

CASE STUDY

PROJECT POTABLE WATER FOR REMOTE COMMUNITIES

PRODUCT Chlorine Dosing Plants

INDUSTRY Infrastructure

LOCATION Eastern Goldfields, Western Australia



BACKGROUND

The Government of Western Australia (WA) Housing Authority manages essential services at Aboriginal communities in the remote outback of WA via the Remote Area Essential Services Program. Local Regional Service Providers are engaged by the Housing Authority for the delivery of essential services to these communities.

One of the Regional Service Providers identified some communities with consistently low levels of residual chlorine in the potable water supply. The existing chlorine dosing equipment needed upgrading to automate it and store the sodium hypochlorite solution in a temperature controlled environment to prevent heat degradation. The client was looking for a fully automated, low maintenance system, to monitor and maintain free chlorine levels in accordance with Australian Drinking Water Guidelines (ADWG).

SOLUTION

- Client specific engineering standards in the plant design and manufacture of containerised Sodium Hypochlorite Sterilisation Recirculated (SHSR) plants for seven remote communities.
- Continuous recirculation of the contents of the potable water tank with online monitoring of free chlorine and automated dosing to maintain compliance with ADWG.
- Duty standby dosing and recirculation pumps for improved plant reliability.
- Containerised plants with insulation and air conditioning to avoid the heat degradation of the sodium hypochlorite.
- Online alarms and remote monitoring for client interface.
- Auto plant restart on power outages.
- Fast eight week delivery time.
- On site commissioning and training of local operators



Chlorine dosing plant

RESULTS AND BENEFITS

- **Quick response.** The plant was delivered on budget and within eight weeks.
- **Client Specific Design.** The custom “fit for purpose” design in a durable prefabricated containerised system offered protection from the harsh environment and custom vandalism protection.
- **Compliance.** Maintains compliance with ADWG at all remote communities.



Five chlorine dosing plants leaving the workshop for transport to site