

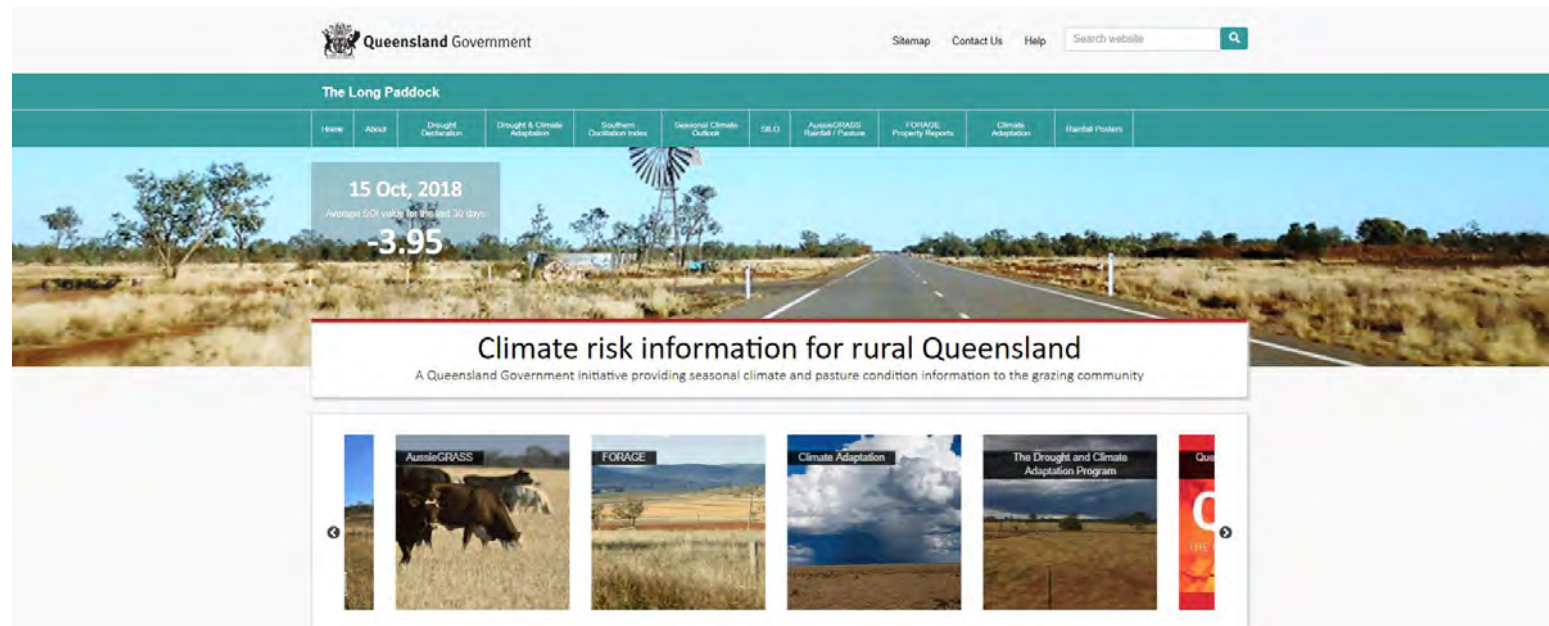
FORAGE – free property information to assist with grazing land management decisions

Part 1 – currently available information

Webinar #3: “Getting the *Inside Edge* in grazing land management” series

Grant Stone for ***The Grazing Land Systems team***

www.longpaddock.qld.gov.au



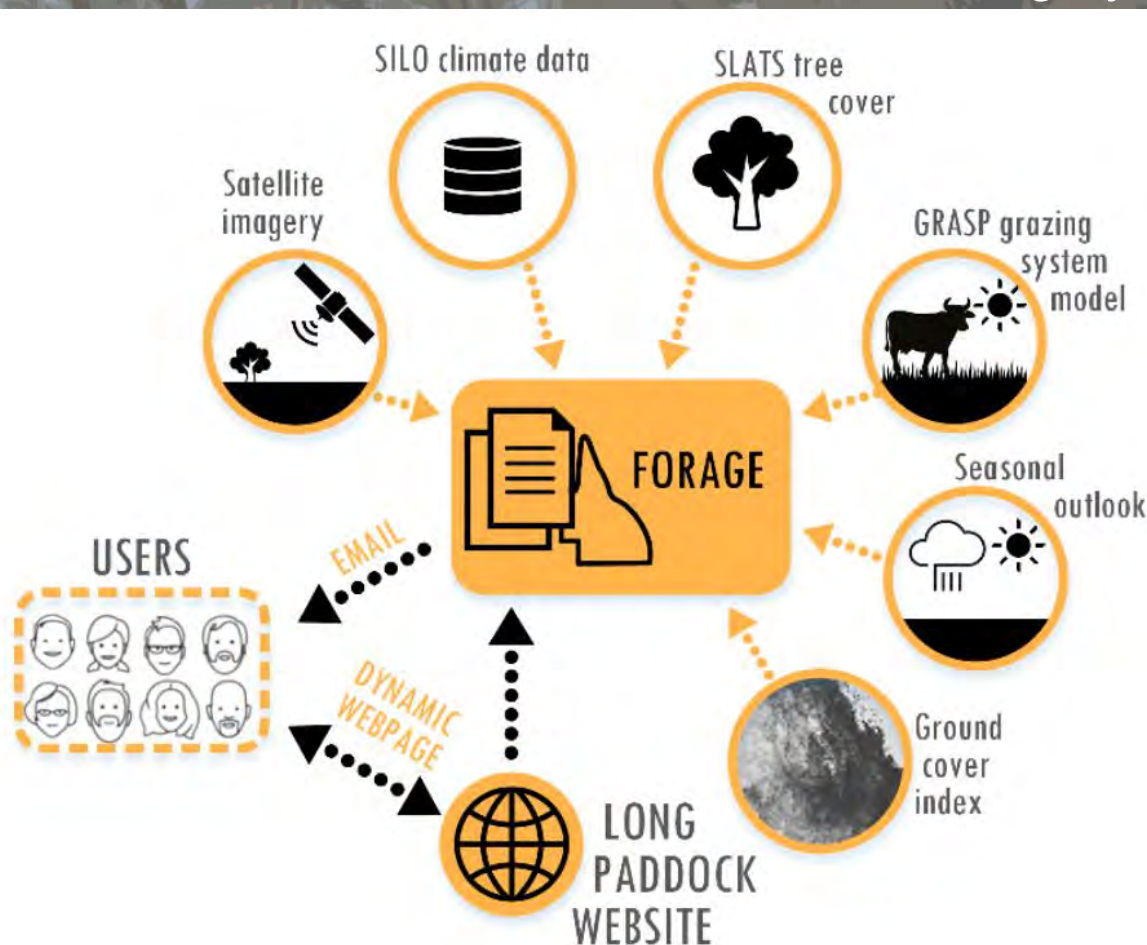
- What is the FORAGE system?
- FORAGE data sources
- Accessing the FORAGE system
- FORAGE support information
- Common land management questions
- 10 FORAGE reports (in brief)
- FORAGE and land management questions
- FORAGE track record
- Summary and wrap-up
- Funded by DCAP and REEF programs



What is FORAGE?

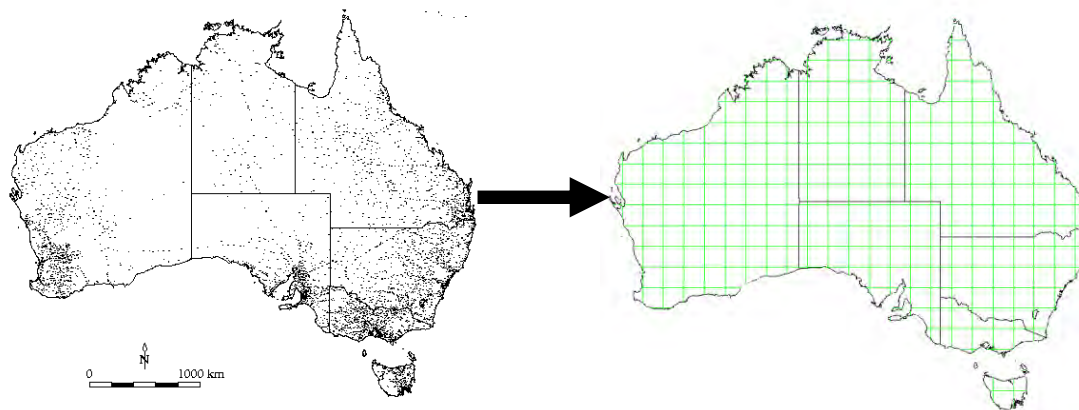
FORAGE:

- is an online information system accessed through the Long Paddock website: www.longpaddock.qld.gov.au/forage
- generates and delivers 'property-scale' customised reports on climate, pasture, ground cover, land condition indicators and satellite imagery.
- currently h
- is used by
- can facilitate

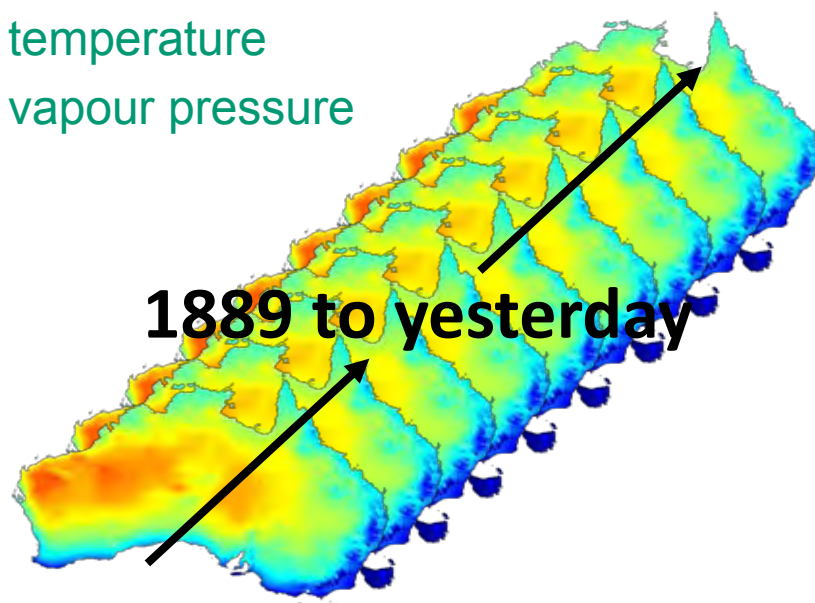


SILO offers:
point climate data in
model-ready formats
(1889 – present)

- rainfall
- evaporation
- solar radiation
- temperature
- vapour pressure



- Uses BoM data
- Australia wide
- 5km resolution

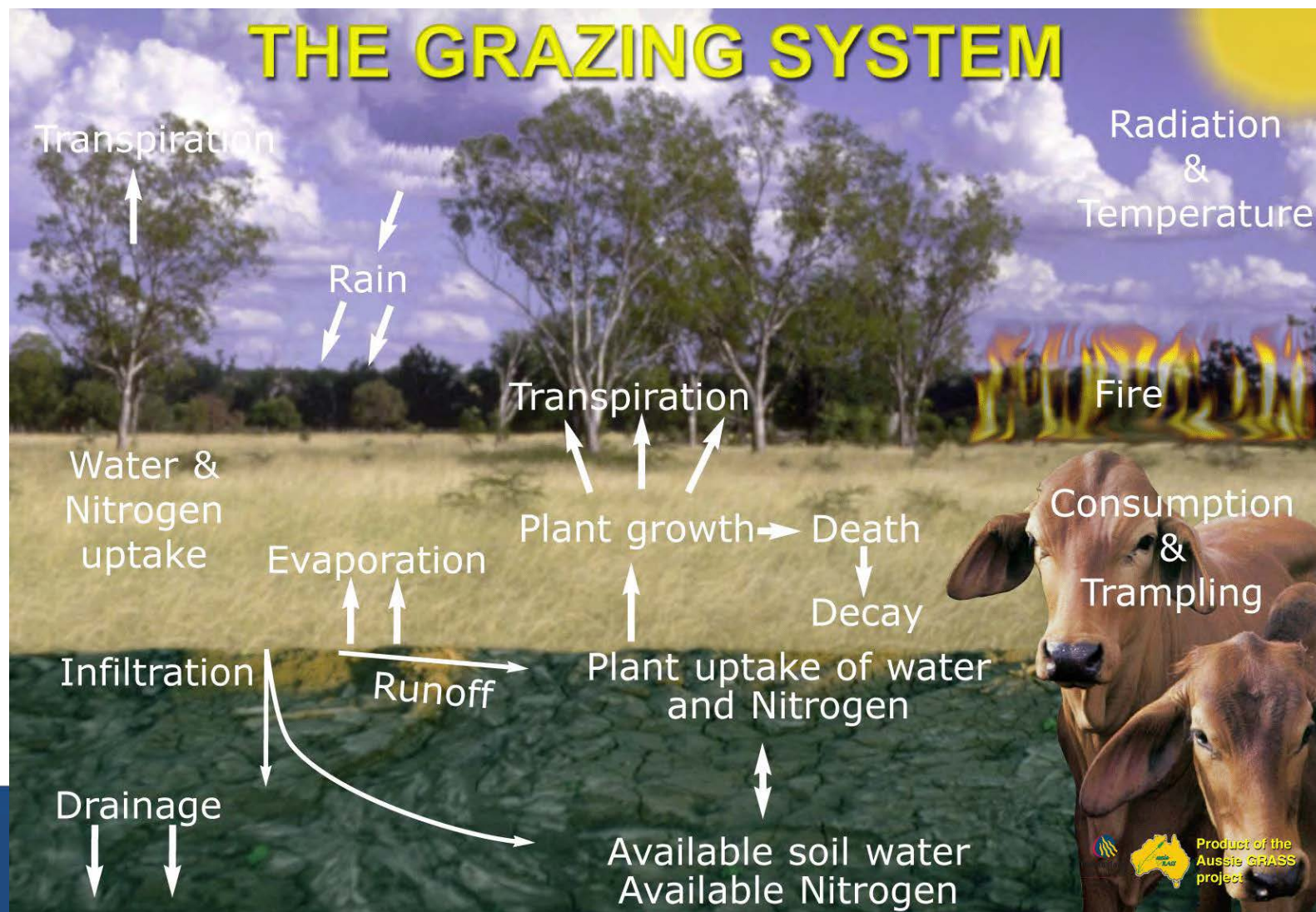


1889 to yesterday

The Long Paddock

Home	About	Drought Declaration	Drought & Climate Adaptation	Southern Oscillation Index	Climate Outlooks & Weather	SILO	AussieGRASS Rainfall / Pasture	FORAGE Property Reports	Queensland Future Climate	Rainfall Posters
----------------------	-----------------------	-------------------------------------	--	--	--	----------------------	--	---	---	----------------------------------

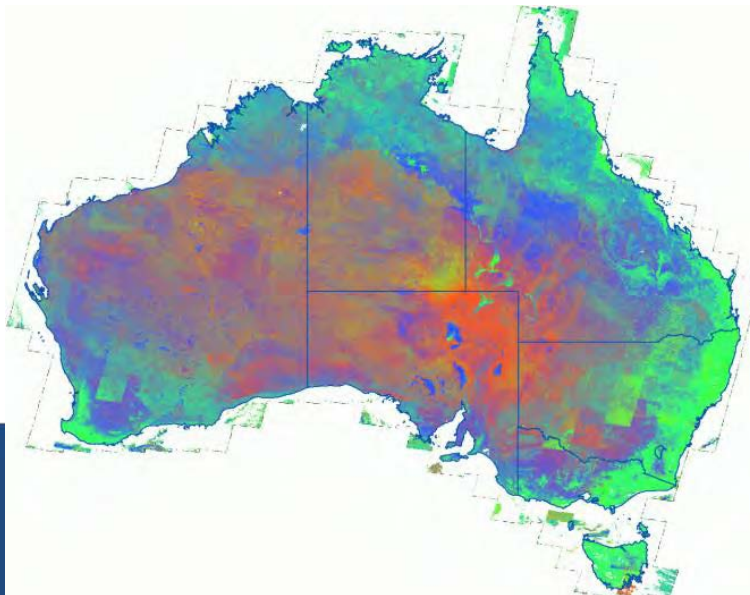
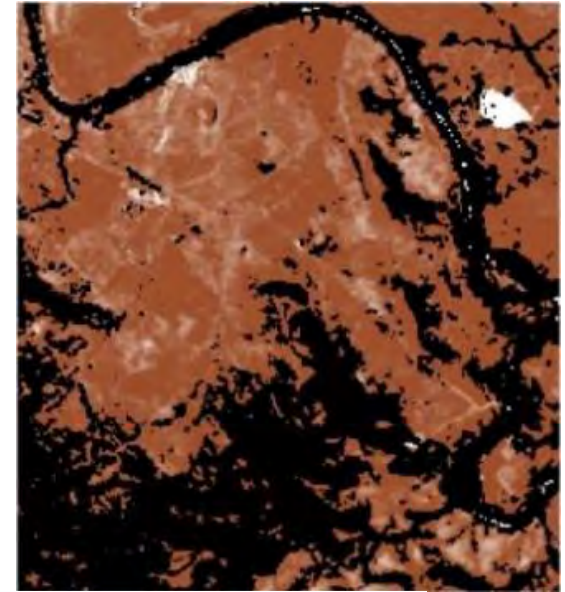
Aim: to combine major aspects of climate, pasture and grazing environment



DES's Remote Sensing Centre provides:

Ground cover imagery – from 1986 to current inc:

- bare ground imagery
- seasonal green/non-green cover imagery
- foliage projective cover (FPC)





Request FORAGE Property Reports

About FORAGE

Report Examples

- Indicative Land Type Report
- Rainfall and Pasture Reports
- Ground Cover Report
- Drought Assessment Information
- Rainfall and Pasture Growth Outlook Report
- Foliage Projective Cover Report
- Fire Scar Report
- Regional Climate Projections Report
- Erodible Soils Report
- Crop Frequency and Type Report
- Satellite Imagery
- Awareness Videos

Home Request FORAGE Property Reports

Request FORAGE Property Reports

Select FORAGE report(s)

Indicative Land Type ☒ Rainfall and Pasture ☒ Rainfall and Pasture by Land Type ☒

Specify location using lot on plan

For help on plan (e.g. 3MZ594) and search from 6M. A maximum of 30 lots on plan are allowed.

Enter lot(s) on plan

3MZ594

Quick guide for map control:

Click (in - or - to zoom) into the area of your property.

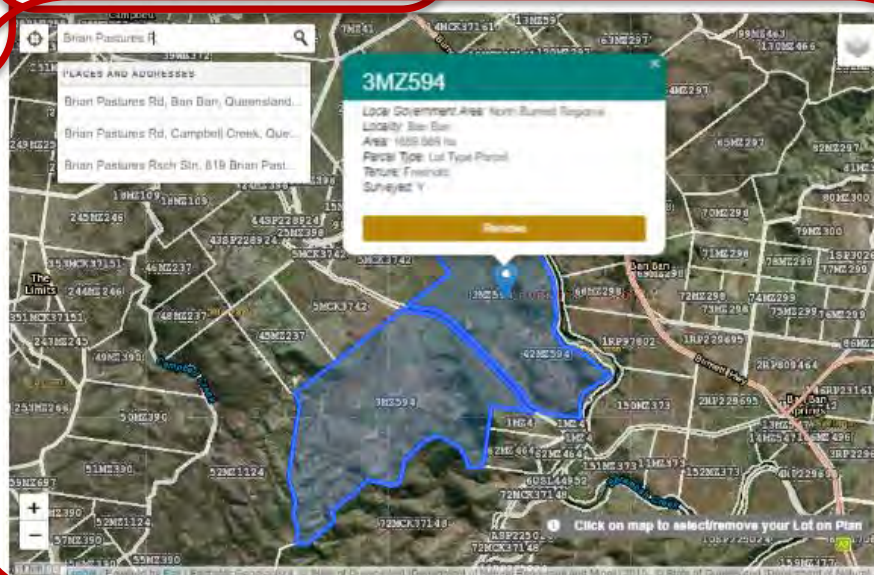
Use this search bar to search by a property name, address, place, road intersection, coordinates, etc.

To search for a coordinate, separate latitude and longitude with a comma (e.g. -24, 123.456, 123.456).

To search for a road intersection, type in 'xxx road' and 'xxx road' format.

Click on the to locate your current position (note: limited by device hardware and/or GPS signal strength. Computers without GPS receiver will not get accurate location).

Click on the to close the map.



Delivery information

*Email

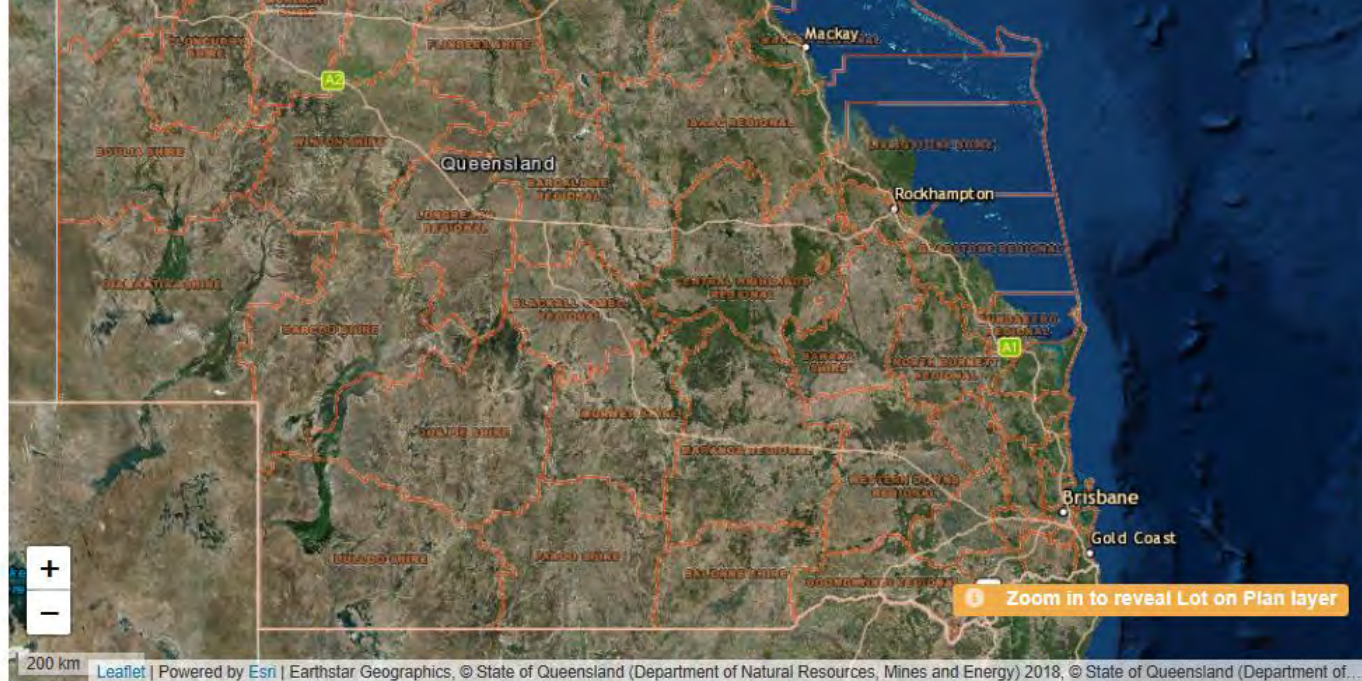
grant.stone@qld.gov.au

Label

Brian_Pastures

Submit

*Required information



Subscription Service

Drought Assessment - receive report every :

Off

1 month

2 months

3 months

Delivery information

*Email

Label

Optional

Submit

- Subscribe to receive report every 1, 2 or 3 months
- To un-subscribe email us - longpaddock@qld.gov.au

FORAGE support



- within-report information (next)
- web page information plus Q&As
- 2-page quick guide
- detailed FORAGE guide
- awareness videos
- instructive videos – ytd
- longpaddock@qld.gov.au



About

How FORAGE can help land management?

How FORAGE can help land management

How FORAGE can help with livestock body condition

How FORAGE can help with livestock body condition

How FORAGE can help with agistment

How FORAGE can help manage stock and pasture

How FORAGE can help manage stock and pasture

Guide

GE

Delivery

rsion 1.9

- Is this season different from last year — or 5 years ago?
- What parts of my paddocks are bare?
- How many cattle do I run until the next season?
- Do I need more water points?
- Why does this paddock have less cover than that paddock?
- Others:
 - property planning, investment, sales....GLM, BMP accreditation...



Rainfall and Pasture report

FORAGE REPORT: RAINFALL AND PASTURE

<http://www.longpaddock.qld.gov.au/forage> November 3, 2018 Lot on Plan: 10C57 Label: spyglass

Introduction

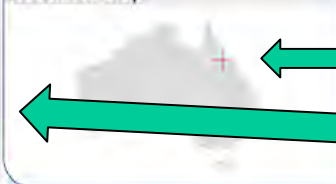
This Pasture and Rainfall Report is for an area approximately 5km x 5km in size (regardless of property size), centred on the Lot on Plan nominated, indicated by the red crosshair symbol on the map below. This report includes a rainfall and pasture growth summary and graphs showing historical time series for: 1) monthly average pasture Total Standing Dry Matter (TSDM); 2) monthly average ground cover; 3) annual rainfall (April to March) and 4) annual pasture growth (April to March). Pasture TSDM, cover and growth are simulated using the GRASP / AussieGRASS model; accuracy may be limited by available stock number and climate data.

Summary

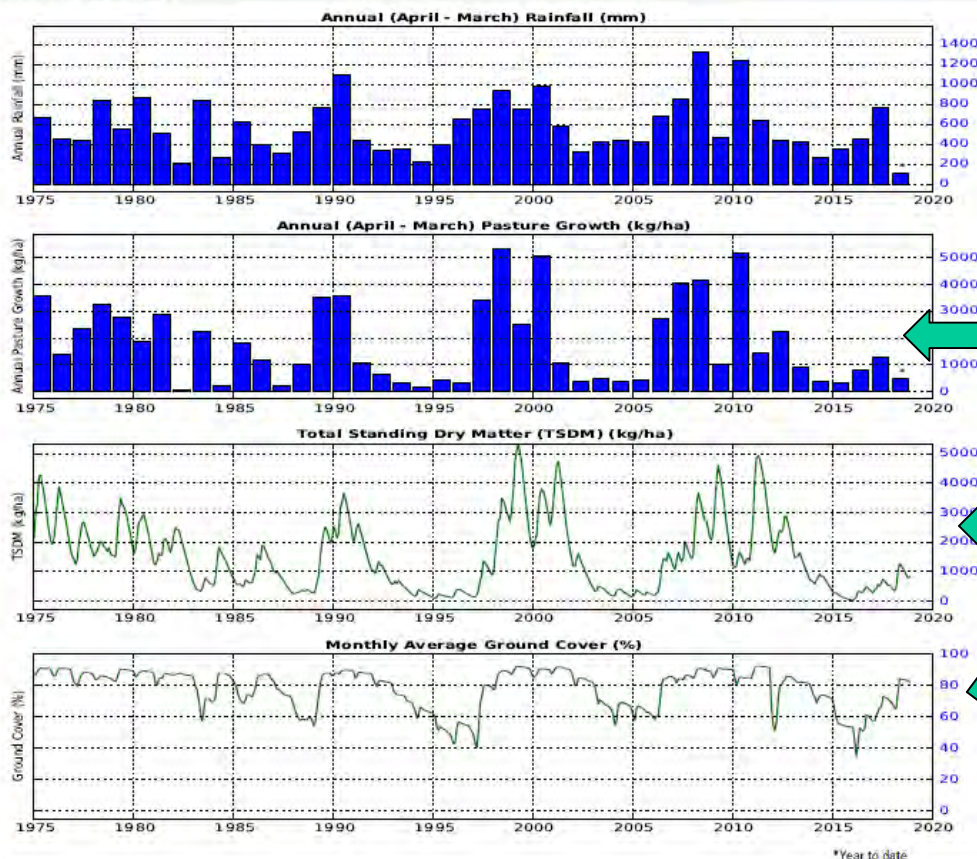
	Annual average	Total for last 12 months	10th (extremely low)	30th (low)	50th (median)	70th (high)
Rainfall (mm)	580	696	323	422	480	660
Simulated pasture growth (kg/ha)	1771	1362	341	675	1136	2451

*A percentile is used to indicate where a value lies within the range of historically measured records. For example, if last year's rainfall was ranked as the 30th percentile, then last year's rainfall was higher than the annual rainfall of 30% of the years in the record, but lower than the annual rainfall of the remaining 70% of the years

Location map



Historical time series



*Year to date

Queensland

Title bar

Introduction

Map - location

Summary statistics

Ave, 12 mths, 10, 30, 50, 70th percentile

Updated: Monthly
Rainfall (annual, April-March)
When to access:

Seasonally – ½ year,
for GLM decisions, BMP

Pasture growth (annual, April-March)

Total standing dry matter (monthly)

Ground cover (monthly)

Indicative Land Type report

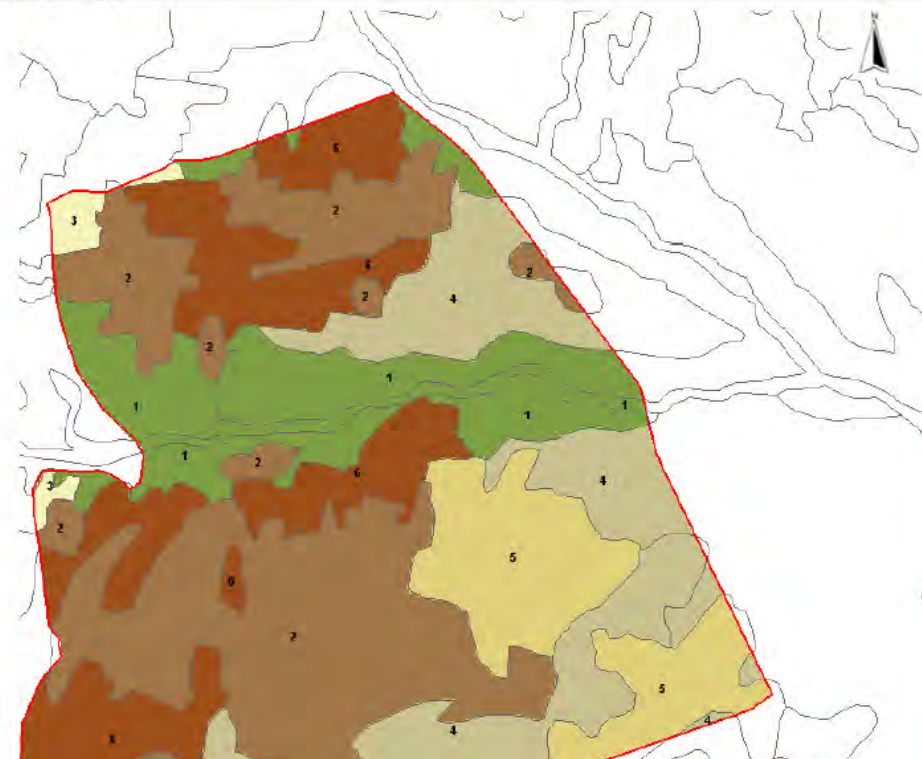
FORAGE REPORT: INDICATIVE LAND TYPE

<http://www.longpaddock.qld.gov.au/forage> November 3, 2018 Lot on Plan: 10CS7 Label: spyglass

Introduction

This report displays the most current version of the Grazing Land Management (GLM) land types for the selected Lot on Plan. The land type map is generated from a GIS shapefile which is developed based on regional ecosystems mapping and GLM information. Most of the land types and their boundaries have not been validated with field observations. Therefore, the land type map is only indicative and can be used to understand what land types are expected on the area selected. The approximate land type area (hectares) and their percentage of the total area are summarised on the second page.

Land type map



- Grazing Land Management (GLM) land types for Lot on Plan
- Land type summary
- Shapefile attachment (GIS application, VegMachine)

Updated: generally static; data revision and release late-2018

When to Access: Once-off on purchase, GLM, BMP, infrastructure - fencing to land type

Land type summary

Expected land types (for land types more than 1 hectare)

	Land type code	Estimated area (hectare)	Estimated area (%)
02 Lancewood - bendee - rosewood (BD)	BD12	2200	31.8
04 Narrow-leaved ironbark on deeper soils	BD14	1582	22.9
06 Goldfields country - black soils	BD10	1228	17.7
01 Loamy alluvials	BD13	1043	15.1
05 Yellowjacket with other eucalypts	BD20	786	11.4
03 Range soil (NG)	NG08	81	1.2

0 0.6 1.2 1.8 2.4 km

06 Goldfields country - black soils

Rainfall and Pasture by Land Type report

FORAGE REPORT: RAINFALL AND PASTURE BY LAND TYPE



Simulated annual pasture growth summary for major land types

The table summarises historical pasture growth (kg/ha/year) for the period from 1960 to present, for each major land type on the selected Lot on Plan. Calculations of plant growth are from the GRASP model based on calibration consistent with information from Grazing Land Management (GLM) and Stocktake. The table shows the total pasture growth (kg/ha) in the last 12 months (from November 2017). Calculations are provided for long-term average annual pasture growth; annual pasture growth in low growth (30th percentile*); median (50th percentile); and high growth (70th percentile) years.

Expected Land Type	Code	Area (ha)	Area (%)	Pasture growth (kg/ha)				
				Last 12 months	Average	30th percentile*	50th percentile*	70th percentile*
Lancewood - bendee - rosewood (BD)	BD12	2200	31.8	370	565	364	510	660
Narrow-leaved ironbark on deeper soils	BD14	1581	22.9	1573	1701	984	1647	2300
Goldfields country - black soils	BD10	1225	17.7	2622	2517	1744	2497	3223
Loamy alluvials	BD13	1045	15.1	1638	1711	1008	1670	2283
Yellowjacket with other eucalypts	BD20	786	11.4	1640	2174	1092	1916	2643
Range soil (NG)	NG08	81	1.2	1201	1315	1100	1314	1472

Page1:

Summary, Rainfall, Pasture growth, biomass, ground cover timeseries

Page2:

- Land types x pasture growth
- Land types x ground cover
- Percentiles to guide yield/cover inference

Updated: Monthly

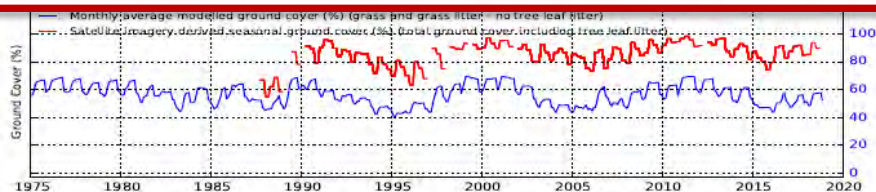
When to Access:

Seasonally - ½ year, stocking assessment, GLM, BMP

Simulated ground cover summary for major land types

The table summarises historical percentage ground cover for the period 1960 to present, for each major land type on the selected Lot on Plan. Calculations of pasture cover are from the GRASP model based on calibration consistent with information from Grazing Land Management (GLM) and Stocktake. The table shows the average ground cover (%) in the last 12 months (from November 2017). Estimates are provided for long-term average annual ground cover; annual ground cover in low growth (30th percentile*); median (50th percentile); and high growth (70th percentile) years.

Expected Land Type	Code	Area (ha)	Area (%)	Pasture ground cover (%)				
				Last 12 months	Average	30th percentile*	50th percentile*	70th percentile*
Lancewood - bendee - rosewood (BD)	BD12	2200	31.8	42	46	44	47	48
Narrow-leaved ironbark on deeper soils	BD14	1581	22.9	55	56	53	57	64
Goldfields country - black soils	BD10	1225	17.7	68	67	65	67	71
Loamy alluvials	BD13	1045	15.1	58	60	57	60	65
Yellowjacket with other eucalypts	BD20	786	11.4	57	59	53	61	69
Range soil (NG)	NG08	81	1.2	56	56	55	57	58



Rainfall and Pasture Growth Outlook report

Department of Environment and Science

FORAGE REPORT: RAINFALL AND PASTURE GROWTH OUTLOOK

<http://www.longpaddock.qld.gov.au/FORAGE>

November 2, 2018

LotPlan: 3RP841848,1OC57,4SP233424,4835CP etc.

Label: spyglass



Outlook information



Introduction

There are various approaches used to develop seasonal rainfall or climate outlooks. The FORAGE 'Rainfall and Pasture Growth Outlook' considers just one approach which is a statistical approach based on 'Phases' of the Southern Oscillation Index (SOI) (Stone, et al. 1996). This report provides a three-month seasonal outlook (November 2018 - January 2019) for the selected Lot on Plan and is relevant to the immediate district surrounding the Lot on Plan. The map to the right shows the location of the Lot on Plan (cross).

Two outlooks are provided in the report: 1) a 'rainfall' outlook; and 2) a 'pasture growth' outlook. The rainfall outlook is based on historical rainfall at the selected location. Probabilities are given for 'dry' (< 30th percentile*), 'near-average' (30th to 70th percentile) and 'wet' (> 70th percentile) rainfall over the three-month 'outlook' period. The pasture growth outlook is based on pasture growth modelling incorporating historical rainfall and climate data from the selected location. The pasture modelling also takes into account current conditions (e.g. soil water status). Probabilities are given for 'low' (< 30th percentile), 'near-average' (30th to 70th percentile) and 'high' (> 70th percentile) pasture growth over the three-month 'outlook' period.

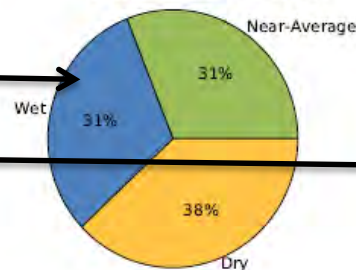
Location map



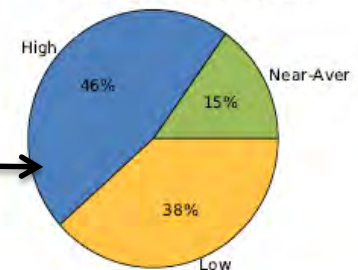
3 month seasonal outlook for rainfall and pasture growth

Rainfall and pasture growth outlook

Rainfall Probabilities
for November 2018 - January 2019



Pasture Growth Probabilities
for November 2018 - January 2019



Analogue years selected for matching to current year

Historical 'Analogue Years' with a 'Rapidly Rising' Phase of the SOI in October
1929, 1930, 1934, 1948, 1950, 1952, 1953, 1956, 1957, 1976, 1986, 1999, 2005

behaviour of the SOI can be classified into one of five classes or 'phases': 1) 'Consistently Negative'; 2) 'Consistently Positive'; 3) 'Rapidly Falling'; 4) 'Rapidly Rising'; or 5) 'Near-Zero'. The behaviour of the SOI over September 2018 and October 2018 is classified as 'Rapidly Rising'. Previous years with the same SOI Phase in October (called 'analogue years') are shown below.

Historical 'Analogue Years' with a 'Rapidly Rising' Phase of the SOI in October

1929, 1930, 1934, 1948, 1950, 1952, 1953, 1956, 1957, 1976, 1986, 1999, 2005

Each year in the above list is coloured according to rainfall in the three-month 'outlook' period (November 2018 - January 2019): orange being 'dry' (< 30th percentile rainfall); green being 'near-average' (30th to 70th percentile rainfall) and blue being 'wet' (> 70th percentile rainfall). The proportion of 'wet' (blue), 'dry' (yellow) and 'near-average' (green) years is reflected in the 'Rainfall Probability' diagram (above) - this becomes the 'rainfall outlook' for the next three-month period (November 2018 - January 2019) for the selected location. The 'pasture growth outlook' is constructed in a similar manner, but based on pasture growth modelling incorporating the rainfall and climate data from the above analogue years.

The above categories (i.e. 'dry', 'near-average' and 'wet') refer to a classification of historical rainfall data from 1900 to 1998. Please refer to the following page for a more detailed explanation of this classification and other supporting information which will help you interpret

Updated: Monthly
Access: ad hoc, seasonally, GLM, BMP
(to be replaced with new PGA report)

Foliage Projective Cover report

Department of Environment and Science



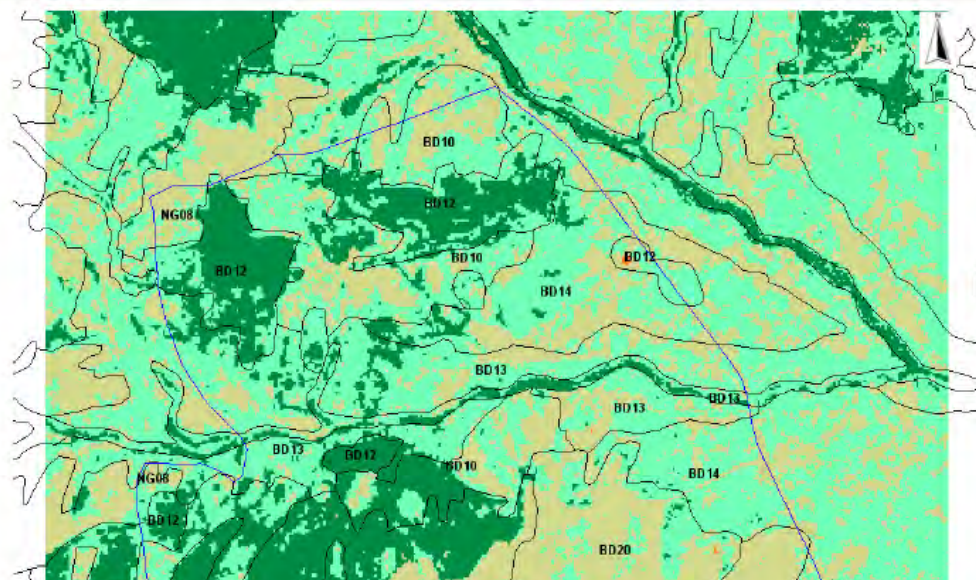
FORAGE REPORT: FOLIAGE PROJECTIVE COVER (FPC)

<http://www.longpaddock.qld.gov.au/forage> November 3, 2018 Lot on Plan: 1OC57 Label: spyglass

Introduction

This report presents the Foliage Projective Cover (FPC) information obtained from satellite data for the selected Lot on Plan. The FPC map shows both the different classes of FPC and the land type information for the area selected. Areas with greater than 15 percent FPC are classed as woody vegetation cover, whereas areas with less than 15 percent FPC are classed as non-woody vegetation cover. Users may be more familiar with tree density being expressed as tree basal area (TBA). As a guide, for mature tree communities, FPC thresholds of 15, 30 and 70 per cent equate to tree basal area of approximately 6, 12 and 32 m²/hectare respectively.

FPC map 2014



- satellite imagery-derived tree and shrub foliage projective cover (FPC)
- most recent available image
- FPC range in four categories
- Page 2:** summarised into GLM land types
- current imagery (.tiff) provided for GIS layer

Updated: planned update

Access: property purchase, pre/post-clearing, GLM, BMP

Summary of FPC for land types

This table indicates the area and **percentage area** of FPC for each land type on the selected Lot on Plan. Four FPC classes are shown (FPC<15%, FPC 15-30%, FPC 30-70% and FPC>70%)

Expected land type (for land types > 1 hectare)	Code	Land type area (ha)	FPC <15 ha (%)	FPC 15-30 ha (%)	FPC 30-70 ha (%)	FPC >70 ha (%)
02 Lancewood - bendee - rosewood (BD)	BD12	2200	859 (39.0)	313 (14.2)	1028 (46.7)	< 1 (<1)
04 Narrow-leaved ironbark on deeper soils	BD14	1582	895 (56.6)	595 (37.6)	92 (5.8)	< 1 (<1)
06 Goldfields country - black soils	BD10	1228	324 (26.4)	597 (48.6)	306 (25.0)	< 1 (<1)
01 Loamy alluvials	BD13	1043	232 (22.3)	651 (62.4)	160 (15.3)	< 1 (<1)
05 Yellowjacket with other eucalypts	BD20	786	487 (62.0)	285 (36.2)	14 (1.8)	< 1 (<1)
03 Range soil (NG)	NG08	81	44 (54.1)	35 (43.4)	2 (2.6)	< 1 (<1)
Total		6919	2841 (41.1)	2476 (35.8)	1603 (23.2)	0 (0)

Ground Cover report

Page 1:

- background information
- seasonal view (3 mth) - year choice
- coloured groundcover ranges
- groundcover summary

Page 2:

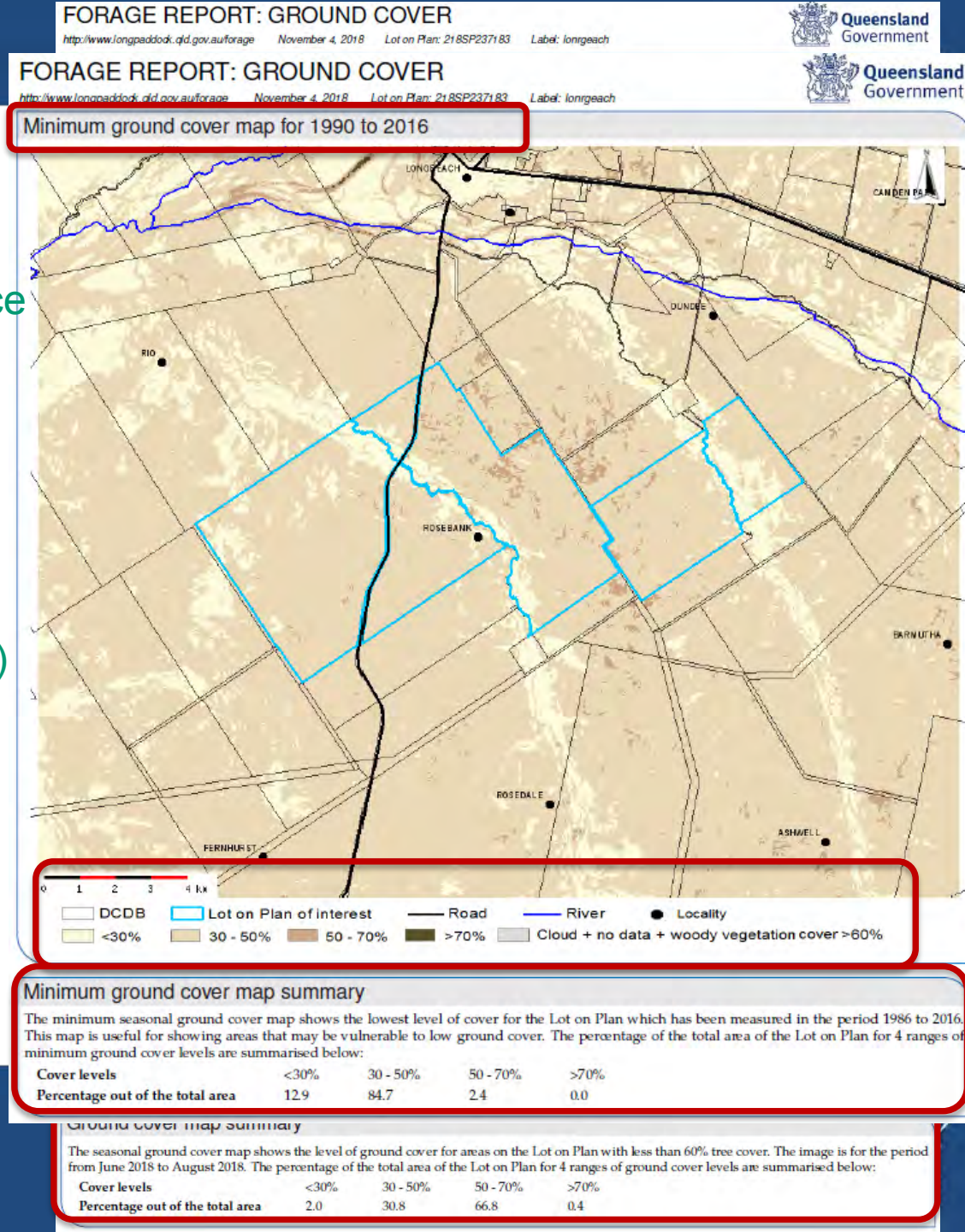
- minimum cover “composite” view

Page 3:

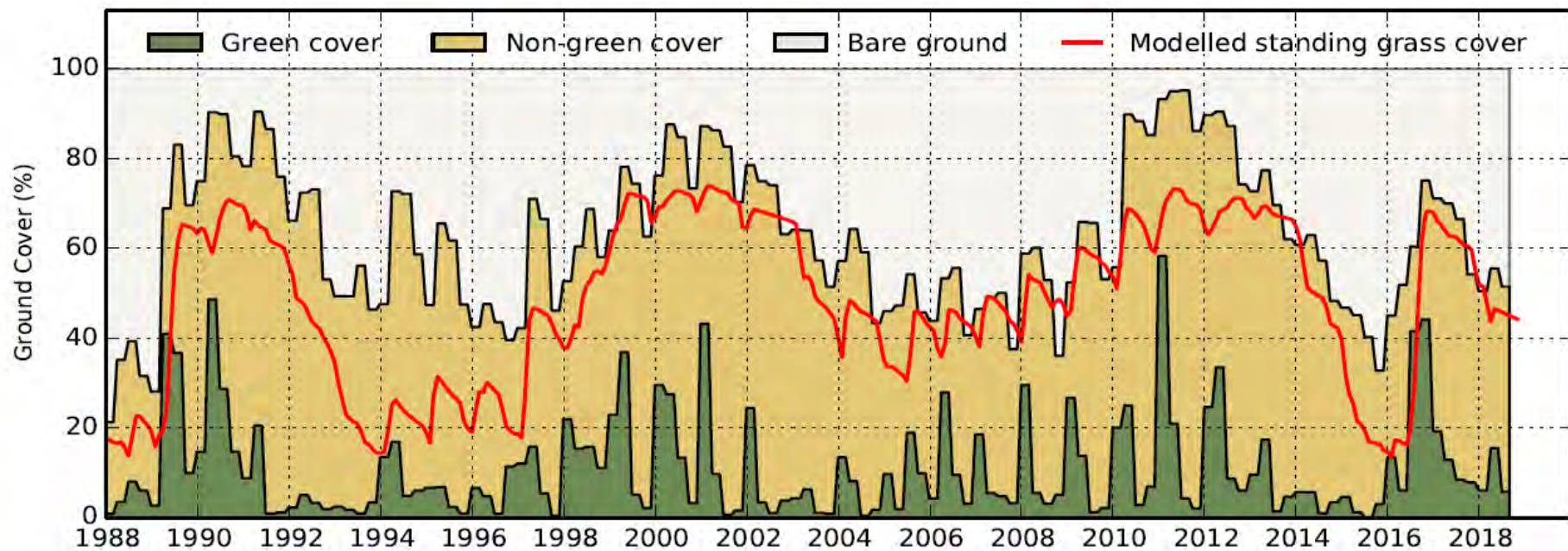
- cover timeseries graph (next slide)
- plus accessory spreadsheet for calculation option

Updated: Monthly

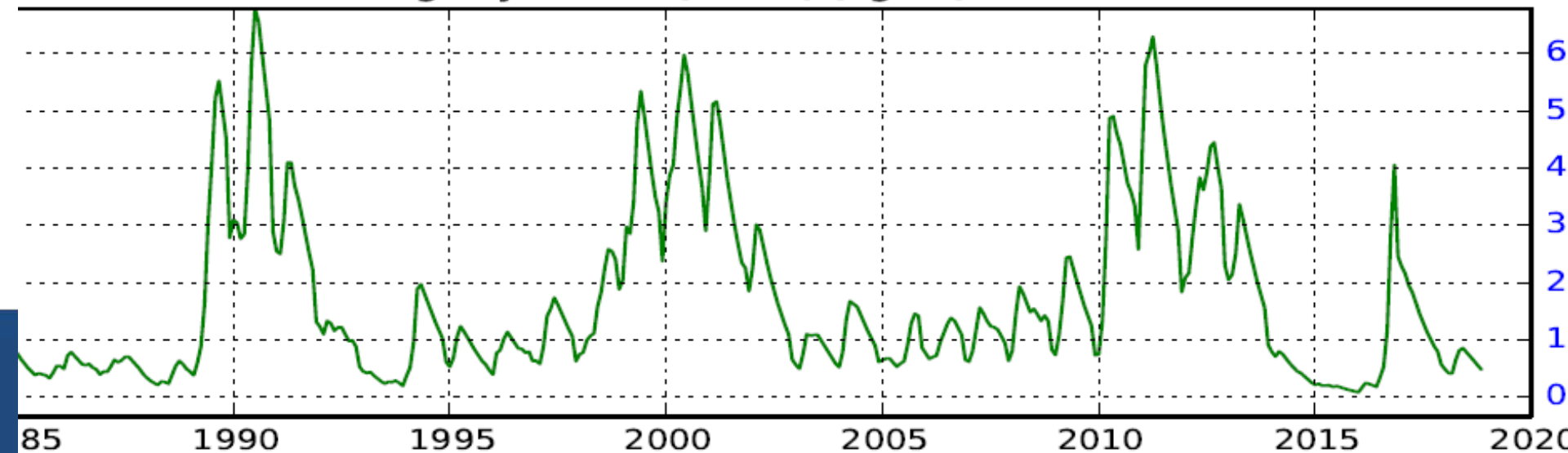
Access: Seasonally – ½ year, land condition assessment, GLM, BMP



Seasonal ground cover time series graph



Total Standing Dry Matter (TSDM) (kg/ha)



Ground Cover - Regional Comparison report

Department of Environment and Science

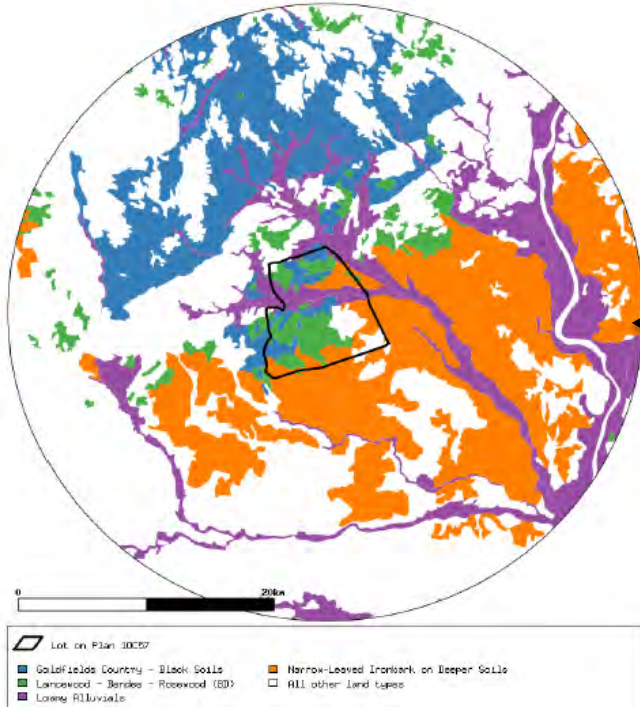
FORAGE REPORT: GROUND COVER - REGIONAL COMPARISON

<http://www.longpaddock.qld.gov.au/forage> November 3, 2018 Lot on Plan: 1 OC57 Label: spyglass

Cover rankings per dominant land type

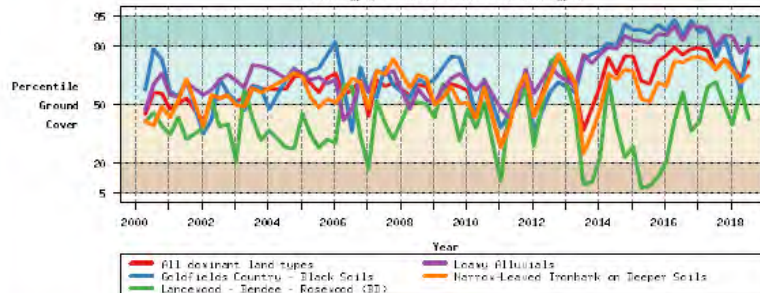
Lot on Plan compared with the local region

Land type: all dominant land types



Ground cover ranking against surrounding region over time

Land type: individual dominant land types



Provides: Ground cover comparison for all dominant land types

Front report page shows:

each dominant land type for Lot on Plan and the distribution of the same land types in the local region (25km radius)

percentile graph shows cover for each land type ranked against cover on the same land type within the region

Ground Cover - Regional Comparison report

Department of Environment and Science

FORAGE REPORT: GROUND COVER - REGIONAL COMPARISON

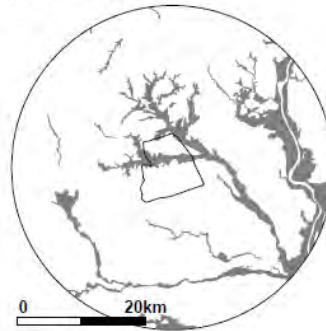
<http://www.longpaddock.qld.gov.au/forage> November 3, 2018 Lot on Plan: 10GS7 Label: spyglass

Cover values for dominant land type 3

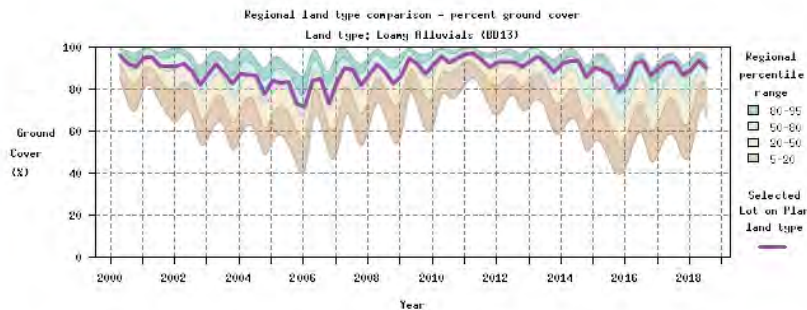
Regional land type comparison - ground cover
Land type: Loamy Alluvials (BD13)

Selected property and surrounding region (25km radius)

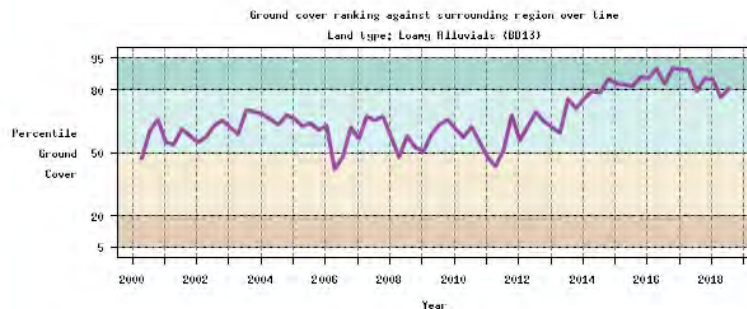
- Lot on Plan
- Selected landtype in region
- All other land types



Comparison for **an individual land type** includes:



cover levels on land type within Lot on Plan are compared with cover levels on same land type within the surrounding area



percentile graph shows cover for a single land type ranked against cover on the same land type within the region

Updated: Seasonally - 4 times/yr

Access: 4 times/yr – Seasonally, land condition assessment, GLM, BMP

Drought Assessment Information report

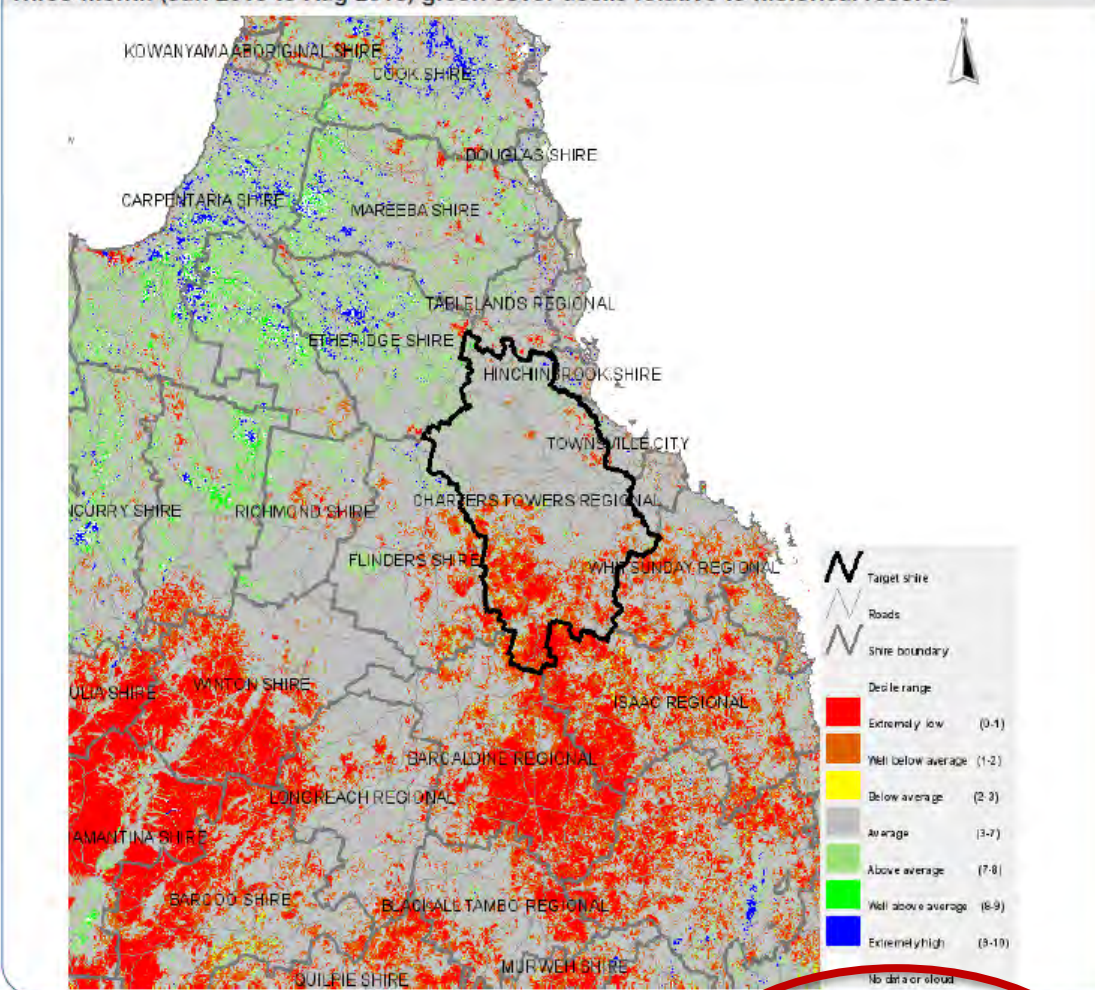
Department of Environment and Science

FORAGE REPORT: DROUGHT ASSESSMENT INFORMATION

<http://www.longpaddock.qld.gov.au/forage> November 5, 2018 Shire: Charters Towers Regional Label: spyglass



Three-month (Jun 2018 to Aug 2018) green cover decile relative to historical records



About the map

This map shows the Landsat based a multi-dimensional median green cover in the three-month period indicated, relative to the same three-month period each year since 1990, and ranked on a 0-10 (decile) scale. Areas with no data are most likely covered by clouds. Pixel size is 30 metres.

More information about this image can be found at:
<http://data.auscover.org.au/xwiki/bin/view/Product+pages/Seasonal+Cover+Deciles>

Queensland wide snapshot



Shire-based – broad outlook

Sourced from AussieGRASS

- 26 multi-month maps inc:
 - rainfall
 - soil moisture
 - maximum temperature
 - pasture growth & biomass
 - rainfall runoff
 - growth & runoff forecasts
 - curing index
 - green cover percentiles
 - shire timeseries
 - was originally for LDC's

Updated: Monthly

Access: ad hoc for awareness,
property / livestock sales, purchases,
& agistment

Subscribe to receive report every
1, 2 or 3 months

Erodible soils assessment uses a classification that evaluates erosion potential of:

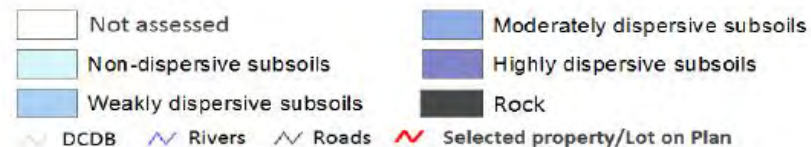
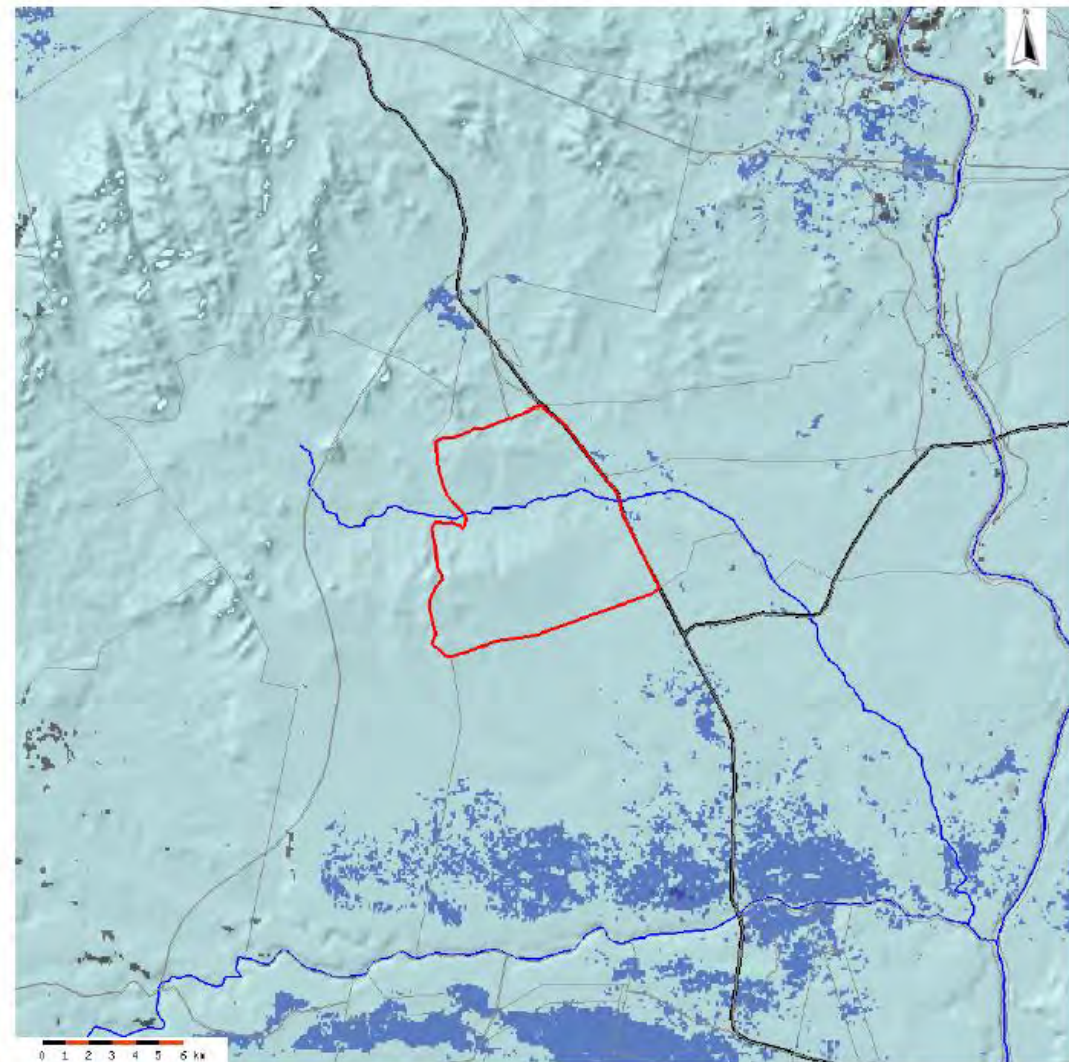
- Surface soil (stability)
- Subsoil (dispersibility)

Plus an overall erosion potential ranking is given with the surface soil and subsoil combinations currently for Burdekin and Fitzroy

		Surface soil stability (Map 2)			
		Increasing surface soil erodibility →			
		Moderately stable surface soils	Non-cohesive surface soils	Dispersive surface soils	Highly erodible surface soils
Subsoil dispersibility (Map 3)	Rock	Loamy to clayey soils over rock	Sandy massive surface soils over rock	Weakly dispersive clay soils	Clayey soils that erode and/or slake readily
	Non-dispersive subsoils	Loamy to clayey soils over non-dispersive subsoils	Sandy massive surface soils over non-dispersive subsoils		Clayey surface soils that erode and/or slake over weakly dispersive subsoils
	Weakly dispersive subsoils	Loamy to clayey soils over weakly dispersive clay subsoils	Sandy massive surface soils over weakly dispersive subsoils	Moderately dispersive clay soils	Clayey surface soils that erode and/or slake over moderately dispersive subsoils
	Moderately dispersive subsoils	Loamy to clayey soils over moderately dispersive clay subsoils	Sandy massive surface soils over moderately dispersive subsoils		Clayey surface soils that erode and/or slake over highly dispersive subsoils
	Highly dispersive subsoils	Loamy to clayey soils over highly dispersive clay subsoils	Sandy massive surface soils over highly dispersive subsoils	Dispersive loamy or clayey surface soils over highly dispersive clay subsoils	Clayey surface soils that erode and/or slake over highly dispersive subsoils

Erodible Soils report

Map 3 - Subsoil dispersability



Overall soil erodibility ranking map

Surface soil stability map

Subsoil dispersability map

Updated: ≈5-yearly re-analysis

Access: Once-off, property purchase, GLM/BMP, infrastructure guidance

Regional Climate Projections report

- historical climate information and long term climate projections for 2030, 2050 and 2070
- inc. Rainfall, Min/max/mean temps, potential Evap. and ave. Vapour Pressure
- monthly median timeseries
- historical and projected climate ranges

FORAGE REPORT: REGIONAL CLIMATE PROJECTIONS

<http://www.longpaddock.qld.gov.au/forage> November 2, 2018 List on Plan: 3RPA1848+1QC57.4SP233424.4835CP etc Label: sryclass

Introduction

This report is for the location indicated by the red crosshair symbol on the map below. The report presents information based on SILO historical climate data and Consistent Climate Scenarios (CCS) projections data (developed by the Department of Environment and Science, DES). Annual and monthly climate projections data for 2030, 2050 and 2070 have been generated using 28 AR5 global climate models (GCMs), three model sensitivities to CO₂ rise (low, medium and high warming rates) and four Representative Concentration Pathways (RCP 2.6, RCP 4.5, RCP 6.0 and RCP 8.5) which specify CO₂ levels from 435 to 449 ppm for 2030 and from 478 to 677 ppm for 2070. The baseline climate is the period between 1960 and 2015.

The monthly median values for the historical climate (1960–2015) and climate projections for 2030, 2050 and 2070 are presented in the bar-dot graphs (below) which indicate the seasonal patterns of historical climate and projected climate under the different global warming rates and scenarios in 2030, 2050 and 2070.

The results for annual projections as shown by the projected annual climate range plots (next page) indicate a range of possibilities of projected temperature, rainfall and other parameters under the different global warming rates and scenarios. For more information, see <https://www.longpaddock.qld.gov.au/climateprojections/guide.html>.

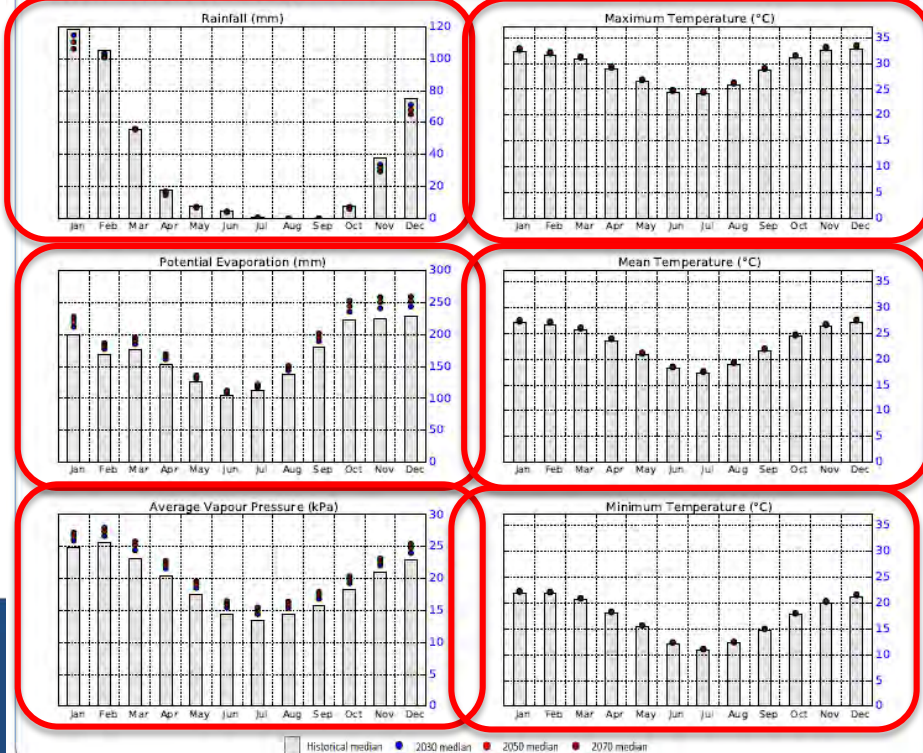
Historical and projected annual climate summary

Climate Variable (Median Annual)	Historical 1960-2010	Projection 2030	Projection 2050	Projection 2070
Rainfall (mm)	526.2	520.7	514.1	506.7
Evaporation (mm)	2038.9	2143.7	2204.3	2251.4
Mean Temperature (°C)	23.1	24.1	24.6	25.1
Maximum Temperature (°C)	29.1	30.0	30.6	31.0
Minimum Temperature (°C)	17.2	18.1	18.7	19.2
Average Vapour Pressure (kPa)	19.5	20.4	21.0	21.6

Location map



Historical and projected monthly median climate



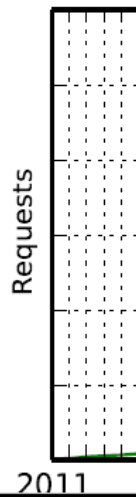
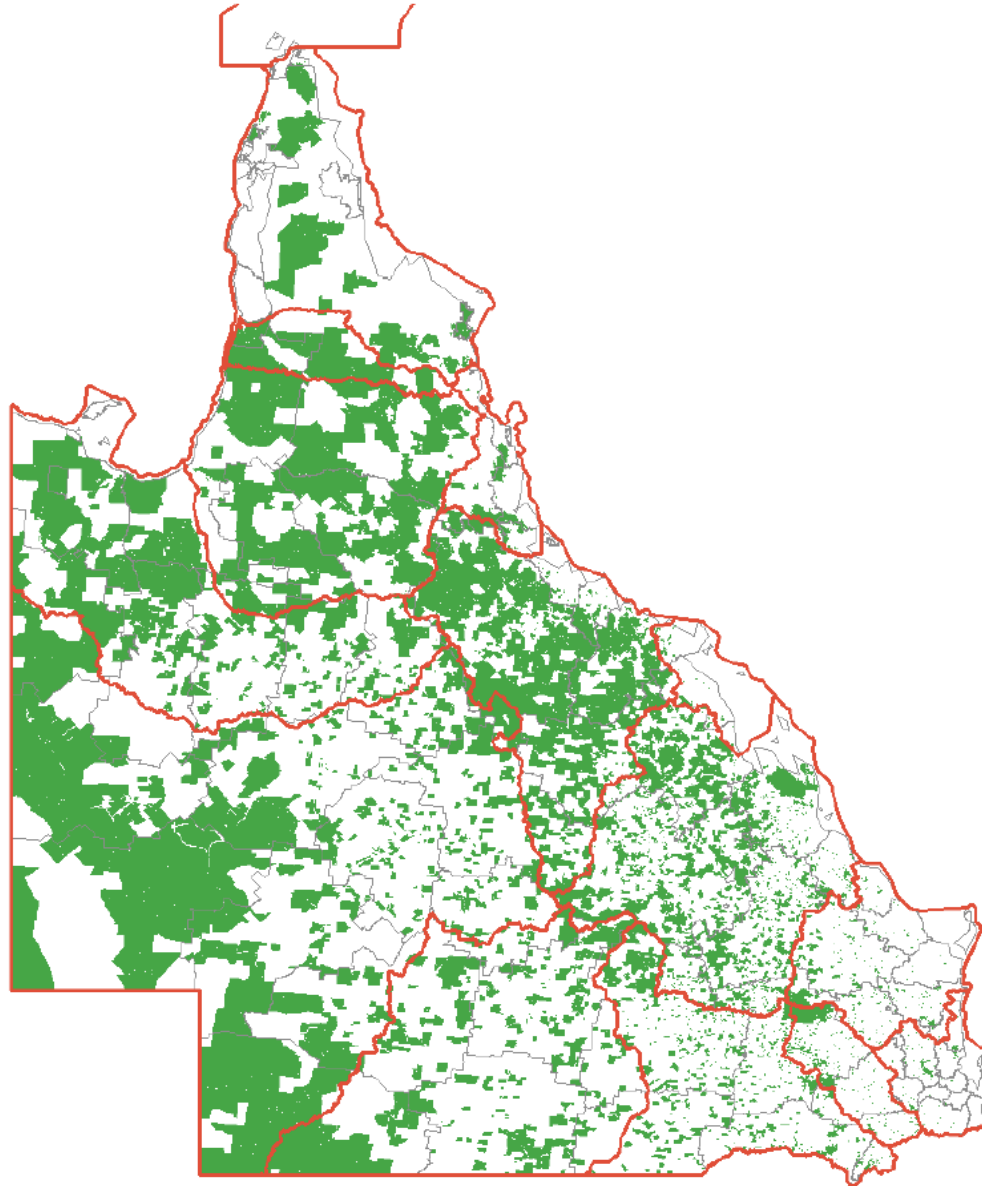
Updated: 5yrs – update to be released
Access: once, CC workshop, historical and future awareness

So, who uses FORAGE?

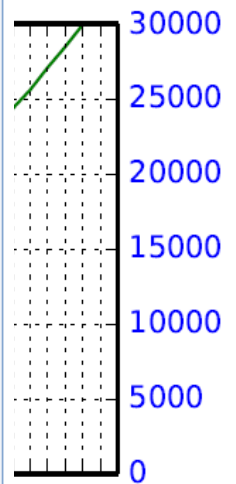
Department of Environment and Science

- ~30 Map of properties where FORAGE reports have been requested since 2011

- >35
- from
- ~25
- rese
-
-



rs...).



- Is this season different from last year — or 5 years ago
 - Rainfall pasture report
 - Seasonal rainfall & pasture outlook report
 - Drought Assessment report
- What parts of my paddocks are bare?
 - Regional Groundcover report
 - Erodibility report
 - Land type report
 - FPC report
 - VegMachine
- How many cattle do I run until the next season?
 - Rainfall pasture Land type report
 - Seasonal rainfall & pasture outlook report
 - Groundcover report
- Do I need more water points?
 - Land type report
 - FPC report
 - VegMachine
- Why does this paddock have less cover than that paddock?
 - Land type report
 - Regional Groundcover report
 - FPC report
 - VegMachine



Summary of FORAGE products

Department of Environment and Science

- Latest technology products assist with awareness and land management decision-making
- Online, free and easy to access
- Track record over time (despite no real marketing)
- Niche market (graziers, extension staff, BMP, consultants, education, policy)
- Reports mutually support other analyses in FORAGE product suite (rainfall / ground cover)
- FORAGE can be linked with other products (e.g. shapefiles with GIS, Google Earth, VegMachine)
- Report improvements will continue
- Joint support with BMP, DAF and NRM groups
- More prototypes in development – watch this space!



Photos: Grant Stone

Next webinar is the last in the “*Getting the Inside Edge*” series:

FORAGE – free property information to assist with grazing land management decisions:

- Part 2 – new and soon to be released information (Thurs 29th Nov)

Webinars now available: <https://longpaddock.qld.gov.au/about/webinars/> - see below

Questions and suggestions - email The Long Paddock team at longpaddock@qld.gov.au

www.longpaddock.qld.gov.au

The Long Paddock

Home	About	Drought Declaration	Drought & Climate Adaptation	Southern Oscillation Index	Seasonal Climate Outlook	SILO	AussieGRASS Rainfall / Pasture	FORAGE Property Reports	Climate Adaptation	Rainfall Posters
------	-------	---------------------	------------------------------	----------------------------	--------------------------	------	--------------------------------	-------------------------	--------------------	------------------

15 Oct, 2018
Average SOI value for the last 30 days
-3.95

Climate risk information for rural Queensland
A Queensland Government initiative providing seasonal climate and pasture condition information to the grazing community