

## Lake Glenmaggie Managing floods

The Macalister Irrigation Area (MIA) is a vital part of Gippsland's local economy. The dairy industry produces some 400,000,000 litres of milk, returns around \$150 million at the farm gate and grosses approximately \$500 million annually. The MIA also supports other important industries including vegetable and beef production and fodder cropping. It is estimated that these activities generate almost \$650 million into the local economy.

The success of the irrigation area requires a secure and reliable water resource. The primary source of water for the MIA is Lake Glenmaggie, which sources its water from the Macalister River catchment, located to the north of the storage. Lake Glenmaggie is relatively unique amongst large storages in Victoria, in that it fills and spills on average in nine out of ten years. As a comparison, the Thomson reservoir, Melbourne's primary water source, has a catchment area only 25% of Lake Glenmaggie but has a storage capacity five times greater.

Lake Glenmaggie was built in the 1920s and its height was raised in the 1950s with the establishment of 14 flood gates. These gates can only be operated when the reservoir level reaches 119,174 ML, or about 70% of capacity.

Large river flows leading to floods are not uncommon on Gippsland rivers and they occur regularly. Flood severity is increased when bushfires reduce the vegetation in the catchment, as we experienced in the 2006/07 bushfires.

When floods occur, we have a number of objectives to meet – ensuring the safe operation of Glenmaggie Dam, retaining water for future irrigation and to manage the effects of flooding downstream.

Lake Glenmaggie's large catchment means that river flows can be quite extreme, so even when the reservoir is only partly full we can have limited ability to reduce the impact of floods downstream. At such times, we work with the emergency services agencies to help ensure that downstream communities are well informed.

Where the risk of a rainfall event is identified, we maintain close contact with the Bureau of Meteorology to understand what is expected and the maximum rainfall that is forecast. We also review different scenarios for the runoff and likely inflows from the expected and maximum rainfall. At this stage we also undertake the necessary staffing arrangements to run our operations 24 hours a day.

During a rainfall event we are constantly planning for releases from the storage. These are based on actual and expected rainfall levels, stream flow measurements taken upstream from Lake Glenmaggie and calculated inflows into Lake Glenmaggie, based on the actual storage level. Our objective is always to reduce the severity and duration of any flood.

Leading up to and during flood events we work closely with the Bureau of Meteorology, State Emergency Service and other emergency services to provide regular updates on the current and projected situation, and to assist them with setting actions, such as warnings, public meetings and evacuations where required. We also support the Macalister flood warden system – set up for the community, by the community following the 1971 floods.

We strongly recommend that if you are in a flood prone area that you and your family should familiarise yourself with the SES's "Flood Safe information brochure" and take all necessary precautions.

### **More information**

For more information, contact us on **1300 139 510** or **visit.srw.com.au**