



***Photograph 1***

Condobolin site, view west from eastern boundary.



***Photograph 2***

Entrance to site via Micabil Road.



***Photograph 3***

Residence located to east of site boundary



***Photograph 4***

Micabil Road on southern boundary of site



***Photograph 5***

Gum Bend Lake



***Photograph 6***

Existing Pumping Station adjacent to the Lachlan River



### *3.1 SITE LAYOUT*

The proposal includes locating the main components of the ethanol production facility in the western portion of the site. The remainder of the site will be used for dams and plantations.

The plant footprint proposed as part of the ethanol facility will be approximately 300m x 300m and will include the following:

- an office/administration area comprising a reception area, offices, meeting room areas, bathroom facilities and a first aid room;
- a storage building providing for storage of all chemicals and products (other than grain) on the site;
- a grain storage building (silo). This building will be the tallest building on the site and will have a maximum height of 35 metres;
- a fermentation building;
- a liquefaction and saccharification building;
- a maintenance workshop and store which also includes a plantation services facility;
- a pumping station adjacent to the Lachlan River and associated pipeline;
- liquid petroleum gas storage;
- shift silo; and
- a distillation building and tower.

A grain storage area will be located adjacent to the main buildings with a one-way road access provided around the storage areas. This area will be surfaced with a prepared road base foundation which will be maintained to minimise dust generation.

A new shallow run-off catchment dam is proposed adjacent to the production buildings which will contain and evaporate runoff from the buildings and hard surface areas.

The proposal will require the extraction of approximately 8ML of water per day from the Lachlan River. A new process water dam, with a capacity of up to 100ML, is proposed to the south of the production buildings. This dam will be used to store water to be used in the ethanol production process.

A new effluent storage dam is also proposed in the south-west portion of the site, adjacent to the process water dam. This dam will have a capacity of approximately 30ML and will be used to store effluent waste water from the facility, which will be used to irrigate the plantation.

An aerated wastewater treatment system will also be installed on the site to treat sewerage and allow the majority of wastewater to be reused within the production process.

Access to the site will be provided by Micabil Road. The access road through the site will be sealed to minimise dust and will be wide enough to accommodate passing road-train trucks.

A rail siding may be constructed on the site once the plant is operational to allow rail transportation of ethanol product.

Detailed plans of the proposed ethanol production facility are yet to be finalised however will be provided as part of the project application.

*Figure 3* shows the indicative layout for the production facility. *Photograph 7* shows an ethanol production plant in the United States, similar to that proposed at Condobolin.