development, constraints & biodiversity planning in qld

Paul Summers, Paul Summers Planning Strategies

Introduction

This discussion paper is based on four theses:

a) Opportunities for improving biodiversity protection in Queensland associated with development are being lost;

b) Development constraints are recognised and resolved through convoluted structures;

c) IPA planning scheme structures engendered by the Department of Local Government, Planning, Sport & Recreation (DLGPSR) templates for planning schemes exacerbate the problems; and

d) Better methods of implementing planning schemes, respecting development constraints and protecting biodiversity are available.

The paper is kept deliberately short and represents an overview of the problems and the solution. The precise targets of the paper are:

- Development outcomes in planning schemes; and
- Impacts on biodiversity arising from those development outcomes.

1. Has the IPA brought an advance?

In this section, consideration is given to the standards of biodiversity information and the construction of planning schemes as engendered by the DLGPSR templates.

1.1 BIODIVERSITY & CONSTRAINT INFORMATION

Over the last decade there has been a significant increase in the volume and quality of information relating to biodiversity in Queensland. At regional levels there is now:

- Regional Ecosystem information; and
- Biodiversity Assessment & Mapping Methodology information.

This information is supplemented by finer scale data often prepared by local governments or community groups for their particular areas. With some relatively minor exceptions, the finest scales for this combination of regional and local data exist for South-East Queensland; with coarser scales for the balance coastal area of Queensland and coarser scales again for the non-coastal regions.

In addition, State and Local Governments have access to or prepare relatively fine-grained constraint and value data for land at:

- Primary levels i.e. landscape and landform, soils and geology.
- Secondary levels e.g. agricultural values, bushfire hazard, flooding, landslip, etc.

Once again, the relative scales of the data vary across Queensland as above.

This overall combination of data provides an excellent footing for analysing land and its suitability for development.

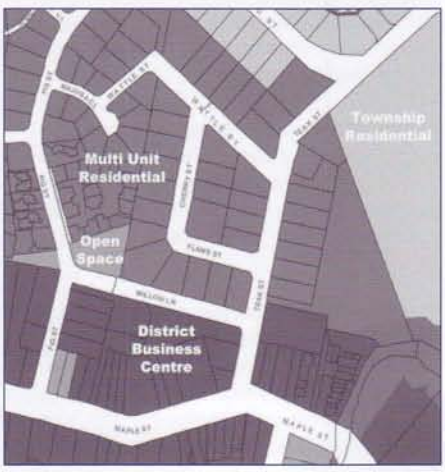
1.2 PLANNING SCHEMES

In 1998, all Queensland planning schemes were required to be transitioned to a new format designed to be consistent with the *Integrated Planning Act* (IPA). At first there was no definition for the structure of such planning schemes; however around four years after introduction of the IPA the then DLGP produced templates upon which schemes could be based. Designing planning schemes using these templates was not mandatory; however it was apparent to Local Governments that the process for preparing a planning scheme would be a lot harder if it was not built on one of these templates. Most, if not all, chose to found their planning schemes on a template or with minor variations on a template.

In simple terms planning schemes using these templates are founded on two levels of mapped information:

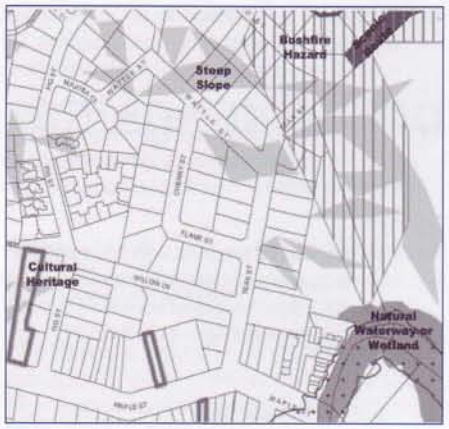
a) The first mapped level sees land categorised on a zone- or precinct-basis according to a broad land use function, usually the dominant function likely to be found in the zone or precinct, see Figure 1 below from Caloundra City's planning scheme. The zones or precincts are usually required to align to the cadastre (property boundaries). The land use regulation system i.e. whether or not a development application (DA) must be made, also defines the assessment level for the DA.

FIGURE 1 ZONING SAMPLE



b) The second mapped level sees land categorised according to various values or constraints (overlays) see Figure 2 below from Caloundra City's planning scheme below. The values or constraints are generally not aligned to the cadastre. The land use regulation system can be influenced by these values or constraints, with the levels of assessment potentially changing as a consequence of the existence of a value or constraint over the whole or part of the land. Alternatively, the likely prospects for success of an application, despite the zoning or precinct designation, can be affected.

FIGURE 2 ZONING SAMPLE



As a consequence of the operation of these two different layers in planning schemes, it is a regular occurrence that:

- Land is identified as being suitable for development by one layer e.g. Township Residential; BUT
- The constraints or values of the overlays can preclude land from being developed e.g. Steep Slope and Bushfire Hazard.

Put another way, planning schemes contain inherent conflicts as a consequence of splitting the mapping layers.

Because the land use regulation system is built on the precinct or zone mapping, it is this layer that land owners, developers and others have regard to when examining land suitability for development. Because of the multiple layers of constraint and value information and the complexity of IPA planning schemes, multiple sections of these documents must be accessed to gain the full picture. Few lay people have the knowledge to pursue these complex outcomes and irrespective of this, there remains the inherent conflict between the layers.

A direct example of these circumstances is shown below from Maroochy Shire's planning scheme where the precinct in which the land falls is Emu Mountain Residential (Figure 3 on page 3); however the land is also subject to an overlay (Figure 4 on page 3) that requires an impact assessment process to be followed due to the value and constraint of vegetation on the site. On the one hand, the planners will be seeing that the land is committed for residential development, whilst the environmentalists will be attempting to prevent that development due to the existence of vegetation and habitat values.

FIGURE 3 ZONE-OVERLAY CONFLICT 1

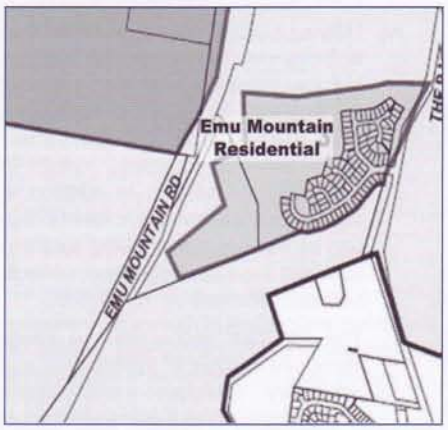
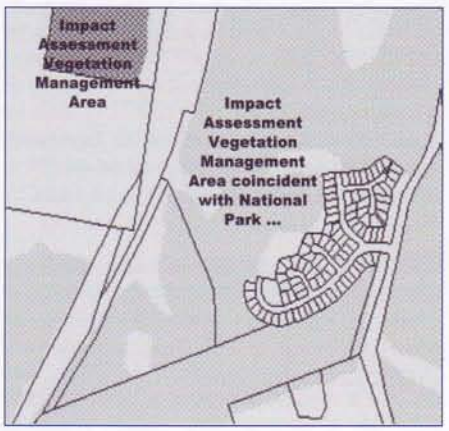


FIGURE 4 ZONE-OVERLAY CONFLICT 2

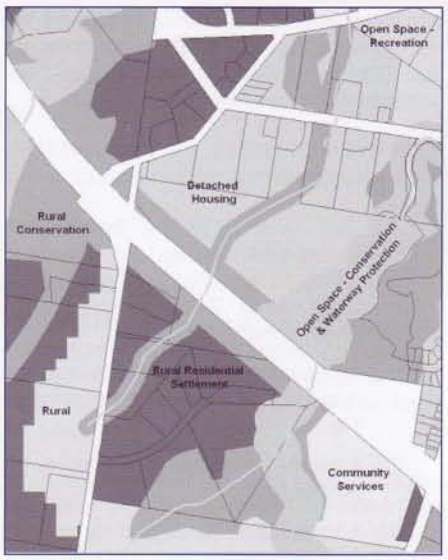


It is worth noting that most IPA-based planning schemes have multiple layers or maps depicting the overlays, not just one.

1.3 ANY ADVANCE?

Generally in terms of land use regulation, the IPA has not advanced the circumstances beyond positions that had been reached by some Local Governments in the 1990s. Indeed, the templates have actually forced things backwards. For instance, drawing from Noosa's Strategic Plan which was prepared in the mid 1990s, Figure 5 below clearly demonstrates that it is possible to integrate land use planning outcomes with constraint and value based mapping. It can be seen that waterways and diverse land values and constraints are respected through the various mapping designations. Yet, Noosa's 2006 planning scheme reverts to multiple layered mapping.

FIGURE 5 INTEGRATED ZONE & OVERLAY



The irony was that in the mid 1990s, the then *Local Government (Planning & Environment)* Act precluded land use regulation outcomes based on this type of approach, as the ability to rezone simply frustrated the process.

2. Bringing about the real outcomes

The rhetoric and cliché of achieving an outcomes-based approach to planning in Queensland has not eventuated. The dual layers of mapping in planning schemes often bring about two sets of mutually exclusive and conflicting outcomes.

Land use planning seeks to protect resources and values and to reduce and resolve conflicts between competing interests. To achieve this, as much as possible the conflict points need to be resolved by planning schemes. Currently, the dual layer mapping approach defers the resolution of such conflicts until a development application phase. At this point it is just a site that is being examined and not necessarily the strategic relationship of the values and constraints of that site with those of others at local or regional levels. Thus, the weight to be placed on particular local or regional values or constraints is diminished.

To resolve these circumstances, planning scheme mapping needs to be far more responsive to the values and constraints that exist. The goal should be to generate a single layer of mapping, where the designations on

BACK2 BASICS

the mapping have responded to the values, constraints and opportunities in existence in areas by defining land use outcomes that are consistent with those values, constraints and opportunities. Noosa's example demonstrates that this is achievable and in fact was achievable a decade ago.

What are the obstacles to this approach? There are two obstacles that can be identified:

a) The first obstacle is that the mapping process is quite complex and intricate. It also relies on sound data of a value and constraint nature. Those carrying out the work need to have:
   i) A thorough knowledge of planning and its operational arrangements under the IPA;
   ii) A sound knowledge of environmental principles; and
   iii) A thorough knowledge of geographic information manipulation using GIS.

This combination of knowledge is important as planning outcomes need to be understood; how those outcomes influence and are influenced by environmental constraints need to be understood and how combining the different and disparate categories of land constraint and opportunity to produce valid planning outcomes needs to be grasped.

b) The second obstacle is that the ultimate product is one which does not have land use categories aligned with the cadastre. This means that different assessment processes might apply to different parts of the land, as there is often insufficient certainty about where the zone or precinct boundary lies internally on the land (see previous Figure 5 above). It was argued by then-DLGP staff that this would result in all development being subjected to a DA to resolve where on particular properties the boundary between land use designations lies. The suggestion is that this method would result in a significant increase in applications. There are a number of responses to this:
   i) The majority of properties will fall within only one designation.
   ii) It will be properties featuring values and constraints (or put another way those that are difficult to develop) that will be captured and development on these lots will have necessitated impact assessment in any case.
   iii) An extensive array of State triggers is called into play already for areas with these types of values and constraints.
   iv) Utilising a locality approach, rather than a Shire-wide approach for carrying out the mapping and then devising the relevant assessment categories (thus enabling variation in assessment levels between localities) assists in improving the results. In addition, it also means that varying scales of data can be used in the mapping resulting in varied land use regulation controls between localities.
   v) The IPA has necessitated a vastly increased number of applications and necessary boundary interpretations can be rolled into an existing application process in most cases anyway.

3. How to proceed

The normal means by which the State proceeds on these matters is to develop a guideline for use by local governments. This will be useful; however the myriad of documents prepared as a consequence of the IPA have not produced a simplified planning system in this State, nor one that is readily understood by those practising on a day-to-day basis let alone by lay persons.

A further major difficulty with this conventional approach is that it is doubtful that the levels of crossover knowledge indicated in 3a) above are in existence. Why? Quite simply, many planners and environmental scientists see GIS as a means of making a picture, rather than as a sophisticated spatial database manipulation tool. As a consequence, planners and scientists lack adequate knowledge to instruct GIS technicians. In addition, due to lack of instruction, those technicians have an inadequate knowledge of planning and environmental principles by which to make the necessary judgements with the result that they sometimes *fly blind*, if at all.

So rather than producing a guide, it would be far better to implement a full plan demonstrating how the principles described in this paper can be achieved. Thus the process would be to:

a) Develop a case study by implementing a complete process across a local government or combination of local governments in a regional or sub-regional setting; and only then
b) Develop guidelines for practitioners.

The case study would require:

a) The necessary data to be in existence;
b) Compliant or willing local government or local governments, with access to consistency and accuracy in relevant data and its scale);
c) Technical input (science, planning and GIS) by suitable staff from local government, the Environmental Protection Authority and the DLGPSR.
d) Coordination by persons with the crossover knowledge referenced in 3a) above or who have had direct experience in this type of data preparation and manipulation.

4. Conclusions

Appropriate biodiversity and development outcomes are not being achieved by the planning and development processes in Queensland. In fact, those processes have taken a significant step backwards over the last decade.

The State is struggling to achieve the biodiversity outcomes that it seeks across much of Queensland. This is substantially attributable to relying on development applications for the means of implementing outcomes, rather than taking strategic decisions in the making of planning schemes.

To bolster the weakness of the current system, myriads of guides, policies, regulations, triggers, etc. are emerging from the State - complicating the planning circumstances; ballooning the size of the bureaucracies that implement these provisions; and vastly increasing red-tape.

Prevention is better than cure. The prevention lies in the plan-making phase and requires proper planning evaluation of land values and constraints making use of the technology that is available to deliver clearer integrated mapping outcomes in planning schemes.