



RPI Act Statutory Guideline 9/14

**How to determine if an activity has a permanent impact
on strategic cropping land**

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Overview

This guideline assists applicants seeking a regional interests development approval for a proposed activity in the strategic cropping area (SCA) under the *Regional Planning Interests Act 2014* (RPI Act).

Schedule 2 of the Regional Planning Interests Regulation 2014 (RPI Regulation) provides criteria for assessment or decision of a proposed activity in the SCA. These criteria require an applicant to identify whether an activity will have a permanent impact on strategic cropping land (SCL).

An activity has a permanent impact on SCL if, because of the carrying out of the activity, the land cannot be restored to its pre-activity condition.

Key concepts and terms

Pre-activity condition

Pre-activity condition is the condition of the land's soil as identified and analysed within one year before the making of an assessment application for a resource activity or regulated activity to be carried out on the land.

Restoration

For land to be restored to pre-activity condition, it will require an adequate restoration to the former or original condition of the land, including the productive capacity of the land. It does not simply mean 'revegetated', 'rehabilitated' or 'reclaimed' which are all commonly used terms under other state government permit and approval processes.

Restoring the land means that the land is not only returned to its pre-activity use but that it is also returned to its pre-activity productive capacity or potential productive capacity.

Productive capacity

In the context of SCL, the productive capacity refers to the intrinsic capability of the land and soil to store and supply the water and nutrients required to sustain crops in the future.

Addressing the SCA criteria

To demonstrate that the proposed activity does not have a permanent impact on the impacted SCL, it will be necessary to demonstrate that:

- the land is able (without constraints) to be restored to its pre-activity condition following the undertaking of the proposed activity and
- the impacted SCL has been restored to its pre-activity condition following the cessation of that activity.

The actual nature and magnitude of impacts, and the significance of the risks to productive capacity, will be activity and site specific. To restore land to its pre-activity condition it is essential that the land's condition is well understood so that it is possible to:

- a) accurately identify and characterise the activity and site-specific impacts that might flow from the undertaking of a specific activity at a particular site
- b) properly evaluate the significance and management implications of those impacts
- c) develop an activity and site-specific management plan that manages and mitigates those impacts during the developmental, operational and decommissioning stages of the activity, and so ensure the land is finally restored to its pre-activity condition
- d) establish restoration criteria against which successful restoration can be demonstrated and signed off.

Understanding the condition of land

Notwithstanding the potential for assessing any activity and site-specific attributes, the basic components of any assessment of pre-activity condition are likely to include the following:

- terrain, landform and slope
- site lithology
- current land use
- previous site disturbance and modification
- site and soil hydrology
- soil surface condition
- vegetation and groundcover, including crops
- microrelief
- soil depth (including where depths >1 metre) and
- soil profile descriptions, incl. for each horizon or layer.

Assessment of condition

The general principles and land resource and soil survey methodologies outlined in the RPI Act Guideline 08/14 should provide the basis for much of the initial fieldwork and laboratory analyses required to establish the pre-activity condition of land.

Where this is not sufficient detail on the attributes of the land that will be impacted, publications such as the *Guidelines for Surveying Soil and Land Resources* (McKenzie et al., 2008), *Soil Physical Measurement and Interpretation for Land Evaluation* (McKenzie et al., 2002) and *Soil Chemical Methods – Australasia* (Rayment & Lyons, 2011) will provide appropriate guidance as to suitable survey, data collection and analytical techniques for attributes not normally assessed when considering compliance with the SCL criteria for land provided in schedule 3 of the RPI Regulation.

All assessment techniques and methodologies used should be well established or supported by references to credible scientific publications.

Statistical validation

Due to the requirement for the restoration of the land to its pre-activity condition, the methodology applied in assessing pre-activity condition needs to be rigorous. This increased rigour extends to the intensity of sites used to characterise an area under assessment. The higher density of assessment sites then allows for meaningful and reliable statistical probabilities to be applied when assessing the success of the restoration, instead of relying on less objective means.

Restoration plan

Information requirements for demonstrating land will be restored to pre-activity condition will be best presented through a detailed restoration plan which contains the following:

- (a) information on the nature of impact on the land and methods used to determine impact
- (b) characterisation of the pre-activity (current) condition of the land and soils
- (c) evaluation of the nature and risk of any predicted impacts on the land
- (d) evidence that scientifically proven and practical methods do exist for restoring the land
- (e) detail on the application of the restoration methods including timeframes
- (f) a monitoring program including benchmarking and progress milestones
- (g) a fully costed estimate of identified restoration works
- (h) restoration criteria against which successful restoration can be demonstrated.

Other considerations

The requirement in the RPI Act for the restoration of the land to its pre-activity condition constitutes an extremely high standard for land repair. Consequently, an activity or even a project may need to be substantially altered, postponed or even abandoned, if, after having identified the likely impacts and assessed the potential for full restoration, any of the following apply:

- successful restoration is not feasible or it is questionable if it can be achieved
- restoration would take an uncertain or indefinite period of time
- the technology does not currently exist to allow restoration
- practical and economic limitations make restoration unviable.

It is acknowledged that for most activities that require a regional interests development approval, restoring land to its pre-activity condition following the conduct of the activity will not be achieved like for like. This is as a result of factors such as compaction, soil handling and storage, lag time between extraction and restoration etc.

The practicality of restoring land will depend on:

- (a) the nature and severity of the impact
- (b) the time and resource available to achieve full restoration.

Engaging persons or consultants with proven competencies in land and soil resource issues, and land restoration in particular, will help ensure that the restoration process is designed, implemented and concluded in a timely and cost effective manner. The ultimate concern should be that the necessary skills and knowledge are possessed by a particular person or organisation, and they are applied in a professional manner.

Further information

Visit: www.dilgp.qld.gov.au/RPIAct

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It is recommended that all proponents consider having a pre-application discussion with DILGP to assist in determining:

- if the proposed impact is likely to qualify as only being of a non-permanent nature and
- the level of detail required in both the assessment of pre-activity condition and the restoration plan.

References

DNRM, 2014, *Guide to mapping and verifying strategic cropping land criteria*, Department of Natural Resources and Mines, Brisbane, Qld.

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Rayment, G.E. and Lyons, D.J., 2011, *Soil Chemical Methods – Australasia*, CSIRO, Collingwood, Vic.

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