A still to water dry township

People living in the small opal mining town of Coober Pedy, midway between Adelaide and Alice Springs, soon will drink fresh water from one of the world's largest solar distillation plants.

The plant, called a solar still, is to be built this year by the South Australian Water Supply Department, based on a CSIRO design.

It will convert salt water from a nearby bore to fresh water at an average rate of 3,500 gallons a day, rising to 6,500 gallons in hot weather.

Coober Pedy's population, which ranges from about 250 in summer to 1,000 in winter, at present depends for fresh water on a half million gallon surface tank, which is often empty because local rainfall is only five inches a year.

Even when the tank has water there is no reticulation and residents have to buy water and carry it away in drums. When the tank is dry they buy water brought 100 miles by road at great expense.

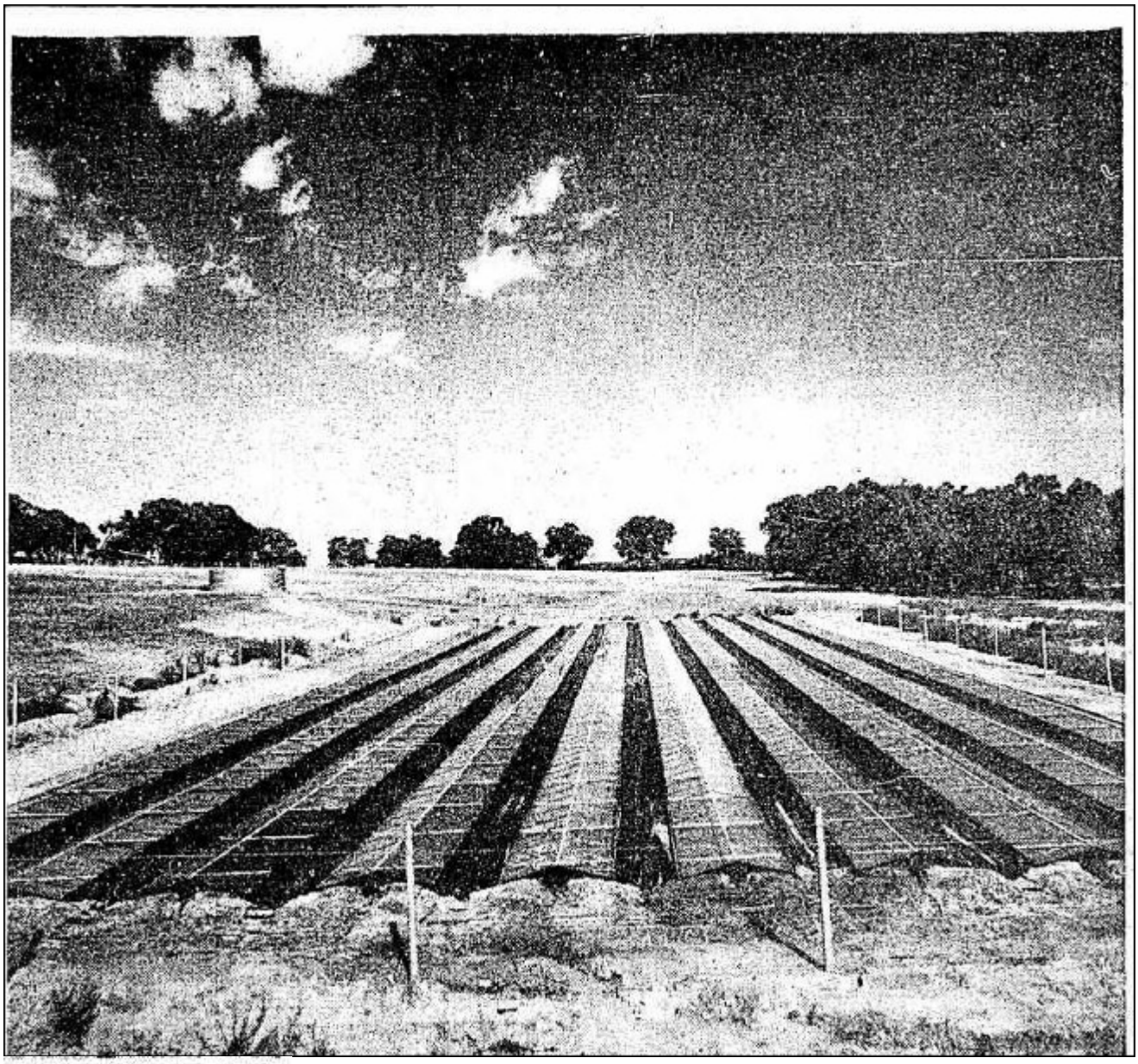
The still will cover an area of 75,000 square feet and is based on a CSIRO prototype 4,500 feet square which has been operating successfully for two years near Northam, in Western Australia.

The still consists of a number of long shallow pans, each running between two parallel troughs 3½ feet apart.

These are formed by covering metal frames with black polythene sheeting and a simple glass roof over the structure.

Salt water fed into the pans is heated by solar energy absorbed by the black polythene and some of it converts into vapour, which then condenses on the underside of the glass roof and trickles through side troughs into a storage tank.

The process is continuous and the unit requires no maintenance.



The prototype of a solar still to be installed this year in the little opal mining town of Coober Pedy in South Australia to supply water to the township.