



Government of **Western Australia**
Department of **Health**

Memorandum of Understanding

Southern Metropolitan Contiguous Local Authorities Group (CLAG)

Objective:

This Memorandum of Understanding (MoU) recognises the amendment of the Southern Metropolitan Contiguous Local Authorities Group (CLAG) to include the City of Armadale and Shire of Serpentine Jarrahdale as additional Principal Stakeholder. The purpose of the CLAG is to undertake health-driven mosquito management across the borders of the Cities of Armadale, Cockburn, Kwinana and Shire of Serpentine Jarrahdale.

This MoU outlines the requirements for the continuation of the CLAG, Principal Stakeholders involved and the responsibilities of each Stakeholder. By signing the MoU, all parties agree to the amendment and continuation of the CLAG and the designated responsibilities of each member within the group.

The parties acknowledge that the provisions of this document are not intended to create binding legal obligations between them.

The parties acknowledge that:

- a) nothing in this document authorises a party to incur costs or expenses on behalf of the other party
- b) a party has no authority to act for, create or assume any responsibility, obligation, or liability on behalf of, the other party.

Commencement of this MoU:

This MoU shall come into effect from the date that it is signed by all Principal Stakeholders.

Review and amendment of this MoU:

It is recommended that the MoU be regularly reviewed to improve its operation and resolve any issues that may arise. At a minimum, the Principal Stakeholders will review the document every five (5) years.

Earlier review will need to be undertaken if any party wishes to withdraw from or revise the CLAG arrangements. All parties will be required to resign the MoU once any amendments have been finalised.

City of Armadale:

The City of Armadale is located 28 kilometres from the Perth CBD covers an area of 560 square kilometres of which 70% is parkland, reserves and State forests, which rise in the Darling Scarp, to the East. The City has 20 suburbs and localities consisting mainly of residential, rural, semi-rural zoning and business parks and town centres. Approximately 22 square kilometres is classified as Conservation Category or Resource Enhancement Wetlands by the Department of Biodiversity, Conversation and Attractions (DBCA), which includes the RAMSAR site Forrestdale Lake, with the majority located in Piara Waters, Harrisdale and Forestdale.

The City is the fourth fastest growing local government in WA with a population of approximately 91,000 and is expected to grow to 141,000 by 2036. The population is currently growing annually at 3.6% and on average 14 new homes are built per week within the City. Approximately 30,000 people are expected to move into the residential growth suburbs of Haynes, Hilbert, Harrisdale and Piara Waters between 2016 and 2036. Significant further urban development is continuing in the City and there is a need to manage any increased risk of human exposure to mosquito bites and mosquito-borne diseases.

Between FY2013/14 and 2023/24 Armadale had a total of 122 RRV cases. The overall average standard rate of RRV per 100 000 population between FY2013/14 and 2023/24 for Armadale is 15. The RRV disease risk varies significantly across the years with significant disease outbreak occurring in 2013/2014 (24 cases), 2014/2015 (31 cases) and 2021/2022 (19 cases) (Figure 1).

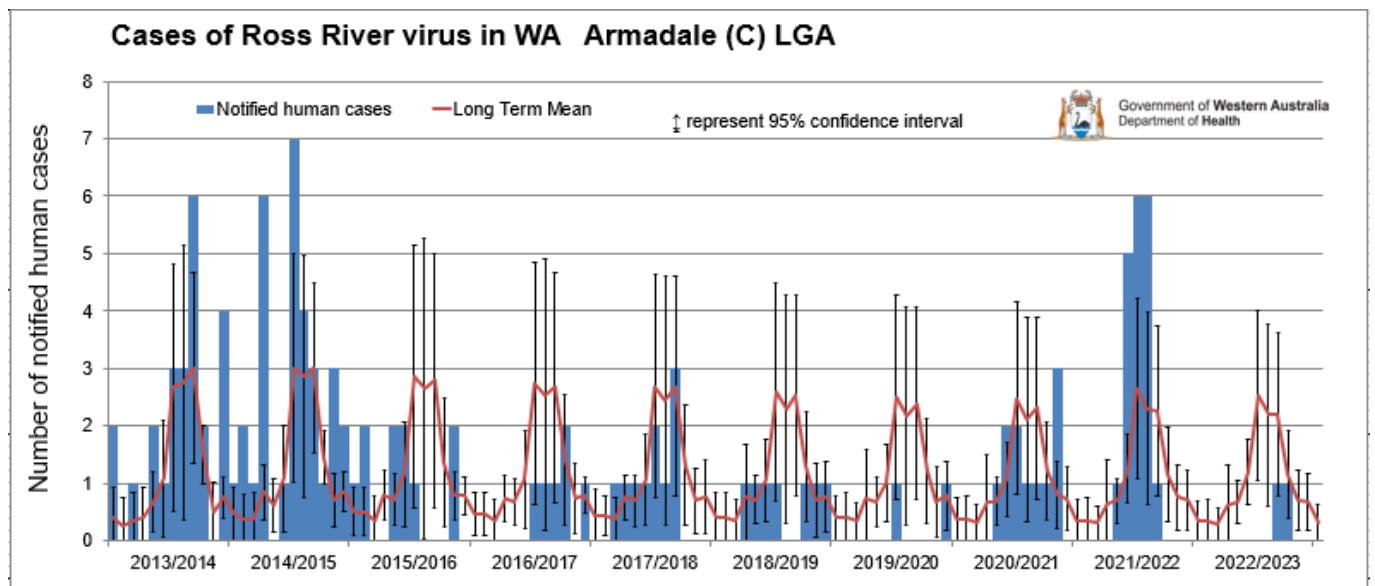


Figure 1: Notified human cases of RRV in City of Armadale since 2013/14 compared to the long-term mean.

Shire of Serpentine Jarrahdale:

The Shire of Serpentine Jarrahdale is situated between 25km and 55 km south-east of Perth’s central business district. The Shire is one of the fastest growing local governments with a current population of 38,389 and forecasted population of 95,275 in 2046. While the Shire is a predominantly rural area, it is experiencing a rapid rate of mixed urban and unsewered rural residential growth particularly in the townships of Byford, Mundijong, Serpentine and Jarrahdale. Much of this residential development is located in close proximity to existing wetlands, riparian areas and the Swan Coastal Plain which is subject to seasonal inundation.

The Shire covers 905 square kilometres of area from the eastern edge of the Swan Coastal Plain to the western edge the Darling Range, sharing northern borders with the City of Armadale, to the west the cities of Kwinana and Rockingham, and to the south the Shire of Murray. As development proceeds through the southern area of the Shire and the population increases, it is likely that there will be an increased number of cases of mosquito-borne disease being driven by saltmarsh mosquito breeding especially along upper tidal reaches of the Serpentine River. A collaborative approach with Peel CLAG is required to control the extent of breeding and control of saltmarsh mosquitoes likely to disperse well beyond the border of Serpentine-Jarrahdale under favourable environmental conditions.

Monitoring data from PHU and CDC between 2019-2023 has reported 21 cases of Ross River virus found in Shire residents and 1 case of Barmah Forest virus. The highest number of cases of these diseases was found in the townsites of Byford and Serpentine, currently subject to planning approvals for significant growth and development. The current long-term chart for Ross River virus as at 26 February 2024 (Figure 1) shows the prevalence of notified human cases. The overall average annual age standardised rate of 35 cases of Ross River virus per 100,000 population per year between 2012/2013 and 2022/2023 was similar to the average annual rate across the State over the same period of 30 cases per 100,000 population per year.

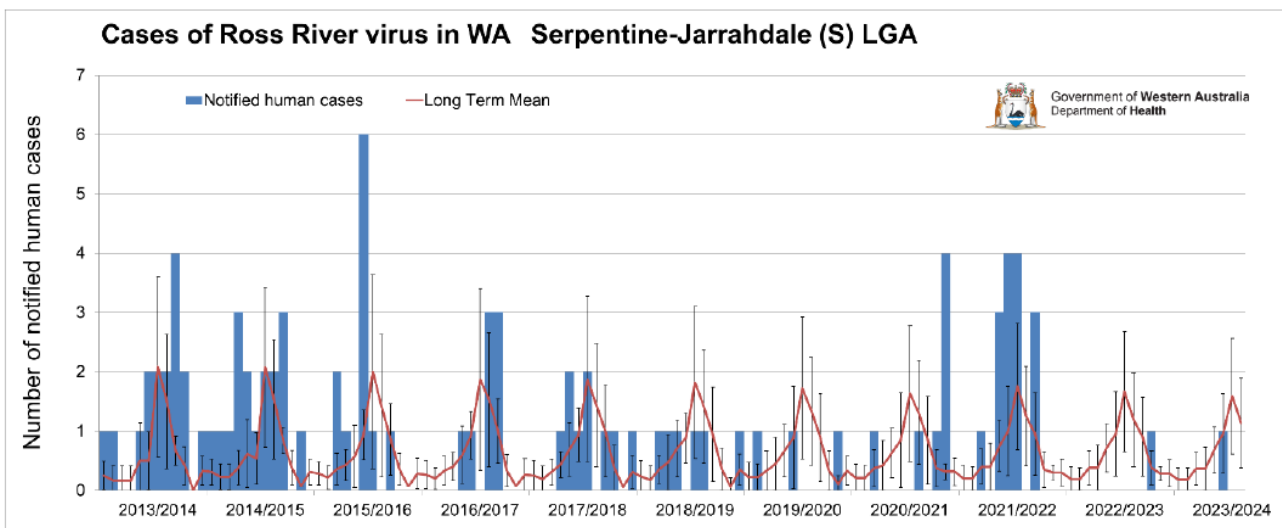


Figure 1. Long term chart for Ross River virus cases in Shire of Serpentine Jarrahdale (2014/2014-2023/2024) as at 26 February 2024.

City of Cockburn:

The City of Cockburn is located about 24 kilometres south of Perth's central business district. The City covers an area of 167.5 square kilometres from high density residential suburbs in the north to less dense semi-rural areas in the south. The City of Cockburn has a population of approximately 117350 (2021 est), which continues to increase yearly.

A significant proportion of the Beeliar Regional Park is located in the City of Cockburn, which is comprised of two chains of wetlands and depressions behind the coastal dune system stretching in a north south direction. Many of these wetlands are known to be potential mosquito breeding sites and previous mosquito trapping by the City of Cockburn has identified potential disease carrying mosquito species in the region.

The overall average annual age standardised rate of 26 cases of Ross River virus per 100,000 population per year between 2012/2013 and 2022/2023 was similar to the average annual rate across the State over the same period of 30 cases per 100,000 population per year. The disease risk varies significantly in between years with the most recent RRV outbreak occurring with 111 RRV cases in 2011/12 (Figure 2) which were primarily centred in suburbs to the east of Thomsons Lake including Success, Hammond Park, Atwell and Aubin Grove. Thomsons Lake is located next to a large reserve for marsupials, which are the primary natural host for RRV transmission cycles. Spatial analysis of the cases showed that the RRV rate increased significantly within 3km of Thomsons Lake compared to the City as a whole. Therefore, in some years mosquito management is an important priority in the City of Cockburn.

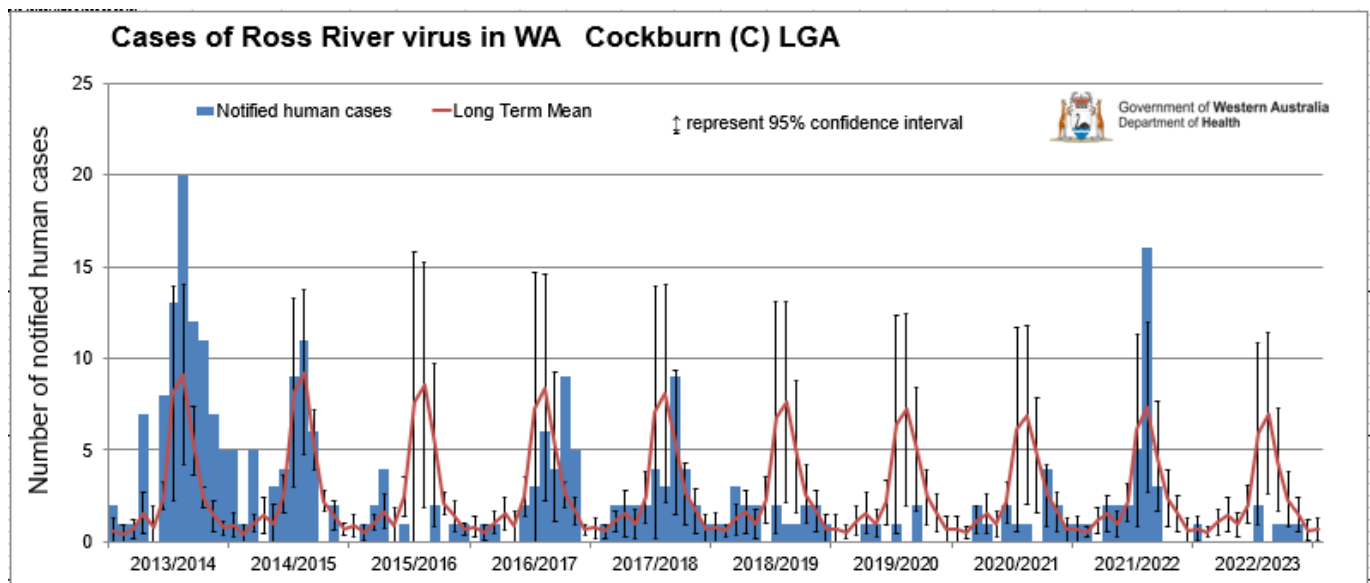


Figure 2: Notified human cases of RRV in City of Cockburn since 2013/14 compared to the long-term mean.

City of Kwinana:

The City of Kwinana, a Local Government Area within the Perth metropolitan area, covers an area of approximately 118 km² and is located approximately 40 km to the south of the Perth CBD. The population of Kwinana is approximately 52,103 (2023 est) and is expected to increase to 85,000 within the next decade. Significantly new residential lots are being released to the market each year to cater for the population increase and many of these lots are being constructed in close proximity to naturally occurring wetlands. Developers are required to provide site specific mosquito management plans to manage the mosquito risks introduced from new or modified drainage or water holding infrastructure and close developments to mosquito breeding habitats.

The Beeliar Regional Park stretches down into the City of Kwinana and includes a large number of permanent and seasonal wetland systems which have the potential to support mosquito breeding. The physical attributes of water bodies such as wetlands, including nutrient enrichment and degradation, are known to be major factors in contributing to the density of mosquito larvae found in wetlands and stagnant pools.

The City regularly monitors for adult mosquitoes and larval across a minimum of 12 sites by trapping and larval sampling. The City's adult trapping records revealed that disease vector mosquitoes breed at those fresh water swamps and wetlands when conditions allow. *Aedes alboannulatus*, *Aedes camptorynchus*, *Culex globocoxitus* and *Culex annulirostris* have been regularly trapped in moderate to large numbers. Ross River Virus isolates has been detected at The Spectacles Wetlands managed by the Department of Biodiversity, Attractions and Conservations. The City has continued to investigate different mosquito management options for The Spectacles Wetlands due to accessibility issues.

The overall long-term mean for Kwinana is 9 Ross River virus cases per year between 2013/2014 to 2023/2024. The public health risk could be also expected to increase as the local population of persons residing close to The Spectacles increases rapidly over time.

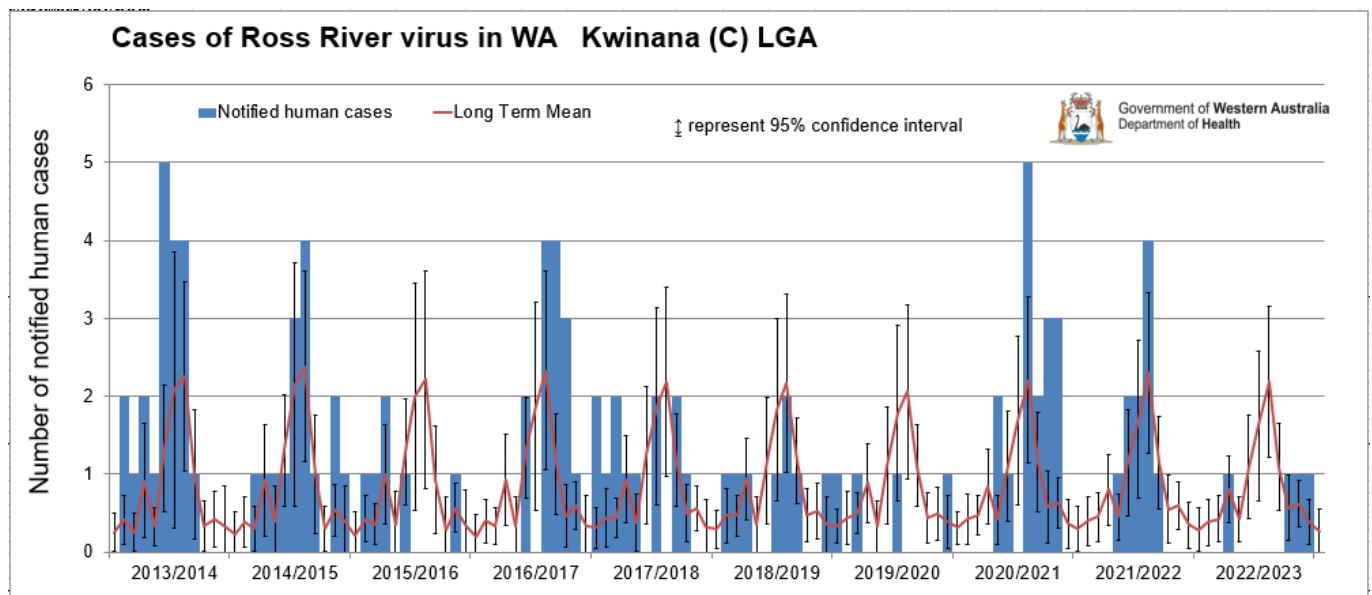


Figure 3: Notified human cases of RRV in City of Kwinana since 20013/14 compared to the long-term mean.

Principal Stakeholders:

This MoU covers the following Principal Stakeholders:

- WA Department of Health (the Department)
- City of Armadale
- Shire of Serpentine Jarrahdale
- City of Cockburn
- City of Kwinana

Responsibilities of the Principal Stakeholders:

Department of Health, Western Australia

1. Funding

The Department will provide funding to the CLAG, in accordance with the [CLAG Funding Guidelines](#) and following assessment of the CLAG's annual application by the Mosquito Control Advisory Committee (MCAC), to support the following:

- chemical control strategies
- physical control strategies
- cultural control strategies (including *Fight the Bite* resources)
- mosquito management equipment
- training and development
- other requested items (upon consultation with the MCAC).

2. Technical expertise

The Department may also assist the CLAG through the provision of:

- training to improve the capacity of CLAG members to undertake mosquito management activities
- staff to assist in ground surveillance to identify mosquito breeding sites (both natural and man-made)
- assistance with the development and further revision of individual mosquito management plans (MMP) for local governments within the CLAG
- advice on local issues and possible resolution options
- notified case data related to mosquito-borne disease within their region
- mosquito management options (including adulticides/larvicides) for each jurisdiction
- assistance with the identification of difficult adult and larval mosquitoes from surveillance activities (with advice from relevant specialists as required)
- staff attendance and advice at CLAG meetings

- assistance in developing a Terms of Reference (ToR) to guide the CLAG's activities (note, the ToR is optional)
- other advice/assistance as required.

Local Governments within the Southern Metropolitan CLAG

The Southern Metropolitan CLAG, consisting of the Cities of Armadale, Cockburn and Kwinana and Shire of Serpentine-Jarrahdale agree to:

- nominate a CLAG Chairperson to:
 - chair CLAG meetings
 - submit annual funding applications and reports to the Department
 - document CLAG related incoming and outgoing communications
- nominate a local government within the CLAG to receive funding on behalf of the group from the Department, and where appropriate, establish a CLAG operational account (to receive funding from the Department)
- ensure each Principal Stakeholder has developed their own MMP (i.e. one for each local government) to document specific program objectives, nuisance and disease risks, mosquito breeding sites, management strategies, landowners, necessary permits/approvals and budget/resource requirements. Note, a MMP for each local government will be required to be eligible for Departmental funding
- regularly revise (at least every 5 years) individual local government MMPs to ensure management activities are appropriate and reflect current mosquito issues
- submit a single CLAG funding submission and annual report, if required, requesting annual funds from the Department by the specified date. This request will be assessed by the MCAC
- contribute 50% of the cost of MCAC approved budget items, unless otherwise specified. The required CLAG contribution will be outlined in the Department's annual funding outcome letter
- City of Armadale and Shire of Serpentine-Jarrahdale assume responsibility for funding mosquito management when the nuisance factor or mosquito-borne disease risk is greater than normal. This responsibility is in lieu of the requirement to contribute to the CLAG Trust account
- Cities of Cockburn and Kwinana contributing to a trust fund, ensuring these two local governments within the CLAG have access to additional funding to manage mosquitoes when the nuisance factor or mosquito-borne disease risk is greater than normal. Regarding the trust fund:
 - Annually contribute an additional 10% of the CLAG's own contribution to mosquito management (as specified in the CLAG funding submission) to the trust account. Note this amount is calculated by the Department before any financial carryover is deducted.
 - The CLAG will seek approval from the MCAC, by way of a written request, to access trust fund account;

- As at 30th June 2024, the existing CLAG Trust account (held by the City of Kwinana) will be capped at \$8288. The 'capped' sum represents an amount that the Cities of Cockburn and Kwinana deem to be sufficient to cover an abnormally busy mosquito season. Once this amount is reached, no further trust fund contributions are required. If the trust fund falls below the 'capped' amount, contributions by the Cities of Cockburn and Kwinana must begin again following the next budget submission.
- discuss the CLAG's mosquito management activities with the Department a minimum of two (2) times throughout the season, by way of face-to-face meetings
- conduct adult and larval mosquito surveys in alignment with individual MMPs and include results in the CLAG's annual report if required.
- maintain accurate records of all chemical treatments (date, product used and size of treatment) and include information in the CLAG's annual report if required.
- collaborate with other members of the CLAG through provision of advice, information sharing, equipment loans, assistance with ground surveillance etc to improve mosquito management within the CLAG's jurisdiction.

This Memorandum of Understanding is supported by:

The City of Armadale

Joanne Abbiss
Chief Executive Officer

Signed:

Date: (dd/mm/yyyy)

The City of Cockburn

Daniel Simms
Chief Executive Officer

Signed:

Date: (dd/mm/yyyy)

The Shire of Serpentine Jarrahdale

Paul Martin
Chief Executive Officer

Signed:

Date: (dd/mm/yyyy)

The City of Kwinana

Wayne Jack
Chief Executive Officer

Signed:

Date: (dd/mm/yyyy)

Department of Health, Western Australia

Dr Michael Lindsay
Executive Director
Environmental Health Directorate
Public and Aboriginal Health Division

Signed:

Date: (dd/mm/yyyy)