



**Notice To Readers Of This Map**  
This map must be read in conjunction with the following information and the main study report, "Murray River Regional Flood Study Dicks/Sepellets levees to downstream of the Ulpna Creek confluence Study Report", August 2010 (Water Technology).

**Background**  
This map has been prepared using the best technology currently available to a standard of accuracy sufficient for broad scale flood risk management and planning. All maps in the series will help provide awareness of flooding associated with the Murray River. It is expected that it will be used to provide understanding of development and by the authorities that assess land capability and development proposals. It will also assist in planning and essential services and emergency services.

**Flood Occurrence**  
A flood occurs when a pipe, channel or river cannot carry the volume of water entering from a catchment. When this occurs, floodwaters travel across the surface of the land potentially damaging property built upon the floodplain and potentially threatening the safety of people in the floodplain. Flooding is a natural event.

**Annual Exceedance Probability (AEP)**  
The AEP is the likelihood of occurrence of a flood of given size or larger in any one year. This is expressed as a ratio, for example 1/100 or 1%. There is a 1% chance that the 1/100 AEP flood will be equaled or exceeded in any one year. Similarly, there is a 5% chance that a 1/20 AEP flood will be equaled or exceeded in any one year.

**Alternatively, flood risk can be considered in terms of average recurrence interval (ARI). This is the number of years on average within which a given flood will be equaled or exceeded. A 1/100 ARI flood will be equaled or exceeded once in 100 years on average. A 1/20 ARI flood will be equaled or exceeded once in 20 years on average, and so on.**

**Due to the random nature of floods, however, a 1/100 year flood need not occur in every 100 years and conversely, several floods which exceed the 1/100 year flood could occur within any one period of 100 years.**

**Storm durations**  
The flooding response of a catchment is dependent on the duration of any storm event. Generally shorter, more intense storms produce the greatest flows from urban areas. Longer duration, but less intense storms, produce the greatest flows from undeveloped hills areas.

**Impact on buildings**  
The flood extents shown are a prediction of land affected for the specific level of risk and do not necessarily indicate a threat to buildings located on that land. Flood assessment for particular sites will require more detailed interpretation, survey and analysis by qualified and experienced persons.

**Basis of mapping**  
The data contained on this map is based on survey, hydraulic and hydrological modelling (as at 2009) to an accuracy sufficient for broad scale flood risk management and planning. The modelling reflects current practice, but it must be realised that there are uncertainties and assumptions associated with the data and the processes on which the models are based, and the flood extents shown on the map cannot be regarded as exact predictions.

**The flood extents are not based on actual historical floods.**

**Scope of the mapping**  
The limit of flooding shown on this map is not a boundary between flood prone and flood free land.

**Land outside the flood extent shown on this map could be affected by:**

- Flooding from the mapped flood that extends beyond the area that has been mapped.
- Larger storms.
- Flooding from local drainage systems which can occur as a result of localized heavy rainfall or drain blockage.
- Slims with a difference annual exceedance probability.

**Areas of very shallow flooding**  
In areas shown as being affected by flood depths of less than 0.1m (100mm) fences, walls, landscaping and buildings will affect the flow of floodwaters. Resolution to this level of detail is beyond the capabilities of the modelling process and consequently the level of certainty in relation to flood depths in these areas is reduced.

**Changes to the catchment**  
The flood extent shown on the maps is based on conditions current at 2009. Further development, earthworks, and other changes to the catchment may affect the actual flood extents.

