Help: SWIM Data Retrieval

This 'portal' enables users to easily search for required data held in the SWIM database using a range of filters.

It is a filtering system so starts with all data by default and you filter to receive only the data you want. So for example, if you want all Water Reporting Entities (WREs) in the Tropical climate zone then select that filter and you will receive all the data for the relevant WREs. If you also only want data for 2009-10 then select that filter and you will then receive only 2009-10 data for the relevant tropical WREs, and so on.

If a filter is not selected it will not be used and you will receive all the data for those criteria. For example, if you don't select a climate zone filter you will receive data for all climate zones.

How to use the SWIM Data Retrieval system

1. Starting at the top of the page work through the list of filters.
2. Select the filters you wish to use via the tick boxes. For example, if you want only coastal WREs and 2010-11 data then first select the "coastal" (under the Water Reporting Entity Criteria section) and then select "2010-11" (under the Date/Reporting year section).
3. Once all filters you wish to use have been selected click on the "Retrieve data" button at the bottom of the page.
4. The retrieved data appears in columns which can be sorted dynamically by clicking on the column title.
5. If unhappy with the search click on the "New search" button to return to the search page
6. If happy with the search click a "Download" button to download the selected data in either xls or csv formats.
7. Searches can be saved from this page by clicking the "Save search" button.
8. Saved searches can be reloaded (by selecting the appropriate saved search from the drop down menu) or modified by clicking on "Manage searches".

A key aspects of the system is that it determines if any WREs are available with the selected filters and returns a "No WREs match your criteria, please change your criteria" message in the WRE section if none are available. Similarly, the system then determines what indicators are available (i.e. those that have data available) using the selected criteria. **This is why it is important to work from the top of the page to the bottom.**

Please be patient as it can take a little time for the database to check for available WRE and indicators.

Filters used:

1. Water Reporting Entity Criteria (*allows the retrieval of data for a WRE 'regional' grouping*):
    a. Coastal/non-coastal
    b. Climate zone
    c. Rainfall zone
    d. Number of water connections
    e. Soil reactivity

    f. Population size
    g. Local government area
    h. DERM regional office
    i. Water resources plan
    j. NRM regional body region
    k. Regional water supply strategy region
2. Date (*allows the retrieval of data for a reporting year*):
    a. Reporting Year
3. Water Reporting Entities (*allows the retrieval of data for a WRE*):
    a. WREs
4. Data Class and Scheme (*allows the retrieval of data based on data class or scheme criteria*):
    a. Data class
    b. Scheme type
    c. Scheme status
5. Date Range (*allows the retrieval of data that has been entered or changed/modified within a certain date range*)
6. Indicators (*allows the retrieval of data for an indicator or indicator grouping*):
    a. Indicator data confidence level
    b. Indicators

These filters are explained in more detail below.

Coastal

Definition: those WREs that adjoin the coast are defined as coastal those that don't are non-coastal.

Users can select: any of the following options:

- Coastal
- non-coastal

Climatic zone

Definition: Queensland's climate is highly variable with low rainfall and hot summers in the inland west, tropical north and temperate south-east as examples. With this in mind Queensland can be divided up on the basis of climatic zones with similar temperature and rainfall patterns using the Köppen Classification (Fig. 1).

Users can select: any of the climatic zones from the following options:

- Desert
- Equatorial
- Grassland Hot (persistently dry)
- Grassland Hot (winter droughts)
- Subtropical Dry
- Subtropical Wet
- Temperate

- Tropical Rainforest
- Tropical savana

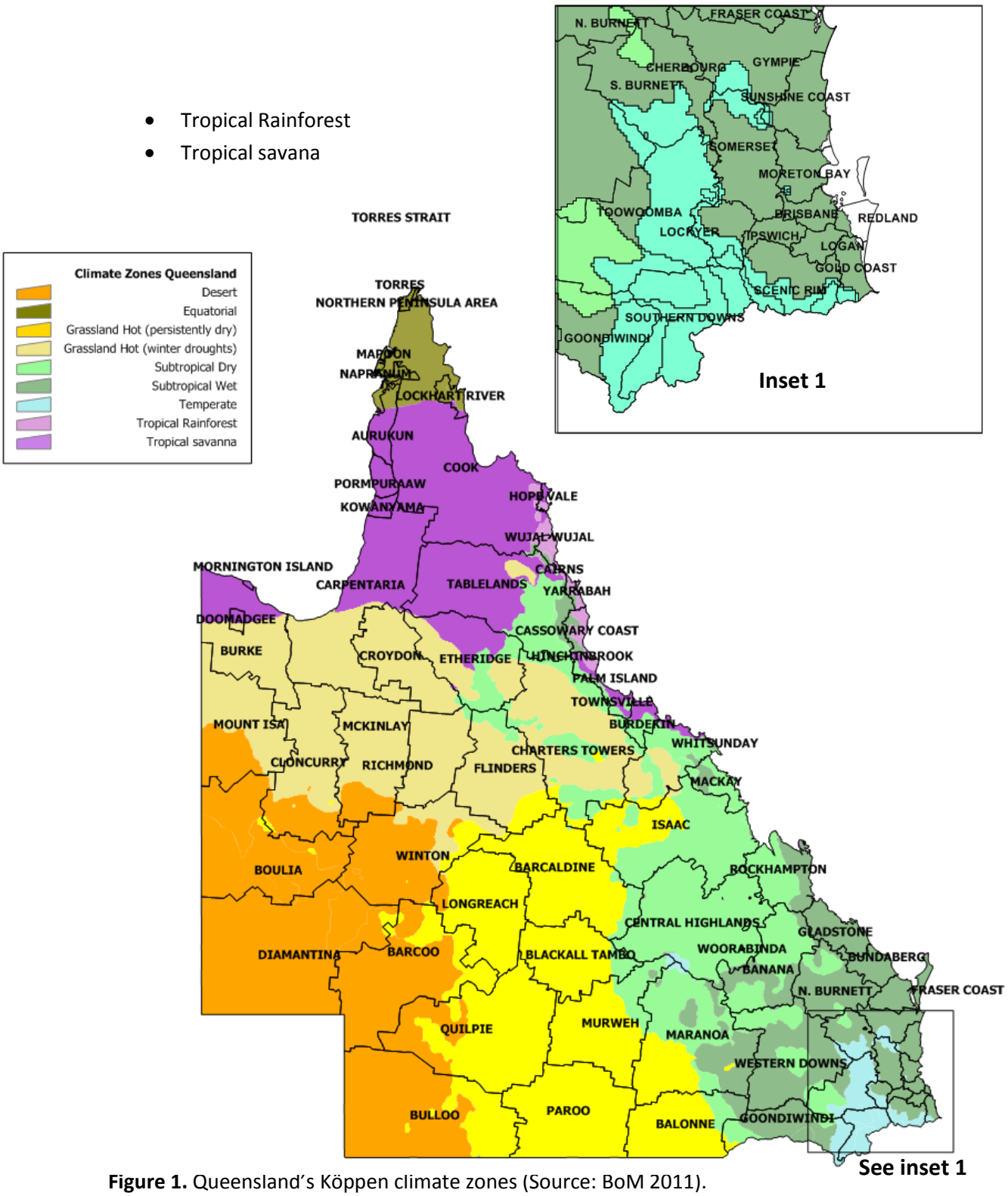


Figure 1. Queensland's Köppen climate zones (Source: BoM 2011).

Rainfall zone

Definition: Queensland's rainfall is highly variable, with this in mind Queensland can be divided up into rainfall zones with similar rainfall patterns (Fig. 2). These zones are based on the Bureau of Meteorology's rainfall classification.

Users can select: any of the rainfall zones from the following options:

- Arid (less than 350 mm average annual rainfall)

- Summer (350-650 mm average annual rainfall)
- Summer (650-1200 mm average annual rainfall)
- Summer (more than 1200 mm average annual rainfall)
- Summer dominant (350-650 mm average annual rainfall)
- Summer dominant (650-1200 mm average annual rainfall)
- Summer dominant (more than 1200 mm average annual rainfall)

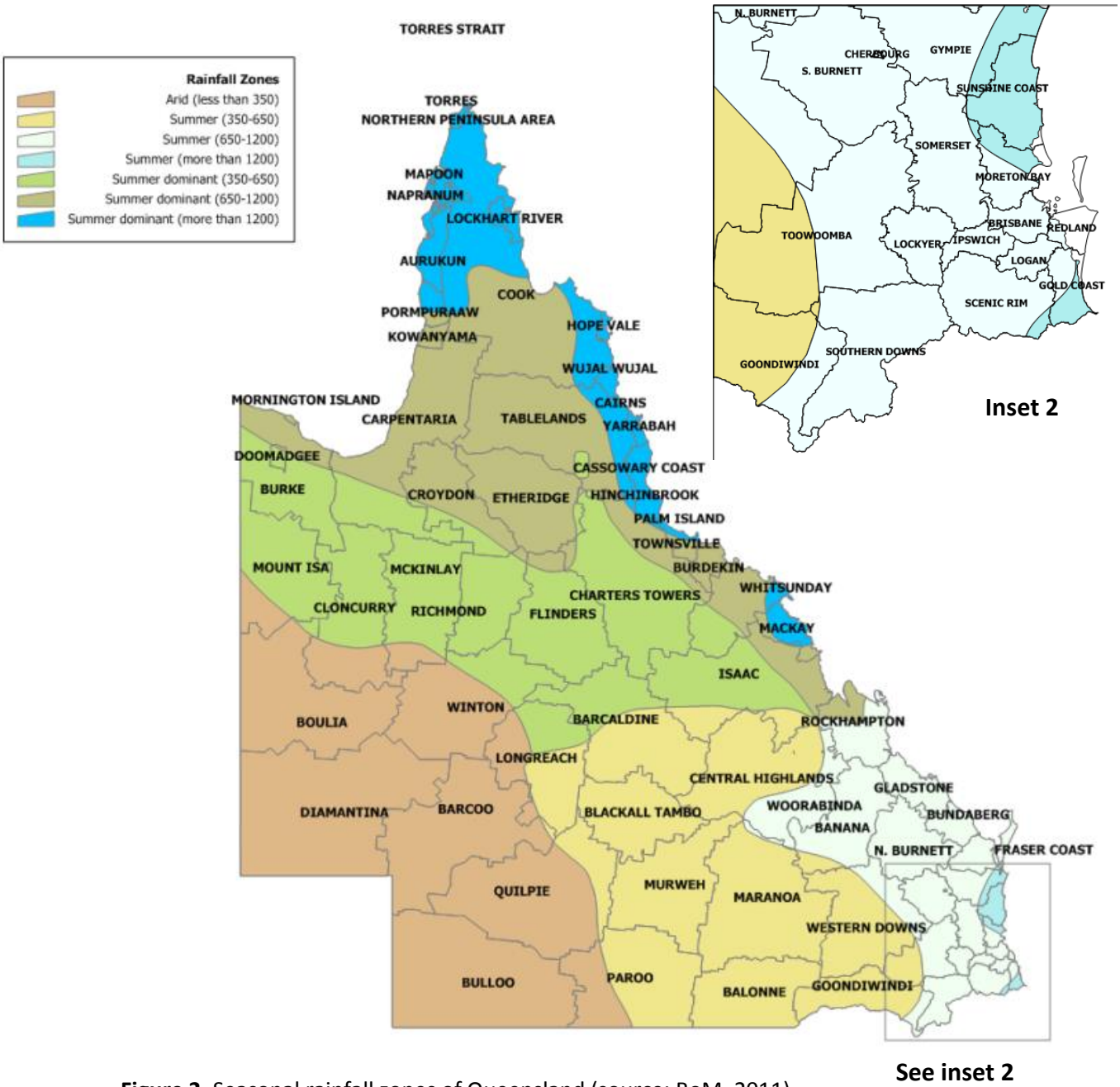


Figure 2. Seasonal rainfall zones of Queensland (source: BoM, 2011).

Number of water connections

Definition: WREs are divided into size categories, based on the number of water connected properties (using data reported under indicator CS4: Total connected properties - water supply).

Note that different organisation (here SWIM, QLD legislation and NPR) use different size classifications.

SWIM uses the following definitions for size:

- **Small:** 0 to 999
- **Medium:** 1,000 to 9,999
- **Large**: 10,000 to 50,000
- **Xlarge**: >50,000
- **Bulk water provider**

Qld legislation uses the following definitions for size:

- **Small:** 0 to 1,000
- **Medium:** 1,001 to 25,000
- **Large**: >25,000

NPR uses the following definitions for size:

- **Non-major utility (other):** 10,000 to 20,000
- **Non-major utility (large):** 20,001 to 50,000
- **Major utility (other)**: 50,001 to 100,000
- **Major utility (large)**: >100,000

Users can select: any of the water connection size categories from one of the three different organisational classifications shown above.

Soil reactivity

Definition: Each soil type within Queensland has been designated as having either minimal, moderate or high shrinkage-swell capacity (Table 1). The shrinkage-swell capacity of soils can affect the performance of some assets; in particular it can affect breakage of pipes and leakage of water from distribution systems. To determine the shrinkage-swell designation, maps of WRE boundaries and townships were overlayed with soil type maps (Fig. 3).

Table 1. Soil type shrinkage-swell capacity

Soil type	Shrinkage-swell rating
CALCAROSOLS	minimal
CHROMOSOLS	moderate
DERMOSOLS	moderate
FERROSOLS	moderate
HYDROSOLS	moderate
KANDOSOLS	minimal
KUROSOLS	moderate
PODOSOLS	minimal
RUDOSOLS	minimal
SODOSOLS	moderate
TENOSOLS	moderate
VERTOSOLS	High

Users can select: any of the soil-shrinkage ratings from the following options:

- Minimal
- Moderate
- High

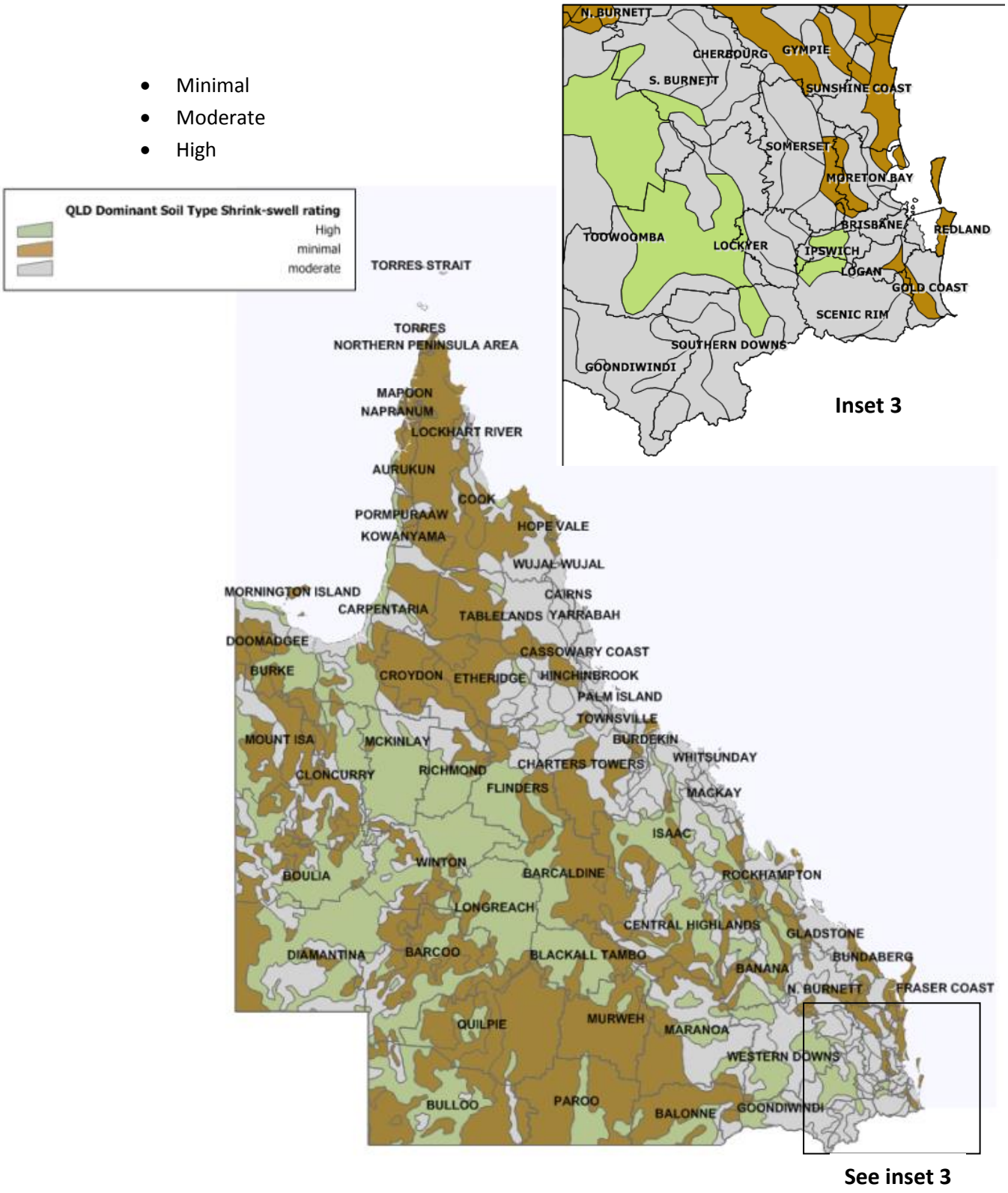


Figure 3. Map of the dominant soil types in Queensland (Source: DERM, 2011).

Population size (SWIM categories)

Definition: Within SWIM the WREs have been divided into population size categories based on the number of people receiving water supply services (using data reported under indicator CS1: Population receiving water supply services).

Users can select: any of the population size categories from the following options.

- **Xsmall:** 0 to 1,499
- **Small:** 1,500 to 6,999
- **Medium:** 7,000 to 74,999
- **Large:** 75,000 to 220,000
- **Xlarge:** >220,000

Local government area

Definition: Local Government Areas (LGAs) are the defined areas within which legally constituted Local Government authorities have responsibilities to provide local services (e.g. water and sewerage services and hence are the WREs). Local Governments in Queensland are often grouped by specific collaborations.

Users can select: any of the local government groupings from the following options:

- **BROC**: Border Regional Organisation of Councils
- **Council of Mayors (SEQ)**: Council of Mayors for South East Queensland
- **CQROC**: Central Queensland Regional Organisation of Councils
- **CWROC**: Central Western Queensland Regional Organisation of Councils
- **DASBAC**: Downs and Surat Basin Alliance of Councils
- **FNQROC**: Far North Queensland Regional Organisation of Councils
- **GSD**: Gulf Savannah Development
- **NQROC**: North Queensland Regional Organisation of Councils
- **RAPAD**: Remote Area Planning and Development Board
- **REDC**: Mackay Whitsunday Regional Economic Development Corporation
- **ROCCY**: Regional Organisation of Councils of Cape York
- **WBBROC**: Wide Bay Burnett Regional Organisation of Councils
- **WESROC**: Western Suburbs Regional Organisation of Councils
- **WHAMBROC**: Whitsunday Hinterland and Mackay Bowen Regional Organisation of Councils

DERM regional office

Definition: DERM has four regional offices in Queensland which manage four geographical areas (Fig. 5).

Users can select: any of the DERM regional office areas from the following options:

- South East
- South West
- Central West
- North

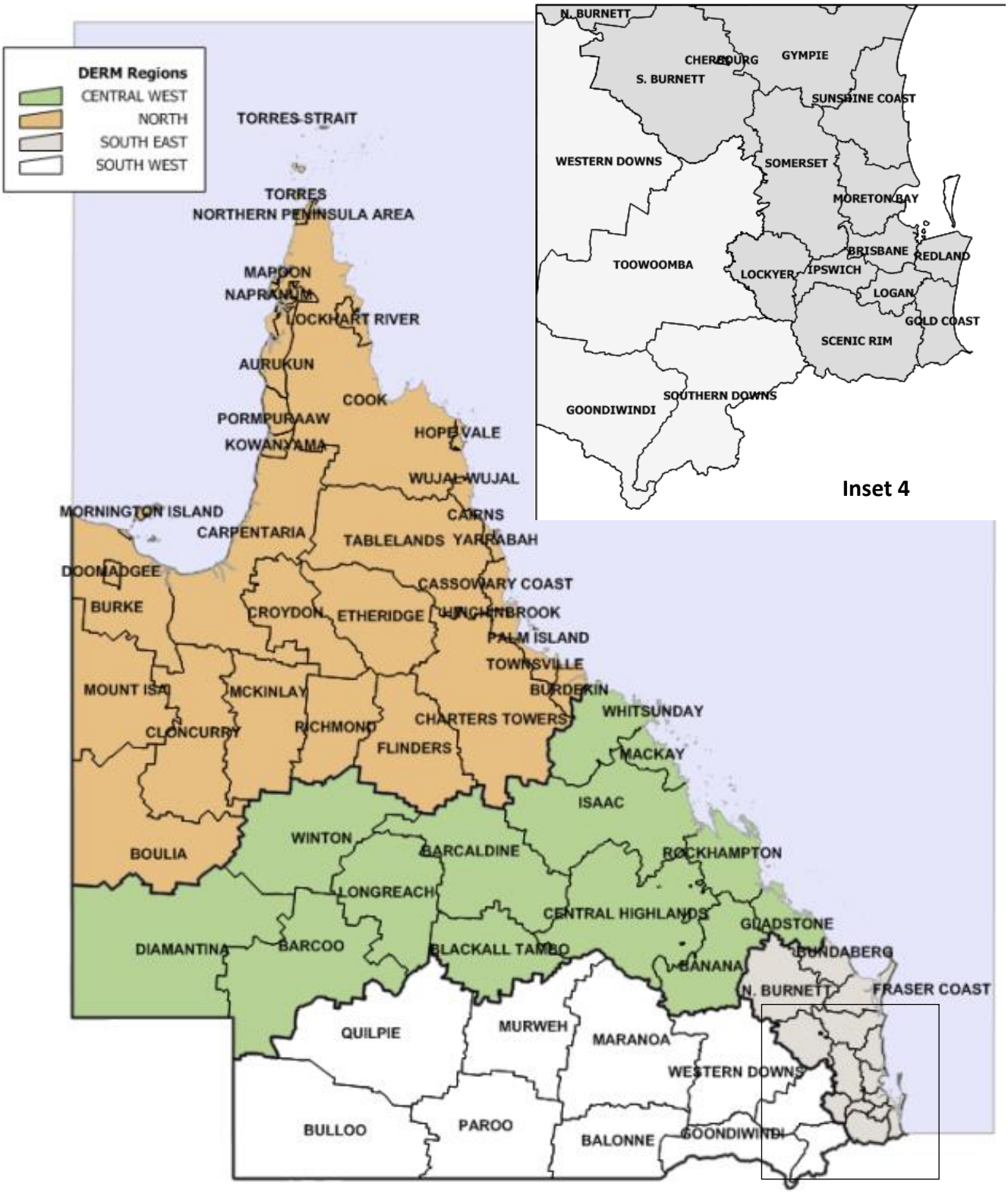


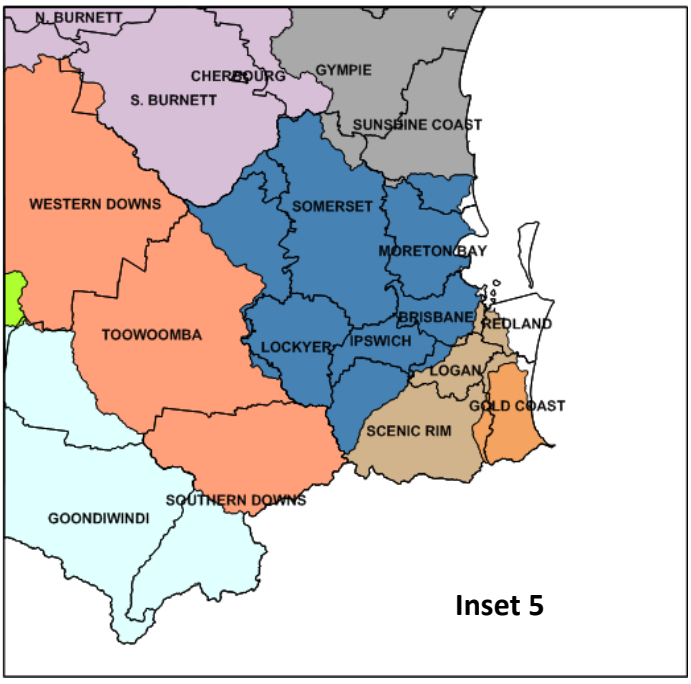
Figure 5. Map showing DERM regional office areas.

Water resources plan

Definition: The water resource planning process is designed to plan for the allocation and sustainable management of water to meet Queensland's future water requirements and is governed by the *Water Act 2000*. Queensland has been divided up by DERM into various regions by riverine catchment area(s) for Water Resource Plans (Fig. 6).

Users can select: any of the Water Resource Plan regions from the following options:

- Baffle
- Barron
- Border Rivers
- Boyne
- Bulloo
- Burdekin
- Burnett
- Calliope
- Condamine-Balonne
- Cooper Creek
- Fitzroy
- Georgina-Diamantina
- Gold Coast
- Gulf
- Logan Basin
- Mary
- Mitchell
- Moonie
- Moreton
- Nebine
- Paroo
- Pioneer Valley
- Warrego
- Whitsunday



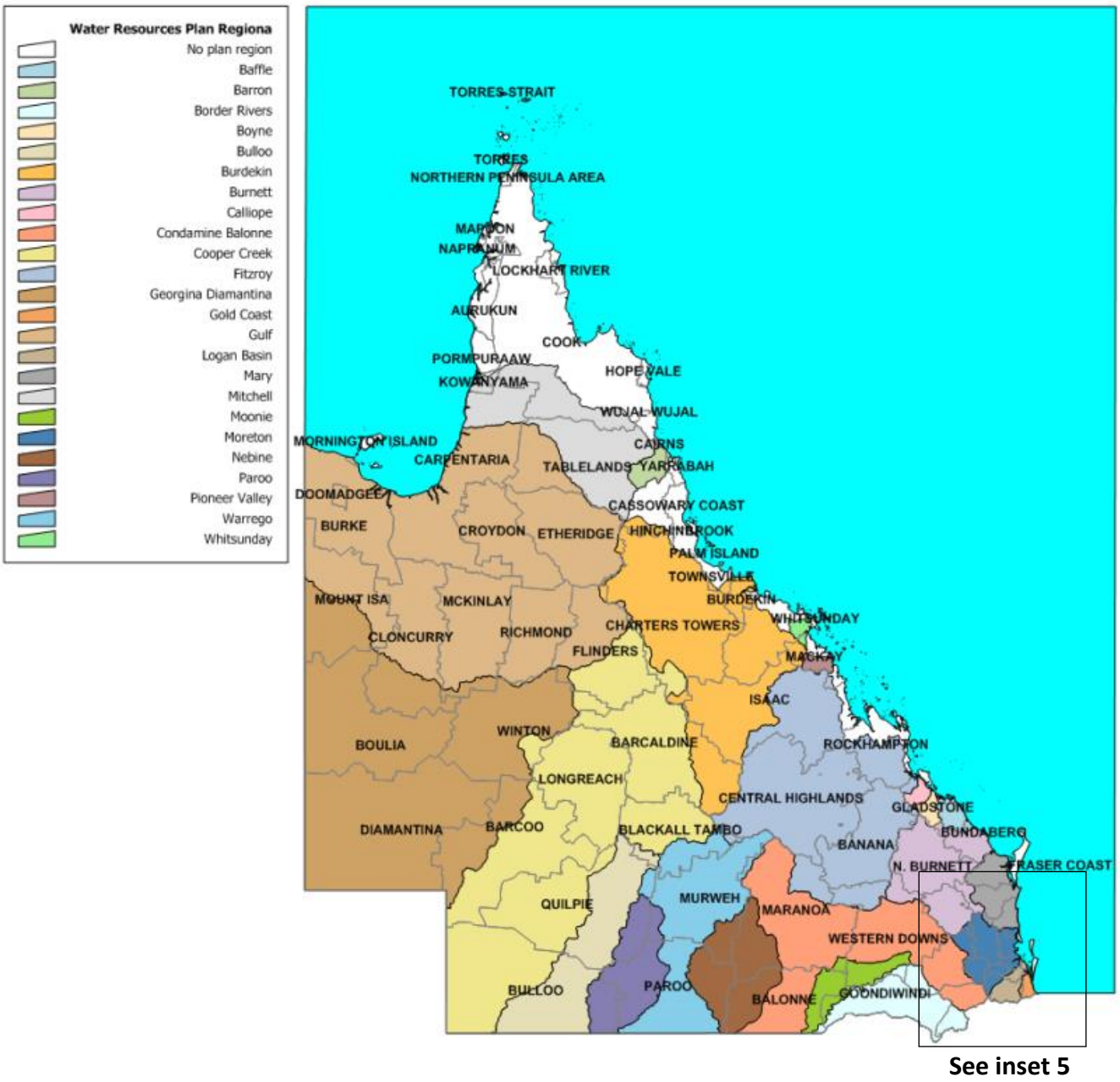


Figure 6. Water resource planning regions in Queensland. (Source: DERM, 2011).

NRM regional body region

Definition: Queensland has been divided up into 14 Natural Resource Management (NRM) regions (Fig. 7). These groups develop regional NRM plans and organise on-ground works and community events.

Users can select: any of the NRM regional bodies from the following options:

- Burnett Mary Regional Group
- Cape York Peninsula Development Association
- Condamine Alliance
- Desert Channels Queensland
- Fitzroy Basin Association
- Mackay Whitsunday NRM Group

- Northern Gulf Resource Management Group
- NQ Dry Tropics
- Queensland Murray-Darling Committee
- SEQ Catchments
- Southern Gulf Catchments
- South West NRM
- Terrain NRM
- Torres Strait Regional Authority

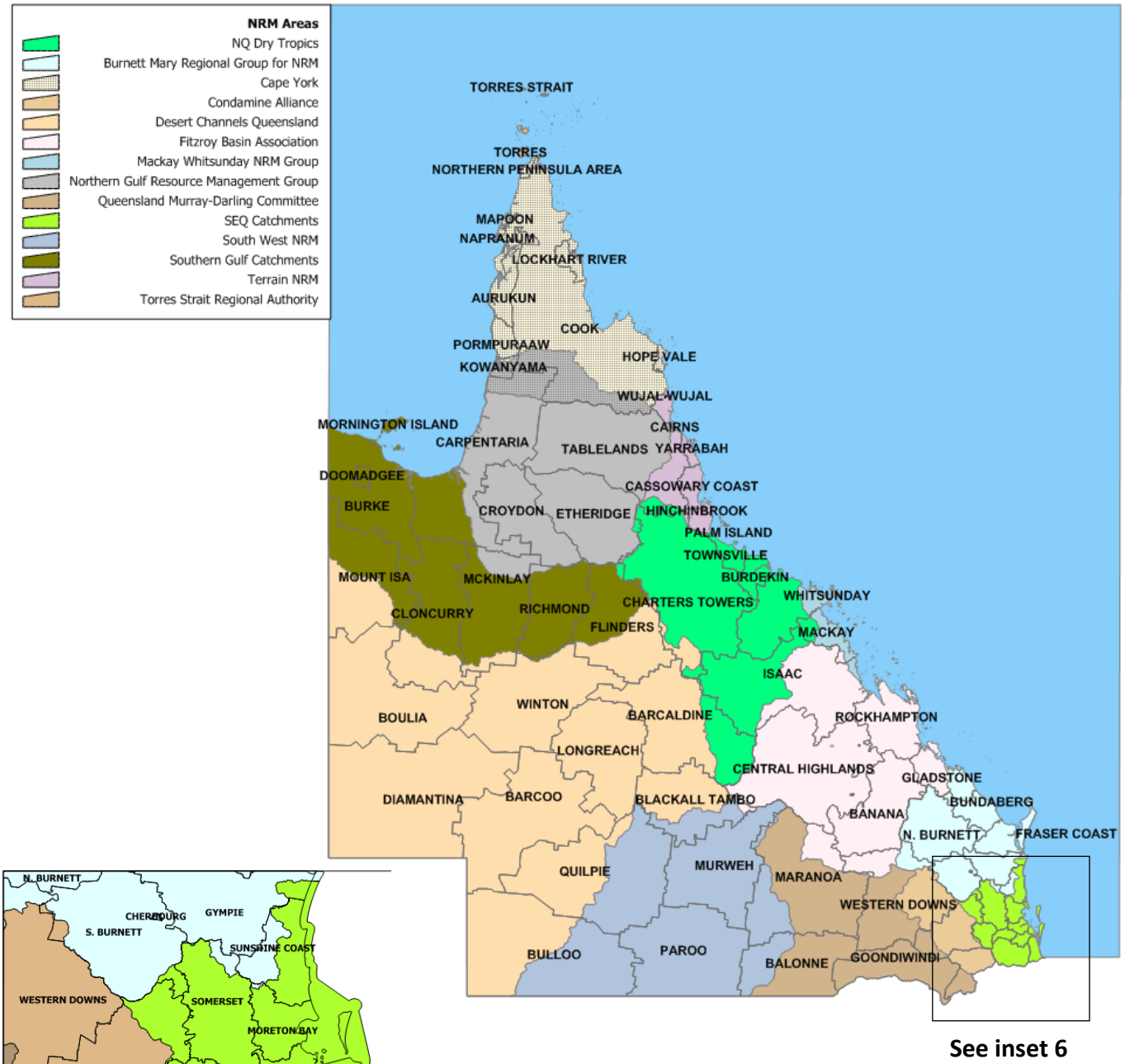


Figure 7. Map showing NRM Regional Bodies in Queensland (DERM 2011).

Regional water supply strategy region

Definition: Regional water supply strategies are the Queensland Government's approach to ensuring short and long term water supply security on a regional basis. Queensland has been divided up by DERM into various regions for the Regional Water Supply Strategy (Fig. 8).

Users can select: any of the Regional Water Supply Strategy regions from the following options:

- North West
- Burdekin
- Mackay Whitsunday
- South West
- Far-North
- South-East
- Central
- Wide Bay-Burnett

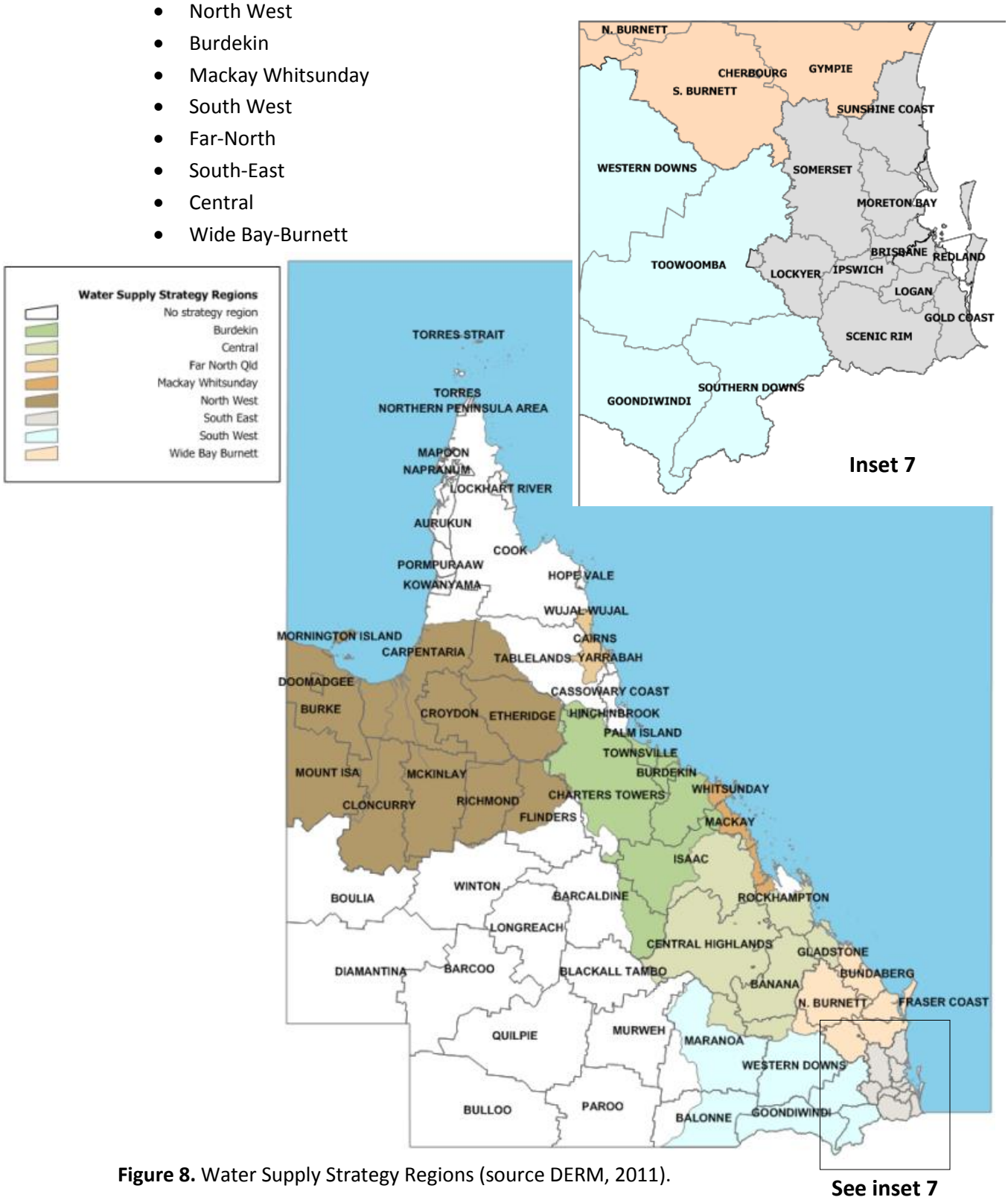


Figure 8. Water Supply Strategy Regions (source DERM, 2011).

Reporting year

Definition: indicator data is reported annually for the financial year.

Users can select: any reporting year for which data has been submitted. *Please note some indicators are only relevant for some reporting years.*

WREs (Water Reporting Entities)

Definition: name of the Council/Water Service Provider who report data via SWIM (Fig. 9). *Please note some WREs have only reported data for some financial years and could have report as little as one or all indicators. Only WREs who have reported data for the filter criteria selected will be displayed.*

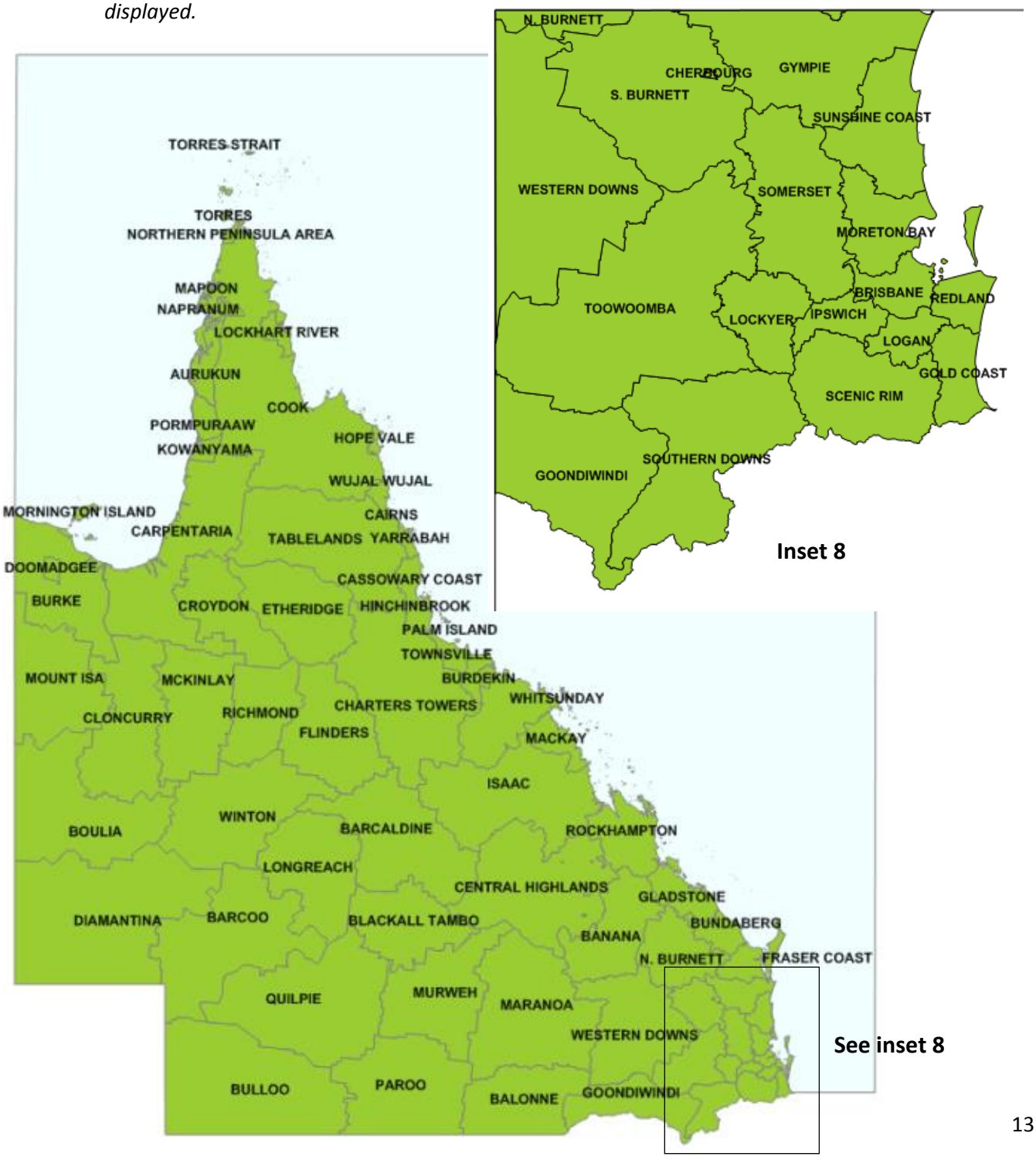


Figure 9. Map showing WRE's in Queensland. Note that in SEQ Unitywater covers the Sunshine Coast Regional Council and Moreton Bay Regional Council areas; QUU covers the Brisbane City Council, Ipswich City Council, Lockyer Valley Regional Council, Scenic Rim Regional Council and Somerset Regional Council areas; and Allconnex covered the Gold Coast City Council, Logan City Council and Redland City Council areas (source, DERM 2011).

Users can select: any of the WREs from the list provided after the filters have been applied.

Possible WREs to select from include:

- Allconnex
- Aurukun Shire Council
- Balonne Shire Council
- Banana Shire Council
- Barcaldine Regional Council
- Barcoo Shire Council
- Blackall-Tambo Regional Council
- Boulia Shire Council
- Brisbane City Council
- Bulloo Shire Council
- Bundaberg Regional Council
- Burdekin Shire Council
- Burke Shire Council
- Cairns Regional Council
- Carpentaria Shire Council
- Cassowary Coast Regional Council
- Central Highlands Regional Council
- Charters Towers Regional Council
- Cherbourg Aboriginal Shire Council
- Cloncurry Shire Council
- Cook Shire Council
- Croydon Shire Council
- Diamantina Shire Council
- Doomadgee Aboriginal Shire Council
- Etheridge Shire Council
- Flinders Shire Council
- Fraser Coast Regional Council
- Gladstone Area Water Board
- Gladstone Regional Council
- Gold Coast City Council
- Goondiwindi Regional Council
- Gympie Regional Council
- Hinchinbrook Shire Council
- Hope Vale Aboriginal Shire Council
- Ipswich City Council

- Isaac Regional Council
- Kowanyama Aboriginal Shire Council
- Lockhart River Aboriginal Shire Council
- Lockyer Valley Regional Council
- Logan City Council
- Longreach Regional Council
- Mackay Regional Council
- Mapoon Aboriginal Shire Council
- Maranoa Regional Council
- McKinlay Shire Council
- Moreton Bay Regional Council
- Mornington Shire Council
- Mount Isa City Council
- Murweh Shire Council
- Napranum Aboriginal Shire Council
- North Burnett Regional Council
- Northern Peninsula Area Regional Council
- Palm Island Aboriginal Shire Council
- Paroo Shire Council
- Pormpuraaw Aboriginal Shire Council
- Quilpie Shire Council
- Queensland Urban Utilities
- Redland City Council
- Richmond Shire Council
- Rockhampton Regional Council
- Scenic Rim Regional Council
- Somerset Regional Council
- South Burnett Regional Council
- Southern Downs Regional Council
- Sunshine Coast Regional Council
- Tablelands Regional Council
- Toowoomba Regional Council
- Torres Shire Council
- Torres Strait Island Regional Council
- Townsville City Council
- Unitywater
- Western Downs Regional Council
- Whitsunday Regional Council
- Wide Bay Water Corporation
- Winton Shire Council
- Woorabinda Aboriginal Shire Council
- Wujal Wujal Aboriginal Shire Council
- Yarrabah Aboriginal Shire Council

Data class

Definition: WRE's acquire data both at a WRE-wide (i.e. whole of organisation) level and at the individual scheme (e.g. potable water scheme) level. *Please note some indicators are only reported at WRE-wide level.*

Users can select: any of the following options:

- WRE-wide
- Scheme level

Scheme type

Definition: schemes are separated into four different types (potable water, raw-partially treated water, recycled water and sewerage).

Users can select: any scheme type from the following options (*please note that some indicators are only relevant for some scheme types*):

- **Potable Water Schemes**: schemes that deliver water to a potable standard
- **RAW-Partially Treated (PT) Water Schemes**: schemes deliver non-potable water (but not recycled water). The water may be treated, but not to potable standards
- **Recycled Water Schemes**: schemes that deliver recycled or reuse water, which is water sourced from sewage treatment plants, or stormwater reuse facilities. It may be potable or non-potable
- **Sewerage Schemes**: schemes that collect and process sewerage

Scheme status

Definition: schemes can be either active or inactive.

Users can select: any of the following scheme status options:

- Active
- Inactive

Indicator data confidence level

Definition: data for each indicator has some level of confidence associated with it. Currently only the NPR audit information is recorded in SWIM for annual indicators.

Users can select: any of the following data confidence options:

- audited NPR indicators
- non-audited NPR indicators

Indicators

Definition: the measures that WREs monitor and report. Some are derived from several other indicators and some are individually measured. Each indicator has an indicator code as well as an indicator title and are grouped into categories (which differ depending on the indicator grouping selected (i.e. SWIM, NPR or BoM indicators)). Different indicators are requested by different reporting bodies such as BoM or NPR.

Only indicators for which data is available (i.e. depending on the filter criteria selected) will be displayed. Please note the SWIM indicator code is always included.

A drop-down box allows indicators to be initially separated by the specific organisation requesting them (i.e. NPR or BoM indicators) or all indicators in the SWIM database (i.e. SWIM indicators). If BoM indicators are selected then BoM indicator codes and categories will be shown, similarly for NPR and SWIM indicators.

Users can select: an individual indicator, any number of individual indicators, indicator of a specific category (or multiple categories) or indicators requested by particular organisations (as discussed above).

Abbreviations

BoM: Bureau of Meteorology.

BROC: Border Regional Organisation of Councils.

Council of Mayors (SEQ): Council of Mayors for South East Queensland.

CQROC: Central Queensland Regional Organisation of Councils.

CWROC: Central Western Queensland Regional Organisation of Councils.

DASBAC: Downs and Surat Basin Alliance of Councils.

DERM: Department of Environment and Resource Management.

FNQROC: Far North Queensland Regional Organisation of Councils.

GSD: Gulf Savannah Development.

NPR: National Performance Report.

NQROC: North Queensland Regional Organisation of Councils.

RAPAD: Remote Area Planning and Development Board.

REDC: Mackay Whitsunday Regional Economic Development Corporation.

ROCCY: Regional Organisation of Councils of Cape York.

SWIM: State-wide Water Information Management system.

WBBROC: Wide Bay Burnett Regional Organisation of Councils.

WESROC: Western Suburbs Regional Organisation of Councils.

WHAMBROC: Whitsunday Hinterland and Mackay Bowen Regional Organisation of Councils.