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DETERMINING LAND USE

1 INTRODUCTION

The single most important decision that a manager will take in relation to an area of land under his control is to determine the land use. A wise choice will set the scene for rational and enlightened development but a poor choice will be tantamount to putting a round peg in a square hole! The manager who has burdened himself, or been burdened with, an unwise set of decisions on land use will have to cope with a project that will be expensive to construct and costly to maintain.

The versatile technology of today is alas frequently used for rescuing projects that were poorly conceived in the first place. One can build a house on a marsh, and by the liberal use of machinery, materials, energy and time, make it reasonably safe and habitable. However if there is dry firm ground close by it surely makes sense to build the house there and leave the marsh to the birds!

Land use determination is about making sensible choices, balancing the claims of one land use against another, and determining the most rational form of development. It is about horses for courses, round pegs in round holes, conserving finite resources.

There are times when a manager is left with no options on land use; for example a block of land in an industrial area which has been purchased for a factory, and is only large enough to accommodate the factory and little else.

However, many areas in the outer suburbs or in rural areas offer great scope for imaginative land use, especially where the parcel of land is large.

Land use determination begins with SITE ANALYSIS. This enables the manager to determine LAND USE OBJECTIVES. From these flow POLICIES for management to fulfil the objectives.

2 SITE ANALYSIS

Effective land use determination is impossible without a thorough analysis of the site, covering the following aspects:

2.1 Natural features such as rivers, streams, rock outcrops, land form, soil conditions, drainage lines, catchments, slope, aspect.

2.2 Vegetation - remnants of native vegetation especially on undisturbed sites such as steep slopes, rock outcrops, saltmarshes or wetlands. Remnants are sometimes found on creek banks or road reserves. Historic trees are sometimes present, as are trees of great age and size e.g. redgums on river banks.

If time permits and funds are available a survey by a botanist is sometimes appropriate, depending on the local conditions. However, a subjective assessment by a knowledgeable layman of the "degree of naturalness" or the extent of degradation of the remnant natural vegetation by weeds, erosion and disturbance is usually sufficient.

2.3 Fauna Important habitats should be identified. These could be waterbodies, marshes, pockets of bushland or even old trees. A naturalist may be willing to advise. Habitats cannot always be preserved in their entirety, but it is frequently possible, by re-arranging land use objectives, to achieve much in this direction.

2.4 Problem Areas - Steep land prone to erosion, flood prone land poorly drained sites, exposed sites, frost pockets, disturbed or weedy sites must be identified. The presence of noxious weeds such as boxthorn, artichoke thistle or fennel could be a significant factor in land use or development costs.

2.5 Public Utilities Power lines, drainage lines, telephone cables should all be identified.

2.6 Popular Land Uses Informal footpaths or bridleways should be noted, as well as popular swimming holes and playgrounds.

2.7 Views Views, both good and bad should be identified so that advantage can be taken of the former, and steps taken to screen out the latter.

2.8 Planning Determinations Existing statutory controls, master plans, or policies of and commitments by the proprietor may have a significant bearing on the developments.

2.9 Once these data are gathered they should be clearly recorded on a map. A system of overlays is ideal.

The manager is now well equipped to make informed decisions about land use.

3 LAND USE OBJECTIVES

3.1 The major land use objective for a tract of land on which the Board is likely to be doing works, is generally pre-determined. For example the land in question may have been purchased for a park, a water catchment, or a factory.

3.2 However it is the duty of the manager to determine land use objectives within the overall framework looking for areas where, because of natural features or other factors a distinct land use can be identified.

For example:

A stream bank or wetland should ideally be managed for its value as a conservation and habitat area, and for its benefit to catchment hydrology and flood prevention;

Areas of good soil with water available could be given over to orcharding, market gardening or similar activities;

Open grasslands without any valuable remnant vegetation could be managed for grazing;

Car parks, buildings or depots could be sited on level well drained land which has no values as far as vegetation or landscape goes;

A bushland remnant should be managed for conservation.

3.3 Urban forestry could be an objective for steep or flat land especially if it has been degraded by previous operations such as mining, or where a screening effect is desired.

3.4 Areas can be managed for recreational use such as picnics, walking tracks play areas and so on.

3.5 <u>Guidelines for Determining Land Use Objectives</u>

- Avoid damage to ecological features.
- Retain flexibility of choice for the future and beware of an irrevocable commitment of land to one particular use.
- Be wary of projects requiring changes to soil level, drainage patterns, filling or excavation.
- Take great care over the siting of roads and trails as they set the scene for development and determine future patterns of use.
- Aggregate structures as far as possible and site then as close as possible to access roads.
- Avoid works requiring soil disturbance on steep land, dunes, river banks and other sensitive land forms.

When the land use objectives for the various parcels of land have been determined it is essential that they be recorded on a map with annotations (see attached example).

If the determination has been good then the result will be a satisfying mosaic of land uses which will be aesthetically pleasing, economical to maintain, and, exploit the features of an area to the best advantage.

It is a guiding principle that the less a parcel of land is altered from its original condition the more successful is the land use likely to be. Furthermore, and this is important, more options are available for future use, and greater flexibility is given to future decision makers.

POLICY

After the land use objective has been determined it is essential to formulate a set of policies for the guidance of all who work on the project.

For example the following policies would be appropriate to a section of remnant bushland being managed for conservation:

1 Soil disturbance is to be avoided.

2 Noxious weeds are to be controlled by hand weeding as far as possible.

3 No trees are to be felled.

4 Dogs and cats are to be excluded.

5 No trails to be routed through the area.

6 Regeneration will be encouraged by periodic burning.

7 No soil dumping, or removal.

8 No mowing or slashing.

9 No fertilising.

10 No grazing of livestock.

Policies should be clear and specific enough to guide development despite changes in personnel over time.

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