Appendix 4: Forage Crop Frequency Data for the years 2011 – 2020

arrow energy
go further

FORAGE REPORT: CROP FREQUENCY

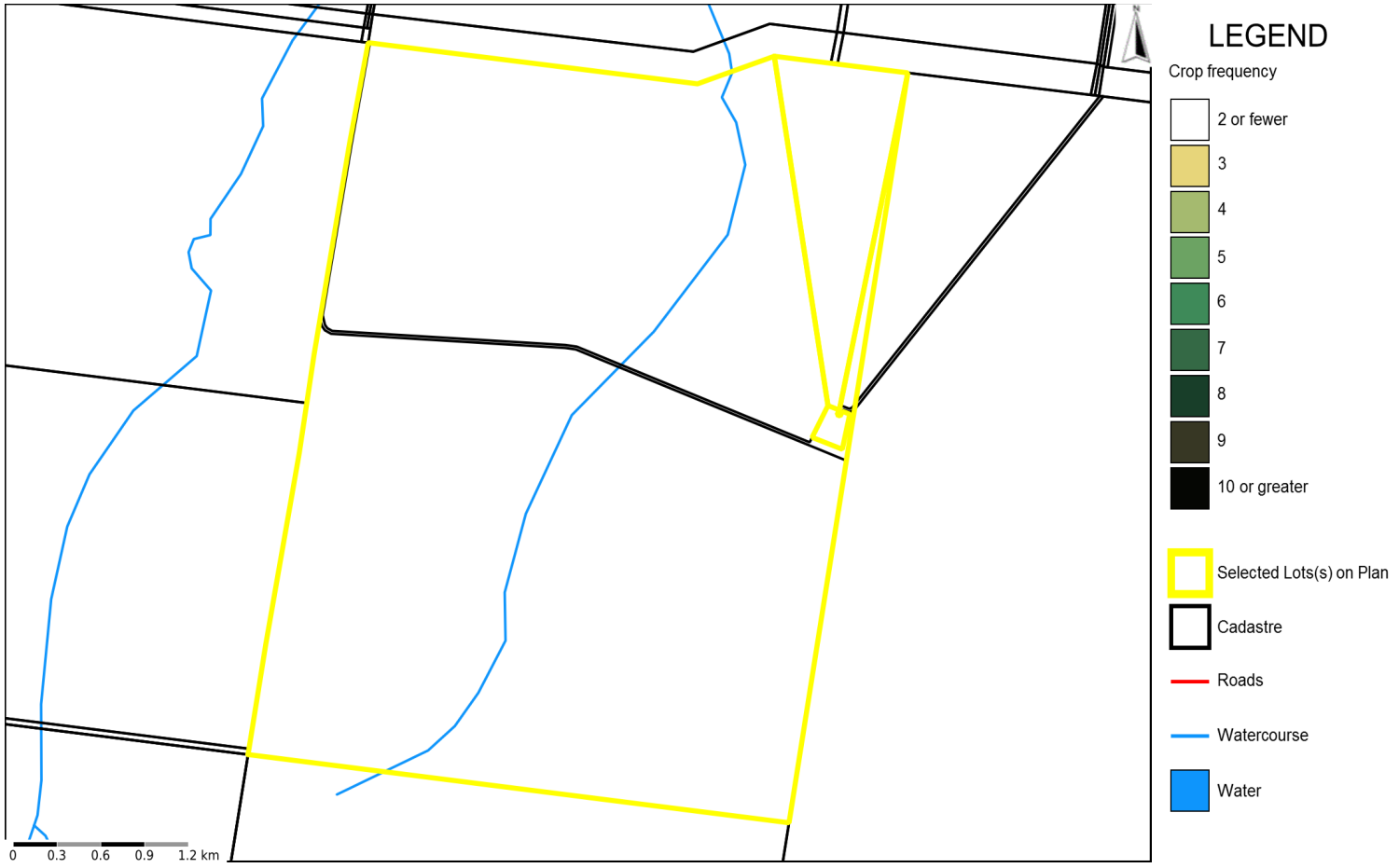
http://www.longpaddock.qld.gov.au/forage *March 31, 2021* *Lot on Plan: 27SP253612* *Label: noLabel*

Queensland Government

Introduction

This report presents maps of crop frequency for your chosen area, and chosen time period. Maps are based on time-series analysis of satellite imagery (30-m spatial resolution), for both the summer and winter growing seasons, aimed at detecting cycles of greenness in vegetation. Composite satellite images that display the maximum greenness within a summer or winter growing season for each year are also provided, as a visual reference. For further information refer to the FORAGE User Guide (https://data.longpaddock.qld.gov.au/static/forage_user_guide.pdf) .

Estimated total crop frequency map (2011 - 2020)



How to interpret the information

Crop-frequency mapping: Coloured areas on the maps indicate locations where active crops have been detected three or more times in the summer or winter growing seasons, for the time period specified. The map on this page shows "Total Frequency" which is a count of the number of times that an active crop was detected. The maps on the following page show the summer and winter crop frequency, respectively. Analysis of satellite imagery can result in some misclassification, so it is recommended to view the composite imagery (see below) to help confirm the presence of a crop in a given season.

Mapping of broad groups of crops: Crop frequency is also separated into estimates of the broad crop groups within the area. This estimation is based on an automated classification approach (see https://www.qld.gov.au/environment/land/management/mapping/statewide-monitoring/crops for more detail).

In the winter season the classification differentiates between the groups:

- Cereal crops (e.g. wheat, barley, oats);
- Pulse crops (e.g. chickpea).

In the summer season the classification differentiates between the groups:

- Coarse-grain and pulse (e.g. sorghum, maize, mungbean);
- Cotton crop.

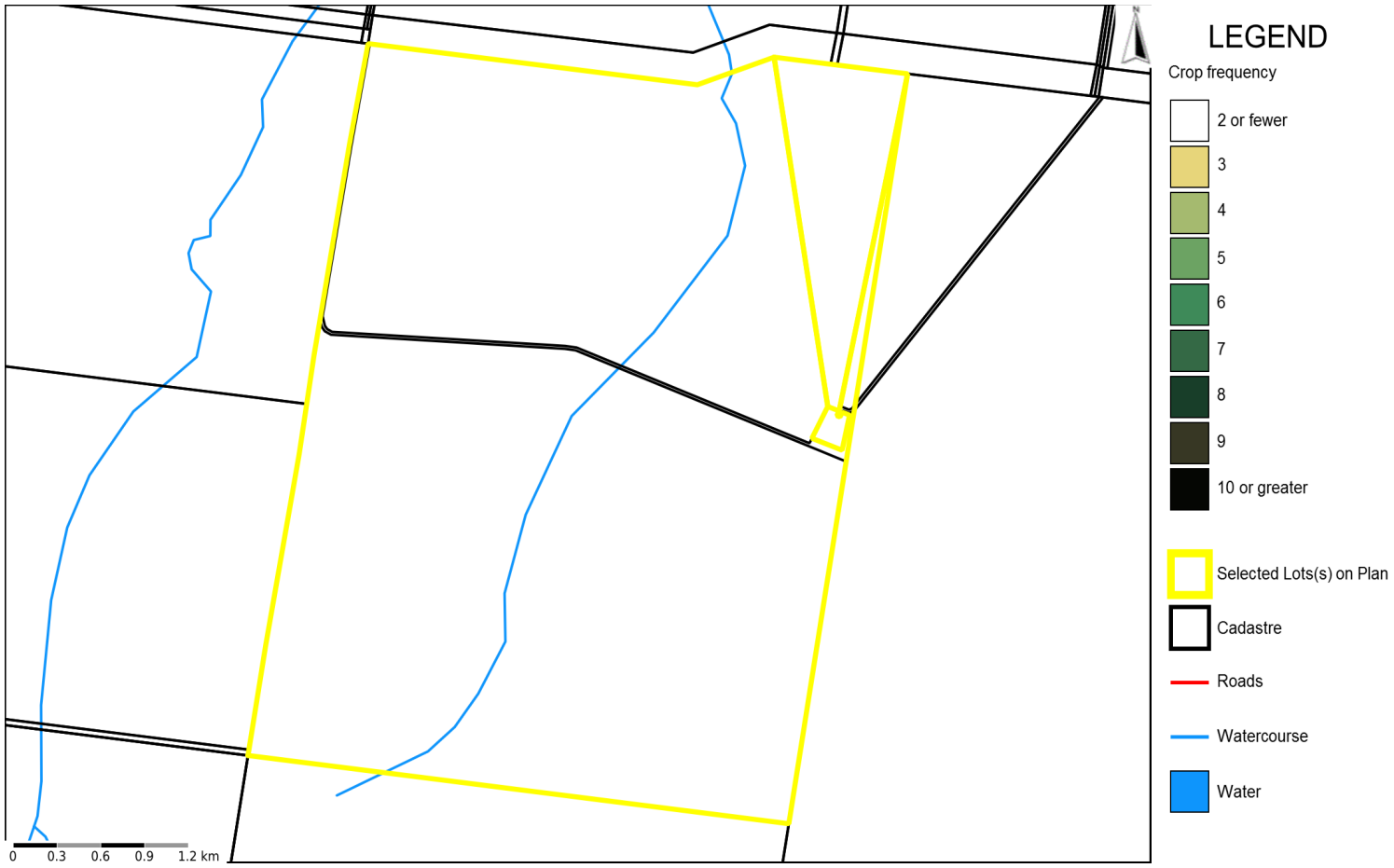
Composite satellite imagery: Due to the limitations of the automated method used to detect active cropping, it is recommended to view the seasonal composite images (pages 5 onward), compiled to represent the maximum greenness (per pixel) within a growing season. Cropped areas will generally appear bright green in the imagery compared with the surrounding landscape. Even if the crop-frequency mapping does not indicate cropping in an area, it is important to check each composite image to confirm that cropping has not been undertaken. Sometimes it will not be possible to clearly identify cropped areas in the imagery, e.g in some wetter seasons the entire landscape might appear green. In this case, it is recommended to undertake further investigation using other information sources. Note: the composite images are only used to confirm the presence or absence of cropping activity; it is not possible to visually differentiate between the crop groups.

FORAGE REPORT: CROP FREQUENCY

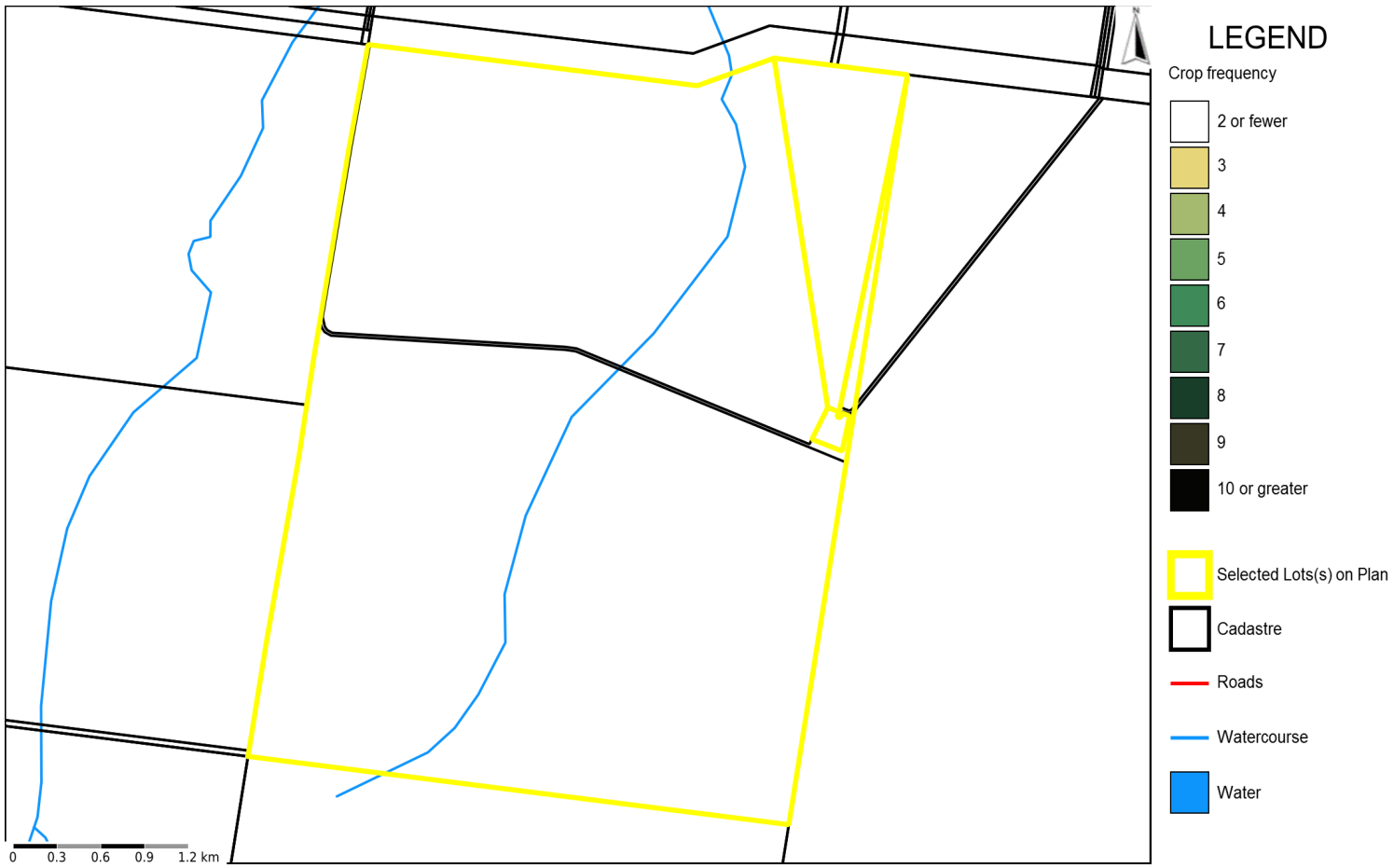
http://www.longpaddock.qld.gov.au/forage *March 31, 2021* *Lot on Plan: 27SP253612* *Label: noLabel*

Queensland Government

Estimated frequency map for summer (February) crops (2011 - 2020)



Estimated frequency map for winter (September) crops (2011 - 2020)

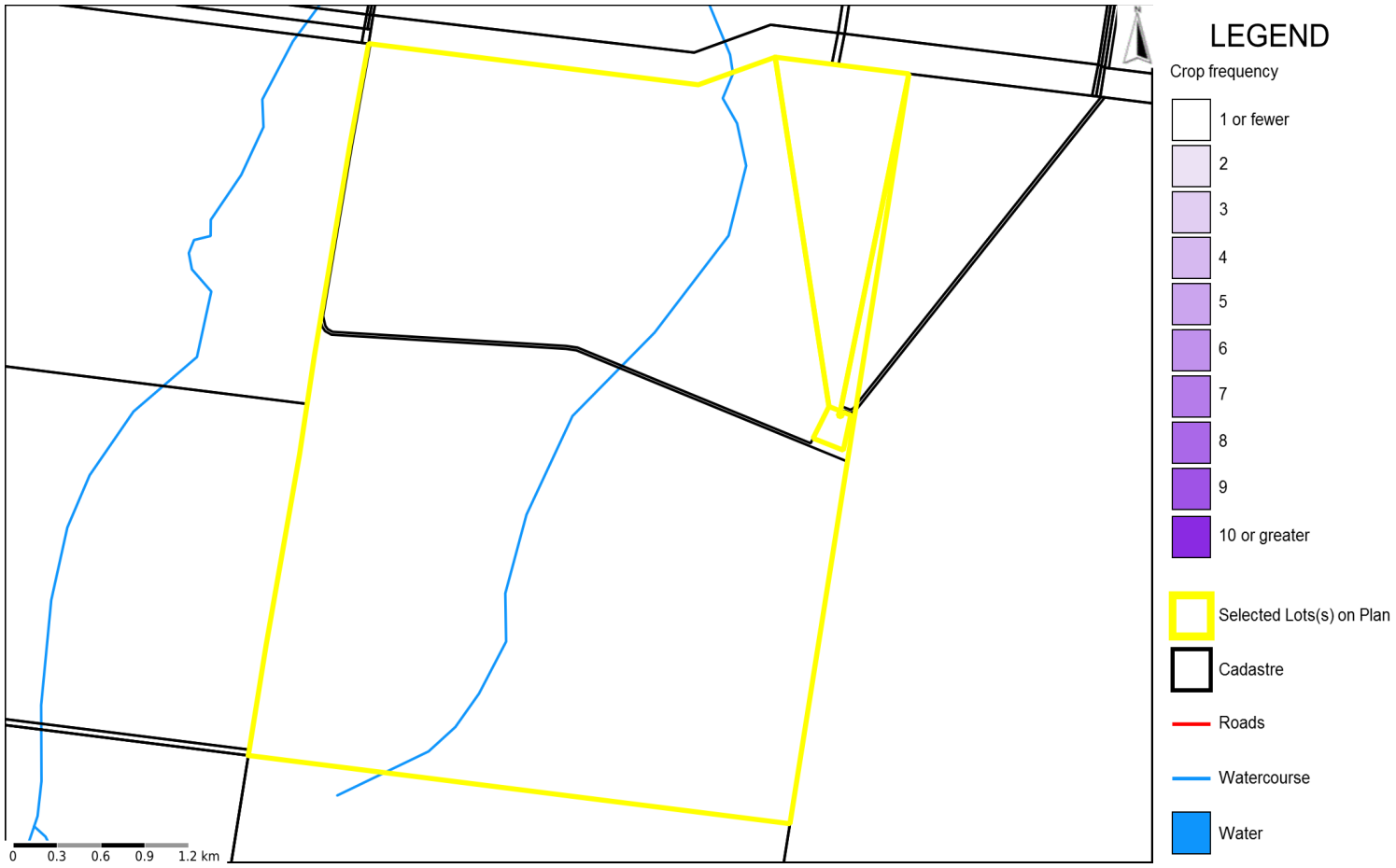


FORAGE REPORT: CROP FREQUENCY

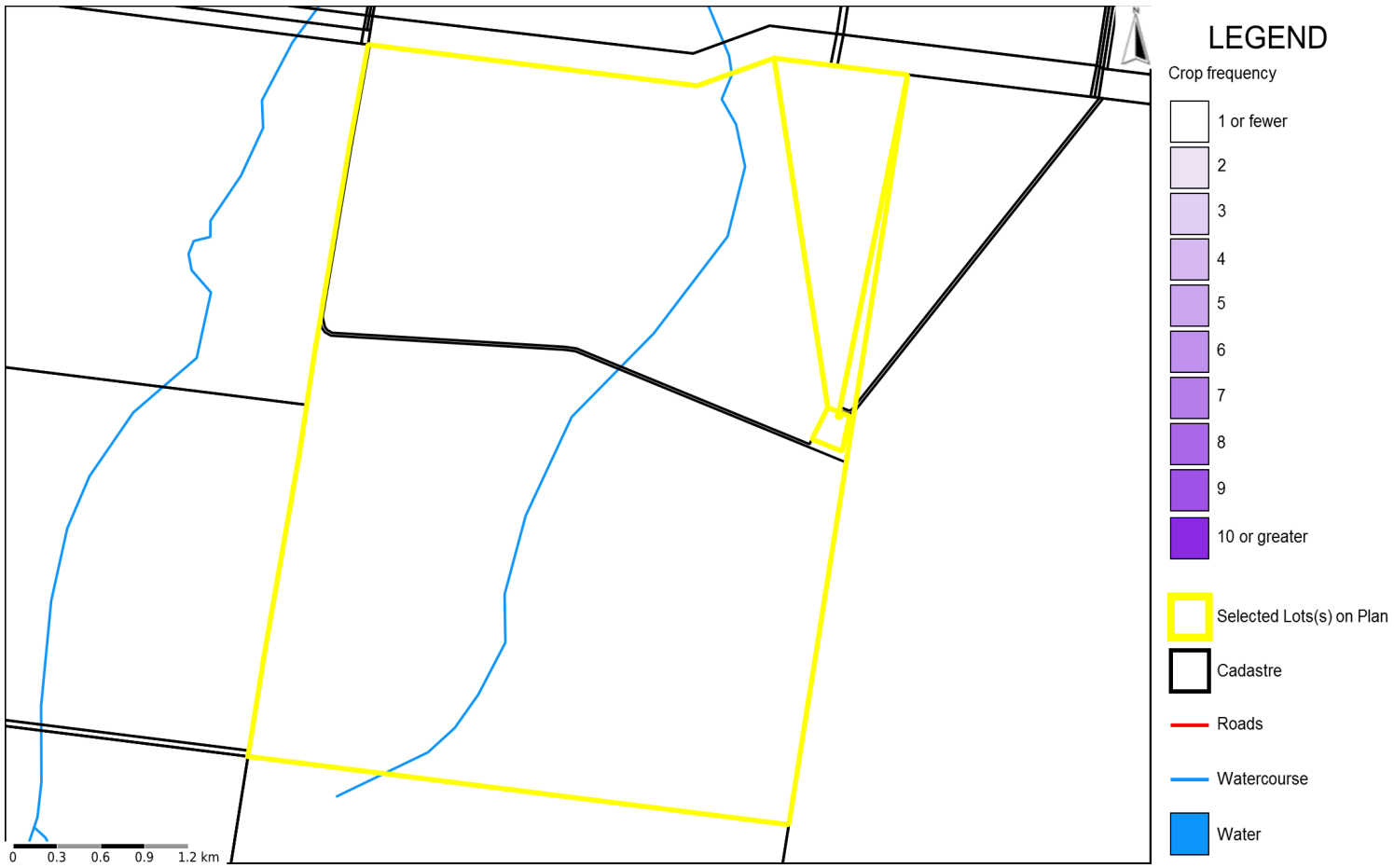
http://www.longpaddock.qld.gov.au/forage *March 31, 2021* *Lot on Plan: 27SP253612* *Label: noLabel*

Queensland Government

Estimated frequency map for summer (February) coarse grain and pulse crops (2011 - 2020)



Estimated frequency map for summer (February) cotton crops (2011 - 2020)

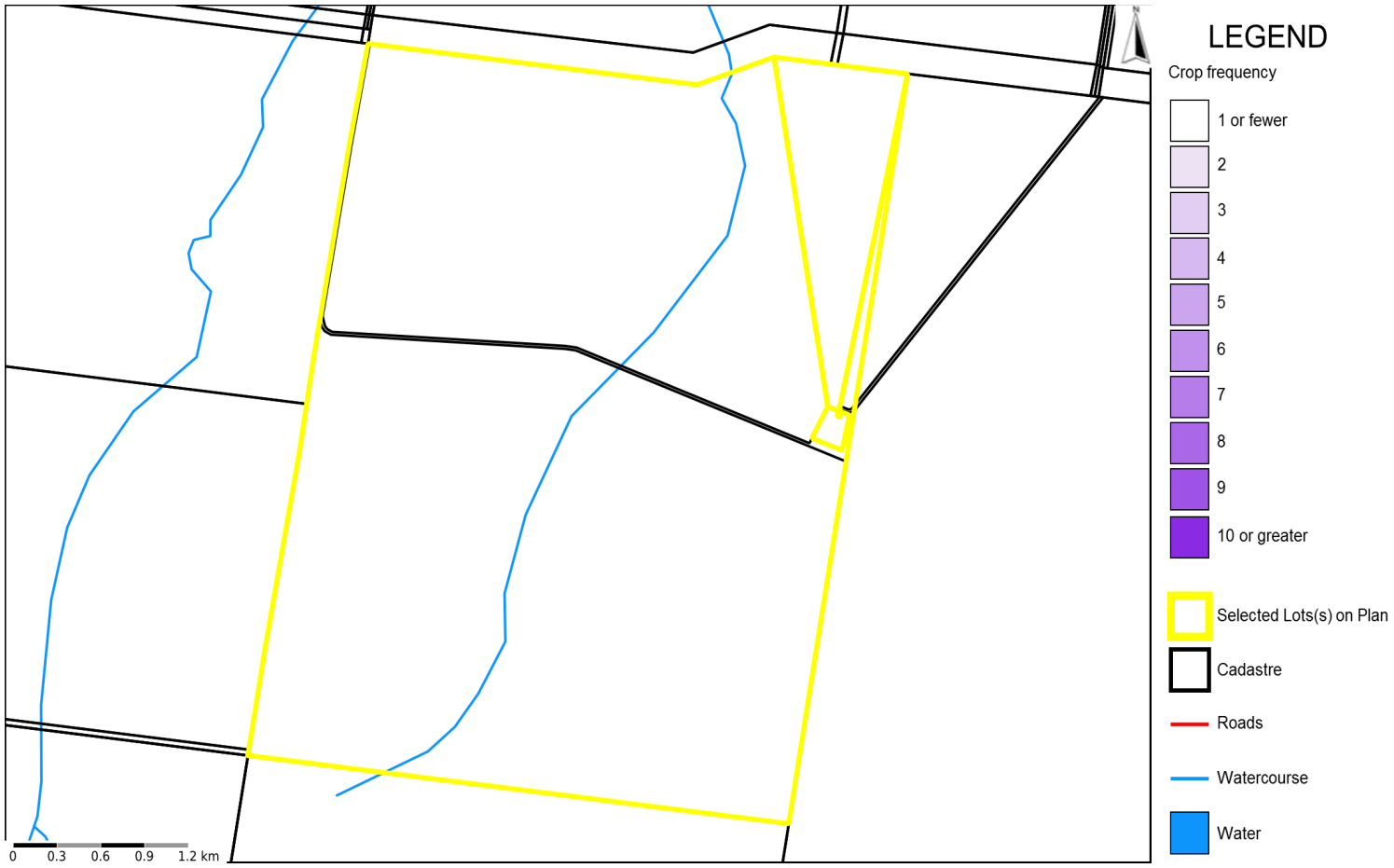


FORAGE REPORT: CROP FREQUENCY

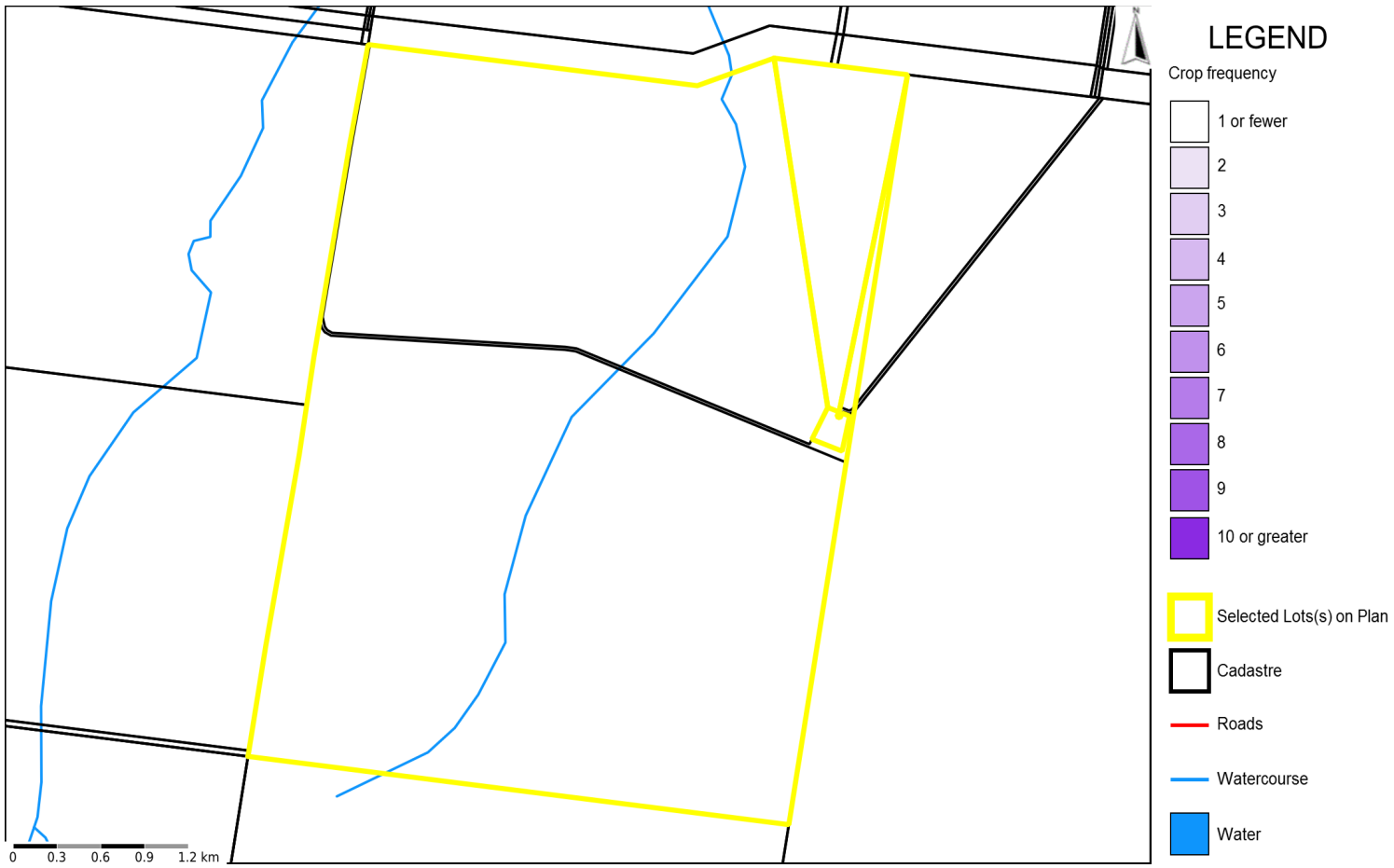
http://www.longpaddock.qld.gov.au/forage *March 31, 2021* *Lot on Plan: 27SP253612* *Label: noLabel*

Queensland Government

Estimated frequency map for winter (September) cereal crops (2011 - 2020)



Estimated frequency map for winter (September) pulse crops (2011 - 2020)

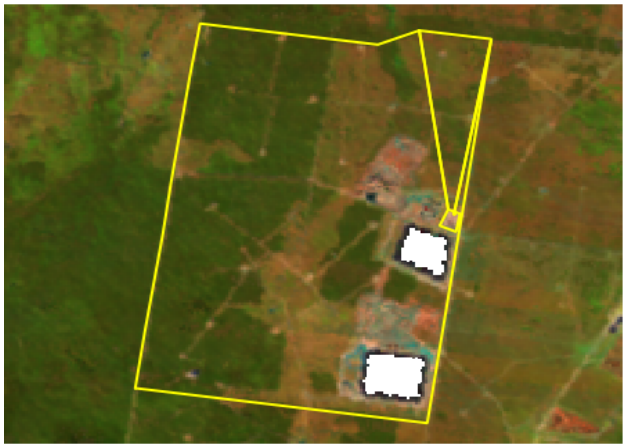


FORAGE REPORT: CROP FREQUENCY

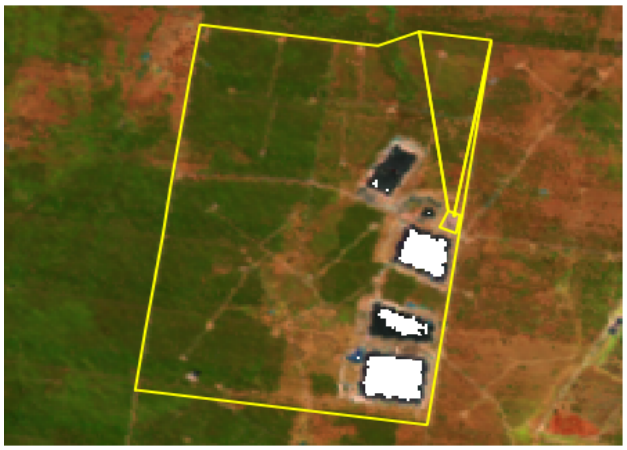
http://www.longpaddock.qld.gov.au/forage *March 31, 2021* *Lot on Plan: 27SP253612* *Label: noLabel*

Queensland Government

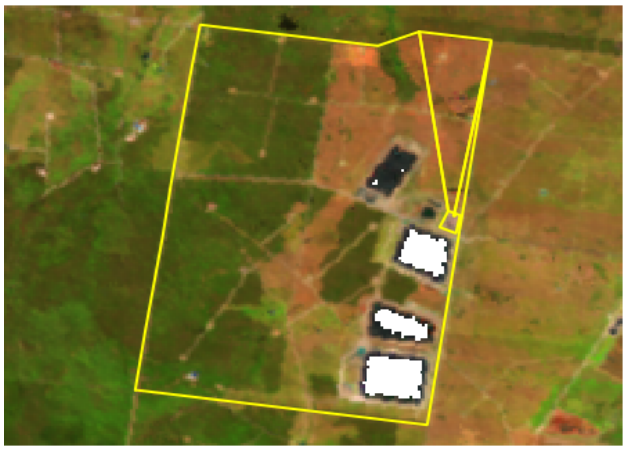
February (left) and September (right) images for 2011

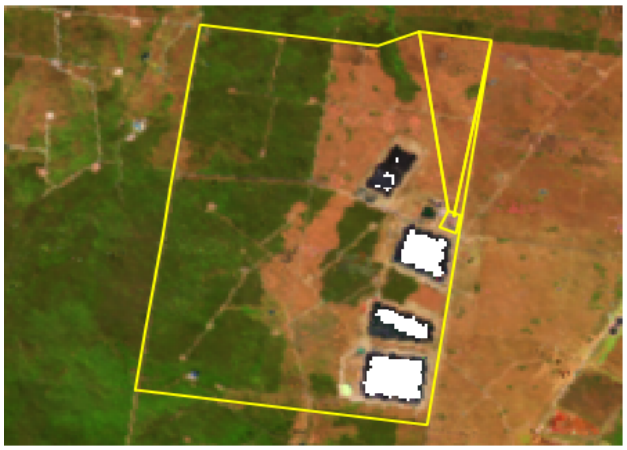


February (left) and September (right) images for 2012



February (left) and September (right) images for 2013



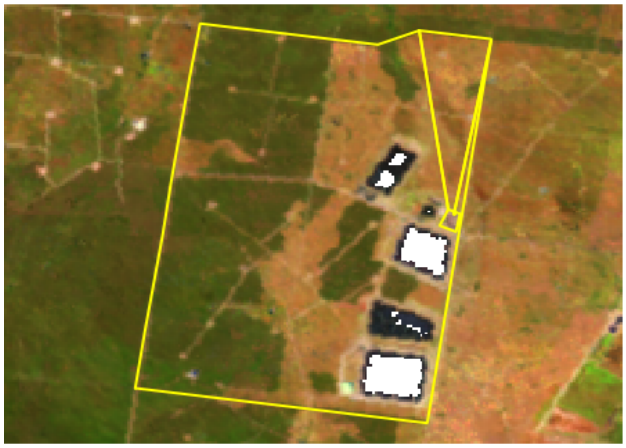


FORAGE REPORT: CROP FREQUENCY

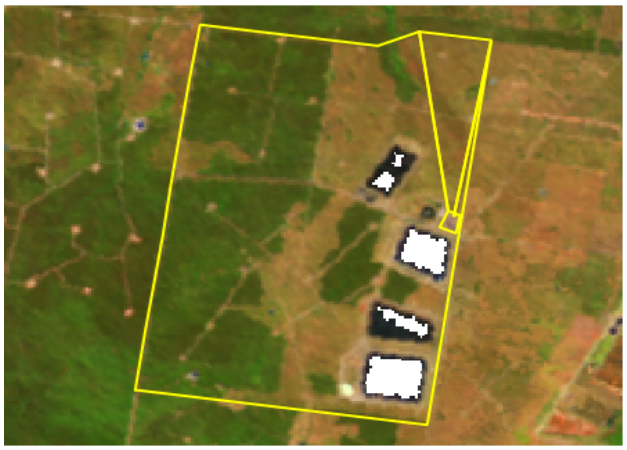
http://www.longpaddock.qld.gov.au/forage *March 31, 2021* *Lot on Plan: 27SP253612* *Label: noLabel*

Queensland Government

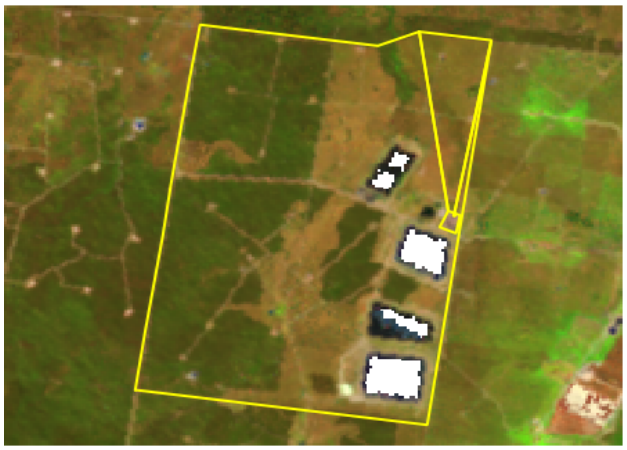
February (left) and September (right) images for 2014



February (left) and September (right) images for 2015



February (left) and September (right) images for 2016

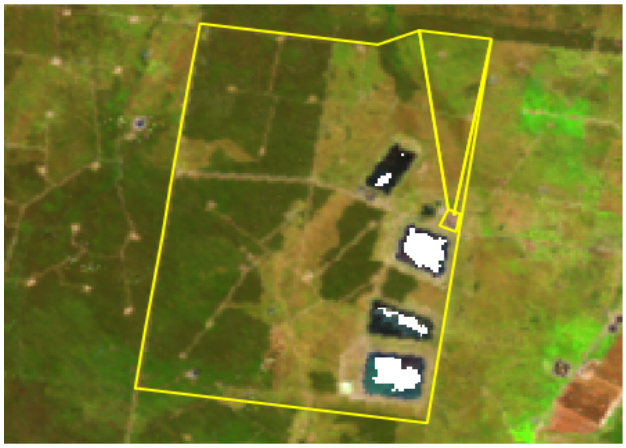


FORAGE REPORT: CROP FREQUENCY

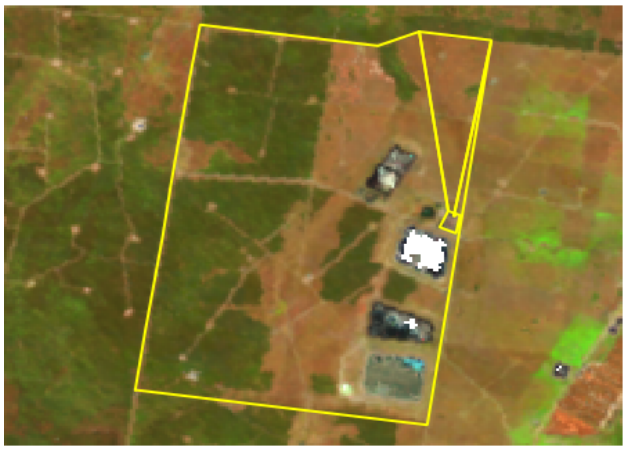
http://www.longpaddock.qld.gov.au/forage *March 31, 2021* *Lot on Plan: 27SP253612* *Label: noLabel*

Queensland Government

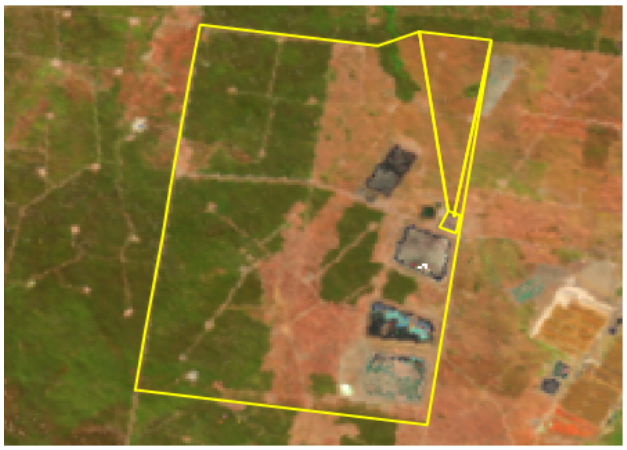
February (left) and September (right) images for 2017



February (left) and September (right) images for 2018



February (left) and September (right) images for 2019



FORAGE REPORT: CROP FREQUENCY

http://www.longpaddock.qld.gov.au/forage *March 31, 2021* *Lot on Plan: 27SP253612* *Label: noLabel*

Queensland Government

February (left) and September (right) images for 2020

Disclaimer

Limitation of liability: the State of Queensland, as represented by the Department of Environment and Science (DES) gives no warranty in relation to the data (including without limitation, accuracy, reliability, completeness or fitness for a particular purpose). To the maximum extent permitted by applicable law, in no event shall DES be liable for any special, incidental, indirect, or consequential damages whatsoever (including, but not limited to, damages for loss of profits or confidential or other information, for business interruption, for personal injury, for loss of privacy, for failure to meet any duty including of good faith or of reasonable care, for negligence, and for any other pecuniary or other loss whatsoever including, without limitation, legal costs on a solicitor own client basis) arising out of, or in any way related to, the use of or inability to use the data. ©The State of Queensland, 2021.

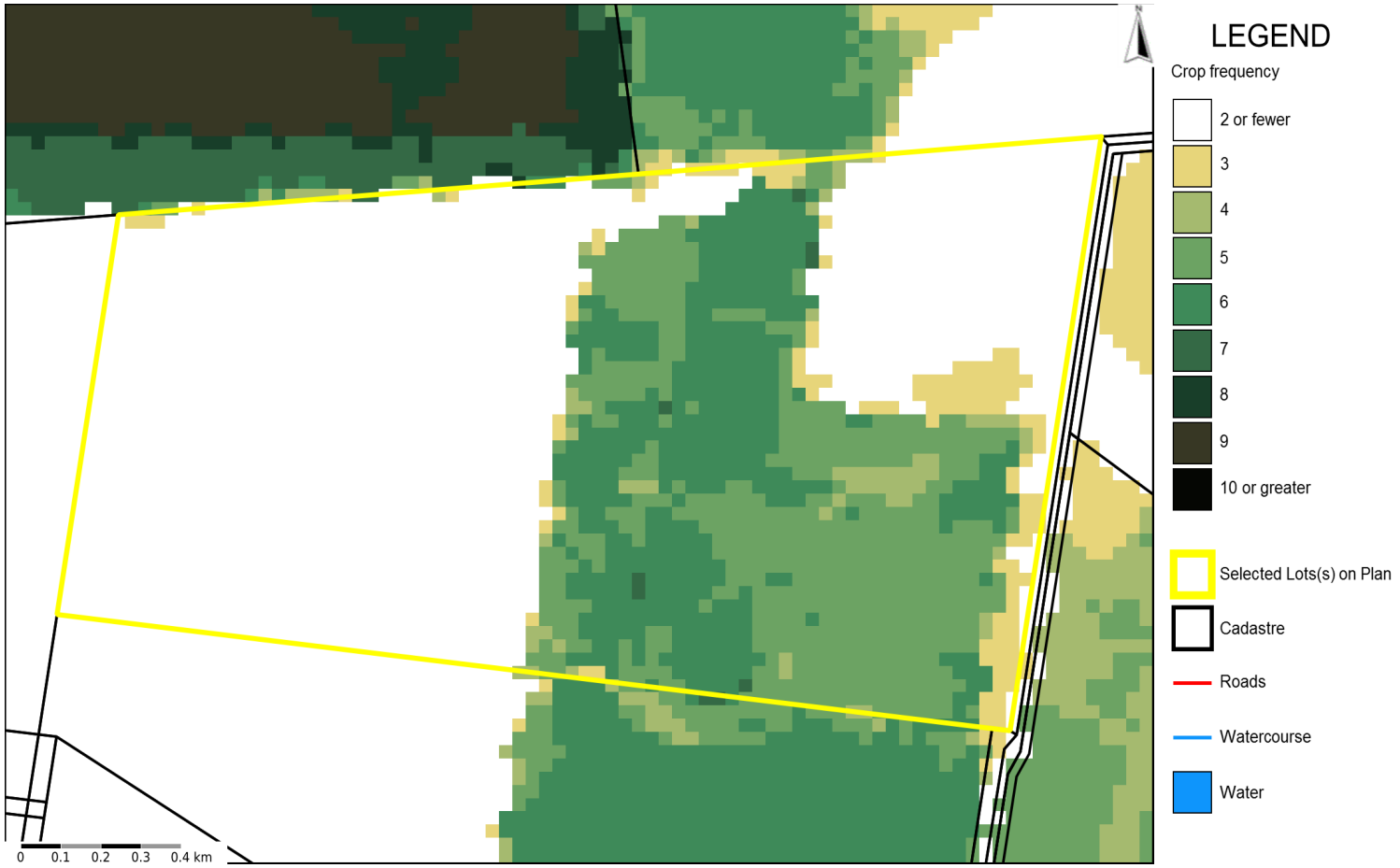
FORAGE REPORT: CROP FREQUENCY

Queensland Government

Introduction

This report presents maps of crop frequency for your chosen area, and chosen time period. Maps are based on time-series analysis of satellite imagery (30-m spatial resolution), for both the summer and winter growing seasons, aimed at detecting cycles of greenness in vegetation. Composite satellite images that display the maximum greenness within a summer or winter growing season for each year are also provided, as a visual reference. For further information refer to the FORAGE User Guide (https://data.longpaddock.qld.gov.au/static/forage_user_guide.pdf) .

Estimated total crop frequency map (2011 - 2020)



How to interpret the information

Crop-frequency mapping: Coloured areas on the maps indicate locations where active crops have been detected three or more times in the summer or winter growing seasons, for the time period specified. The map on this page shows "Total Frequency" which is a count of the number of times that an active crop was detected. The maps on the following page show the summer and winter crop frequency, respectively. Analysis of satellite imagery can result in some misclassification, so it is recommended to view the composite imagery (see below) to help confirm the presence of a crop in a given season.

Mapping of broad groups of crops: Crop frequency is also separated into estimates of the broad crop groups within the area. This estimation is based on an automated classification approach (see https://www.qld.gov.au/environment/land/management/mapping/statewide-monitoring/crops for more detail).

In the winter season the classification differentiates between the groups:

- Cereal crops (e.g. wheat, barley, oats);
- Pulse crops (e.g. chickpea).

In the summer season the classification differentiates between the groups:

- Coarse-grain and pulse (e.g. sorghum, maize, mungbean);
- Cotton crop.

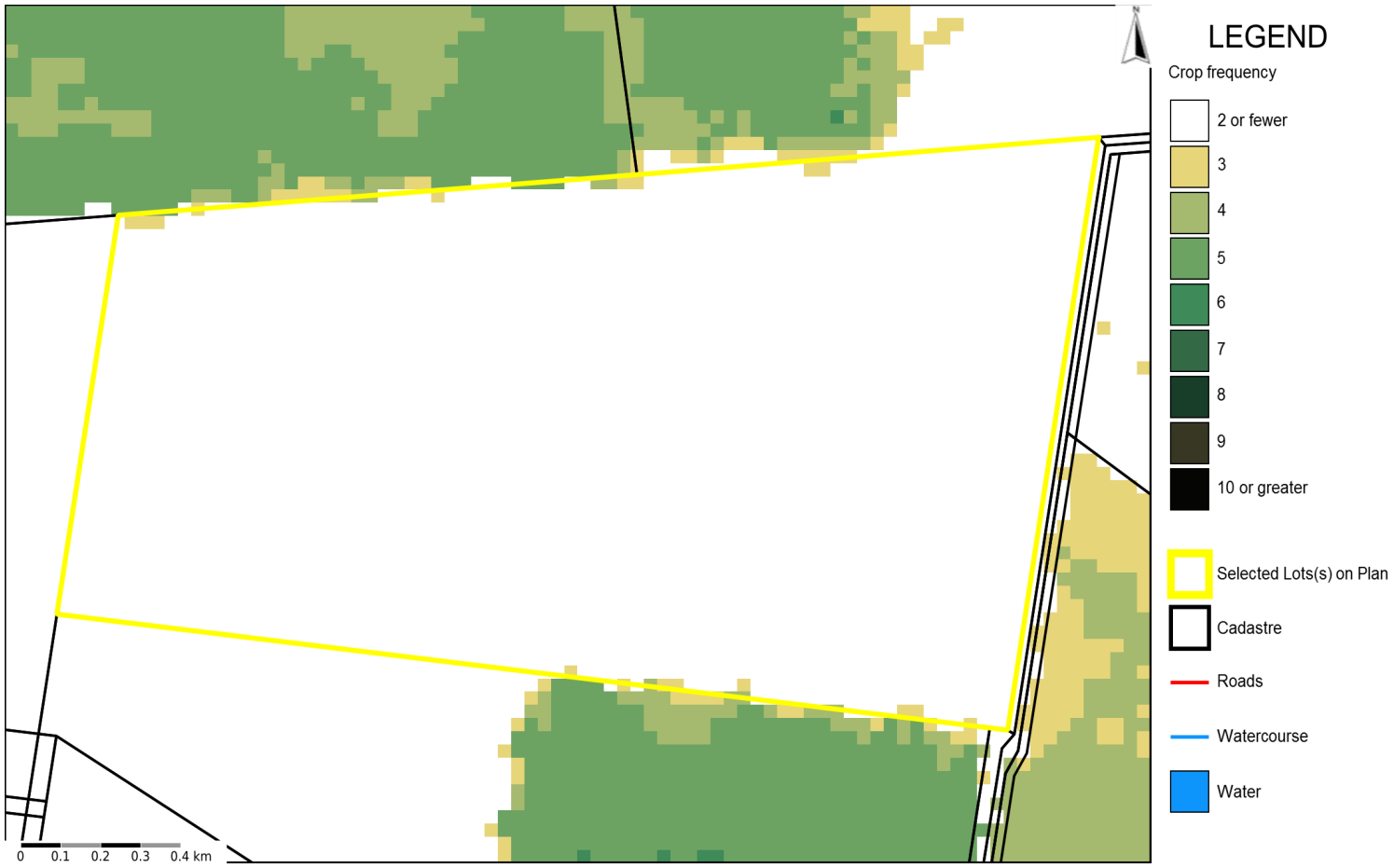
Composite satellite imagery: Due to the limitations of the automated method used to detect active cropping, it is recommended to view the seasonal composite images (pages 5 onward), compiled to represent the maximum greenness (per pixel) within a growing season. Cropped areas will generally appear bright green in the imagery compared with the surrounding landscape. Even if the crop-frequency mapping does not indicate cropping in an area, it is important to check each composite image to confirm that cropping has not been undertaken. Sometimes it will not be possible to clearly identify cropped areas in the imagery, e.g in some wetter seasons the entire landscape might appear green. In this case, it is recommended to undertake further investigation using other information sources. Note: the composite images are only used to confirm the presence or absence of cropping activity; it is not possible to visually differentiate between the crop groups.

FORAGE REPORT: CROP FREQUENCY

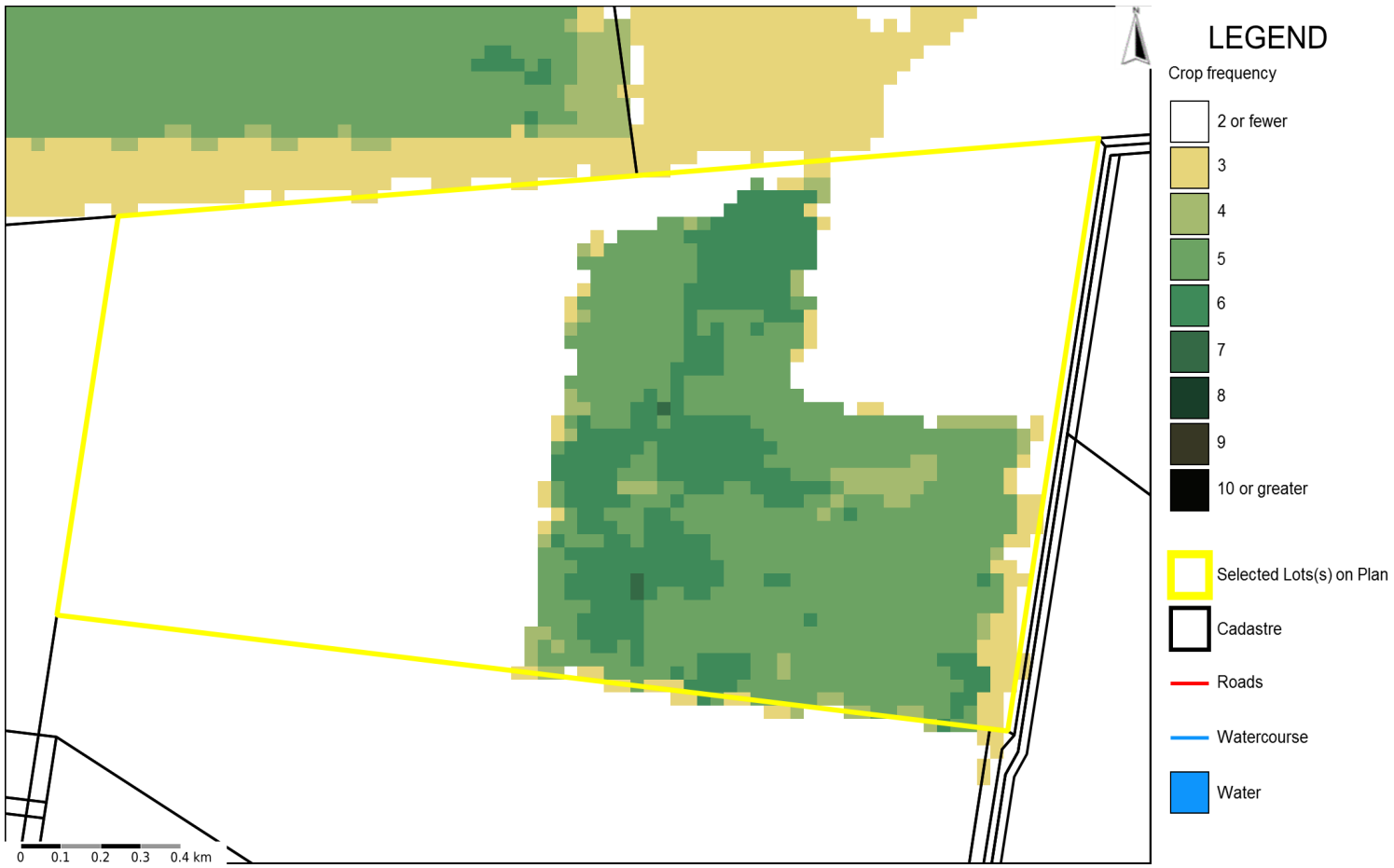
http://www.longpaddock.qld.gov.au/forage *April 7, 2021* *Lot on Plan: 2DER3455* *Label: noLabel*

Queensland Government

Estimated frequency map for summer (February) crops (2011 - 2020)



Estimated frequency map for winter (September) crops (2011 - 2020)

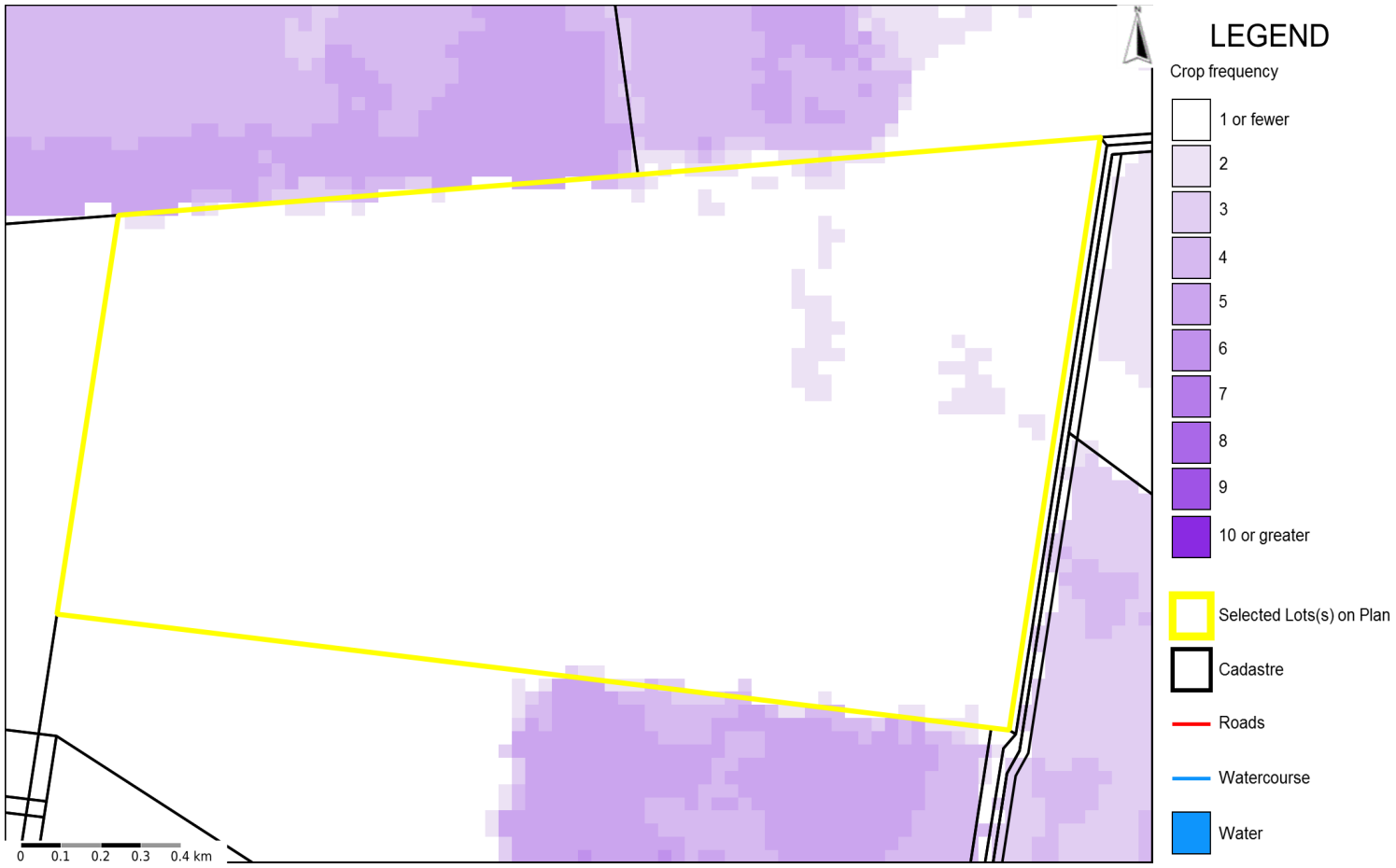


FORAGE REPORT: CROP FREQUENCY

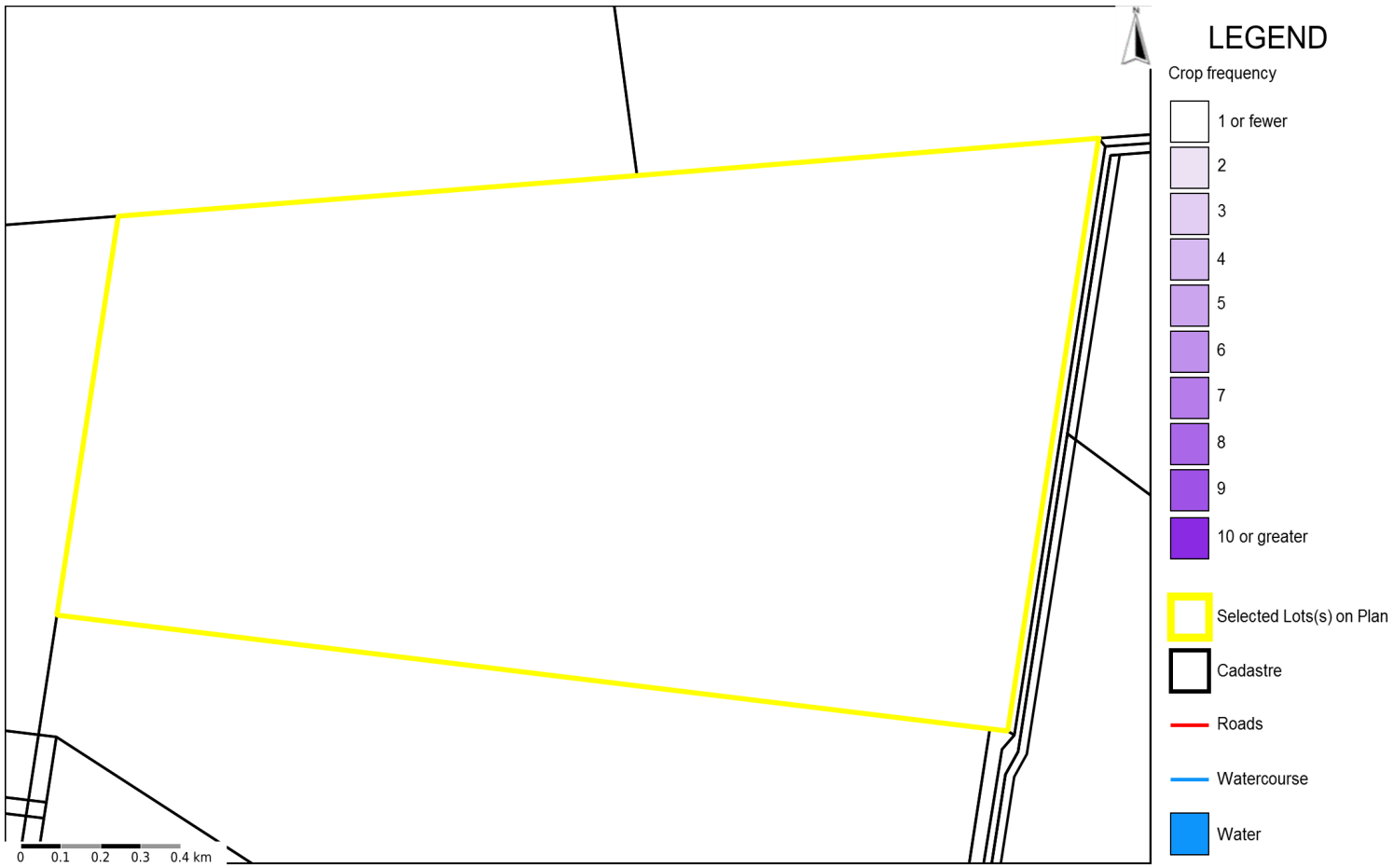
http://www.longpaddock.qld.gov.au/forage *April 7, 2021* *Lot on Plan: 2DER3455* *Label: noLabel*

Queensland Government

Estimated frequency map for summer (February) coarse grain and pulse crops (2011 - 2020)



Estimated frequency map for summer (February) cotton crops (2011 - 2020)

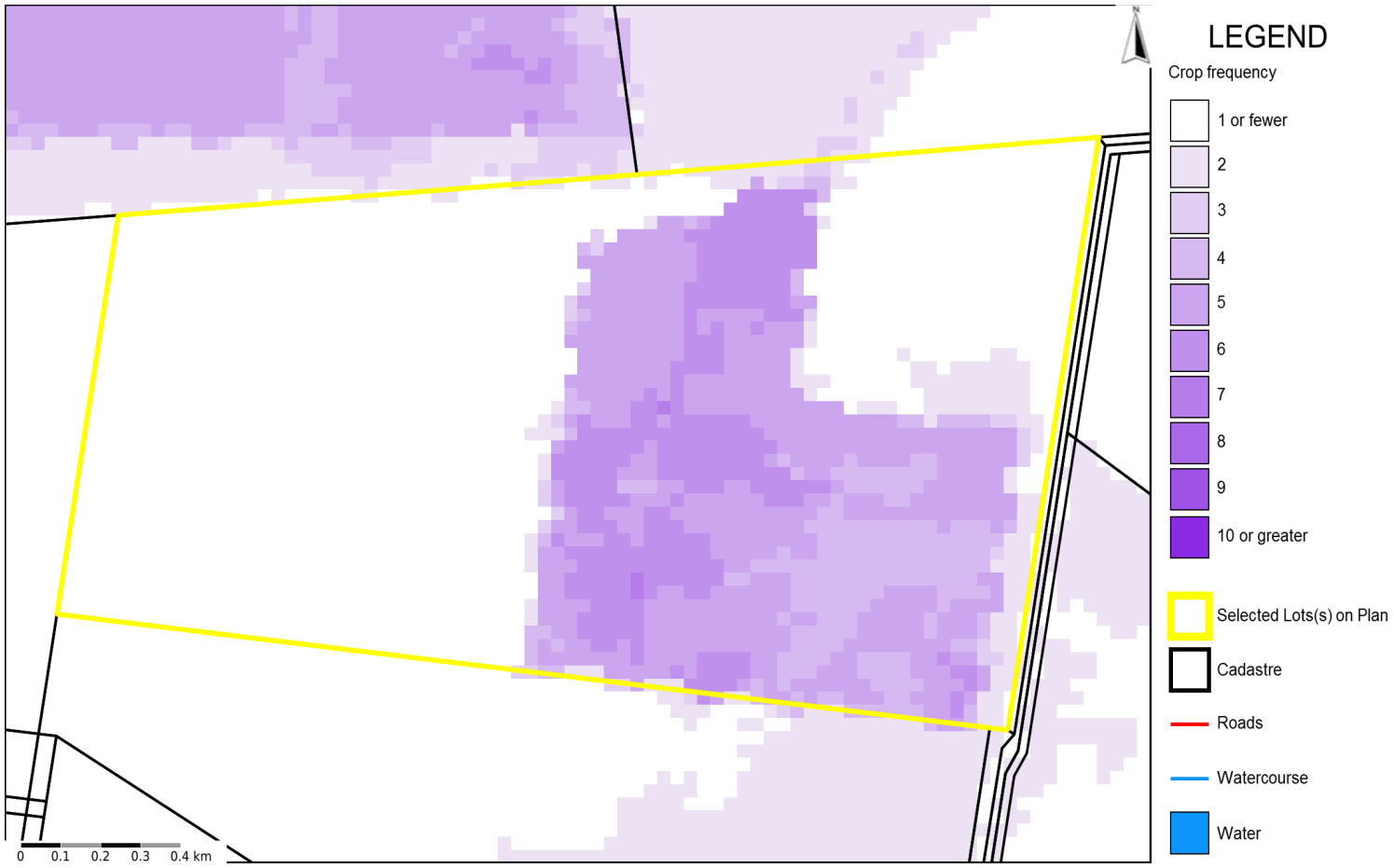


FORAGE REPORT: CROP FREQUENCY

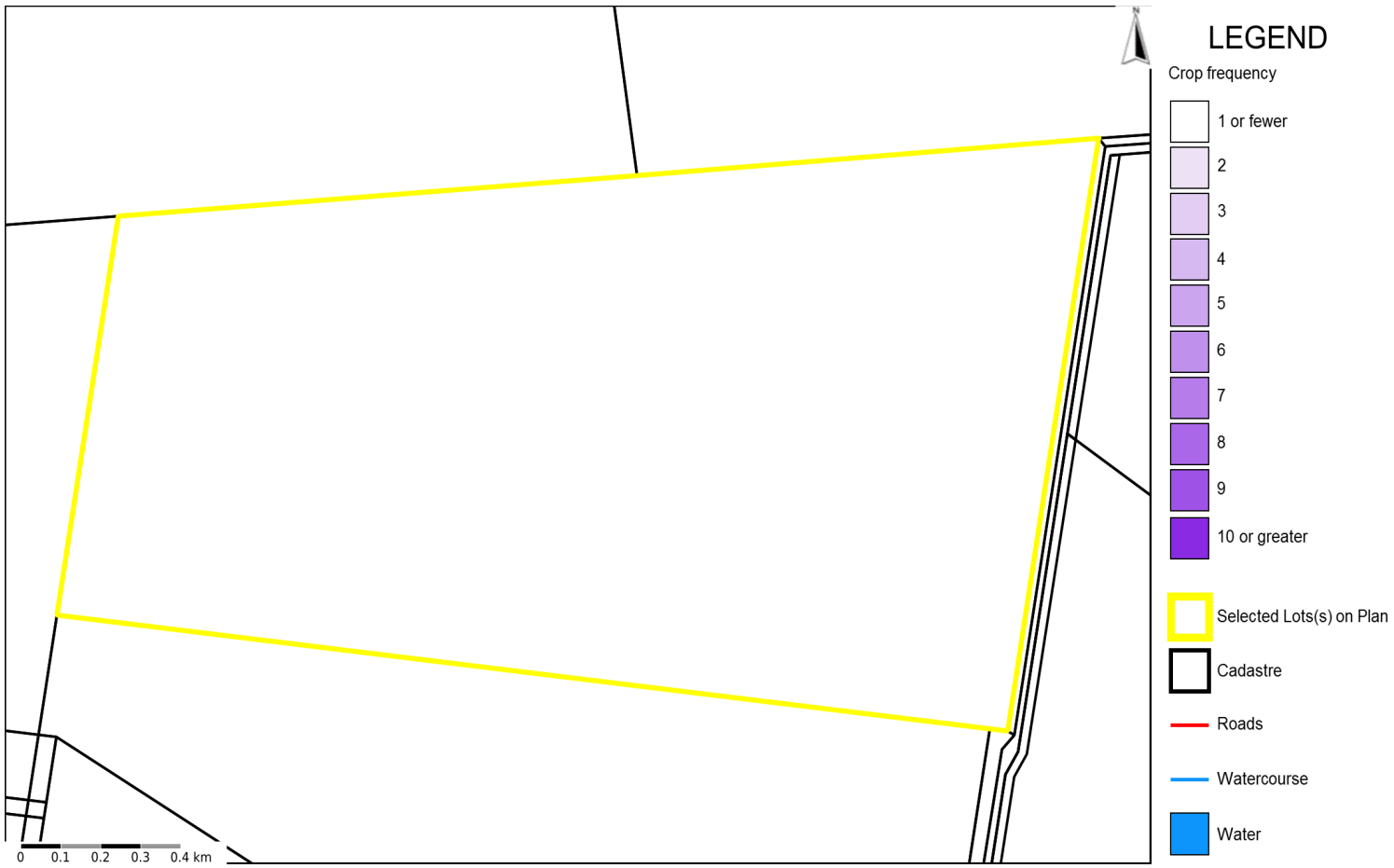
http://www.longpaddock.qld.gov.au/forage *April 7, 2021* *Lot on Plan: 2DER3455* *Label: noLabel*

Queensland Government

Estimated frequency map for winter (September) cereal crops (2011 - 2020)



Estimated frequency map for winter (September) pulse crops (2011 - 2020)

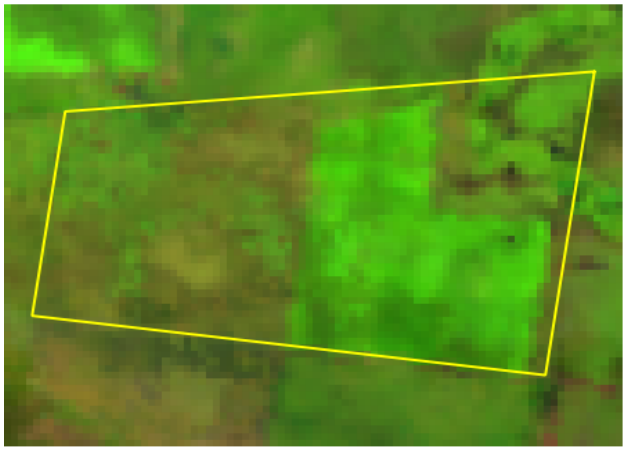


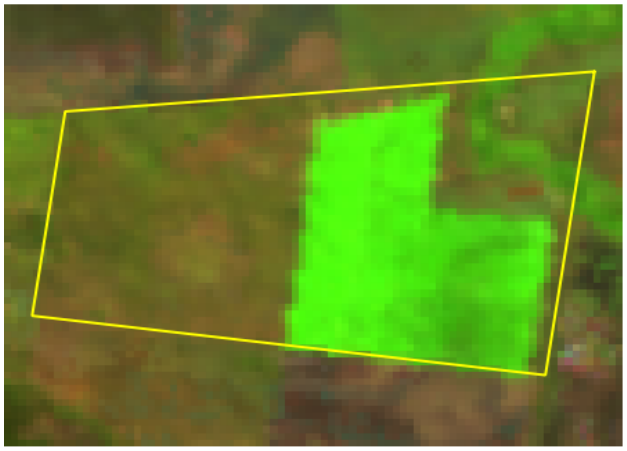
FORAGE REPORT: CROP FREQUENCY

http://www.longpaddock.qld.gov.au/forage *April 7, 2021* *Lot on Plan: 2DER3455* *Label: noLabel*

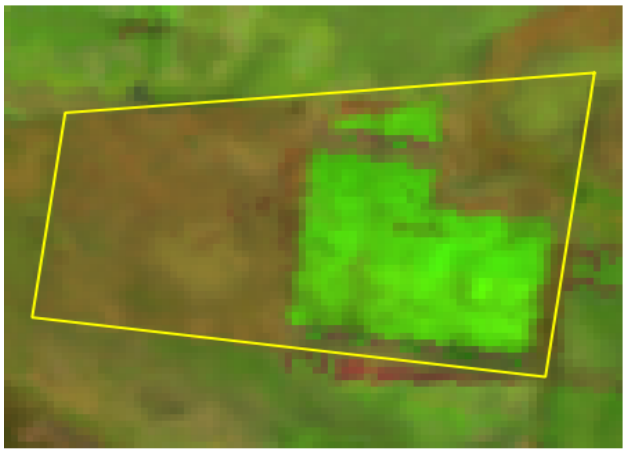
Queensland Government

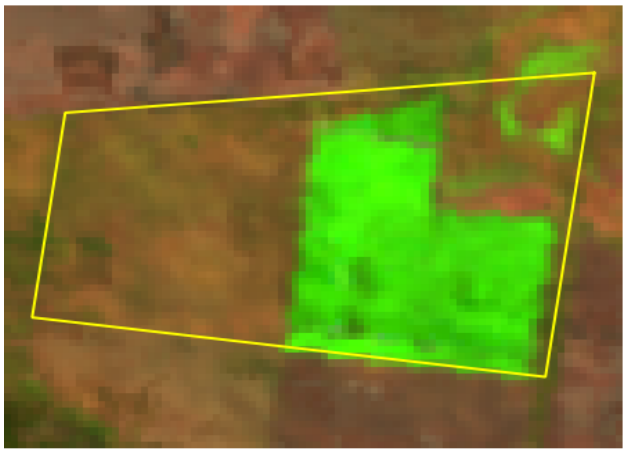
February (left) and September (right) images for 2011



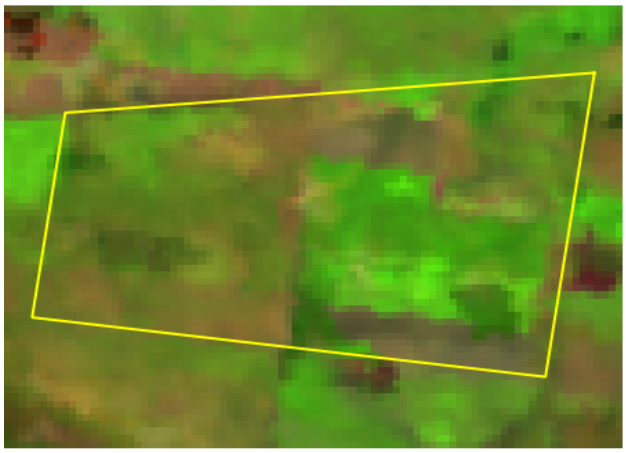


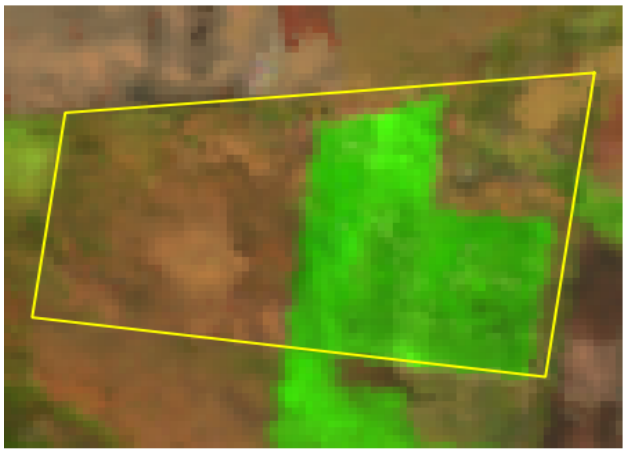
February (left) and September (right) images for 2012





February (left) and September (right) images for 2013



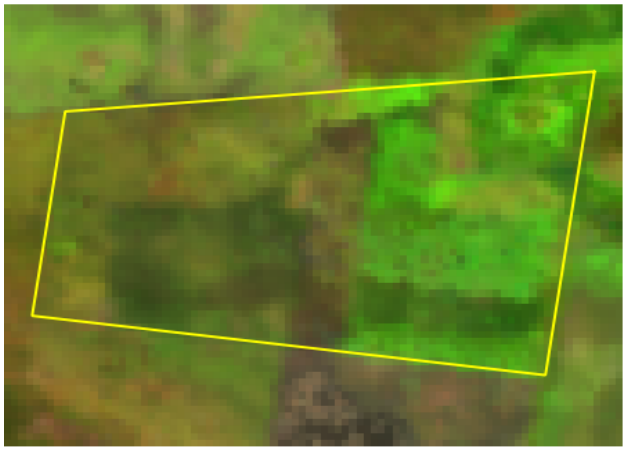
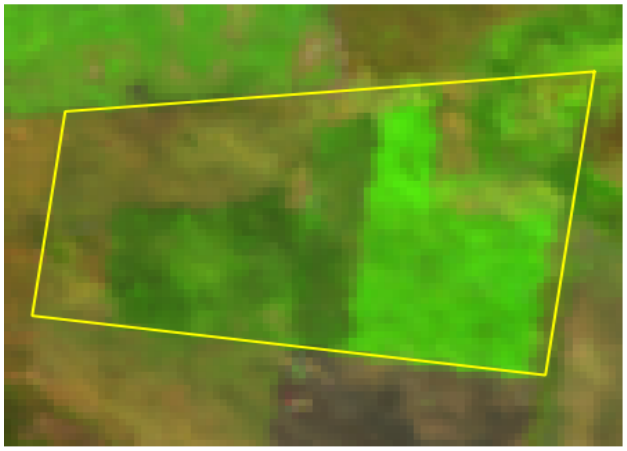


FORAGE REPORT: CROP FREQUENCY

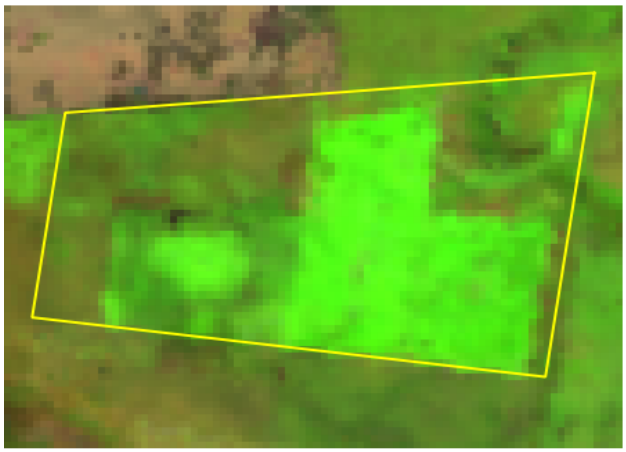
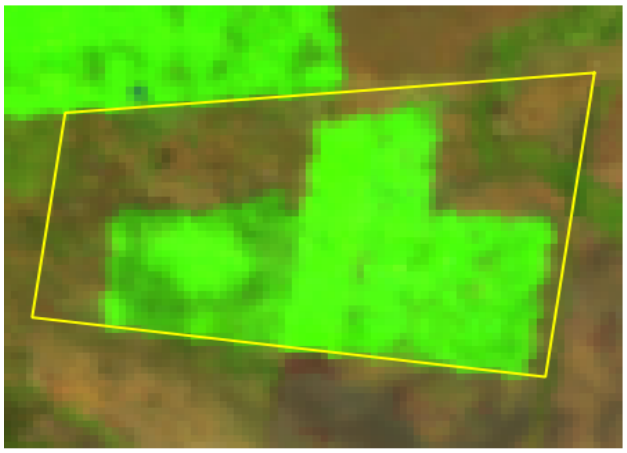
http://www.longpaddock.qld.gov.au/forage *April 7, 2021* *Lot on Plan: 2DER3455* *Label: noLabel*

Queensland Government

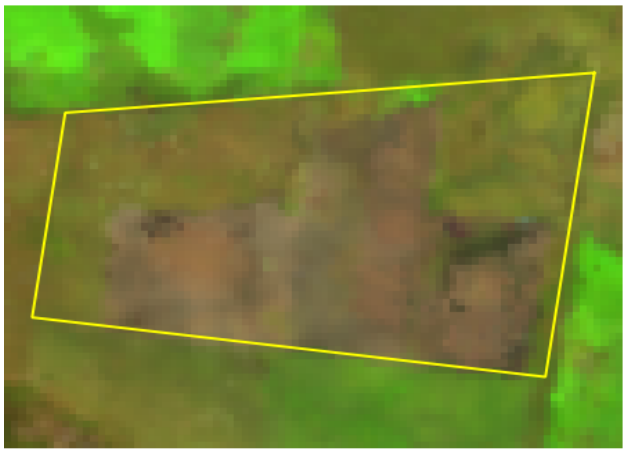
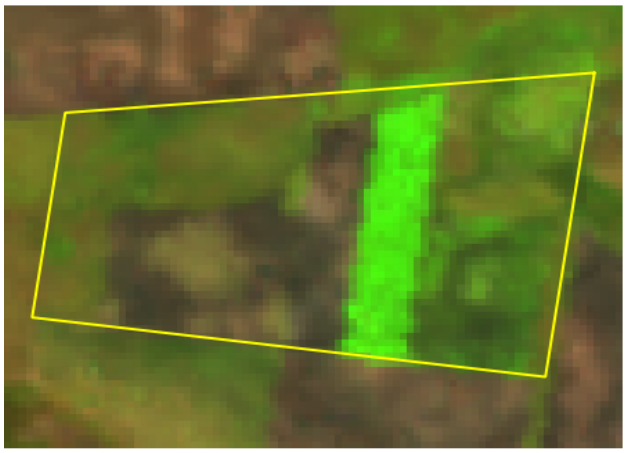
February (left) and September (right) images for 2014

February (left) and September (right) images for 2015

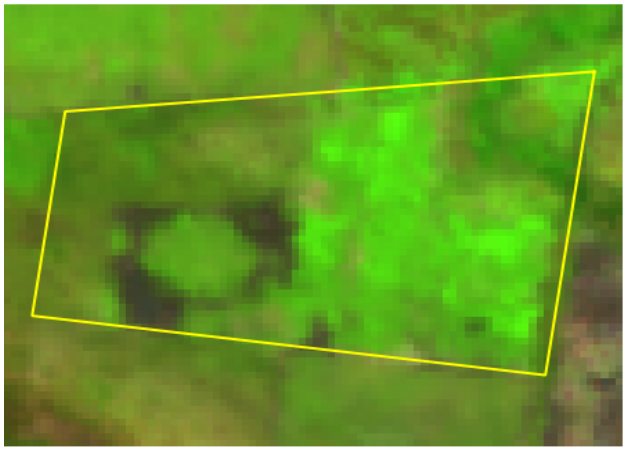
February (left) and September (right) images for 2016

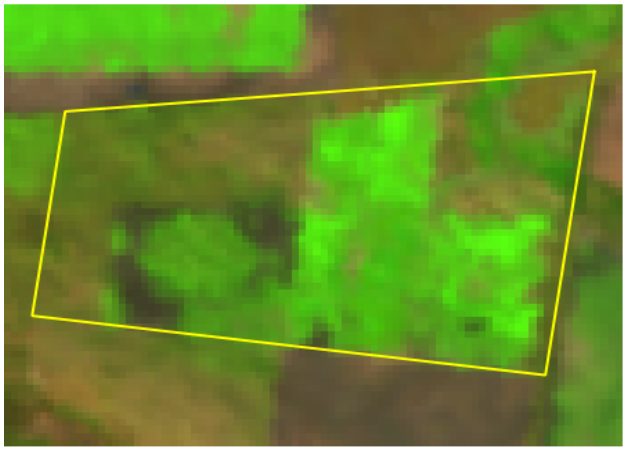



FORAGE REPORT: CROP FREQUENCY

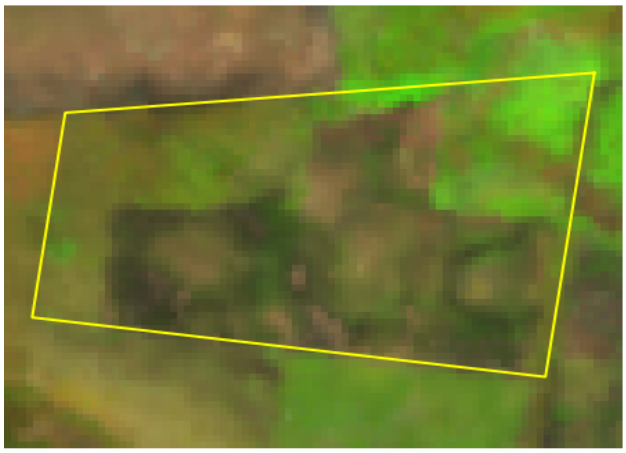
Queensland Government

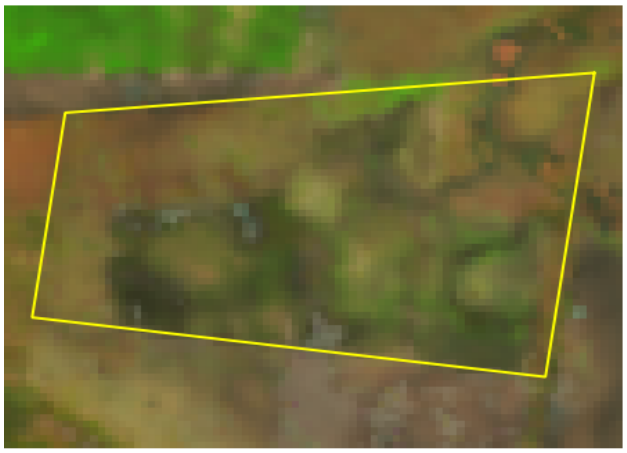
February (left) and September (right) images for 2017



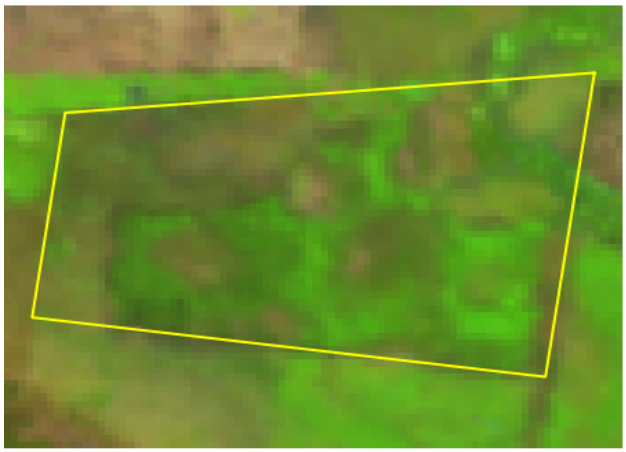


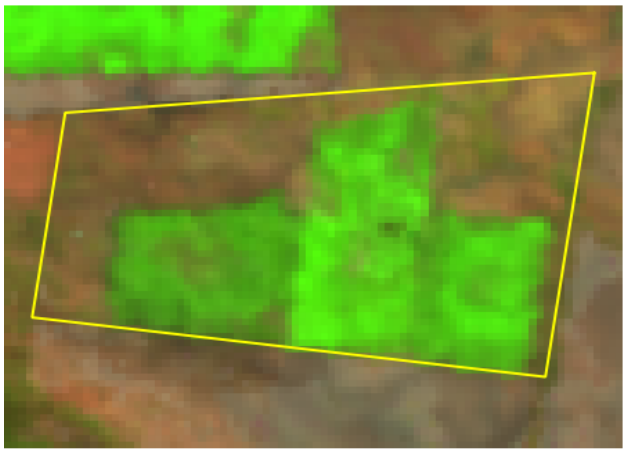
February (left) and September (right) images for 2018





February (left) and September (right) images for 2019



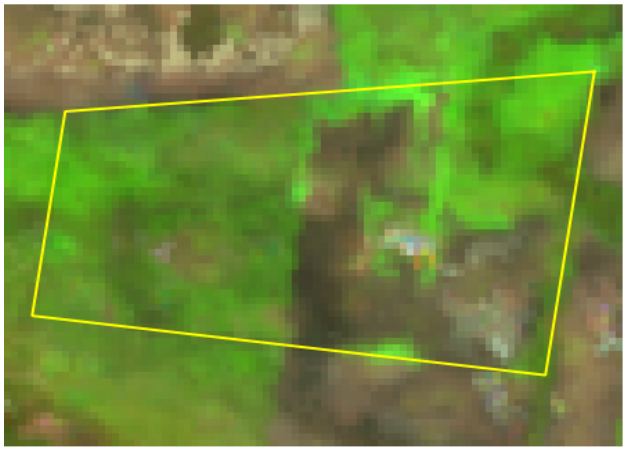


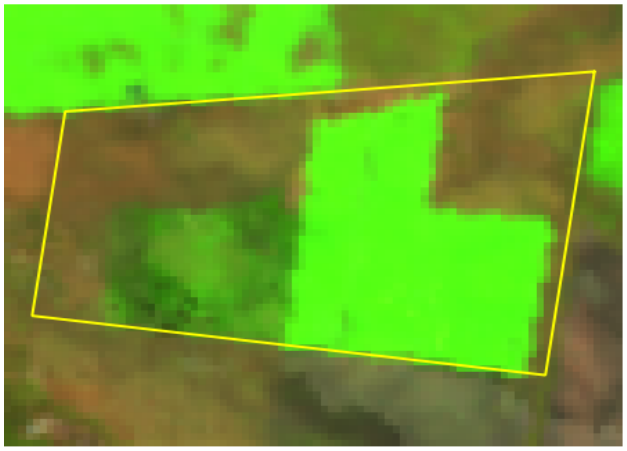
FORAGE REPORT: CROP FREQUENCY

http://www.longpaddock.qld.gov.au/forage *April 7, 2021* *Lot on Plan: 2DER3455* *Label: noLabel*

Queensland Government

February (left) and September (right) images for 2020





Disclaimer

Limitation of liability: the State of Queensland, as represented by the Department of Environment and Science (DES) gives no warranty in relation to the data (including without limitation, accuracy, reliability, completeness or fitness for a particular purpose). To the maximum extent permitted by applicable law, in no event shall DES be liable for any special, incidental, indirect, or consequential damages whatsoever (including, but not limited to, damages for loss of profits or confidential or other information, for business interruption, for personal injury, for loss of privacy, for failure to meet any duty including of good faith or of reasonable care, for negligence, and for any other pecuniary or other loss whatsoever including, without limitation, legal costs on a solicitor own client basis) arising out of, or in any way related to, the use of or inability to use the data. ©The State of Queensland, 2021.

FORAGE REPORT: CROP FREQUENCY

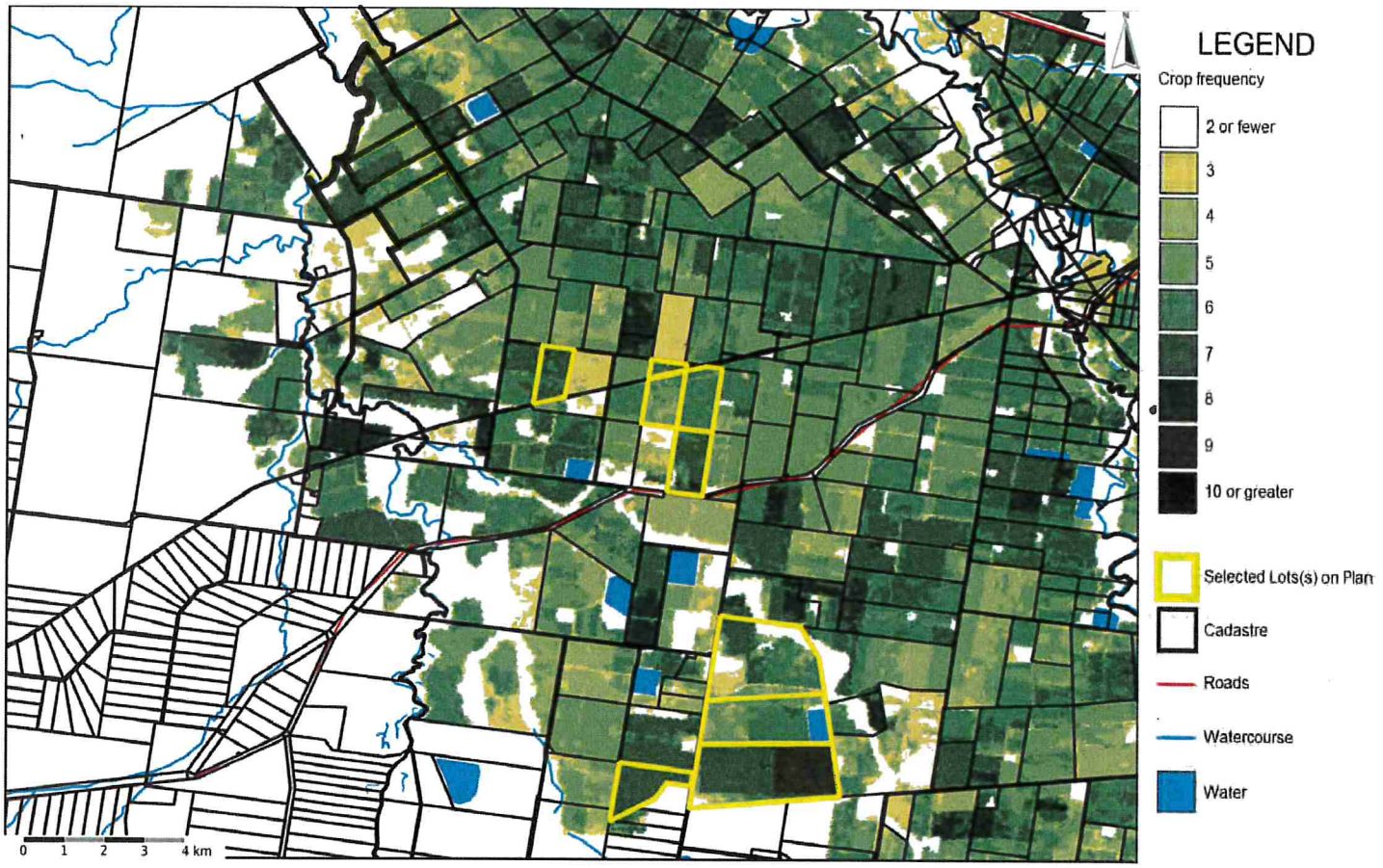
http://www.longpaddock.qld.gov.au/forage *April 14, 2021* *Lot on Plan: 2RP210387,3RP181072,2RP181072,1R etc.* *Label: noLabel*

Queensland Government

Introduction

This report presents maps of crop frequency for your chosen area, and chosen time period. Maps are based on time-series analysis of satellite imagery (30-m spatial resolution), for both the summer and winter growing seasons, aimed at detecting cycles of greenness in vegetation. Composite satellite images that display the maximum greenness within a summer or winter growing season for each year are also provided, as a visual reference. For further information refer to the FORAGE User Guide (https://data.longpaddock.qld.gov.au/static/forage_user_guide.pdf) .

Estimated total crop frequency map (2011 - 2020)



How to interpret the information

Crop-frequency mapping: Coloured areas on the maps indicate locations where active crops have been detected three or more times in the summer or winter growing seasons, for the time period specified. The map on this page shows "Total Frequency" which is a count of the number of times that an active crop was detected. The maps on the following page show the summer and winter crop frequency, respectively. Analysis of satellite imagery can result in some misclassification, so it is recommended to view the composite imagery (see below) to help confirm the presence of a crop in a given season.

Mapping of broad groups of crops: Crop frequency is also separated into estimates of the broad crop groups within the area. This estimation is based on an automated classification approach (see https://www.qld.gov.au/environment/land/management/mapping/statewide-monitoring/crops for more detail).

In the winter season the classification differentiates between the groups:

- Cereal crops (e.g. wheat, barley, oats);
- Pulse crops (e.g. chickpea).

In the summer season the classification differentiates between the groups:

- Coarse-grain and pulse (e.g. sorghum, maize, mungbean);
- Cotton crop.

Composite satellite imagery: Due to the limitations of the automated method used to detect active cropping, it is recommended to view the seasonal composite images (pages 5 onward), compiled to represent the maximum greenness (per pixel) within a growing season. Cropped areas will generally appear bright green in the imagery compared with the surrounding landscape. Even if the crop-frequency mapping does not indicate cropping in an area, it is important to check each composite image to confirm that cropping has not been undertaken. Sometimes it will not be possible to clearly identify cropped areas in the imagery, e.g in some wetter seasons the entire landscape might appear green. In this case, it is recommended to undertake further investigation using other information sources. Note: the composite images are only used to confirm the presence or absence of cropping activity; it is not possible to visually differentiate between the crop groups.

FORAGE REPORT: CROP FREQUENCY

http://www.longpaddock.qld.gov.au/forage *April 14, 2021* *Lot on Plan: 2RP210387,3RP181072,2RP181072,1R etc.* *Label: noLabel*

Queensland Government

Estimated frequency map for summer (February) crops (2011 - 2020)

Estimated frequency map for winter (September) crops (2011 - 2020)

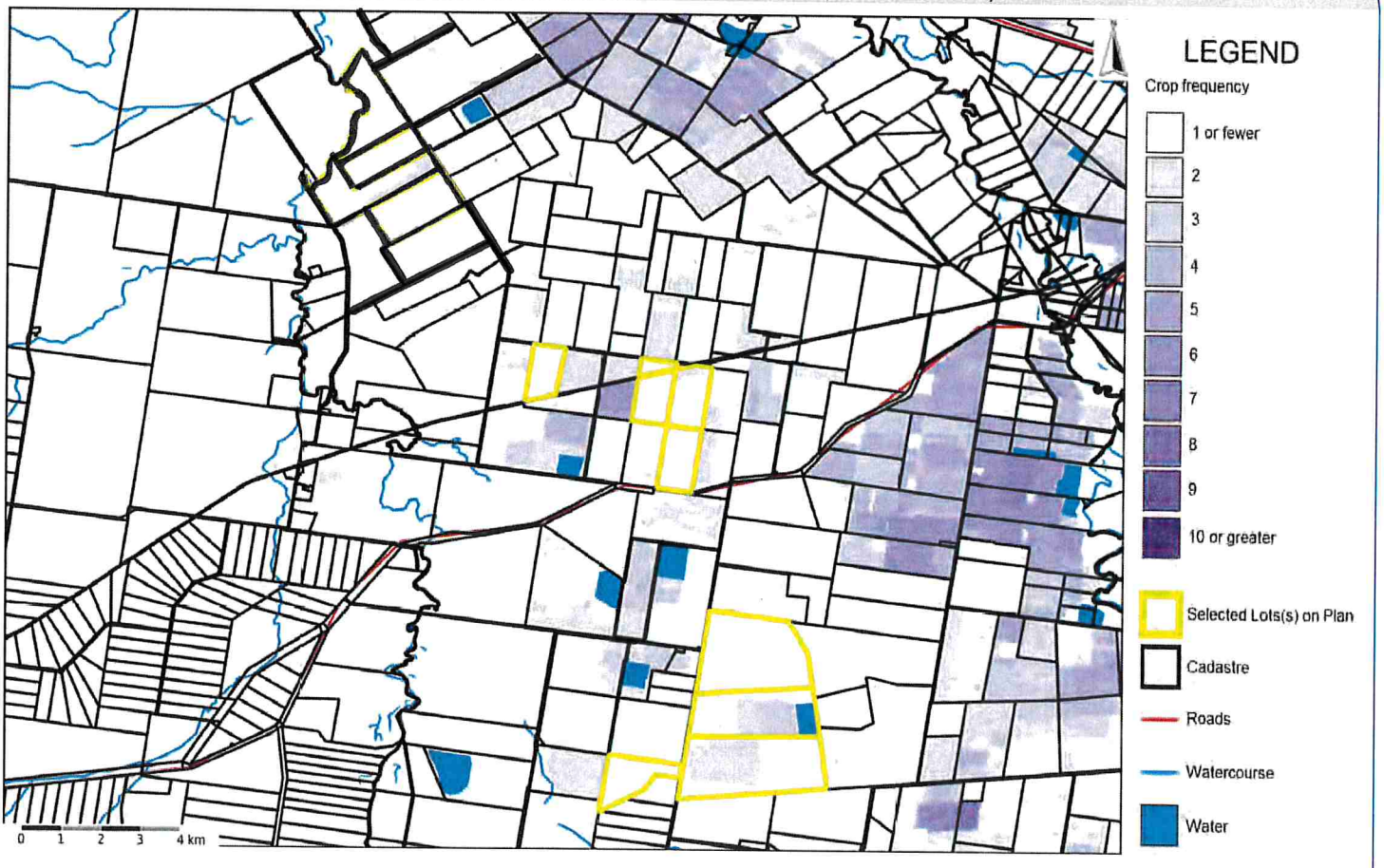
FORAGE REPORT: CROP FREQUENCY

http://www.longpaddock.qld.gov.au/forage *April 14, 2021* *Lot on Plan: 2RP210387,3RP181072,2RP181072,1R etc.* *Label: noLabel*

Queensland Government

Estimated frequency map for summer (February) coarse grain and pulse crops (2011 - 2020)

Estimated frequency map for summer (February) cotton crops (2011 - 2020)



FORAGE REPORT: CROP FREQUENCY

http://www.longpaddock.qld.gov.au/forage *April 14, 2021* *Lot on Plan: 2RP210387,3RP181072,2RP181072,1R etc.* *Label: noLabel*

Queensland Government

Estimated frequency map for winter (September) cereal crops (2011 - 2020)

Estimated frequency map for winter (September) pulse crops (2011 - 2020)

Detailed Experience
Navjot's range of experience includes conducting environmental management works on oil & gas, mining, commercial and industrial sites undertaking the following:

- Environmental Impact Assessment
  - Soil and Land Classification based on Australian Soil Classification System
  - Land Suitability, Strategic Cropping Land (SCL) and Topsoil assessment
  - Identification and management of Acid Sulfate Soils (ASS)
  - Site reinstatement and rehabilitation
- Environmental Sites Assessment and Remediation:
  - Environment and Human health risk assessment and mitigation
  - Soil, soil gas, surface water and groundwater investigations
  - Remediation of hydrocarbon, metals, salts and solvent impacted sites
- Environmental Compliance:
  - Environmental Management Plans (EMP) development and implementation
  - Environmental audits (internal and 3rd party) and approvals/ license documents
  - Incident response, monitoring, sampling, mitigation, and reporting
- Water Management:
  - Dewatering programs and groundwater treatment systems
  - Bore drilling and well installation; compliance monitoring and sampling
- Waste Management:
  - Contaminated/ hazardous and non-hazardous waste management and transport
  - Drilling waste management including drilling muds disposal
- Health, Safety & Environment:
  - Development and implementation of project specific health and safety plans
  - Conduct inductions, risk assessments, incident investigation, auditing
- Data management, Interpretation and Report Writing
  - Data management software (gINT, ESDAT, EQUIS) and MS office for graphs, logs, statistics and report preparation
- Project Management:
  - scope development, cost estimation, project administration, budget management, cost control and project completion
  - Contractor administration, bid/tender evaluation, procurement and invoicing
  - Supervision of junior staff and contractors

Key Projects at AECOM:

- Acid Sulfate Soils intrusive investigation and development of ASSMP for Cross River Rail – Rail Integration System (RIS) – Lead Acid Sulfate Soils Specialist - Co-ordination of fieldwork, data analysis, interpretation and Reporting
- Frac Ponds Decommissioning and Rehabilitation, QGC, Technical Lead and Project Manager. Co-ordination of fieldwork, data analysis, interpretation and Reporting
- Acid Sulfate Soil assessment for road upgrade works at Walkerston Bypass, Mackay, Project – Desktop assessment, data analysis and reporting as per Qld Guidelines
- Contaminated land and Acid Sulfate Soil assessment for underground rail tunnel in Brisbane – Desktop assessment
- Acid Sulfate Soil assessment for road upgrade works at Port Alma Road, Bajool, Project – Desktop assessment, data analysis and reporting as per Qld Guidelines
- Stage 1 and Stage 2 Contamination Investigation across the whole RAAF Base Amberley – Desktop, fieldwork, data analysis and reporting
- Stage 1 and Stage 2 Contamination Investigation across the whole Gallipoli Barracks Enoggera – Desktop, fieldwork, data analysis and reporting
- Stage 2 Contamination Investigation across the whole Jennings Defence Base – Desktop, fieldwork, data analysis and reporting
- Soil Assessment for PFAS and other Contaminants for Growler Project, RAAF

Amberley - Desktop assessment, data analysis and reporting

- Coastal Acid Sulfate Soil assessment (CASS) for North East Link (NELA) Project – Desktop assessment, data analysis and reporting as per Victorian Guidelines
- Land Capability Assessment for onsite Effluent Disposal at a site in Melbourne. It included assessment of topsoil and subsoil and water balance calculations.
- Coastal Acid Sulfate Soil assessment (CASS) for Melbourne Metro Project – Desktop assessment, data analysis and reporting as per Victorian Guidelines
- Stage C Groundwater Assessment – AACO Base, Oakey – Reporting
- Groundwater Radioactive Assessment - Defence Science and Technology Group, Fishermans' bend – Fieldwork and reporting
- Exxon Mobil Altona Refinery Sediment Assessment - project management and reporting
- Coastal Acid Sulfate Soil assessment (CASS) for Edithvale and Bonbeach Level Crossing Removal (LXRA) Projects - Desktop assessment, data analysis and reporting as per Victorian Guidelines
- Project manager, Soil sampling at Oakey Base for PFC assessment in Soils for disposal
- Project manager, Soil sampling at Oakey Civil Terminal for PFC assessment in Soils for disposal
- Santos Remediation Project at Roma – Project team, fieldwork and reporting
- Oakey Groundwater Investigation, AACO base Oakey – Project team, fieldwork and reporting
- Growler Project, RAAF Base Amberley Additional Soil Characterization including assessing soils for PFC contamination
- C-17 Project RAAF Base Amberley Additional Soil Characterization including assessing soils for PFC contamination
- Contamination Investigation for Acid storage dam, Incitec Pivot, Phosphate Hill
- Origin Energy, Deep Drilling for groundwater monitoring wells at Ironbark.
- LendLease – RNA Showgrounds Development Project – Contaminated land and ASS investigation and management – Team member
- Part of the Team for Origin Energy CSG Dams Remediation Project SELECT Phase
- Defence – RAAF Base Amberley, Phase 1 and site contamination Investigation, C17, Growler, Battlefield airlifter etc. – fieldwork and reporting
- Caltex Gold Coast Airport, JUHI and PRA Remediation including ASS management
- UPSS Inspections at various sites for Goodman Pty Ltd – Project Team, fieldwork and reporting
- Deputy Project manager (DPM) for BP contaminated land investigation at Charters Towers.
- Caltex Sites Groundwater Investigation at North Queensland - DPM
- Origin Energy former gasworks sites Bundaberg, QLD Project Team, fieldwork and reporting.
- Origin Energy former gasworks sites, Maryborough, QLD Project Team, fieldwork and reporting.
- Remediation Plans for Origin Energy former gasworks sites at Warwick and Bundaberg, QLD Team lead.
- Part of the Team for Origin Energy CSG Dams Remediation Project Phase 2.
- Origin Energy Asbestos Investigation Project – Project Team, fieldwork and reporting.
- Caltex UPSS 2014, reporting for select sites.
- Phase I Environmental Investigation at different sites for Goodyear Pty Ltd – Project Team, fieldwork and reporting
- Soils and topography as part of the EIS for a major underground combined Bus and Train (BAT) tunnel project in Brisbane – Team lead.

Historical Projects:

- Groundwater monitoring sampling and report writing for key Shell retail and distribution sites in and across Brisbane – Project team
- Groundwater investigation including halogenated compounds for an Industrial site

(BOC), fieldwork and report preparation – Project team

- Environmental Site assessment (Phase I and Phase II) – Project Manager/Site Supervisor.
- Posted on secondment for an year with a major CSG project (Santos), Data manager for Quality control and assurance of environmental data
- CSG Pipeline Construction (Origin Energy via East Coast Pipeline) – Project Manager, SCL and Topsoil Assessment.
- Disposal Options for Drilling Muds for CSG industry (Origin energy) – Project Team, Desktop review, field trials.
- CSG Gas fields EIS – Project Team, Soil survey and land assessment.
- Major underground tunnel project – Team lead, ASS investigation and management.
- Site closure for Box cut mine – Team Lead, Dewatering, Soil treatment and re-interment.
- Soils and groundwater remediation including ASS soils management at a major fuel distribution centre (ExxonMobil) – Project Team
- ASS soils investigation for various projects at Brisbane Airport including fieldwork – Project team
- Marine sediment sampling program associated with the proposed LNG (Liquefied Natural Gas) plant in the Port of Gladstone (Santos)
- Marine Sediment analysis involving a proposed dredge area for the removal of the subsea section of a decommissioned pipeline bundle (Caltex Refineries Pty Ltd)

Conferences
Soil Science Conference, Canberra, 2018

Mine Closure, Brisbane 2012

Training
- AECOM Certified Project Manager
- Acid Sulfate Soils; Identification, Assessment and Management, Three day short Course
- Nature and Distribution of Queensland Soils as per Australian System of Classification, Two Day Training
- Software Training gINT, Three day training
- Software Training ESDAT, one day training
- How to Write Effective Reports, one day training at Australian Institute of Management (AIM)
- 40 Hour Health and Safety Training (HAZWOPER)
- 30215 QLD Construction Industry Safety Induction (Blue Card)
- PMASUP236A Operate Vehicle in the Field 4WD,
- Santos Environment Health and Safety Induction Rev 7.3 including gas Certificate
- Senior First Aid and CPR training
- Australian Institute of Petroleum Permit System
- MOBIL Loss Prevention System Training
- Shell Coles Express Online Induction A and B
- Shell Approved Retail and Distribution Permit Holder Training
- Working in Electrified Territory (WET), Safely Accessing the Rail Corridor (SARC), Fatigue Management, Category 3 Medical
- Rail Industry Worker (RIW) card

Other Languages
Punjabi, Hindi

Professional History

2020 - Present
AECOM
Principal Soil Scientist – Technical Lead Acid Sulfate Soils

2016 - 2020
AECOM
Senior Soil Scientist - RCE

2014 - 2016
AECOM
Professional Environmental Scientist - RCE

2008 - 2013
URS Australia Pvt Ltd
Soil Scientist

2005 - 2008
Simmonds and Bristow Pvt Ltd
Scientist

2003 - 2004
Sydney Environmental & Soil Laboratory Pvt Ltd
Analyst

Appendix 8: EWAs associated with the LPH on subject lots

151°5'45"E 151°5'48"E 151°5'51"E 151°5'54"E 151°5'57"E

27°19'24"S 27°19'27"S 27°19'30"S 27°19'33"S 27°19'36"S 27°19'39"S

2RP210387
SHARRON LOUISE HENRY; CLIFFORD LESTER WEIER

241 m2

2273 m2

PL260

3RP181072
SUZANNE MAREE & NOEL VICTOR ROCKLIFF

10RP811991
JULIE ANNE & GRAHAM LINDSAY BRYANT

Legend

- LPH Pipe Datum Line
- Existing Access Track
- Proposed Access Track
- Extra Work Area
- Subject Property
- PL (Arrow)

151°5'45"E 151°5'48"E 151°5'51"E 151°5'54"E 151°5'57"E

Scale @ A3: 1:1,500 **Coordinate System:** GDA 1994 MGA Zone 56

0 15 30 60 90 120 Metres

N

Confidential: For Internal Use Only

Rev	Date	Revision Description	Orig	Chkd	Eng	QA	App
3	22/04/2021	Remove survey corridor	JL	XX	XX	XX	AH
2	15/04/2021	Subject property 3RP181072	JL	XX	XX	XX	AH

Based on or contains data provided by the State of Queensland. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws

© Commonwealth of Australia (Geoscience Australia) year of publication. This material is released under the Creative Commons Attribution 3.0 Australia Licence. http://creativecommons.org/licenses/by/3.0/au/. The dimensions, areas, number of lots, size & location of corridor information are approximate only and may vary.

Disclaimer: While all reasonable care has been taken to ensure the information contained on this map is up to date and accurate, no warranty is given that the information contained on this map is free from error or omission. Any reliance placed on such information shall be at the sole risk of the user. Please verify the accuracy of all information prior to using it.

Note: The information shown on this map is a copyright of Arrow Energy Limited and, where applicable, its affiliates and co-venturers.

Source:
Arrow Energy Limited, Geosciences Australia
Qld Gov.

Status: IFI
Issued To: A Hall
Author: jluke

arrow energy
go further

DK West - LPH

Map 1 of 5

Uncontrolled 3

Document: V:\Products\Australia\Queensland\Surat_Basin\General\210415_RITM0294107_RIDAAPP_AH\RITM0294107_Map1_3.mxd

NOT FOR CONSTRUCTION

Print Date: 22/04/2021

151°3'48"E 151°3'51"E 151°3'54"E

27°13'30"S 27°13'33"S 27°13'36"S 27°13'39"S

2240 m2

2RP71519
VICTORIA MEGAN & MARK DAVID SCHUURS

Legend
- LPH Pipe Datum Line
- Extra Work Area
- Subject Property
- Property Boundary

Scale @ A3: 1:1,000 **Coordinate System:** GDA 1994 MGA Zone 56

0 10 20 40 60 80 Metres

N

Confidential: For Internal Use Only

Rev	Date	Revision Description	Org	Cknd	Eng	QA	Appr
3	22/04/2021	Remove survey corridor	JL	XX	XX	XX	AH
2	15/04/2021	Clip survey corridor, EWA, LPH, tracks to RIDA properties	JL	XX	XX	XX	AH
1	17/03/2021	Add LPH	SL	XX	XX	XX	AH
0	16/03/2021	Show access tracks and EWA	SL	XX	XX	XX	AH

Based on or contains data provided by the State of Queensland. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws

© Commonwealth of Australia (Geoscience Australia) year of publication. This material is released under the Creative Commons Attribution 3.0 Australia Licence. http://creativecommons.org/licenses/by/3.0/au/. The dimensions, areas, number of lots, size & location of corridor information are approximate only and may vary.

Disclaimer: While all reasonable care has been taken to ensure the information contained on this map is up to date and accurate, no warranty is given that the information contained on this map is free from error or omission. Any reliance placed on such information shall be at the sole risk of the user. Please verify the accuracy of all information prior to using it.

Note: The information shown on this map is a copyright of Arrow Energy Limited and, where applicable, its affiliates and co-venturers.

Source:
Arrow Energy Limited, Geosciences Australia
Qld Gov.

Status: IFI
Issued To: A Hall
Author: jluke

arrow energy
go further

DK West - LPH

Map 3 of 5

Uncontrolled 3

Document: V:\Products\Australia\Queensland\Surat_Basin\General\210415_RITM0294107_RIDAAPP_AH\RITM0294107_Map3_3.mxd

NOT FOR CONSTRUCTION

Print Date: 22/04/2021

151°5'54"E

151°5'57"E

27°15'30"S

27°15'33"S

27°15'36"S

46DER34223
JACK MERVYN KLEMM

550 m2

PL260

Legend

- LPH Pipe Datum Line
- Extra Work Area
- Subject Property
- PL (Arrow)
- Property Boundary

Scale @ A3: 1:725

Coordinate System: GDA 1994 MGA Zone 56

0 5 10 20 30 40 Metres

N

Rev	Date	Revision Description	Orig	Chkd	Eng	QA	Appr
3	22/04/2021	Remove survey corridor	JL	XX	XX	XX	AH
2	15/04/2021	Clip survey corridor, EWA, LPH, tracks to RIDA properties	JL	XX	XX	XX	AH
1	17/03/2021	Add LPH	SL	XX	XX	XX	AH
0	16/03/2021	Show access tracks and EWA	SL	XX	XX	XX	AH

Based on or contains data provided by the State of Queensland. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws

© Commonwealth of Australia (Geoscience Australia) year of publication. This material is released under the Creative Commons Attribution 3.0 Australia Licence. http://creativecommons.org/licenses/by/3.0/au/. The dimensions, areas, number of lots, size & location of corridor information are approximate only and may vary.

Disclaimer: While all reasonable care has been taken to ensure the information contained on this map is up to date and accurate, no warranty is given that the information contained on this map is free from error or omission. Any reliance placed on such information shall be at the sole risk of the user. Please verify the accuracy of all information prior to using it.

Note: The information shown on this map is a copyright of Arrow Energy Limited and, where applicable, its affiliates and co-venturers.

Source:
Arrow Energy Limited, Geosciences Australia
Qld Gov.

Status: IFU
Issued To: A Hall
Author: jluke

arrow energy
go further

DK West - LPH

Map 4 of 5

Uncontrolled 3

Confidential: For Internal Use Only

NOT FOR CONSTRUCTION

Document: V:\Products\Australia\Queensland\Surat_Basin\General\210415_RITM0294107_RIDAAPP_AH\RITM0294107_Map4_3.mxd

Print Date: 22/04/2021

151°5'57"E 151°6'0"E 151°6'3"E 151°6'6"E 151°6'9"E 151°6'12"E

27°18'6"S
27°18'9"S
27°18'12"S
27°18'15"S
27°18'18"S
27°18'21"S

1RP181072
NOEL VICTOR ROCKLIFF

323 m2

2002 m2

PL260

786 m2

2RP181072
NOEL VICTOR ROCKLIFF

Legend

- LPH Pipe Datum Line
- Extra Work Area
- Subject Property
- PL (Arrow)
- Property Boundary

151°5'57"E 151°6'0"E 151°6'3"E 151°6'6"E 151°6'9"E

Scale @ A3: 1:1,600 **Coordinate System:** GDA 1994 MGA Zone 56

0 15 30 60 90 120 Metres

N

Confidential: For Internal Use Only

Rev	Date	Revision Description	Orig	Chkrd	Eng	QA	Appr
3	22/04/2021	Remove survey corridor	JL	XX	XX	XX	AH
2	15/04/2021	Clip survey corridor, EWA, LPH, tracks to RIDA properties	JL	XX	XX	XX	AH
1	17/03/2021	Add LPH	SL	XX	XX	XX	AH
0	16/03/2021	Show access tracks and EWA	SL	XX	XX	XX	AH

Based on or contains data provided by the State of Queensland. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws

© Commonwealth of Australia (Geoscience Australia) year of publication. This material is released under the Creative Commons Attribution 3.0 Australia Licence. http://creativecommons.org/licenses/by/3.0/au/. The dimensions, areas, number of lots, size & location of corridor information are approximate only and may vary.

Disclaimer: While all reasonable care has been taken to ensure the information contained on this map is up to date and accurate, no warranty is given that the information contained on this map is free from error or omission. Any reliance placed on such information shall be at the sole risk of the user. Please verify the accuracy of all information prior to using it.

Note: The information shown on this map is a copyright of Arrow Energy Limited and, where applicable, its affiliates and co-venturers.

Source:
Arrow Energy Limited, Geosciences Australia
Qld Gov.

Status: IFU
Issued To: A Hall
Author: jluke

arrow energy
go further

DK West - LPH

Map 5 of 5

Uncontrolled 3

Document: V:\Products\Australia\Queensland\Surat_Basin\General\210415_RITM0294107_RIDAAPP_AH\RITM0294107_Map5_3.mxd

NOT FOR CONSTRUCTION

Print Date: 22/04/2021