

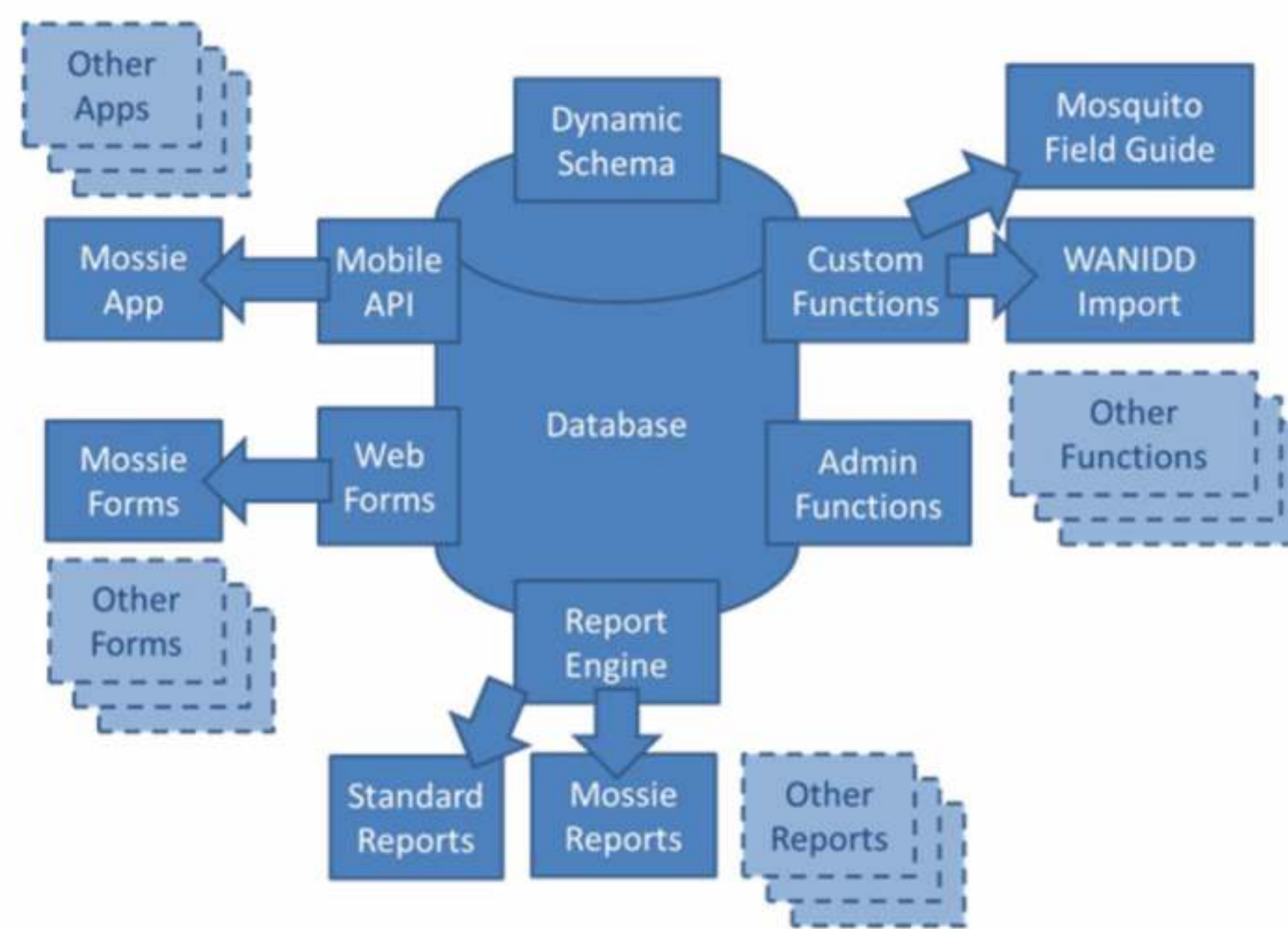
Project 4.47 | Development of real-time mobile data collection tools to enhance mosquito management in Western Australia

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- Project Team** Dr P Neville – Mosquito-Borne Disease Control, Department of Health Western Australia; P Higgs, B Khoo and A Jones – Gaia Resources
- Project Participants** Gaia Resources
Department of Health Western Australia
- Objectives** The primary objective of this project was to enable real-time collection, management and sharing of mosquito survey data between State and Local Government.
- Outcomes**
- Mobile app developed to enable real-time data collection.
 - Online portal developed to enable mapping, data management and sharing of mosquito survey data.
 - Online portal also includes a field guide to mosquito species in Western Australia to assist local government in identifying the mosquito species present and the appropriate control activities to undertake.



Methods

- Consultant (Gaia Resources) engaged to develop mobile tools and online portal for real-time mosquito data collection, management and sharing



Background

- Mosquito monitoring data is collected by many organisations across Western Australia.
- Data is stored in a number of databases and held by individual organisations.
- Obtaining data in varying formats from multiple Local Governments across Western Australia is complicated and makes monitoring and modelling trends difficult.
- Data is often lost when staff change.

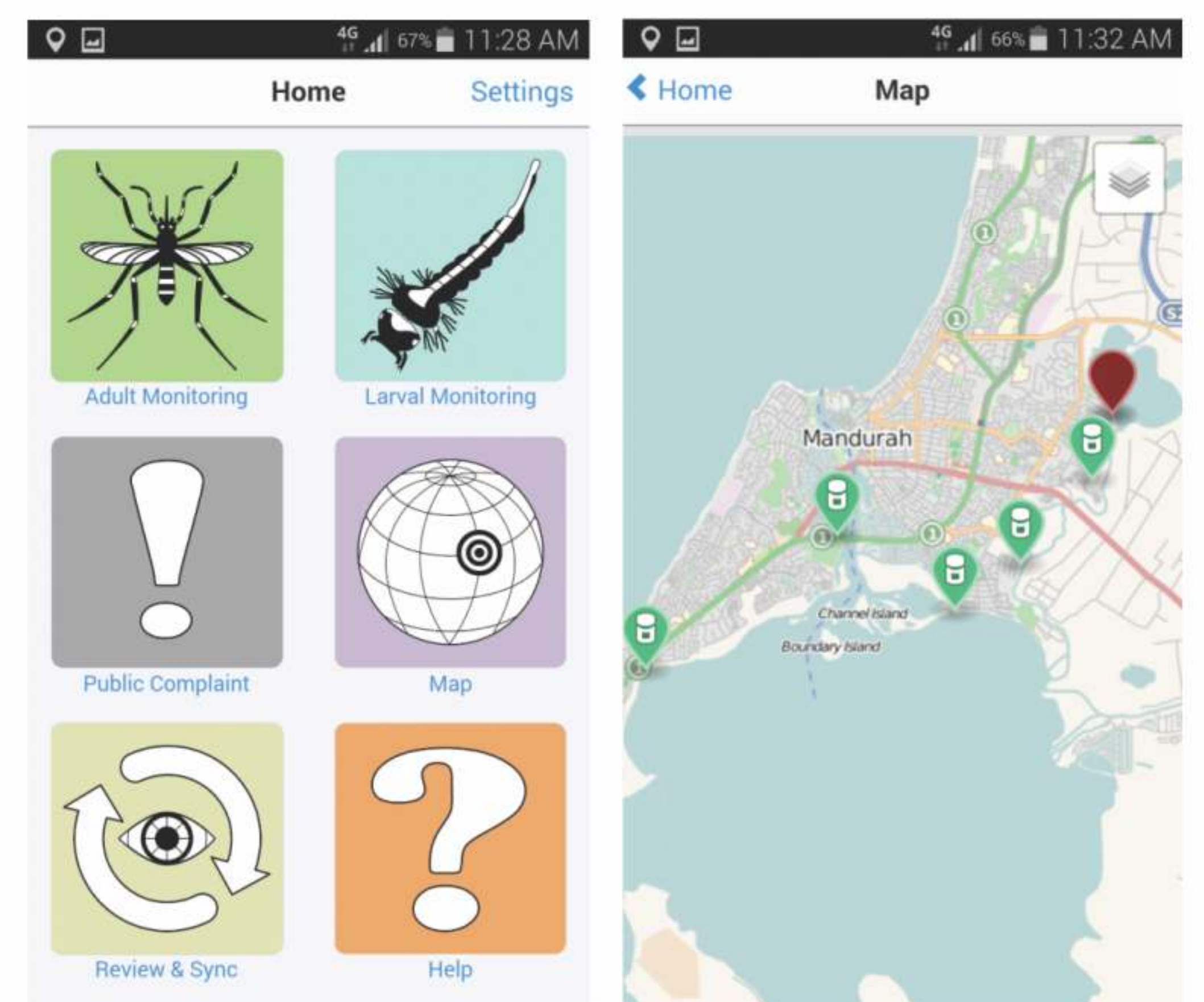


Direct project outcomes

- Development of a single database for multiple mosquito management end users.
- GPS tagged data facilitates rapid spatial analysis
- Standardised collection of data
- Development of field guide with distribution data, key characteristics for identification and basic notes on species ecology, biology and disease risk to help inform Local Government mosquito control activities
- Data will be stored in a central repository and will enable users to generate reports of mosquito abundance and distribution combined with disease data for their jurisdiction

Indirect project outcomes

- Detailed spatiotemporal collections of data will enable modelling of these with other existing environmental and health data to develop high resolution disease risk maps for Western Australia. Anticipated outcomes include:
- Potential to form part of an early warning system to alert the public and Local Government of potential risks



Summary:

Real-time collection and sharing of mosquito-survey data will directly enhance mosquito management and facilitate a range of indirect benefits through the generation of more valid and complete data. This project has the potential to expand beyond mosquito management and enable the real-time collection of a range of environmental health related data.