

South West and South Coast airborne electromagnetic surveys

The Department of Water has commissioned airborne electromagnetic surveys in the South West and South Coast starting in March and ending in May 2013.

During the survey an airplane will fly at approximately 120 m above the ground over the survey area (see maps on the next page) with a coil slung beneath the plane.

The coil beneath the plane sends an electromagnetic pulse into the ground and the equipment in the plane records the return signal. The information received from the survey provides information on the groundwater system including the geology (rocks), depth to the groundwater table, the salinity of the groundwater, and the position of the saltwater interface.

Why are we doing this work?

Groundwater in the south west of Western Australia is used for horticultural, agricultural and industrial activities. It is also an important source of town drinking water and supports important ecological systems. Effective management of groundwater resources is essential to ensure sustainable growth and development of the region.

This survey will help the department in meeting these areas' growing water supply needs by helping us understand the amount and quality of water available, impacts of groundwater use on other users, groundwater dependent ecosystems and the overall sustainability of the water resource.

The survey has been commissioned by the Department of Water in partnership with Geoscience Australia. It has received funding from an allocation of \$12.82 million from the



*Fixed wing survey plane in flight
(Photo courtesy of Fugro Airborne Surveys)*

State Government's Royalties for Regions program for the four year initiative to assess, plan and investigate regional water availability in Western Australia.

Impact on you

Airborne electromagnetic is used all over the world and is considered safe. The electrical current in the coil is significantly less than what you would find in households and much less than that carried by overhead power lines. The main impact of the survey is visual. The geophysical survey will be conducted at an altitude of approximately 120 m with flight lines spaced at 300 - 600 m.

Notification of the survey will be advertised in local community newspapers and radio prior to the commencement of flying.

How will this survey help manage our water?

This survey is part of a four year project that will map groundwater resources and assess aquifer sustainability so the Department of Water can develop and optimise groundwater models to manage water abstraction.

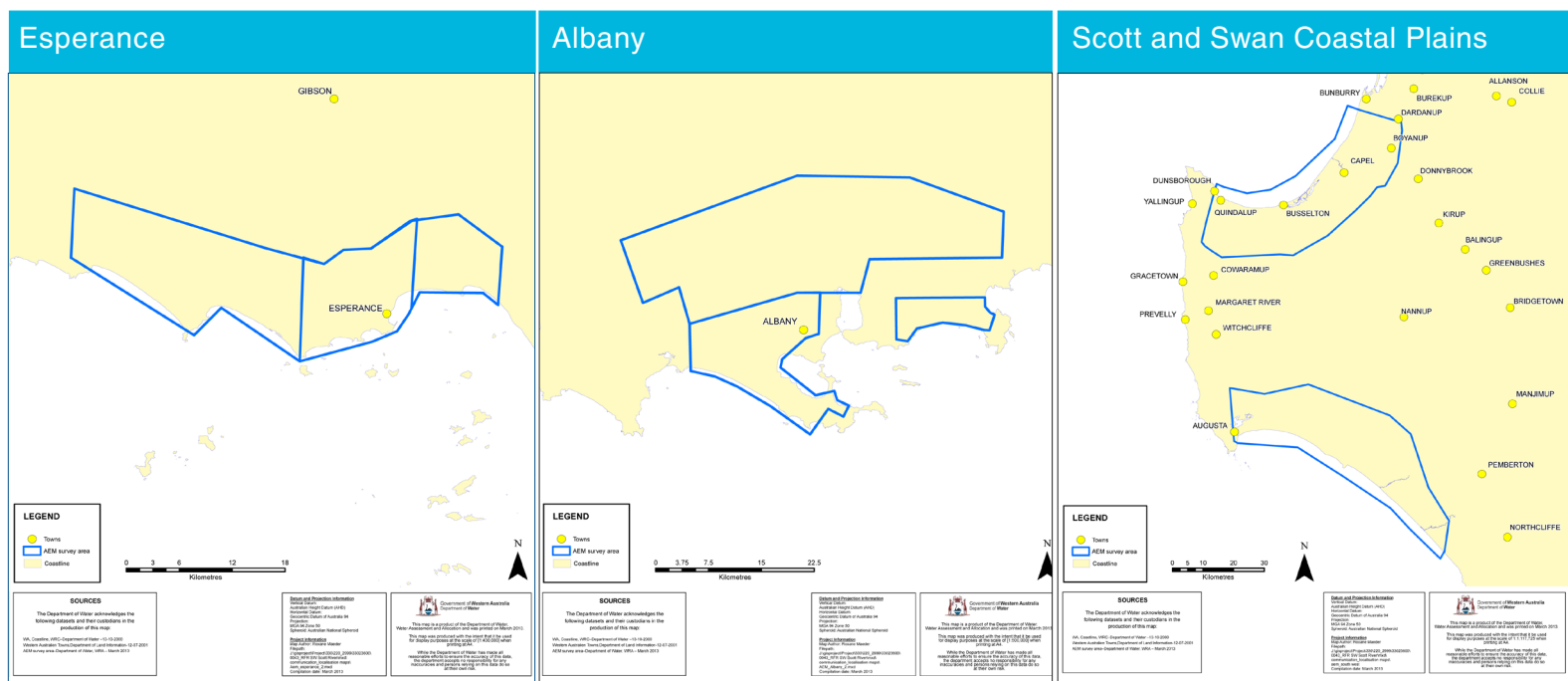
The data gathered by the survey will be used by the Department of Water in a scientific process to assess the quantity, quality, availability and recharge of the region's groundwater resources.

By looking at existing and new groundwater sources, this work will contribute to better information on groundwater availability in the region and build further knowledge about groundwater recharge and sustainability.

Reliable knowledge on available groundwater ensures future economic expansion and population growth in the region will not be constrained by water availability.

Where and When

Location	Planned start date	Planned completion date
Esperance	25 March 2013	31 March 2013
Albany	02 April 2013	13 April 2013
Scott and Swan Coastal Plains	15 April 2013	05 May 2013



For further information, please contact

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