

## **‘HAMILLA DOWNS’ AND ‘CARINYA’ SOLAR POWERED DESALINATION UNITS**

- The Coolana desalination units at Hamilla Downs and Carinya are direct solar powered by 10KVA of solar panels. Computer controlled to get maximum sunlight efficiency for the three 3 Phase pumps controlled by variable speed controllers. This powers the desalination and transfer pumps.
- A daily water production aim of 35000 litres is stored in a 250,000 litre tank for transfer to satellite tanks around the farms.
- Each unit has a 12KVA diesel generator for backup; this can be operated by timer or remotely and over rides the solar
- The Hamilla Downs unit draws from an open wedge hole. Carinya now draws from an underground wedge hole (water quality is the main issue).

### **PRE DESALINATION WATER QUALITY ON ‘CARINYA’**

On the ‘Carinya’ property there was an issue with the water quality in the open wedge hole. The poor water quality was causing problems in the desalination process due to:

- Sunlight
- Heat
- Organic matter
- Algae
- Dust
- Bacteria



# HAMILLA DOWNS SOLAR DESALINATION SYSTEM

