

Subdivision as an intermediate scale planning and natural resource management processes for combined agricultural and biodiversity outcomes

Peter Atkins

Manager, Statutory Planning Policy and Coordination,
Department of Sustainability and Environment, Victoria

Abstract

The subdivision and re-subdivision process can offer a strong natural resource management and conservation protection tool, and can encourage the introduction of strong, long-term biodiversity maintenance and sound natural resource management on private land. A case study shows that substantial biodiversity and agricultural outcomes are possible through disciplined adherence and application of the existing subdivision planning provisions by developers and responsible authorities. The case study highlights the substantial natural resource management opportunities, resources and contractual property management frameworks that can arise for government agencies when they respond to or direct rural residential subdivision.

The economic development period now being experienced in rural Victoria is heavily characterised by a boom in rural residential use, which is driving much of our rural landscape processes. Improving our understanding and capacity to operate at the intermediate planning stages through land subdivision can re-open avenues for significant gains in natural resource management and conservation protection. This type of land-use change has the potential for broad-scale landscape change, a means to harness the wave of new productive and post-productive investment cycles in the rural landscape. It can be a means to change the pattern of existing land tenure set in place more than one hundred years ago — a physical framework that is poorly disposed to improving biodiversity and natural resource management outcomes.

Keywords

biodiversity conservation, land-use change, rural development, land subdivision

Introduction

The land-use planning system that the Department of Sustainability and Environment (DSE) is drawn into is often a reactive one; site-by-site 'development-triggered' planning referrals deliver only a limited range of natural resource management and biodiversity outcomes and send an undynamic message to land markets. The scope of our considerations are usually legally constrained to a small set of impact matters, often relegated to the heading of 'native vegetation protection'. This is a costly micro-scale service approach with potentially unstable outcomes.

Planning referral agencies such as DSE, Rural Water Authorities, Catchment Management Authorities and the Country Fire Authority, are normally required to be involved in the subdivisions assessment process. Each year DSE has approximately seven hundred subdivisions applications referred to it for consideration, each a major opportunity to explore with the proponent and local council more sustainable land tenures.

If we were to focus more upon our role in subdivision, and particularly the re-subdivision of properties already based on several titles, considerable scope for innovation and partnership would open. New landscapes could be justly negotiated with private landholders. However, subdivision is a poorly understood process and an ill-supervised area of planning decision-making; the high financial stakes involved add to the barriers, and often add unskilled players.

Subdivision offers the potential for new management practices — more so than any other form of land development. With the physical creation of new titles comes the prospect of alternative ownership and investment forms, common titles, strata and cluster and group titles, and new contractual arrangements for private and public infrastructure provisions. Land and biosphere stewardship responsibilities lost in the creation of the first tenure, years earlier, can be introduced.

The Victorian State Planning ‘Particular’ — Subdivision, Zone and ‘General’ provisions, and Ministerial Direction No. 6 for rural residential rezoning form the entry point for raising the horizon in the minds of developers and prospective landowners, with the support, of course, of the local council. The combined consideration of these is of particular importance when a new subdivision or rezoning occurs.

The whole landowner’s holding could also be drawn in to the process of redesign, perhaps including dozens of separate titles involving hundreds if not thousands of hectares.

The following case study serves to illustrate the basic elements and innovative opportunities in the subdivision process when a balance of natural resource management and biodiversity outcomes is sought.

The Fryers Forest Village Farm

In spite of the hostile legislative and planning policy context of the early and mid 1990s, a number of (re)subdivision projects of the cluster type were implemented around Victoria. The Fryers Forest Village Farm at Fryerstown, in central Victoria, was able to positive outcomes through simple observance of sound subdivision design principles provided in the existing state planning provisions. The project is also important for its success in establishing an ongoing conservation and natural resource management mechanism and supervision process. This was introduced through the new property structure placed over the land, in the form of body corporate responsibilities. I was a consultant in the design team, and while this is why I choose this example as the details are clear to me, there are several other projects that also deserve analysis. Cluster and village farm subdivision designs are well advanced as new forms of sustainable development in New South Wales and Queensland. A few other innovative Victorian examples are emerging, each displaying promise for integrating primary production (such as horticulture, agriculture and forestry) with passive residential amenity and conservation values. Lyndale Park near Seymour has been acknowledged as a model of sustainable rural development, and is important also because it operates at the scale of thousands of hectares. More recently, at Mt Ophra in north-eastern Victoria, a similar project is underway.

The term ‘village farm’ was also first used to describe a project in which the majority of the land is retained for pastoral farming after subdivision.

The Fryers Forest Village Farm (Figure 1) project balanced agricultural and biodiversity conservation objectives consistent with the State Planning Policy context. In part, this was achieved through the use of the integrative design principles of permaculture-based site planning. Project director David Holmgren was the joint author of the seminal 1978 publication on permaculture, *Permaculture 1*, and we were able to draw upon considerable design capacity in this regard. Permaculture is a system of balancing land productivity with biodiversity and conservation outcomes. The project displays well the new subdivided land forms and management structures available. New tenure-based legal structures are responsive to the combined objectives of land productivity and biodiversity outcomes. The site was also deliberately selected to display the potential of the creative use of the subdivision process by taking very marginal dryland farmland with moderate biodiversity values and enhancing these values through the process.

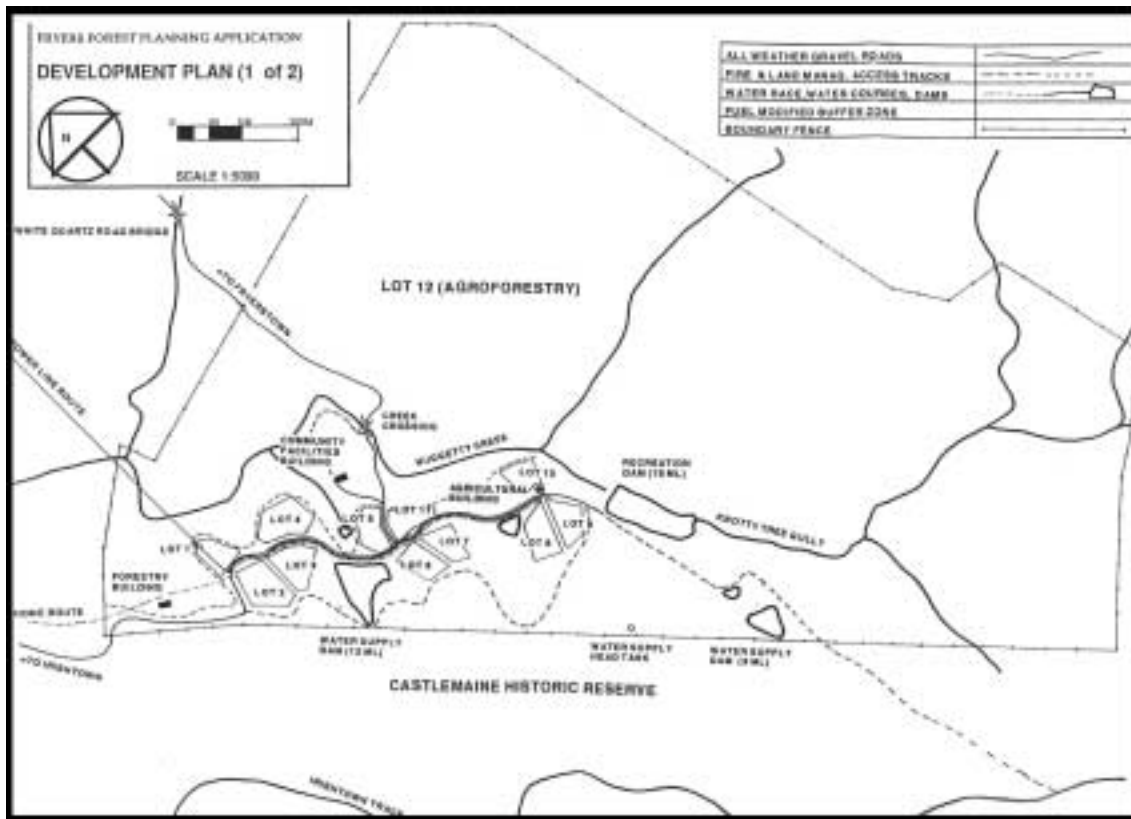


Figure 1 The Fryerstown Forest Village Farm development plan.

The project's key elements and tools

The project re-subdivided a farm lot consisting of 10 titles into 12 lots: 10 clustered 1-acre residential lots, a community allotment, and a farm lot of 121ha. The existing lot arrangement inhibited proper and productive use of the land. Re-subdivision into clustered and smaller residential lots was sought, with the residual 121 ha lot to be managed for primary production and conservation purposes in accordance to a management plan.

A flora and fauna inventory was the first large piece of design work undertaken and utilising knowledgeable local naturalists and skilled specialists. The site had been worked over by gold mining; the field largely followed 'Nuggetty Creek' that runs as a east west central axis in the site. Clearing land earlier this century for a farm tended to follow the creek workings for over two thirds of the site. The remaining area was box eucalypt forested slope, a continuation of the Fryerstown State Forest which abuts most of the boundaries.

Rights to continue traditional agroforestry use on the land was sought via body corporate based silviculture licenses for fire wood getting, coppicing, saw log taking. A detailed management plan and specialist corporate body was created to ensure long-term expertise to oversee a sustainable management and land recovery.

The management plan formed part of the planning permit conditions and was respected in ongoing body corporate stewardship. In this sense the planning approval enshrined the first legal instrument, setting out the land stewardship and bioregional obligations that accompanied greater residential use on the land.

An integral part of the proposed development was the use of an expert-based land management plan that could sensitively guide development and bind future owners to a regime of sustainable land use, conservation, and recovery of the site's natural values.

The 'body corporate' provisions allowed the development of a company to maintain continuing expert direction over agroforestry and other production and conservation activities on the land.

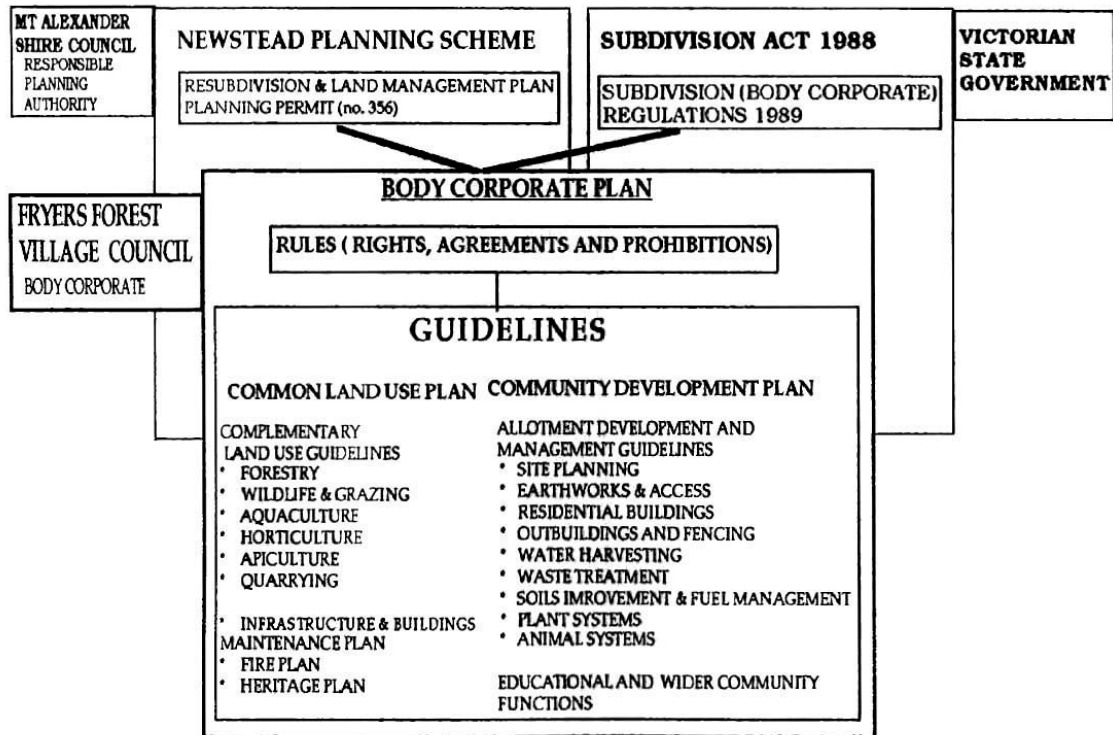


Figure 2 Subdivision statutory planning framework.

The detailed subdivision design was based upon a further analysis, and was driven by an integrated design approach which addressed such matters as heritage feature retention, bushfire design issues, sustainable resource use, forestry pro-silva principles, effluent management and infrastructure provision. The development of natural resource management conditions — soil and water conservation, biodiversity and natural resource harvesting, forestry, firewood getting, coppicing, aquaculture and bee-keeping — completed the of the physical design. The planning context, body corporate arrangements and design guidelines are shown in Figure 2.

From this approach a basic infrastructure and lot and building envelope arrangement was set into a development plan.

Each body corporate member held a set of general development rights and took on environmental management obligations. Further detailed site planning had to be completed by each owner prior to the construction of dwellings. This final owner-managed site planning stages completed a cascade of design and planning stages laid down in planning permit conditions, outline development plans and land management plans to ensure a consistent implementation across the three-year roll out of the project.

A common set of residential lot management guidelines were set into the body corporate principles, and matters such as pets, animal systems, waste management, soil nutrition, fire hazard control and energy conservation practices were incorporated. This offered a layer of insurance about off-site biodiversity impacts that so often arise with the final dwelling use but are often considered 'beyond regulation'. Weed invasion and nutrient escape are typical processes for which management is seldom attempted when residential lots are created near or on ecologically valuable land. These were also included within the residential guidelines.

The Forestry Code of Practice provisions were also made binding through the management plan to control the agroforestry activities on the common 121ha lot where a large stand of box forest existed. Importantly, the residential village layout was designed to integrate into and allow for future agroforestry activities on the adjoining sites.

The thoughtful consideration of conservation and natural resource management earned planning credit in the eyes of the local council, which allowed an additional lot to be created, for community use; a community building may be erected on this lot in the future. This small concession improved the overall financial aspects of the development.

Residential allotment owners will retain a common social and economic interest in the agroforestry and conservation activities on the property. Their investment thus sustains and allows an enjoyment of the productive and natural values of the site without the burden of unbalanced access and poor allotment patterns that characterised the original farmland site. The pooling of resources through the body corporate structure allowed clear coordination, expert management and business accountability.

Importantly, the social isolation and lack of resources for sustainably managing land are two issues that stimulate people to search for better-designed, community-based options, and the village farm approach achieved this. This form of development also created the option for the previous farmers, and one farmer still resides adjacent, to continue to use part or all of the farm lot and/or to maintain an interest in the land. The farmers' valuable site history and management practices were therefore able to be passed on to new managers.

The land tenure and management structure of the village farm made it possible to optimise the siting, design and management of houses to minimise environmental impact, while maximising potential benefits from common land management. In particular, the siting of allotments on gentle slopes and crests with minimal run-on from above, connected by contour vehicle access and with well-sited water collection, storage and absorption earthworks, will minimise the erosion hazard.

Figure 3 shows the organisational and land management structure adopted. The Fryers Forest Research and Development body were responsible for implementing the early stages of the land management plan and for refining the elements of the plan. The progressive devolution of responsibility for land management through a series of land-use leases and site sales formed the basis for the social engagement. Leaseholders will be accountable to the body corporate through a land management subcommittee of the body corporate. Fryers Forest Research and Development will retain the forestry management lease for at least ten years.

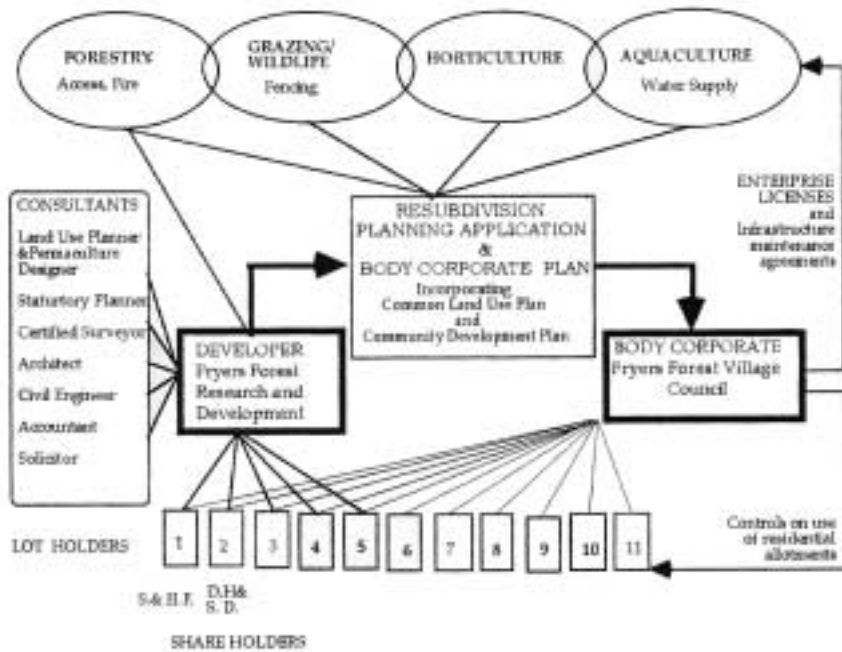


Figure 3 The organisational structure of the Fryers Forest Village Farm.