Information Sheet: Development Near Mosquito Breeding Areas

The following information is based on current Department of Health advice and 'best practice', to inform planning and design within the 1 km fly zone[1], to manage public health risk and amenity impact.

Sensitive Uses

The following land uses are considered to be sensitive, as they generally involve people using outside areas for extended periods of time. These uses are not supported within the 1 km fly zone.

- Residential development (lots less than 4000 m^2)
- Child care centres
- Tourist accommodation and activities
- Aged care/nursing homes and lifestyle villages
- Education[2] (e.g. schools)
- Garden centres.

Subdivision Guidance

The following table provides guidance on residential lot size, which aims to minimise the number of people living within close proximity to mosquito breeding areas[3].

Distance to standing water line	Lot Size
0 m - 300 m	Min 2 ha
300 m – 500 m	Min 1 ha
50 0m – 1 km	4000 m^2 + (R2.5)
1 km+	<4000 m^2, in accordance with approved Structure Plan

Non-Sensitive Uses

The following non-sensitive land uses, may be considered within the 1 km fly zone. These are uses which generally accommodate lower numbers of people for limited periods of time outside, and/or where activities are predominantly indoors within enclosed or climate controlled environments.

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[1] *'Fly Zone' refers to the generally accepted average distance mosquitoes are able to travel (dependent on wind direction/strength), measured from the standing water area of wetlands or other areas of inundation. Between 1 km and 2 km, design controls, education, and notifications on Certificates of Title may be applied to sensitive uses.*

[2] *Unless buildings/recreation areas are suitably located/designed to minimise risk.*

[3] *In accordance with Town Planning Scheme No.2, the City will not recommend approval to lot sizes less than 2 ha in the Special Rural Zone. The Western Australian Planning Commission (WAPC) is responsible for approving subdivision applications.*
More detailed information can be found within the Mosquito Risk Assessment and Management Plan (MRAMP) prepared for the Karnup District Structure Plan (Rankine Mosquito Management and Emerge Associates, 2023).

- Rural/Rural Residential ('Special Rural') development
- Commercial (including office), retail, industrial and service commercial (showroom/warehouse) development
- Health facilities (hospitals, medical centres/consulting rooms)
- Recreational/community related uses
- Service stations
- Other uses such as gyms and places of worship (churches).

Mosquito Management within the 1 km Fly Zone

There is no single solution to manage the public health and amenity impact risk of mosquitoes. Even by applying all of the following measures, mosquito risk will still require ongoing management. Measures could include:

- Use of chemical spraying. Lake Amarillo and the Serpentine River system are currently treated. There is no State Government funding to treat Anstey and Paganoni Swamps and access to these areas is limited by dense ground and tall over storey vegetation.
- Consideration of vegetation management to improve access within wetland areas to reduce breeding habitat and enable treatment[4].
- Ongoing monitoring and reassessment of management programmes. Over time, mosquito risk may reduce as some breeding areas become developed and new treatment methods may improve mosquito control.
- Urban design which provides physical barriers between breeding areas and outdoor spaces where people congregate e.g. major road reserves, playing fields, building orientation, designing roads and cells on a north-south axis so buildings offer a physical barrier to mosquito travel.
- Design controls including flyscreened outdoor areas, fly screens on doors and windows, air curtains, yellow globes in exterior lighting, and landscape management.
- Management of stormwater drainage including swales and open space areas, and management of construction water storage.
- Consideration of localised wind factors.
- Management of vegetation within open space areas, and control of nutrient rich fertiliser application.
- Management of operating hours of uses occurring during peak mosquito risk times.
- Public education including written information and signage, as set out in the City of Rockingham's brochure '*Mosquito Control in Karnup'* and the State Government's '*Fight the Bite'.*
- Notifications on title advising prospective purchasers of mosquito risk (consistent with current practice).

Land use outcomes for the Karnup District Structure Plan area will be subject to ongoing engagement, and approval, by Department of Health, Department of Planning Lands and Heritage, and the Western Australian Planning Commission.

[4] *Subject to environmental studies, and DBCA approval.*