

Aerial larviciding in the Globe Derby Park Mosquito Management Program

SA Health operates a longstanding, ground based mosquito control program in areas of highly mosquito prone saltmarsh adjacent the suburb of Globe Derby Park. Extreme levels of mosquito activity over the 2015-16 and 2016-17 summer seasons prompted a review of mosquito management activities in the area and a working party was developed to investigate the trial of aerial larviciding. Approval was obtained from the Chief Public Health Officer for SA Health to undertake two trials of aerial larvicide application.

*(A **larvicide** is an insecticide that is specifically targeted against the larval life stage of an insect. Their most common use is against mosquitoes. Larvicides may be contact poisons, stomach poisons, growth regulators, or (increasingly) biological control agents.)*

The two trials of aerial mosquito larvicide application by fixed wing aircraft were undertaken in the saltmarsh area adjacent Globe Derby Park in March and April 2017. These were rigorously evaluated to determine efficacy and safety which included an assessment by an environmental consultant in association with the first trial to investigate potential off-target effects of the aerial application of mosquito larvicide.

The trials indicated that application of liquid mosquito larvicide by fixed wing aircraft can be accurate and effective and delivered within the existing budget, whilst causing no observed detrimental effects on off-target species. Preliminary results of the trials indicate that aerial liquid larvicide application achieves superior mosquito control compared to ground vehicle application due to more comprehensive / complete coverage of the area concerned; however, it was determined that a trial over a full season would be required prior to acquitting the ground based program.

The Chief Public Health Officer has now approved a full season aerial larvicide application trial to be undertaken, completely replacing the current ground based program, during mosquito season 2017-18. The recommended trial would include a total of thirteen aerial treatments between September 2017 and April 2018.

The City of Salisbury will continue with its supportive treatment program in and around Globe Derby Park , St Kilda and other locations where mosquito activity is detected.

Fixed Wing Plane applying Larvicide:



Target Area:

The first trial targeted coastal saltmarsh to the northwest of Globe Derby Park, covering an area of approximately 40.8 hectares as shown below.

The second trial targeted coastal saltmarsh to the northwest of Globe Derby Park, covering an area of approximately 43.9 hectares as shown in the image below overlaid on the slightly smaller area targeted for treatment in the first aerial trial (40.8 ha).

