What is Mosquito RSVP?

Mosquito Rapid Surveillance for Vector Presence (or <u>RSVP</u>) is an important 'early-warning' monitoring program for invasions by two types of urban mosquito that would cause exotic diseases in South East Queensland (SEQ). RSVP is built on a voluntary partnership between participating businesses, councils, and Queensland Health. The aim of RSVP is to detect an invasion of target urban species (*Aedes aegypti* and *Aedes albopictus*) early enough to be able to eliminate them before they can spread further to other suburbs. Uncontrolled populations will grow larger, spread throughout SEQ and, in addition to their annoying day-time bites, be able to cause future outbreaks of diseases, such as dengue, Zika, and chikungunya.

Common names for *Ae. aegypti* include 'yellow fever mosquito', 'dengue mosquito' or 'Zika mozzie'. Common names for *Ae. albopictus* include 'Asian tiger mosquito' and 'Zika mozzie'. Both species already occur in Queensland and are periodically detected by biosecurity at Brisbane's international ports. Each detection triggers an emergency control operation, coordinated between biosecurity, Queensland Health and Brisbane City Council, to prevent their escape into SEQ.

Urban mosquitoes do not breed in swamps, creeks, or puddles. The mosquitoes will breed in many types of containers around businesses and houses that hold water (below, above and at ground-level) for over seven days. They don't fly far (500 m). The eggs are cemented to the waterline and can survive for months when dry. Dry eggs can travel on freight (e.g., car or truck tyres) transported within and between countries. These factors can make them very difficult to find early in an invasion. Therefore, regular monitoring is needed along freight transport pathways into SEQ. The nearest towns with *Ae. aegypti* are on the edge of SEQ (e.g., Wondai, Goomeri, and Murgon).

RSVP works by linking the eggs from your egg trap (ovitrap) to a powerful molecular screening method by Queensland Health. The test can detect one of the target mosquitoes amongst 5,000 of the local species. The eggs from your ovitrap are regularly collected, counted and combined with those from the other commercial premises (approx. 10 in each run) to test that both target species are absent.

What is an ovitrap?

Ovitraps are buckets of water in which the females of urban species will lay eggs.

- 1. Bucket (black or red) female mosquitoes see this and check if it has water
- 2. Water tap water that the females can smell
- 3. Screen on top mesh removes a drowning hazard for small children
- 4. Ovistrip a tape of material on which the mosquito eggs are laid
- 5. Lucerne pellet rabbit food that adds a little organic matter to attract females
- 6. (S)-methoprene pellets a chemical that stops mosquitoes in the bucket growing to adults.

Will the ovitrap breed mozzies?

No. We add (*S*)-methoprene (a mimic of an insect growth regulator) pellets to the water to prevent any 'baby' mosquitoes (wrigglers) becoming adults. It is registered for use in human drinking water.

For information on (*S*)-methoprene, refer to:

• Safety Data Sheet

What do I need to do?

Your business has provided the most important part – hosting an ovitrap.

Please ignore the ovitrap, we will normally service it each fortnight. There is no expectation to contact us if the bucket is tipped over or damaged. If you would like the position changed, please contact us, so that we can find it next time.

Why was my business chosen?

SEQ is highly vulnerable to invasion from towns in Queensland where *Ae. aegypti* is established and through international freight pathways. The number of times these target species has been detected in Brisbane international ports has steadily increased in recent years.

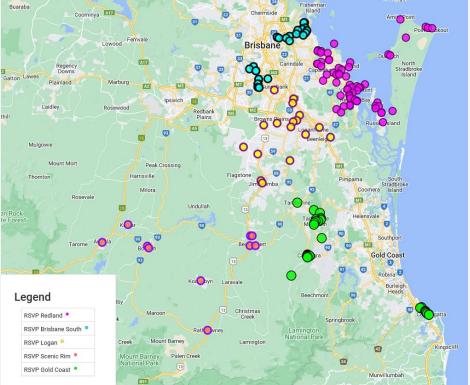
RSVP was started in 2017 as a new way to monitor target species in commercial precincts. Your business was chosen because it is within, or near, a commercial precinct. Selected business have;

- a footprint that provides opportunities for any containers in the yard to be filled by rainfall,
- access provisions that enable our staff to quickly and easily service the ovitrap,
- managers that are willing to participate.

Where are the other RSVP sites in my area?

Privacy laws (*Information Privacy Act 2009 (Qld*) mean that we don't share your address with other businesses or the community. You can see the approximate Brisbane locations in the map below. These sites may change from time to time.





Can I get my results?

Yes, your results are available upon request. Your business is a valued contributor to the Regional RSVP Program. There are additional RSVP runs as part of larger networks for Brisbane/Logan/Redland Scenic Rim.

A summary of how the egg numbers from your business compare with the total egg numbers for all ovitrap sites in your run, an example is provided below.

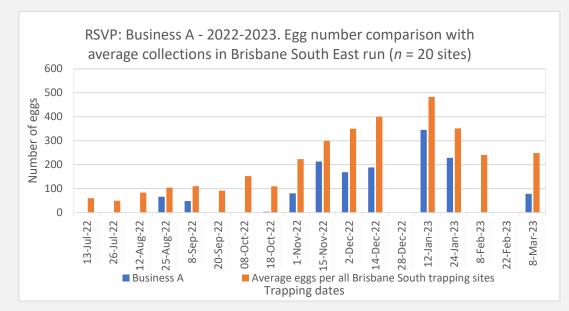


Fig. 2. Example of an RSVP Trap Site in Metro South

Benefits to my business in participating?

There has been no detection of target mosquitoes in a RSVP run in SEQ since the program started in 2017. Your business has access to regular monitoring data to assure your workers, managers, council, and Queensland Health that an invasion by target mosquito species has not taken place nearby (within the RSVP run).

Reducing opportunities for breeding sites will help provide a safer and more comfortable work site. For information on preventing mosquito breeding in your workplace, and how to reduce the risks of mosquito-borne disease, please see the Queensland Health links below:

- 1. Prevent mosquito borne diseases | Queensland Government
- 2. <u>Resources and research about mosquito borne diseases | Queensland Health</u>

You will also be among the first to know if there is a detection in your RSVP run or council.

The RSVP team thank your business for participating and look forward to continuing our partnership.

Your contacts

Metro South Public Health Unit	Gold Coast Public Health Unit	Local Government
Ph: 07 3156 4000	Ph: 07 5667 3200	Brisbane City Council
Email: MSPHU RSVP Program	Email: EH_GoldCoast@health.qld.gov.au	Redland Bay City CouncilLogan City Council

- Scenic Rim Regional Council
- Gold Coast City Council