

Burnett River Floodplain Action Plan

DISCOVER OUR SPIRIT

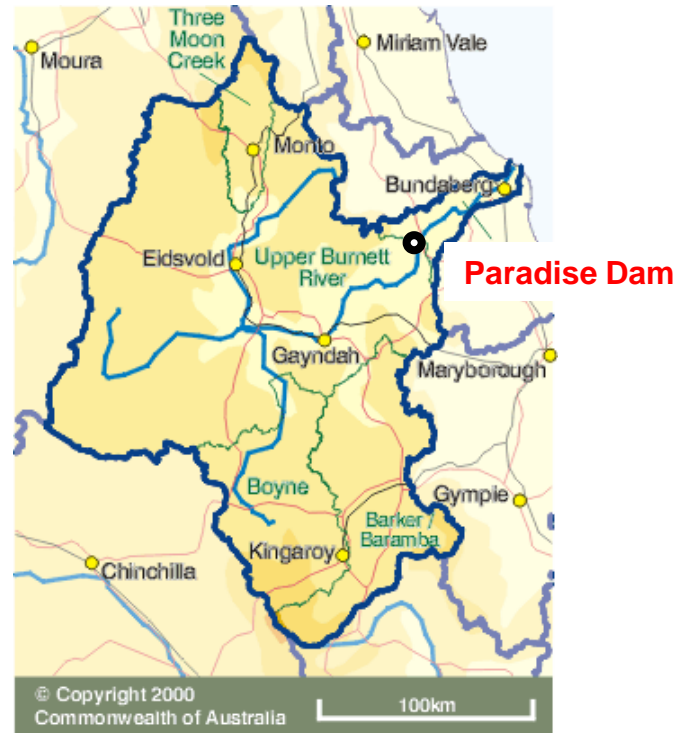


Overview

- Burnett River Flood Events
- Flood Surveying
- GHD - Flood Study & Mapping
- ***Floodplain Action Plan***
- Determination of Top 5 Resilience Measures
- Key Deliverables

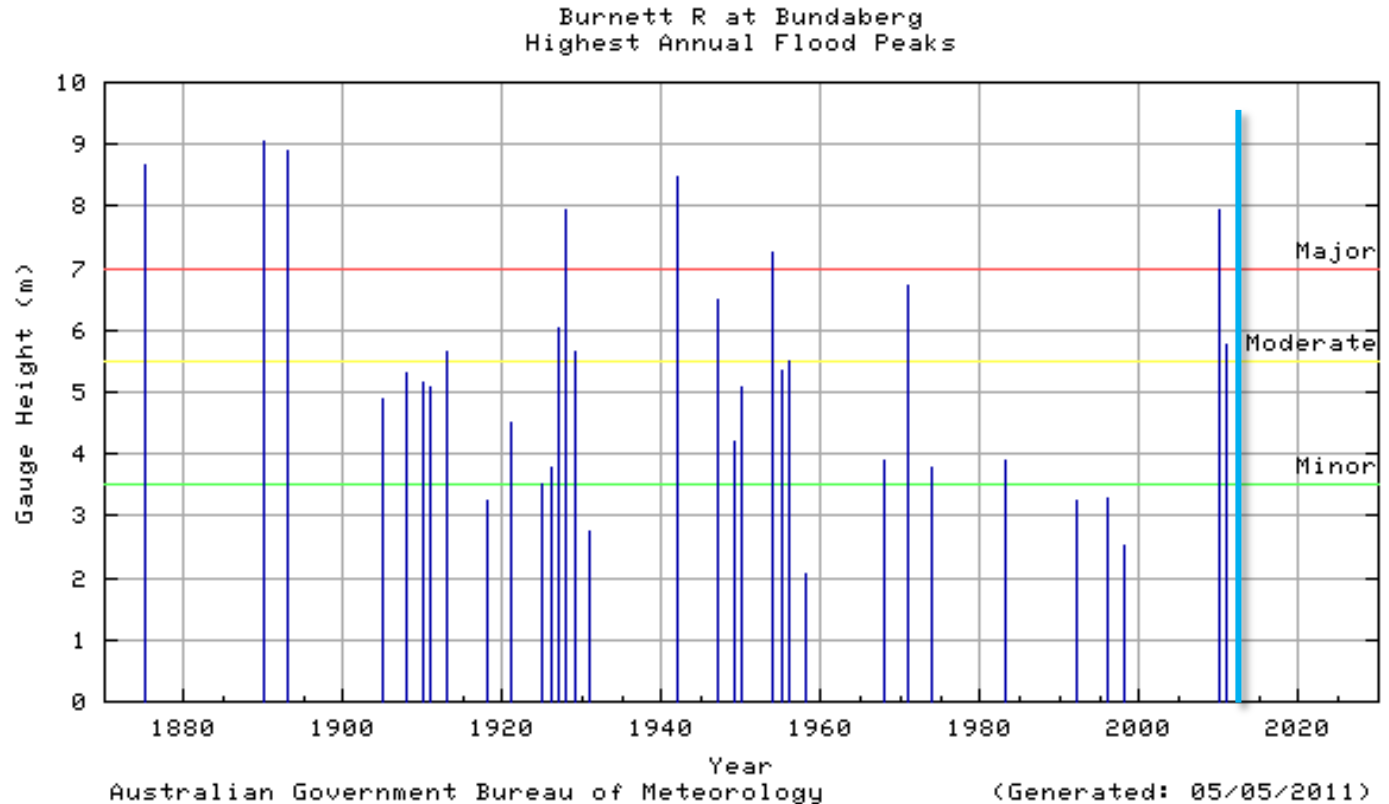
River Systems

- Significant number of sub basin outlets
 - **Burnett River**
 - Kolan River
 - Elliot River
 - Isis River
 - Gregory River
 - Burrum River
 - Baffle Creek



Historical Flood Events

- 1875
- 1890
- 1893
- 1942
- 2010
- 2013



2010

OUR CITY SPIRIT



Burnett River

- Weeks of widespread rain on the Burnett catchment (33,248 km²)
- December 29 2010, peaked at 7.92 m, largest since 1942
- Region was disaster declared, emergency crews activated
- 13th Jan 2011 flooding returned, 5.76m

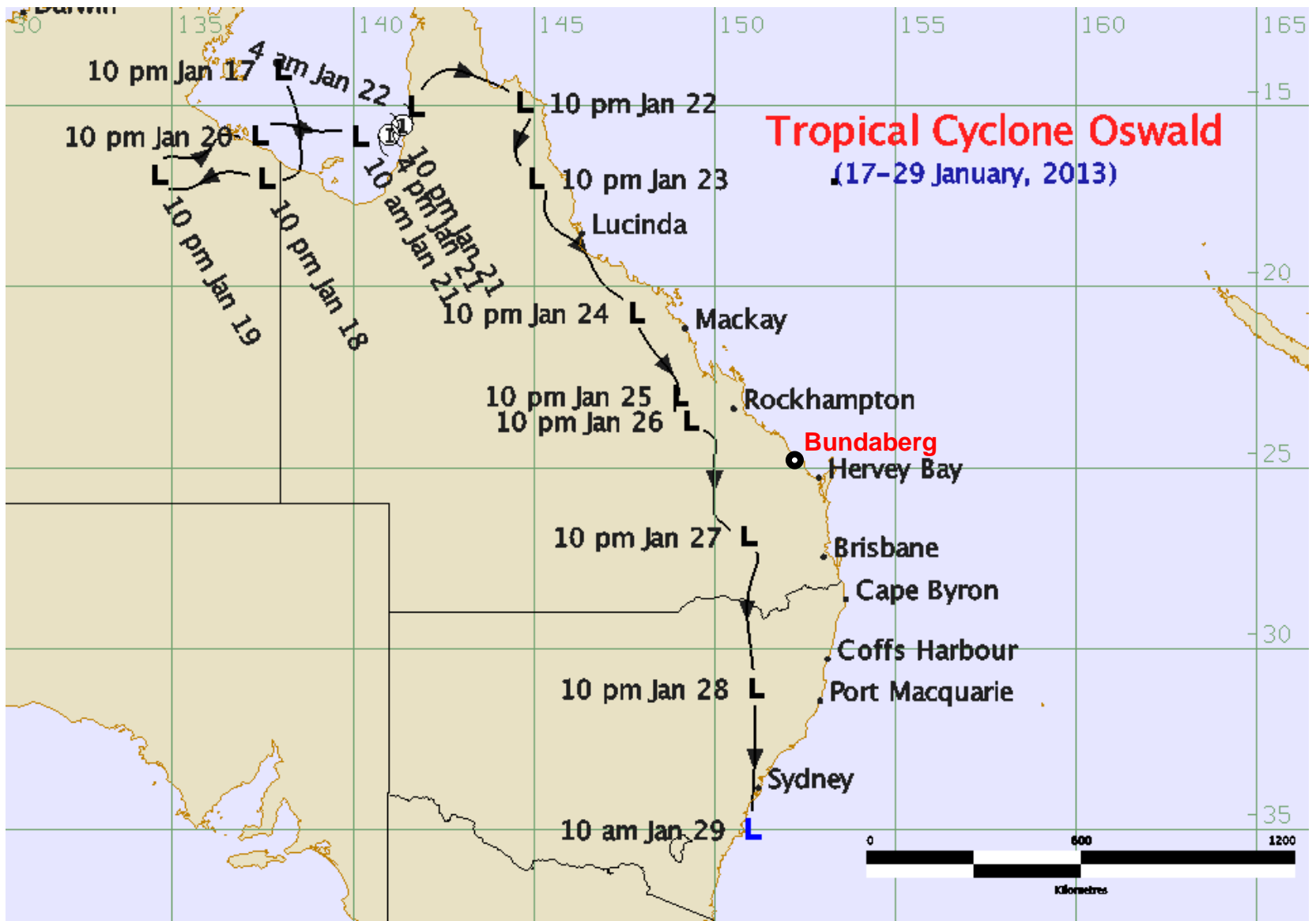


Australia Day

2013

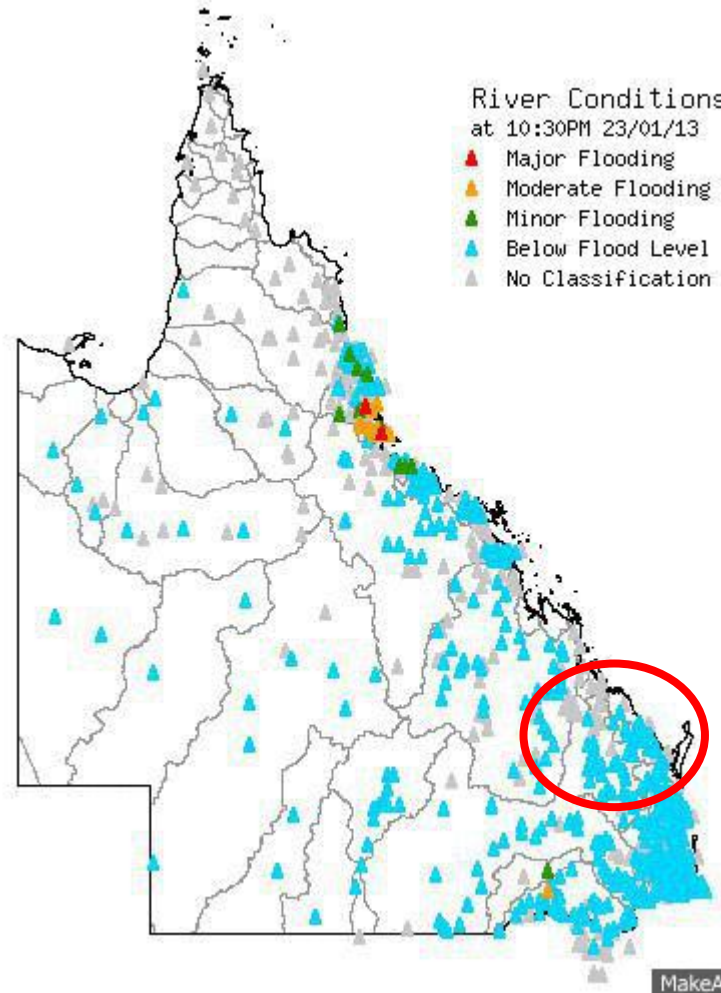
OUR COASTAL SPIRIT





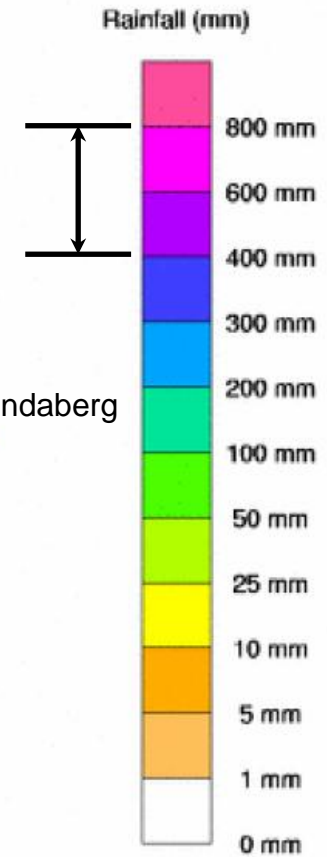
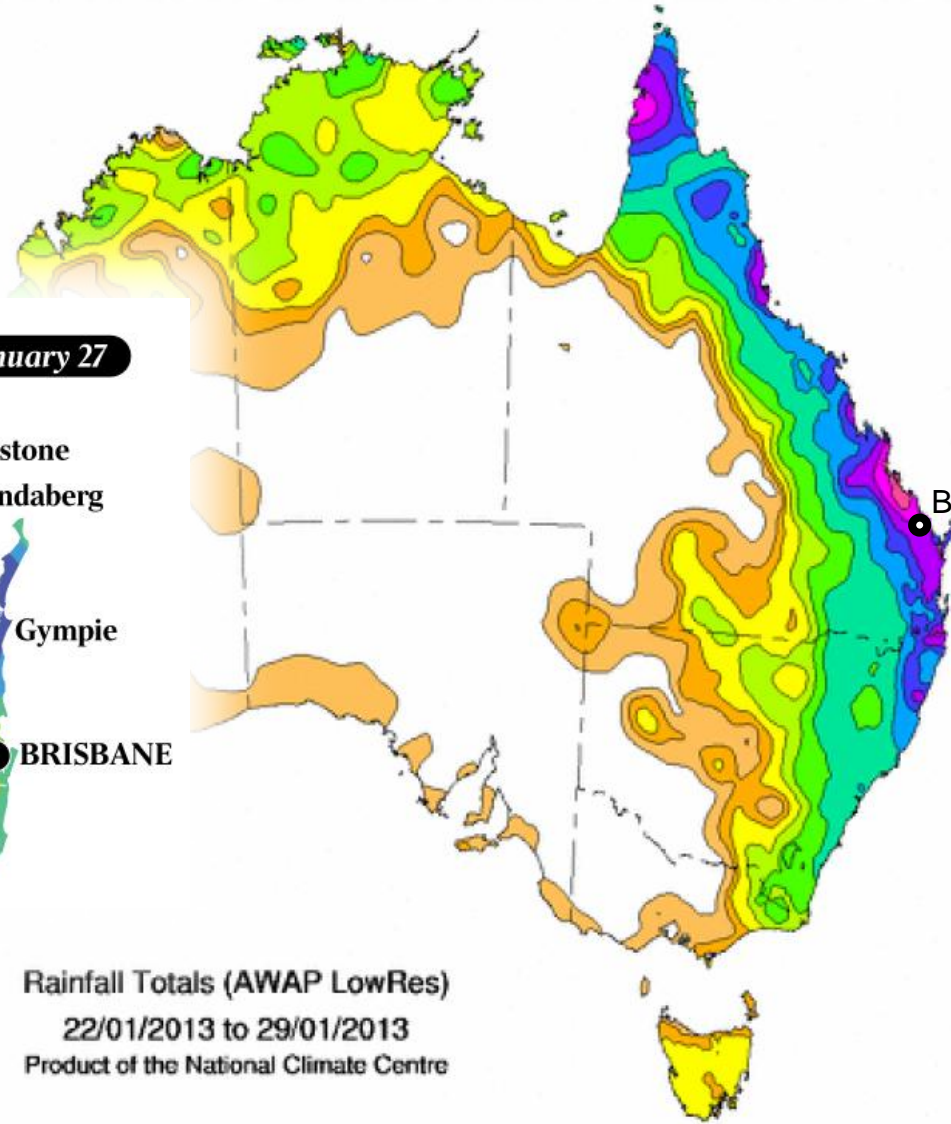
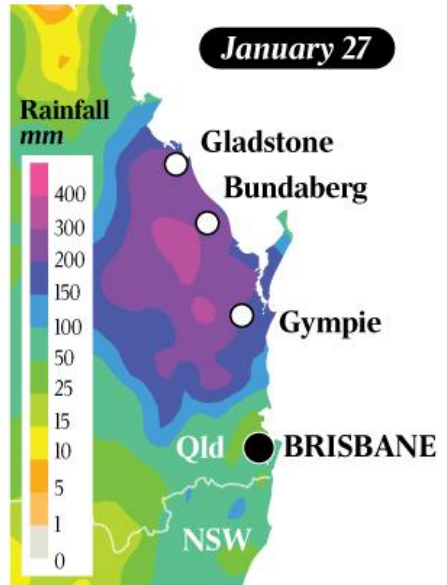
Ex-TC Oswald River Conditions

23 January – 2 February 2013





Australian Government
Bureau of Meteorology



Rainfall Totals (AWAP LowRes)
22/01/2013 to 29/01/2013
Product of the National Climate Centre

<http://www.bom.gov.au>

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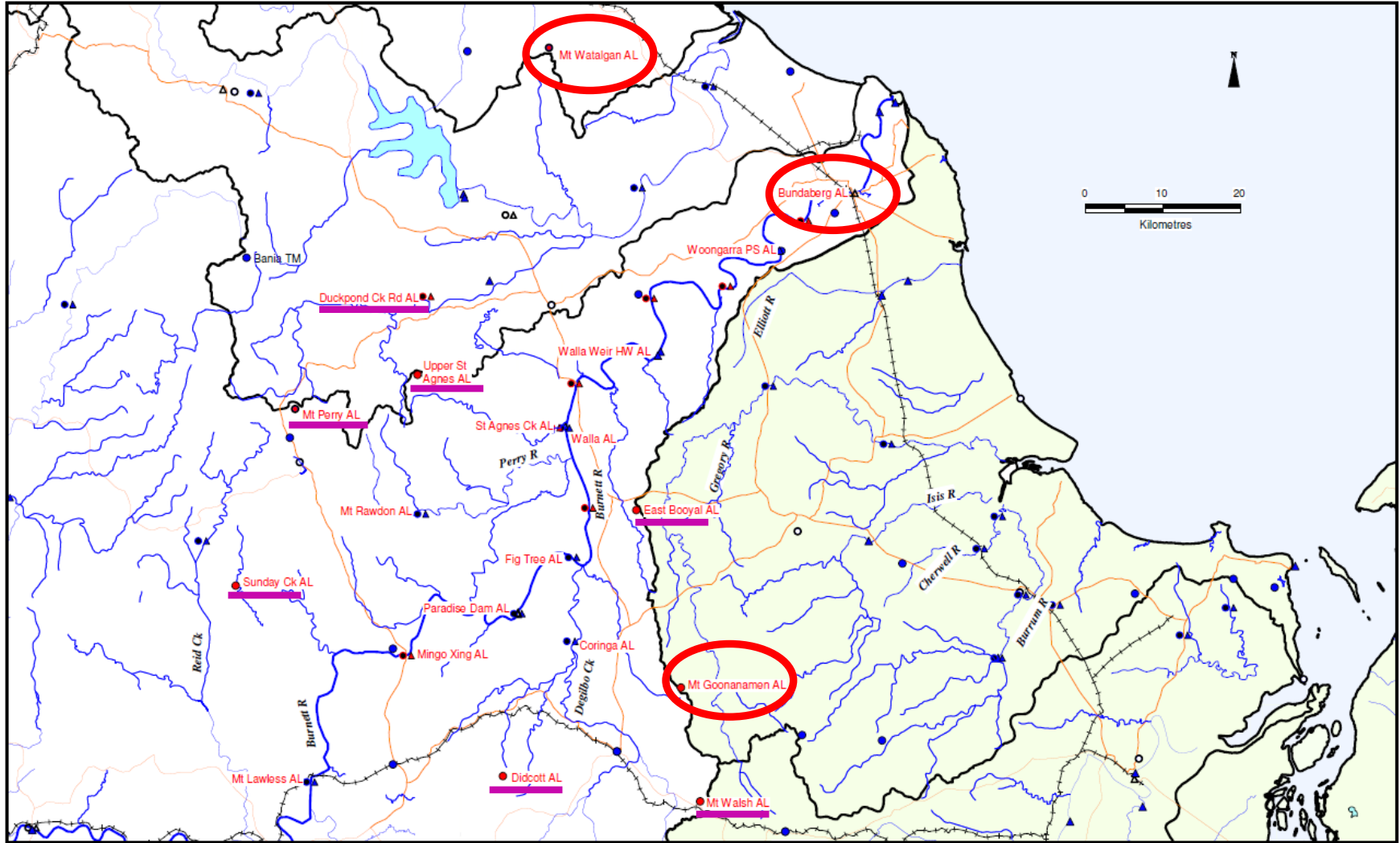
Extreme Flooding



- Upper Burnett River - flood peaks exceeded previous records by several metres;
- Largest margin - **5.86m** at Eidsvold
- Bundaberg margin **0.5m**
- **275km²** inundation footprint downstream of Paradise Dam

New Meteorological Records

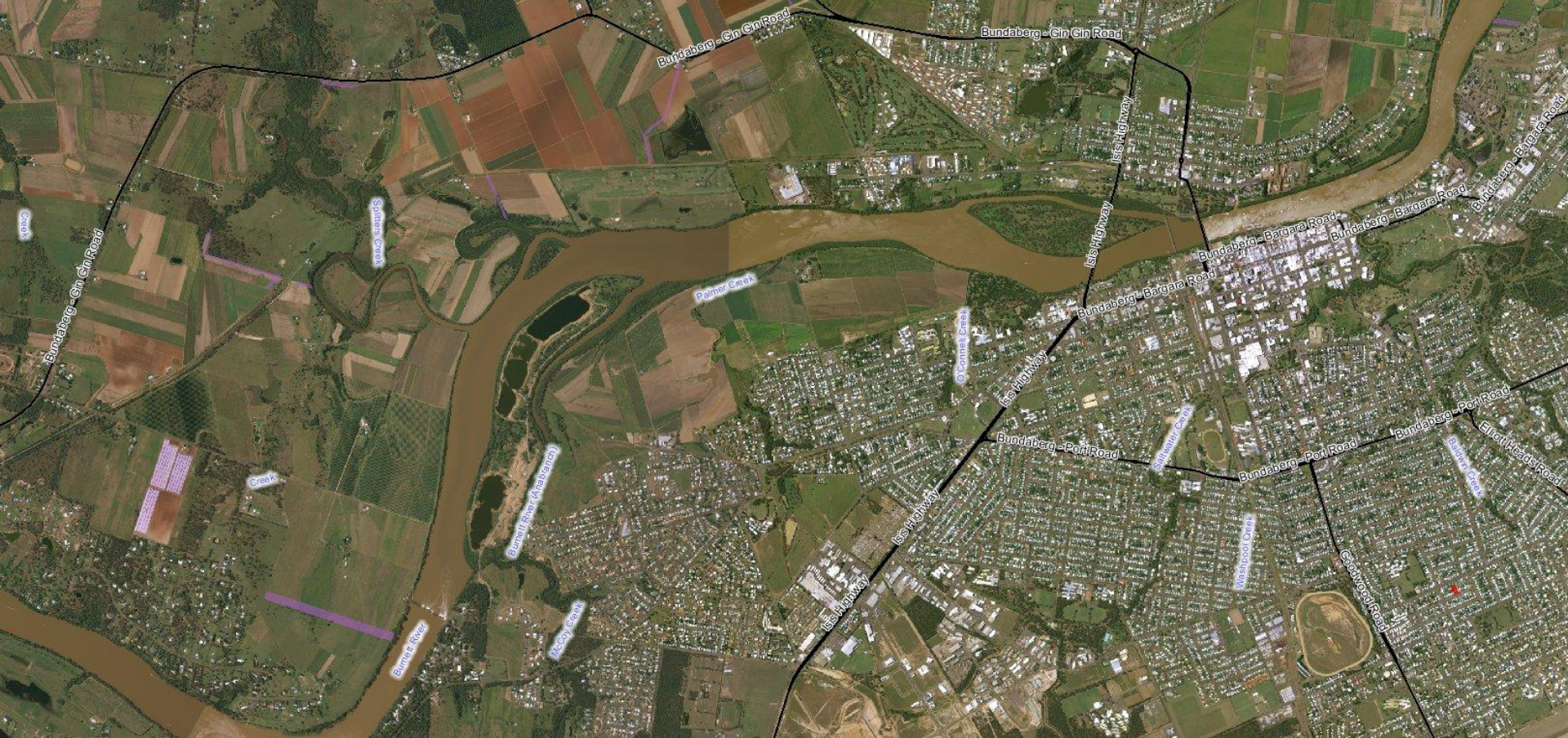
- Burnett Catchment Rainfall - **Average** of **206.8** millimetres for 27 January **exceeded** the **previous record** (123.6 millimetres) by nearly **70 per cent!!**
- Rainfall Totals - Highest records set for 1-, 2-, 3- and 4-day timescales by **large** margins
- Extreme daily rainfall across the catchment
 - Walla TM - **480mm**
 - Mt Rawdon – **549mm**
 - Bundaberg AP – **252mm**



- Manual Heavy Rainfall Station
- Daily Reporting Rainfall Station
- △ Manual River Station
- Telemetry Rainfall Station
- ▲ Telemetry River Station

LOWER BURNETT RIVER PROPOSED ALERT FLOOD WARNING NETWORK

- Major Roads
 - + + + + Railway
- Revised: June 2013*



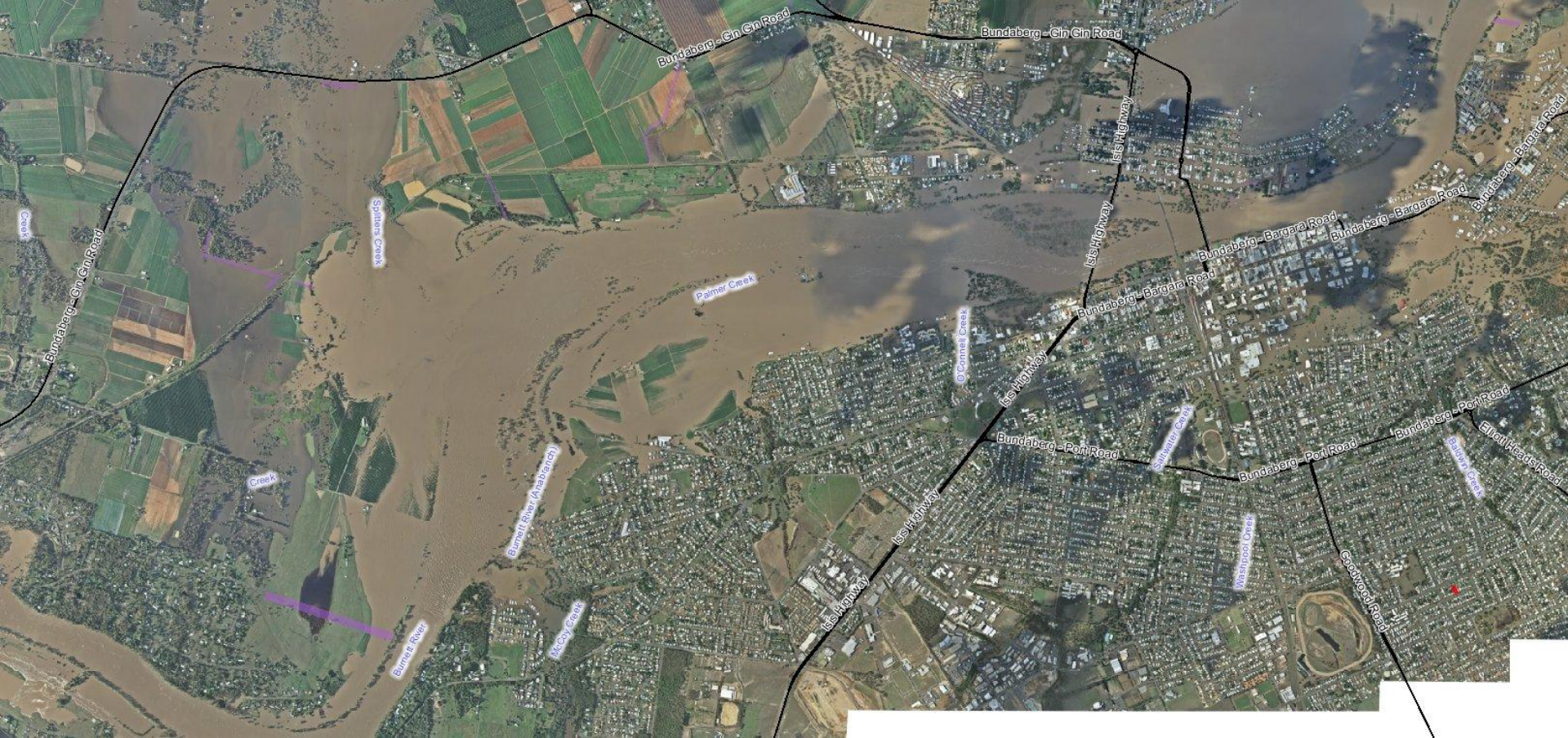
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Twitter:
Commander Chris Hadfield
International Space Station



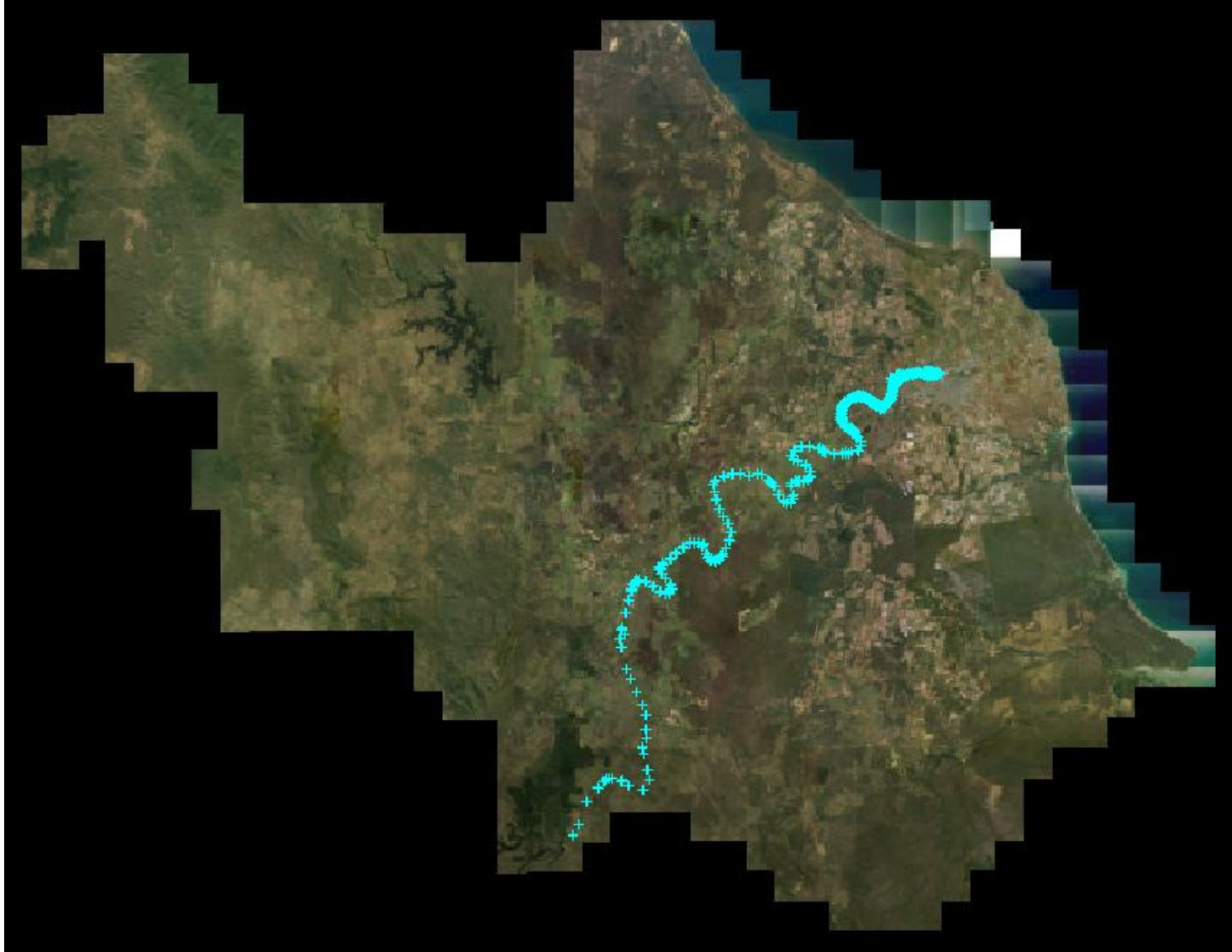
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Flood Surveying

- *Can't Manage what you don't Measure*
- Opportunity to capture data:
 - **Flood Model Calibration**
 - Event Prediction
 - Disaster Management
 - Planning Scheme Controls

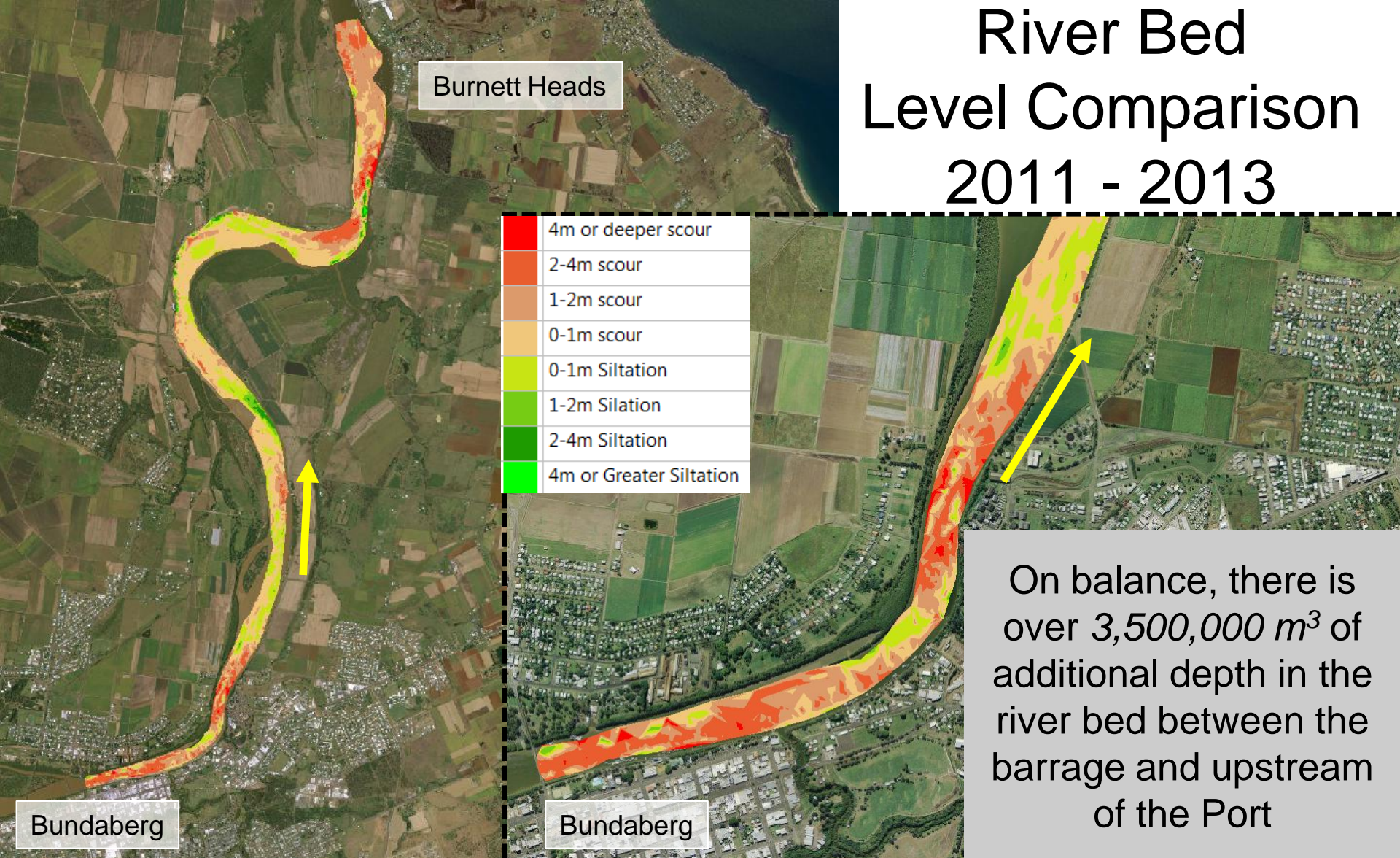




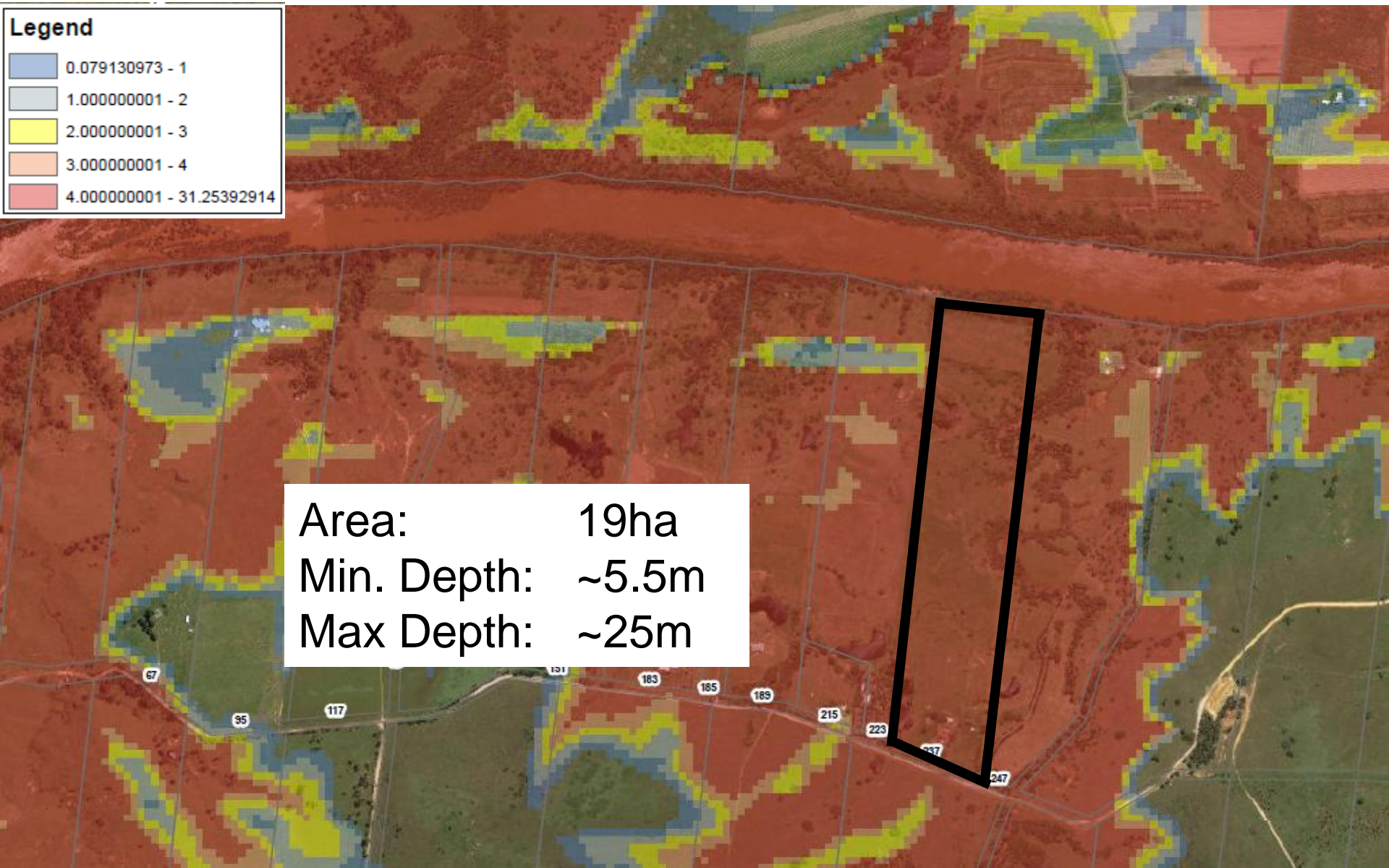
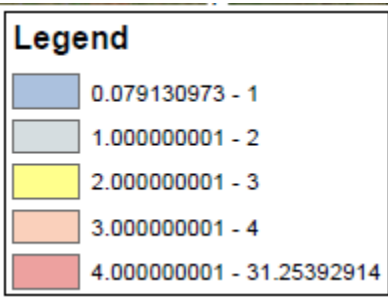
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River Bed Level Comparison 2011 - 2013



Significant Flood Depths



The map displays a landscape with various flood depth zones. A large area in the center-right is highlighted with a black rectangular border. The flood depth zones are color-coded according to the legend, with the highlighted area primarily in the red and light orange categories. The map also shows several roads with route numbers: 67, 95, 117, 131, 183, 185, 189, 215, 223, 237, and 247.

Area: 19ha
Min. Depth: ~5.5m
Max Depth: ~25m

GHD – Flood Study

- GHD Pty Ltd – Local Office in Bundaberg
- Team includes flood engineers, civil engineers, geotechnical engineers, geomorphologists, scientists & planners.
- Ben Regan (BE, MAppFin, MBA), Senior Engineer GHD Pty Ltd
- 14 years experience in floodplain management of large river systems like the Burnett River (e.g. Brisbane River, Murray River);