

Enabling the Uptake of New Zealand's Improved National Vertical Datum

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SUMMARY

Land Information New Zealand will soon complete a four year project to improve New Zealand's national vertical datum, delivering an expected accuracy of better than 3cm in developed areas. One of the drivers for this project was to provide a more resilient datum, which can support recovery after a natural disaster.

As with the current New Zealand Vertical Datum 2009 (NZVD2009), the new datum will be based on a quasigeoid and will be compatible with ellipsoidal heights defined in terms of the New Zealand Geodetic Datum 2000 (NZGD2000).

Height datasets in New Zealand are often referred to either NZVD2009, NZGD2000 or one of thirteen orthometric datums that are defined in terms of local mean sea level. A key outcome of this project includes supporting the migration of datasets stored in these legacy datums to the new national vertical datum.

This paper identifies a method which will best enable users to carry out these vertical datum transformations. The final product includes a model of the datum relationship, published on a gridded surface with the same resolution as the national quasigeoid.