

A GIS Approach To Conflict Minimization In Strategic Domestic Wastewater Management Planning - A Case Study

Ian Allan, Geocode Mapping and Analysis Pty Ltd, and School of Geography and Environmental Science, Monash University iallan@geocode.com.au

Robert van de Graaff, van de Graaff and Associates Pty Ltd vdg.robert@vdgraaff-soils.com

John Roche, Shire of East Gippsland, JohnR@egipps.vic.gov.au

Mike Smith, CTL Pty Ltd, ctl@bigpond.net.au

EXECUTIVE SUMMARY

Historical planning decisions that led to the creation of unsewered subdivisions with land parcels too small to dispose of liquid wastes on-site have left a legacy that present day planners must deal with. It is not uncommon for planners to resort to rescinding development rights, or to put in place policy that encourages the consolidation of small parcels into larger ones that are capable of on-site wastewater disposal. Such situations commonly lead to conflict between planners and ratepayers, and community planning forums are guaranteed high rates of participation by anxious ratepayers whose life-plans may be affected. In the absence of appropriately scaled spatial information showing themes relevant to on-site wastewater disposal, it can be assumed that an entire area is subject to planning conflict. Often it is not. In Victoria, Environmental Protection Authority (EPA) guidelines set environmental constraints such as watercourse setbacks, slope extents and soil suitability that must be observed in the determination of a parcel's suitability for on-site disposal of liquid wastes. When these constraints are mapped against subdivision patterns, areas display as being developable, undevelopable, and somewhere in between and requiring closer scrutiny.

In this paper we describe a planning review process that used GIS maps of themes relevant to domestic wastewater disposal as its basis. Produced by a team of independent consultants, the large scale GIS maps demonstrated to stakeholders the extent to which each parcel was (and was not) affected by environmental constraints, and that the developability of the study area changed under Council's parcel consolidation policy. While on the one hand the GIS mapping partly validated to Council its planning response to an environmental health concern, in a manner that was defensible, repeatable, spatially consistent and fair, it also served to show ratepayers that there were clear technical and scientific reasons why the existing subdivision pattern was unsuitable in their area.