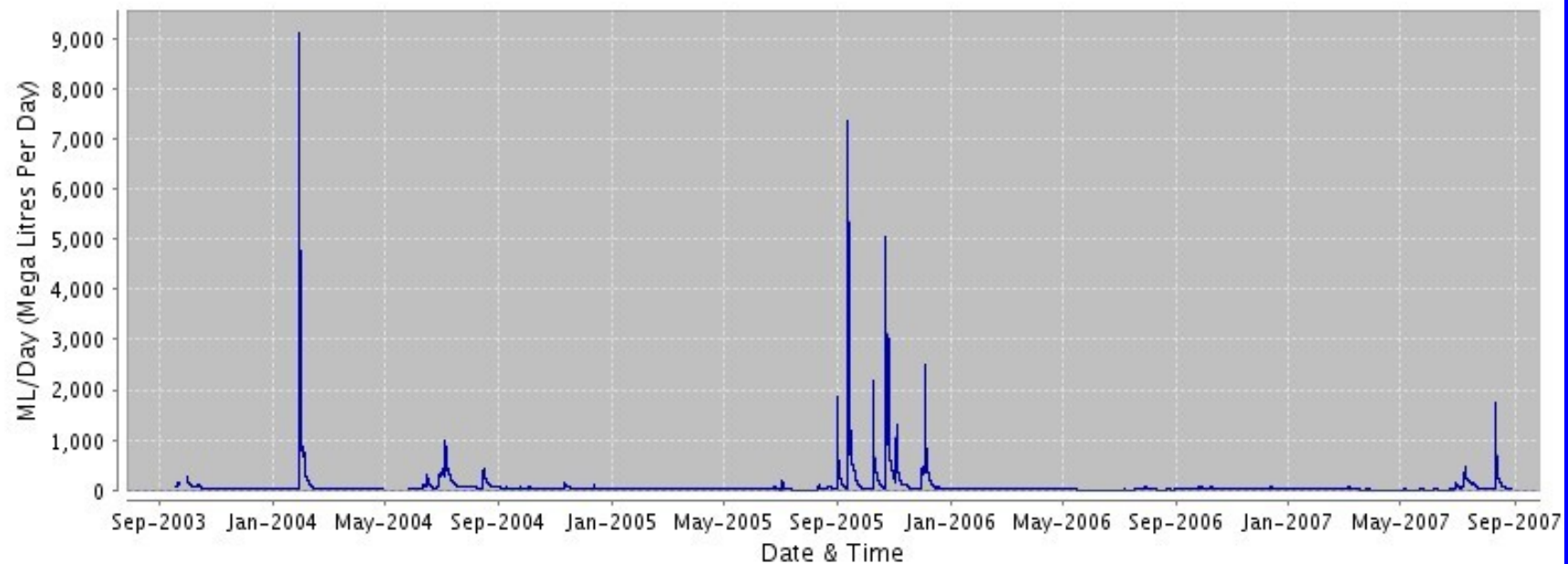
River Flows - Macquarie River

MACQUARIE RIVER AT TREFUSIS Station No 18217

26.08.2003 to 28.08.2007

Flow Rate Measured In: ML/Day (Mega Litres Per Day)

Fifteen Minute Instantaneous Data



— MACQUARIE RIVER AT TREFUSIS Station No 18217

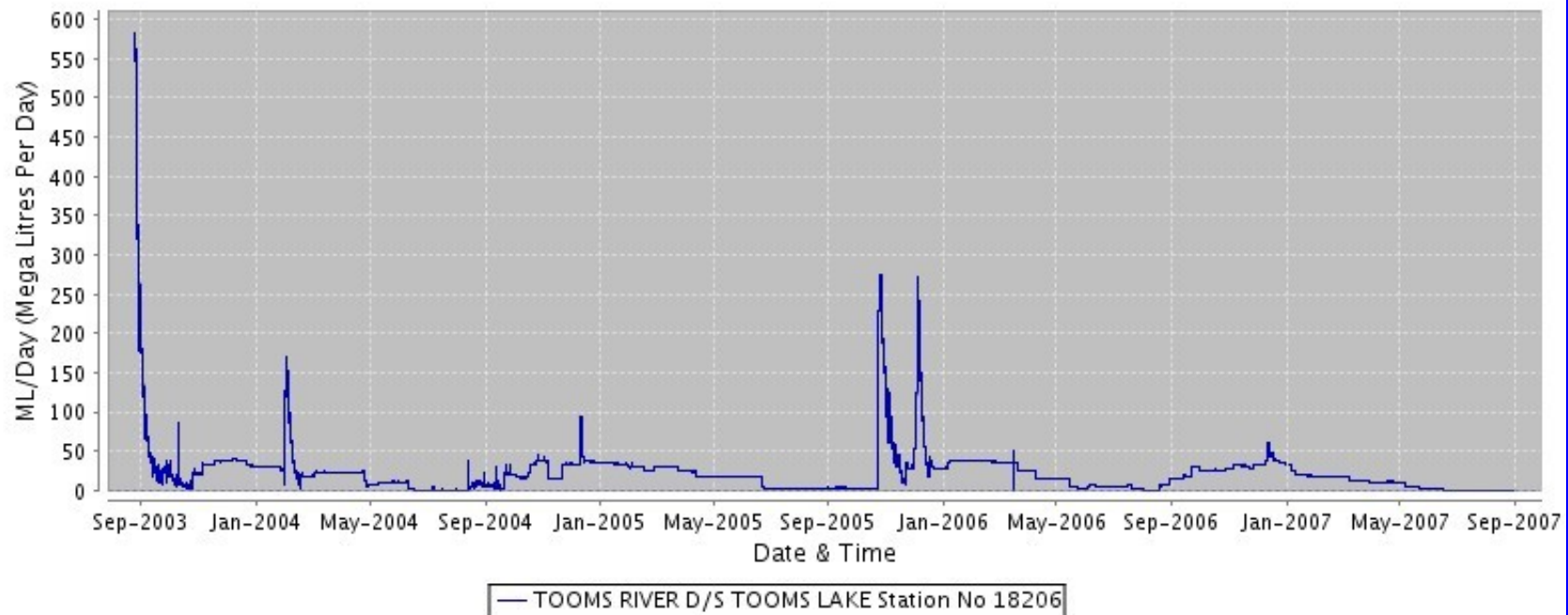
River Flows - Tooms River

TOOMS RIVER D/S TOOMS LAKE Station No 18206

26.08.2003 to 28.08.2007

Flow Rate Measured In: ML/Day (Mega Litres Per Day)

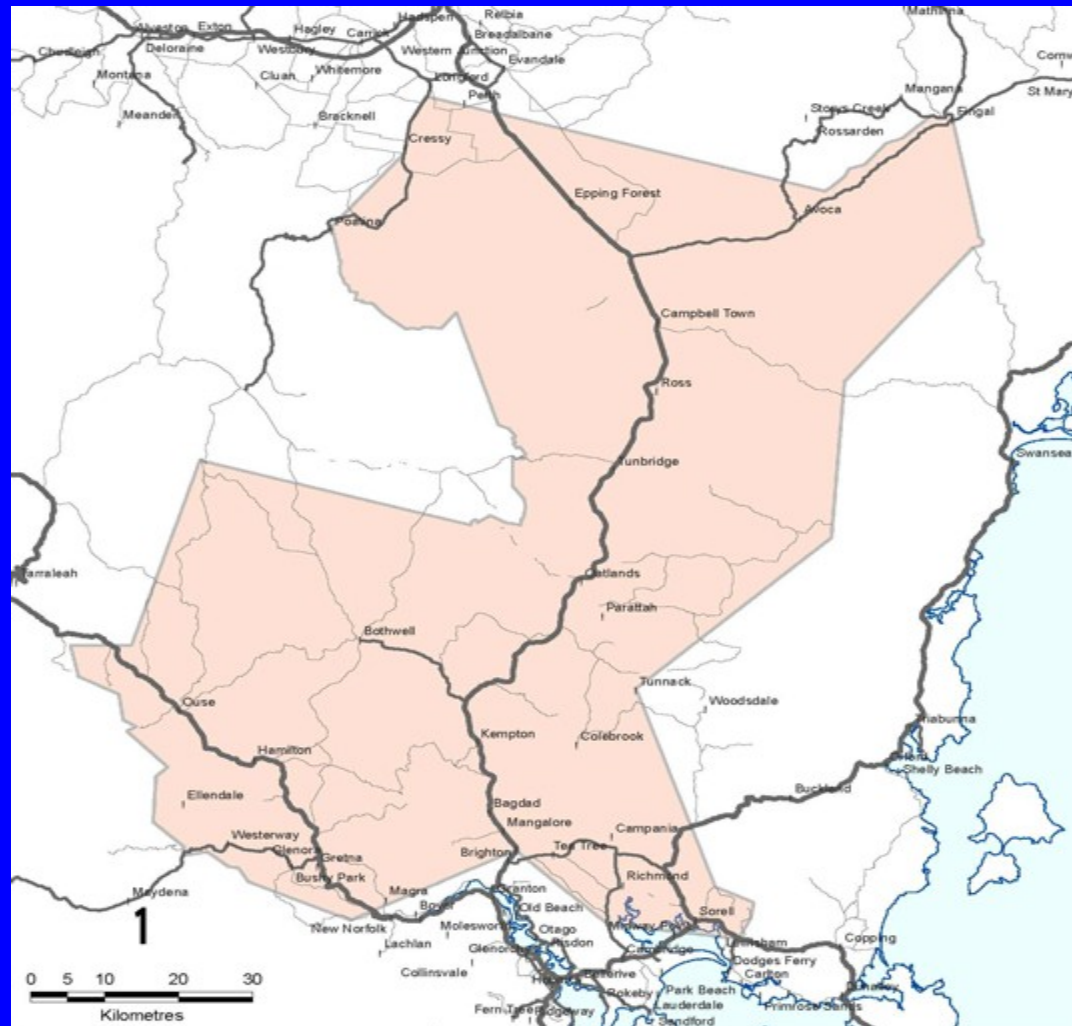
Fifteen Minute Instantaneous Data



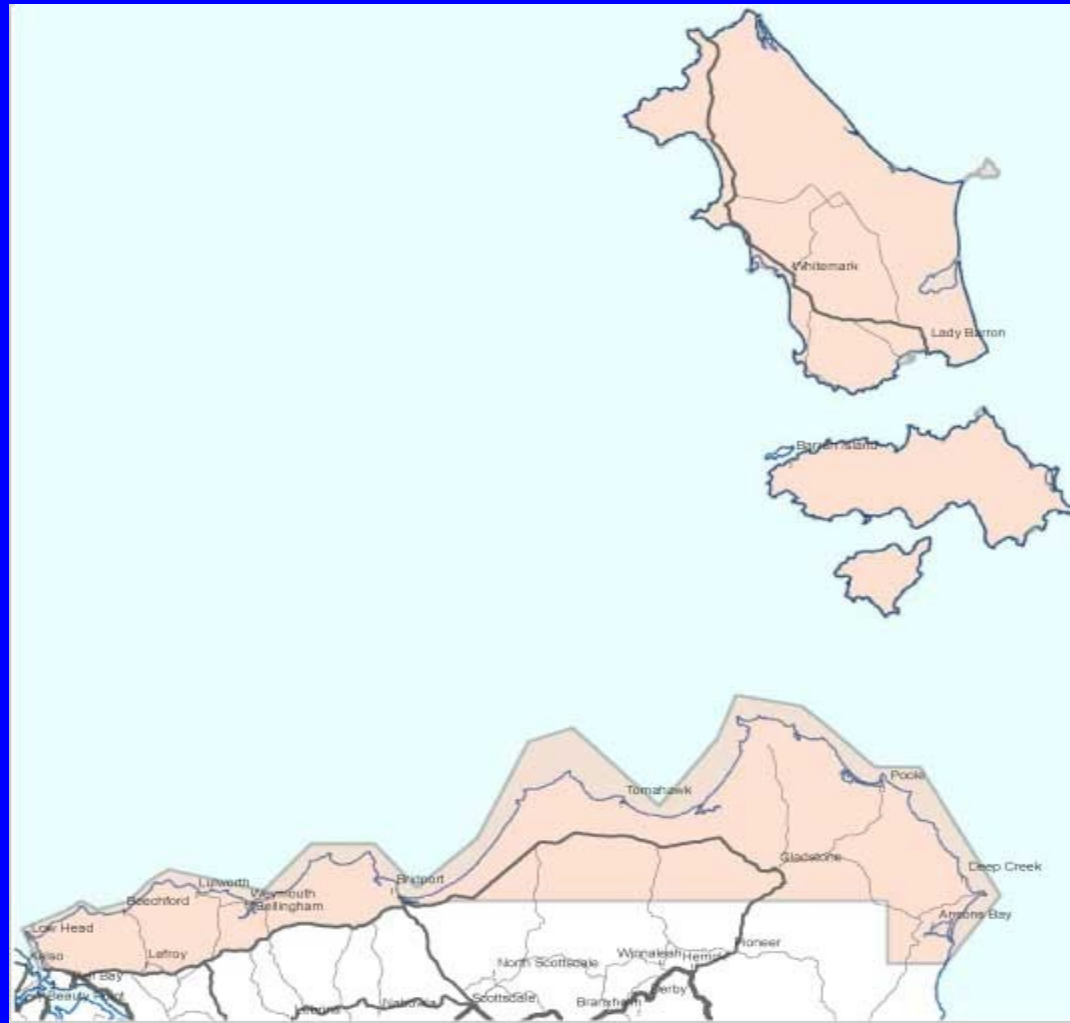
Declaring Drought

- On 29 May 2007, the Tasmanian Government made its first exceptional circumstances application to the Australian Government. A second exceptional circumstances application was made on 1 June 2007
- A prima facie case has been supported and the applications are being assess for full support.

Drought declared areas-Midlands



Drought declared areas-NE



Impact of drought on farmers

- The monetary farm gate consequence is estimated to be at least \$180 million.
- The industries most effected are red meat and wool because they're mainly located in areas without available irrigation. (\$120m)
- The grain and vegetable industries has also been significantly affected.

Dairy, Vegetables and Cereals

- Vegetables (fresh and frozen) Total value of foregone payments to growers: \$ 28.9 million.
- Dairy (fresh and processed) Total value of foregone payments to farmers: \$ 7.75 million.
- Seeds and cereals and pyrethrum total value of foregone payments to farmers: \$ 15 million.

Impact of drought on farmers

- Costs of loss production.
- Increase costs of feed, and labour to feed.
- Decreasing availability and quality of feed.
- No water.
- Poor market prices due to de-stocking.
- Reduction of equity, increase in debt.
- Stress on families.

Feeding out sheep



Parched earth



Landscape impacts



Future management of North facing slopes



Energy needs in drought

- Farmers main requirement for electricity is to run irrigators, so if they have access to water their power needs increase.
- Where water is available pumps run for longer and at heavier loads.
- Farmers other major energy requirement is diesel for running plant and equipment.

Drought recovery and energy

- As the drought breaks and water is available there will be increases in irrigation, increasing demand for electricity.
- The water needs of farmers and the Hydro need to be balanced.

Agriculture processing sector

- Medium to large scale businesses like Lactos, Cadbury, Fonterra, McCain, Simplot, Tasman Meats all have energy needs that extend to electricity, gas, coal, oil or co-generation.
- All of these plants need large amounts of heat to process the products they are dealing with.

Future opportunities

- Biofuel - The production of biofuel provide both opportunities and challenges for agriculture.
- Biochar (agrichar) - The production of an activated charcoal from waste via pyrolysis.
- Co-generation based on waste produce.