



TPS POLICY No. 14: STOCKING RATES – Residential, Rural and Rural Smallholding Zone Land

PURPOSE

The purpose of this policy is to provide a guide for the assessment and determination of applications for Planning Approval involving the keeping of livestock on properties zoned *Residential R2, R2.5, R5, Rural Residential* and *Rural Smallholding*, within the Shire of Beverley.

It is not intended that this policy be applied rigidly, but that each application be examined on its merits, with the objectives and intent of the policy the key for assessment.

OBJECTIVES

The objectives of the policy are to:

- Ensure that livestock keeping is undertaken in a sustainable manner;
- Ensure that the keeping of livestock does not have a significant negative impact on the natural environment;
- Ensure that the keeping of livestock does not impact detrimentally on the health and/or amenity of adjoining landowners.

BACKGROUND

The Shire of Beverley Council investigated avenues to accommodate '*Rural Pursuit*' land uses, with Council's consent, within specific zones in the Shire of Beverley, and as a result initiated an Amendment to the Town Planning Scheme (Amendment 21 to Shire of Beverley Town Planning Scheme No. 2).

Prior to Amendment 21 being adopted by Council, '*Rural Pursuit*' land uses were unlawful on Residential Zoned land in terms of the Shire of Beverley Town Planning Scheme No. 2.

As a result of their size, certain types of properties necessarily invite rural lifestyle and associated land uses inclusive of low key stabling and training of horses, rearing and agistment of animals, etc. An assessment of these types of land uses in the subject area meet the definition of a '*Rural Pursuit*' as per the Shire of Beverley Town Planning Scheme No. 2.

The Shire recognises that the majority of landowners manage their properties in a sustainable manner, however, the keeping of livestock on smaller properties requires a higher level of management than broad acre farming due to the higher density of animals and closer proximity of neighbouring landowners which results in a higher potential for both environmental and amenity impacts. The Shire recognises that unsustainable land management practices often lead to land degradation problems such as soil erosion, dust nuisance, odour, water pollution and damage to vegetation.

This *Stocking Rates Policy* endeavours to guide Council when considering applications for planning approval when livestock is going to be kept, as part of a *Rural Pursuit* Land Use, on properties in the specific zones. It also enables Council



to appropriately condition planning approvals for 'Rural Pursuit' land uses, so as to protect the amenity of the locality.

APPLICATION OF POLICY

The policy is applicable to all land zoned Residential R2, R2.5, R5, Rural Residential and Rural Smallholding, within the Shire of Beverley where Council's discretion is required for a 'Rural Pursuit' land use (the keeping of livestock) in terms of the Shire of Beverley Town Planning Scheme No. 2, or its successor in title.

BASIS FOR POLICY

The Stocking Rates Guidelines of the Department of Agriculture and Food of Western Australia (*Stocking Rate Guidelines for Rural Small Holdings, 2000*), have been used as the basis for this policy. These guidelines provide a scientifically sound and practical means by which the appropriate stocking rate for land within the subject area can be determined, and provide guidelines for the assessment of applications for the stocking of land.

STOCKING RATES

Definition of Stocking Rate:

For the purposes of this Policy, stocking rates are defined and shown as Dry Sheep Equivalents (DSE) which are the number of adult sheep (wethers) that can be sustained on each hectare all year round.

Stocking rates are the number of stock, e.g. sheep, cattle, horses, emus or other type of animal that can consistently be kept on a piece of pasture all year round with minor additional feed and without causing environmental degradation. Environmental degradation can include wind and water erosion, tree decline, increasing levels of nutrients in groundwater and waterways, the spread of weeds into adjoining bushland and soil structure decline.

Stocking rates are largely based on the amount of pasture that each particular type of animal will consume, but are also influenced by feeding patterns, animal weight, foot structure and activity.

BASE STOCKING RATE & ANIMAL EQUIVALENTS

The base stocking rate is the number of DSE that would apply to a property with the lowest level of pasture management in an average year. The recommended base stocking rate should:

- Provide enough feed to maintain animals in good condition;
- Avoid soil erosion by providing enough pasture cover to protect the soil throughout the year (at least 30% ground cover – hay, sawdust, etc.);
- Be sustainable through average years.

In consultation with the *Department of Agriculture and Food of Western Australia*, a Base Stocking Rate for the Shire of Beverley has been determined to be **5 DSE per hectare**. This Base Stocking Rate has been determined taking due cognisance of amongst others the annual average rainfall and length of the growing season.



ANIMAL EQUIVALENTS FOR THE CALCULATION OF STOCKING RATES

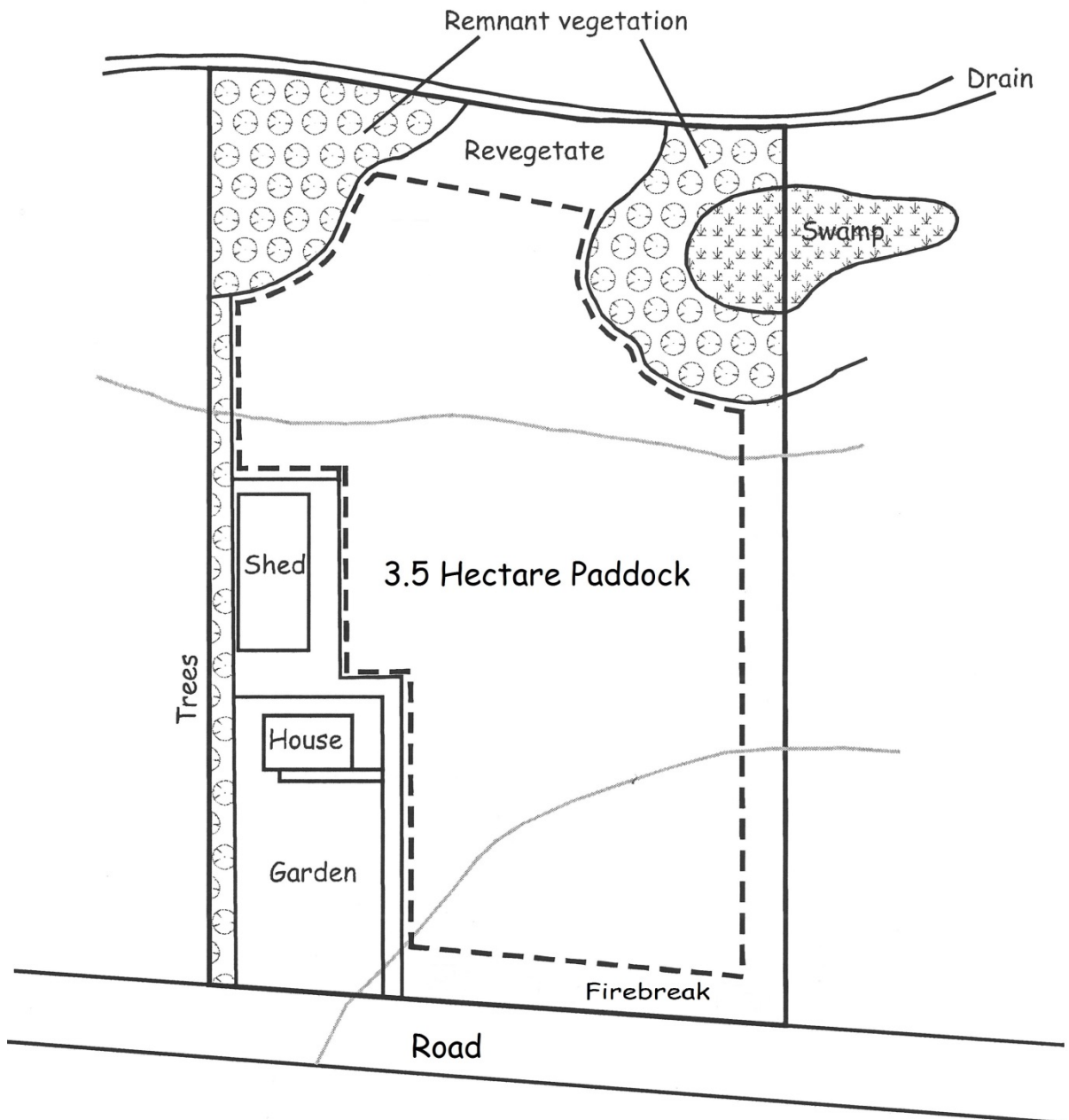
Type of livestock	Weight (kg) and animal type	Dry Sheep Equivalent (DSE)
Sheep	50 kg Wether, ewe	1.0
	40-45 kg Lambing ewe (ewe and lamb)	1.5
	75 kg Rams	1.5
Cattle	425 kg Milking cow	10.0
	425 kg Dry cows, yearling, steer or heifer	8.0
	300 kg Yearling, heifer	6.0
	200 kg Smaller cattle (Dexter, Lowline)	4.0
	750 kg Bull, cow with calf	15.0
	Cow with young calf	10.0
Horses	450 kg Light	10.0
	1000 kg Draught	20.0
	250 kg Pony	5.0
Goats	30-35 kg Dry Angora	0.7
	35-40 kg Cashmere goat	1.0
	50-60 kg Dry milk goat	1.5
	Milking goat	2.0
Deer	120 kg Red deer	2.2
	50 kg Fallow deer	1.0
Other	55-120 kg Ostrich average (assumes half introduced feed)	1.4
	55 kg Emu average (assumes half introduced feed)	0.7
	150-210 kg Llama	3.0
	60-70 kg Alpaca	0.8

Note: Where a particular livestock is not mentioned in the table Council will determine the DSE

CALCULATION OF DSE FOR A PROPERTY

The following section describes how the DSE for a specific property can be calculated for the purposes of applying for Planning Approval for a 'Rural Pursuit' land use.

Figure 1. Example Site Plan (not to scale)



Key Elements of example site plan – calculating the DSE for the above property:

- Parent Lot = 4.5 ha;
- Fencing the remnant vegetation, including a small swamp;
- Revegetating a 30 metre buffer to a seasonally flowing stream;
- Exclusion of house, shed, tracks and garden area (inclusive of fire break for shed and house);
- Leaves 3.5 ha of useable paddocks.

Calculated DSE:

5 DSE (Base Stocking Rate) x 3.5 ha (available paddock area) = **17.5 DSE**

FENCING

Appropriate fencing shall be made a Condition of Planning Approval for the keeping of livestock, with the following standards given as a guideline:

- SHEEP AND SMALL STOCK: 5 - 7 strand/line ring-lock, or similar;
- CATTLE: 7 strand/line with electric fence*;
- HORSE: 7 strand/line ring-lock or similar with 'sighter' strands or electric*;

*Non-lethal electric fencing systems shall be installed and operated as per the relevant Australian Standard (AS/NZ 3014), and shall be installed so as to be on the inside of the subject property, and offset from the fence, with appropriately spaced warning signs, as shown in the samples in Figure 2:

Figure 2.

SAMPLE OFFSET ELECTRIC FENCE CONFIGURATION & WARNING SIGN



MANAGING WIND EROSION RISK

Responsible grazing management is required, especially over summer, to maintain sufficient ground cover to reduce the risk of wind erosion. The ideal level of ground cover to minimize wind erosion is for about 50% of the soil surface to be covered by grass and pasture plant residues. At least 30% of the ground cover needs to be anchored to prevent soil being moved downwind during strong wind events. Grazing has to be managed so that it does not detach all of the pasture residues and the critical level of ground cover percentage is 30%. Once the amount of ground cover falls below 30% then wind erosion is likely to occur. Livestock should be removed from all paddocks once ground cover falls to 30%. In the case of horses, they should then be kept in a stable or small yard and hand fed to substitute for paddock feed. These paddocks should not be grazed again until new green pasture starts growing and ground cover is more than 30%.

REQUIREMENT FOR A PROPERTY MANAGEMENT PLAN

Council will only consider applications for Planning Approval for a Rural Pursuit land use in excess of the Base Stocking Rate, where applicants submit a Property



Management Plan which demonstrates that pasture improvement, nutrient and waste management methods are addressed.

Where it is proposed to keep livestock in excess of the base stocking rate, the following measures should be incorporated into the property management plan (where applicable):

- Drainage management practices that prevent direct runoff to watercourses or dams;
- Yards or pens should be sheeted with compacted soil, sand or sawdust if located on clay soils and should be regularly cleaned;
- Adequately fenced vegetation belts capable of effectively separating environmental features such as watercourses, from areas of intensive stocking;
- Manure should be regularly collected;

- Supplementary feeding as a means of reducing grazing pressure;
- Areas of remnant vegetation, wetlands and watercourses should be fenced to exclude livestock;
- Where stables or other structures are proposed to be constructed for the housing of livestock, they must be located and managed so as not to detrimentally impact on the amenity of neighbouring residences;

Further to the above, the following information is required in the Property Management Plan:

Site plan of the property drawn to scale, indicating:

- Location of pasture areas, stables and yard areas/arenas;
- Fencing (including fencing of environmentally sensitive areas);
- Watercourses, wetlands, dams and areas prone to waterlogging;
- Existing vegetation;
- Manure Storage/composting area.

A written statement shall be provided that addresses the following (where applicable):

- The number and type of stock;
- Stabling practices;
- Collection, storage and disposal of manure, including fly management and odour control;
- Nutrient management plan;
- Pasture management techniques, including type and condition of pasture, rotation of pasture;
- Fertiliser application rates;
- Irrigation;
- Dust control;



- Weed control;
- Water availability and use;
- Soil type.

CONCLUSION

Where the keeping of animals results in problems due to land degradation, nutrient enrichment/leaching, animal welfare or public nuisance, Council may require further reduction in the number of stock kept on a particular property. When Planning Approval is granted, the period of planning approval might be limited, to the Shire's discretion.