RPI Act Statutory Guideline 07/14

How to identify a Priority Agricultural Land Use (PALU)

A guideline to assist in understanding how to identify a Priority Agricultural Land Use (PALU) under the *Regional Planning Interests Act 2014* for proposed resource activities in a Priority Agricultural Area



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About this guideline

The purpose of this guideline

This document provides information on Priority Agricultural Areas (PAAs) and Priority Agricultural Land Uses (PALUs). Specifically, it provides guidance to applicants about:

- what constitutes a PALU
- how to identify land currently or recently used for a PALU
- how to identify land that is not used for a PALU.

Where it is determined that a proposed activity will be located on a PALU, refer to RPI Guideline 02/14 *Carrying out activities in a Priority Agricultural Area,* to determine the requirements under the *Regional Planning Interests Act 2014* (the RPI Act).

Definitions

The terms used in this document have the meaning given in the RPI Act unless otherwise defined in the Regional Planning Interests Regulation (RPI Regulation) or this document.

Background

The RPI Act establishes a PAA as an area of regional interest. A PAA is defined under Section 8 of the RPI Act and each PAA is mapped in a regional plan or prescribed in a regulation.

Each PAA is a strategic area identified by the government as containing significant clusters of what are considered to be Priority Agricultural Land Uses (PALUs) - high value, intensive agricultural land uses. PAAs have been identified and will continue to be identified by the government based on:

- proven highly productive agricultural areas, or
- agricultural land uses with significant infrastructure investment, or
- agricultural land uses that have the potential to be significantly impacted by resource activities and have limited scope to modify their agricultural practices in response to these impacts.

Resource activities proposed to be carried out within a PAA are subject to the provisions of the RPI Act and may require a regional interests development approval (RIDA) to proceed.

Before the chief executive administering the RPI Act can grant a regional interests development approval, the chief executive must be satisfied that the activity complies with the PAA Assessment Criteria which are contained in Schedule 2 of the RPI Regulation. The PAA Assessment Criteria provide two required outcomes for activities in PAAs; one that deals with impacts on a property level, and a second that deals with impacts on a regional level.

This guideline assists with understanding how to comply with one of the property level prescribed solutions being:

The application demonstrates -

(a) the activity will not be located on land in a Priority Agricultural Area that is used for a priority agricultural land use.

In order for an applicant to address this prescribed solution, the following needs to be understood:

- what constitutes a PALU
- how a PALU is identified.

Defining a Priority Agricultural Land Use

What is a Priority Agricultural Land Use?

A PALU is defined in Section 8 of the RPI Act as an area of highly productive agriculture including land uses of a type identified in a regional plan or prescribed under a regulation. A PALU under the RPI Act is always located within a Priority Agricultural Area (PAA). At the time of writing this guideline, a total of six PAAs have been identified and mapped by the state government; three in the Central Queensland Regional Plan and three in the Darling Downs Regional Plan.

The PALUs specific to the PAAs mapped in the Central Queensland and Darling Downs regional plans are defined in each regional plan as land uses and practices associated with the land uses included in class 3.3, 3.4, 3.5, 4 or 5.1 (in accordance with the Australian Land Use and Management (ALUM) classification, Version 8, October 2016 published by the Department of Agriculture ABARES, Australian Government). More information on the ALUM classification is provided in Table 1 and can also be found at the Department of Agriculture website:

http://www.agriculture.gov.au/abares/aclump/land-use/alum-classification

Schedule 1 attached to this guideline provides further information on the land use characteristics of some ALUM classifications that are relevant to the PALU classes identified in the existing regional plans.

Table 1: Priority agricultural land uses (ALUM) in the Central Queensland and Darling Downs regional plan areas

3. Production from dryland
agriculture and plantations4. Production
agricult3.3.0 Cropping4.1.0 Irrig
4.1.0 Irrig3.4.0 Perennial horticulture4.2.0 Grap
pastures3.5.0 Seasonal horticulture4.3.0 Irrig
horticulture

4. Production from irrigated agriculture and plantations
4.1.0 Irrigated plantation forestry
4.2.0 Grazing irrigated modified pastures
4.3.0 Irrigated cropping
4.4.0 Irrigated perennial horticulture
4.5.0 Irrigated seasonal horticulture
4.6.0 Irrigated land in transition

5. Intensive uses

5.1.0 Intensive horticulture

Frequency of agricultural activity-the 'three in ten' test

Schedule 2 of the RPI Regulation states that land or a property used for a PALU means the land or property has been used for a PALU for at least three years during the ten years immediately before an assessment application in relation to the land is made. In practice this means that agricultural activity has occurred three times in ten years but in three separate years.

The conduct of agricultural activity includes the agricultural activities required for the preparation, cultivation and harvesting on the PALU.

Identifying a Priority Agricultural Land Use

Who will identify a priority agricultural land use?

Not all land within a PAA is currently or has been recently used for a PALU. Identifying land used for a PALU is the responsibility of the applicant. Applicants may need to consult with the landowner or adjoining landowners to verify the PALU. If the land is leasehold, the state may have an interest and the Department of Natural Resources, Mines and Energy (which is responsible for administering the *Land Act 1994*) may need to be consulted.

Where agreement on the identification of a PALU cannot be reached or the landowner is also the applicant, the applicant will need an independent assessment undertaken to determine if the land is a PALU.

Overview of steps to be taken

An overview of the steps to be undertaken to determine whether land is a PALU:

- Step 1 Identify what properties the applicant proposes to impact upon
- Step 2 Identify whether the impacted properties are being (or have recently been) used for a PALU
- Step 3 Determine the time period of impact associated with the operation of each PALU at each property.

Step 1 - Identify properties impacted

An application will need to identify the land which is proposed to be impacted. The land could comprise of one or more properties¹, one or more agricultural enterprises and one or more PALU.

Step 2 - Identify location of Priority Agricultural Land Use on each property

A two-strand approach is required to identify a PALU:

- 1) review available mapping data
- 2) evaluate the accuracy of the mapping data and enhance as required.

1) Review mapping data available

Land use mapping

The first step is to review the Queensland Land Use Mapping Program (QLUMP) data. QLUMP maps and assesses patterns of land use and land use change across the state at catchment scale, in accordance with the national standard for land use classification. Further information about QLUMP can be found here: www.qld.gov.au/environment/land/vegetation/mapping/qlump/

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¹ property means—

⁽a) if an area managed as a single agricultural enterprise consists of 1 lot-the lot; or

⁽b) otherwise-all the lots that-

⁽i) are owned by the same person or have 1 or more common owners; and

⁽ii) are managed as a single agricultural enterprise; and

⁽iii) form a single discrete area because 1 lot is adjacent, in whole or part, to another lot in that single discrete area (other than for any road or watercourse between any of the lots).

A QLUMP state-wide land use map is available for the year 1999 and is updated periodically. At the time of writing, data for the Darling Downs region has been updated to 2006 and for the Central Queensland region to 2009. This information can be accessed at <u>www.data.qld.gov.au/dataset/land-use-mapping-series</u>.Mapping is also available via a web map service here: <u>www.environment.ehp.qld.gov.au/map-request/land-use/</u>

Land use mapping is undertaken at a scale of 1:50,000 with a specified minimum mapping width of 50 metres. As a result features like roads, tracks and other linear infrastructure are generally not included in the mapping. Similarly, land uses that fall under the minimum mapping area of 2 hectares are not explicitly mapped but aggregated into the surrounding land use class.

All land use spatial datasets are available through the Queensland Government Information Service which can be accessed here: <u>http://dds.information.qld.gov.au/dds/</u> The 1999 land use dataset and 2009 land use dataset are further supported by reports: for 1999, *Technical Report on the 1999 Land Use Map for Queensland* and for 2009, *Land use summary 1999-2009: Fitzroy NRM region* report.

Other spatial data

Queensland Government information and spatial data is accessible in a range of formats via the Queensland Spatial Portal which can be accessed here: <u>http://qldspatial.information.qld.gov.au/catalogue/</u>

This site provides access to spatial data through the Queensland Government Information Service and also provides access to the Queensland Globe which is the state government's online, interactive mapping and data application to view Queensland maps, imagery (including up-to-date satellite images) and other spatial data. This mapping can be accessed here: <u>https://www.business.qld.gov.au/business/support-tools-grants/services/mapping-data-imagery/queensland-globe</u>

2) Evaluate accuracy of mapping data and enhance as required

Accurate mapping of each PALU is required to determine the location of the PALU on the property, the boundaries of the PALU and the area of the PALU. This will be required in order to determine the potential extent of impact on the PALU and also to assess the impact on the productivity of the PALU.

Land use information can be verified and improved by using spatial information, satellite imagery, air photos, expert knowledge and field survey. Some tools to verify the existence and extent of a PALU have been provided in Table 2 below.

Method	Tools		
Undertake field work/ground truthing	 site visit discussions with land owner engage technical experts 		
Review the latest available aerial photography or satellite imagery	 Landsat imagery library for time-series satellite imagery or DSITIA FORAGE reports GIS data and aerial photography, available from local government offices Queensland Government Information Service (QGIS) Queensland Globe Geoscience Australia Commercial web sites include ArcGIS online, Google Earth, Bing Maps, Nearmap, satellite and aerial photography suppliers 		

Table 2: Examples of tools to confirm and/or improve the mapping data

Method	Tools		
Undertake individual property searches to obtain more detailed information on current land uses	 Land Valuations Globe – provides annual statutory land valuation data local government rates data base Queensland valuations and sales (QVAS) commercial sites include Price Finder, RP Data 		
Obtain information relating to the business on each property	 discussions with the land owner FORAGE Crop Frequency reports, which contain property-based satellite images of summer and winter cropping history, available from DSITIA (refer to Step 3 below for more information) business records (receipts from the market showing the sale of produce from a property) market reports information and evidence on producers, wholesalers, transporters, processors, manufacturer storage firms, packagers, food chains, retailers 		
Obtain expert knowledge	members of catchment and other community groupsland managers and extension officers		
Obtain statutory declaration from land owner(s) or farmers	 Information about statutory declarations and statutory declaration forms can be obtained from the Australian Government, Attorney-General's Department website: <u>www.ag.gov.au/Publications/Pages/Statutorydeclarations.aspx</u> 		

Step 3 - Determine time period associated with each PALU

Schedule 2 of the RPI Regulation states that land or a property used for a PALU means the land or property has at any point in time during a calendar year and for at least three years during the ten years immediately before an assessment application in relation to the land is made been used for a PALU.

Farm management practices include cultivation, resting periods and seasonal crop rotations which are crucial to the operational characteristics of classes of PALU. These practices are considered to be part of the conduct and undertaking of a PALU.

FORAGE Crop Frequency Reports are reports produced for a lot on plan or a number of adjoining lots on plan which provide an estimate of the frequency or number of times an area has had an active crop in the previous ten (or more) years, indicating a possible PALU. The user is able to select the time period for which they require the report between 1988 and 2013 with the default being the most recent ten years.

The mapping in the report is based on automated detection and analysis of actively growing green (photosynthetic) vegetation using Landsat satellite imagery composites for the winter and summer growing seasons. The reports also include the summer and winter Landsat satellite imagery composites for visual assessment of the area of interest during each growing season. The current version of the mapping included in the report is Version 1.0. It may therefore contain estimates which are inaccurate due to actively growing pasture areas, areas of high water content, and artefacts of cloud and cloud shadow which were not removed during pre-processing of the satellite imagery. Due to these limitations, the current version of the report only shows where three or more crops have been detected over ten or more years.

The FORAGE Crop Frequency report is available via the LongPaddock website and is accessible here: www.longpaddock.gld.gov.au/forage/

A user guide also accompanies the FORAGE Crop Frequency report and users are encouraged to refer to this for further information and guidance about using and interpreting this report.

Where to from here?

Where it has been determined that a proposed activity will impact on a PALU, an assessment application for a regional interests development approval will be required.

Further information

Visit: <u>https://planning.dsdmip.qld.gov.au/planning/regional-planning-interests-act</u> Phone: 1300 967 433 Email: <u>RPIAct@dsdmip.qld.gov.au</u>

Schedule 1

Land use characteristics of some ALUM classifications

For the purposes of this Schedule, the ALUM Priority Agricultural Land Use (PALU) classes have been combined into the following land use categories:

- 1. Horticulture (which includes the following ALUM categories: 3.4.0 Perennial horticulture, 3.5.0 Seasonal horticulture, 4.4.0 irrigated perennial horticulture, 4.5.0 irrigated seasonal horticulture and 5.1.0 Intensive horticulture, 4.6.0 Irrigated land in transition)
- 2. Irrigated cropping (including 4.6.0 Irrigated land in transition)
- 3. Dryland cropping (3.3.0 Cropping)
- 4. Irrigated plantation forestry (4.1.0 Irrigated plantation forestry)
- 5. Irrigated modified pastures (4.2.0 Grazing irrigated modified pastures)

Horticulture

Examples of horticultural crops include perennial and seasonal tree and vine fruit, nuts, berries, flowers and bulbs, vegetables, herbs, oleaginous fruit, citrus and grapes.

Horticulture requires intensive forms of plant production, often with special-purpose improvements such as glasshouses, shade cloth or hydroponics. Crops are grown and maintained all year round and crops are often rotated.

Horticulture is highly competitive and requires significant investment. Produce is often supplied to a niche in the market and a break in the supply can be critical to the continuation of the business. Timing of production is critical to supply to an identified market niche.

Irrigated cropping

Examples of irrigated crops include such crops as irrigated cereals, irrigated beverage and spice crops, irrigated hay and silage, irrigated oil seeds, irrigated sugar, irrigated cotton, irrigated pulses and irrigated rice.

Irrigation systems for cropping require a high investment in terms of field preparation and infrastructure. This is particularly the case where there is irrigation from natural or modified watercourses.

All irrigation systems require good surface drainage and activities which interrupt this may make it impossible to irrigate. This is most important for surface irrigation systems but is important for pressurised irrigation systems as well.

Dryland cropping

Examples of dryland crops include cereals, beverages and spice crops, hay and silage, oil seeds, sugar, cotton, alkaloid poppies and pulses.

Rain irrigated cropping areas usually occur in conjunction with grazing activities as mixed farming operations. Rain fed agriculture usually requires less field preparation investments than the intensive categories described above.

Crop rotation is characteristic of this category. Land under pasture may be in a rotation system, so that at another time the same area may be, for example, under cropping.

Irrigated plantation forestry

Examples of irrigated plantation forestry include irrigated hardwood production, irrigated softwood production, irrigated other forest production and irrigated environmental forest plantation.

Irrigated plantation forestry is intensively farmed and any loss of land will impact the production of plantation forests.

Lead times to harvest are long and any disturbance to trees will affect the productivity cycle. Replacement trees may take years to reach the same level of maturity as the balance of the plantation.

Plantations may be planted for multiple uses, for example, as windbreaks as well as for wood production.

Irrigated modified pastures (grazing)

Examples of irrigated modified pastures include irrigated woody fodder plants, irrigated pasture legumes, irrigated legume/grass mixtures and irrigated sown grasses.

Irrigated pasture production, both annual and perennial is based on a significant degree of modification or replacement of the native vegetation.

This class may include land in a rotation system that may be under cropping at other times.

More information on the ALUM classification can be found at <u>http://www.agriculture.gov.au/abares/aclump/land-use/alum-classification</u>

Schedule 2

Quick reference guide for data and information

Data or Information	Source of data or information	Type of information	Relevant links
Regional Planning Interests Act 2014	DSDMIP	Legislation	https://planning.dsdmip.qld.gov.au/planning/regional- planning-interests-act
Regional Planning Interests Regulation 2014	DSDMIP	Regulation	https://planning.dsdmip.qld.gov.au/planning/regional- planning-interests-act
Australian Land Use and Management Classification (ALUM) – Version 7	Australian Government – Department of Agriculture	National standard land use classification	http://www.agriculture.gov.au/abares/aclump/land- use/alum-classification
Queensland Land Use Mapping Program (QLUMP)	Queensland Department of Environment and Science	Spatial data and information about land use in Queensland	Information: https://www.qld.gov.au/environment/land/vegetation/ mapping/qlump/ Data: http://dds.information.qld.gov.au/dds/ (use search term "Land Use Mapping") Web Map Service: http://environment.ehp.qld.gov.au/map-request/land- use/
Queensland Government Information Service	Queensland Department of Natural Resources, Mines & Energy	Queensland Government Spatial Data	http://qldspatial.information.qld.gov.au/catalogue/cus tom/index.page
Queensland GLOBE	Queensland Department of Natural Resources, Mines & Energy	Queensland Government Spatial data in Google Earth format	https://qldglobe.information.qld.gov.au/
FORAGE Crop Frequency Report	Queensland Department of Environment and Science	Report of crop frequency for 10 or more years based on Landsat satellite imagery	http://www.longpaddock.qld.gov.au/forage/

Schedule 3

Example of a crop forage report

FORAGE REPORT: CROP FREQUENCY

http://www.longpaddodk.qld.gov.au/lorage June 11, 2014 Lot on Plan: 5BLM499 Label: None

Introduction

This report presents crop frequency information for your chosen area, for the time period selected. The report is for a minimum ten year period between 1988 and 2013. The report includes crop frequency mapping which is based on time series analysis of Landsat satellite imagery over the summer and winter growing seasons. The approach is based on detection of annual cycles of greenness, therefore some perennial crops may not be represented. Snapshots of composite Landsat imagery for February and September for each year are also provided. For further information, refer to the FORAGE User Guide (http://www.longpaddock.qld.gov.au/forage/forage_user_guide.pdf).



How to interpret the information

Crop frequency mapping: Coloured areas on the map indicate locations where active crops have been detected three or more times in the summer and winter growing seasons, for a minimum ten year period. The map on this page shows 'Total Frequency' and is a count of number of years in which an active crop was detected. The two maps on the following page show the summer and winter crop frequency. These maps show a count of the number of times an active crop was detected in each of those growing seasons. The detection of active crops is based on time-series analysis of Landsat satellite imagery. Due to limitations of the automated method used to detect active cropping, you should also view the Landsat satellite imagery snapshots to confirm the presence or absence of cropping.

Landsat satellite imagery: The summer (February) and winter (September) Landsat imagery snapshots on the following pages help confirm the presence of an active crop. Each snapshot is designed to optimise the identification of winter and summer cropping and is generated from a number of images acquired within the growing season. The 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 Landsat image to confirm that cropping has not been undertaken. Sometimes it will not be possible to clearly identify cropped areas in the imagery. For example, in some wetter seasons, much of the imagery can appear very green and cropping may be difficult to identify. Where this is the case, it is recommended to undertake further investigation using other information sources.

Queensland Government



FORAGE REPORT: CROP FREQUENCY





February (left) and September (right) images for 2004



February (left) and September (right) images for 2005



February (left) and September (right) images for 2006











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