

Surveying Alert



Parish & County, New CSR Guidelines for 3.24 & 3.28, EDME

4 November 2015

Alert 17

Parish and County

The Department of Natural Resources and Mines will be removing references to Parishes and Counties in land transactions, as this information is redundant for the unique identification of land. This will affect forms submitted to the department, and some products and datasets obtained from the department.

While the formal date for this removal is 30 November 2015, it may take some time for the changes to be applied to all products and services. In the interim, these products will show the value 'no longer used' for Parish and County.

The department's web site contains more detailed information about how the change will affect each product or service: <https://www.dnrm.qld.gov.au/mapping-data/removal-parish-county>

The following changes affect survey plans and forms:

Survey plans (for freehold and state land)

- Parish and county names and boundaries are not to be shown on the face of plans
- Items 9 and 10 are not required to be completed after 30 November 2015
- On freehold plans, where it is necessary to distinguish between portions of the same number in original grant allocations, the relevant parish names should be used
- On eSurvey plans, the original grant reference is to be shown instead of the portion number in original grant allocations. This reference is shown on the certificate of title.
- A new survey plan form will be issued in due course, in conjunction with some amendments to the Registrar's Directions for the Preparation of Survey Plans. An alert will be issued to advise of these changes.

Form 10

- The Form 10 checklist will be amended to remove reference to parish and county.

Form 6 (survey control form)

- The parish field will remain on the form, but it is no longer a mandatory item.
- The Horizontal Control Data section has also been amended to include Positional Uncertainty instead of Class and Order. (Class and order will remain for vertical control.)

A further survey alert will be issued when the new forms and associated procedures are available.

New Guidelines under CSR 3.24 and 3.28

The recent changes to the Cadastral Survey Requirements regarding connection of surveys to datum (3.28) and meridian (3.24) contain requirements that will be

inconsistent in some circumstances.

Meridian

Where MGA coordinates are determined for two corners at the extremities of a survey, and the positional uncertainties of those coordinates are at the upper limit of the requirements (i.e. 50mm), the two marks will need to be about 500m apart to achieve the 20" meridian accuracy specified in 3.24. It is not intended that surveys be artificially extended in order to achieve this meridian accuracy.

New guideline 3.24.1 below states that where MGA coordinates are determined for two marks at the extremities of the survey to a positional uncertainty of 50mm, that is sufficient to provide MGA meridian.

Connection to datum

The intent of 3.28.1 is to position the cadastral survey relative to datum to an accuracy of better than 50mm. Some surveyors have been determining coordinates on permanent marks remote from the survey (i.e. several hundreds of metres, or more) which may not achieve the intent, when the accuracy of the connection to the permanent mark is taken into account. The department's preference is for coordinates to be determined on marks on the survey itself. New guideline 3.28.3 addresses this.

3.24.1 Meridian from State control survey

Guideline under Standard 3.24 Meridian

Where a survey is connected to datum (i.e. it is connected to the State control survey in accordance with 3.28.1 Connection to datum) and coordinates are determined for marks within the survey in accordance with 3.14 Coordinates, the accuracy of the derived MGA bearings are dependent on the distance between those marks. If those coordinates had horizontal positional uncertainties at the upper limits allowed in 3.28, the marks would need to be in the order of 500m apart to provide MGA bearings to an accuracy of twenty seconds of arc.

There will be surveys that are connected to datum that will not extend 500m, in which case a surveyor would need to consider two options to achieve MGA bearings to an accuracy of twenty seconds of arc:

1. achieve a lower positional uncertainty on the marks; or
2. establish marks some distance from the survey.

However, it is sufficient to satisfy the survey integration intent of 3.28 and 3.24 by establishing coordinated marks with positional uncertainties that satisfy 3.28 at the extremities of the normal survey (not artificially extended). The MGA bearings derived from those coordinates may then be used, even if that does not provide an accuracy of twenty seconds of arc.

3.28.3 Coordinates for marks on a survey

Guideline under Standard 3.28 Permanent survey marks – connecting to datum

Where a survey is required to be connected to datum under Standard 3.28, coordinates should be determined for marks on the survey itself (i.e. at or adjacent to corners of the subject land). While it is permissible to determine coordinates for any type of mark, surveyors should consider the longer term benefits to the cadastre of determining coordinates for marks with greater stability (e.g buried marks or permanent marks).

Where a survey is not required to be connected to datum under Standard 3.28, but connects to permanent marks that are datum marks, it is not a requirement for the survey to be on MGA meridian, or for a coordinate table to be shown for the permanent marks.

EDME baselines

All current Queensland EDME baselines have been calibrated and issued with Regulation 13 certificates. This includes the new baselines at Walkamin, Leyburn and Townsville (Dalrymple Road).

Regulation 13 certificates for these baselines are on the department's web site, along with new processing software.

<https://www.business.qld.gov.au/industry/titles-property-construction/surveying/calibration-equipment>

Four baselines have been decommissioned, and have not been recalibrated:
Aloomba, Cooktown, Toowoomba and Townsville (University Drive)