

South Gippsland Flood Mapping

Flood mapping in South Gippsland in the area where Melbourne Water has drainage responsibility has been undertaken over the last 30 years with a range of methods adopted.

The mapping processes over the years were done approximately as follows:

- Mapping of most of the Shire's waterways with catchments of more than 200 hectares in the area where Melbourne water has drainage responsibility was undertaken in 1987, by a forerunner of Melbourne Water (the Dandenong Valley Authority) acting as a consultant to the Rural Water Commission. The project included assessing the flood extent for all of the waterways draining to Western Port between Stoney Creek at Shoreham around to Peacock Road Drain adjacent to the Holden Lang Lang proving ground, just north of The Gurdies. This work was based on 25,000 contour plans, and field inspection was undertaken along the length of the waterways to assess capacities for road crossings, and the approximate natural floodplain widths, so that flood extents could be mapped. Waterways mapped in this exercise were: Red Bluff Creek, Adams creek, Little Lang Lang River, Eliza Creek, Pheasant Creek and Lang Lang River (Upper) and their tributaries.
- New mapping was undertaken on the Little Lang Lang River commencing in 2002 and being completed in early 2003, using RORB to determine flows and a Sobek model for flood levels, with photogrammetry used to produce surface levels for the Sobek model.
- Similarly, new mapping was done for Red Bluff Creek in 2015 and using RORB for flows and HEC-Ras for flood levels, with ground levels determined using Lidar.
- Flood mapping of the Bass River and its tributaries was undertaken in 2009 using RORB for flows and HEC-Ras for flood levels, with Lidar used for surface level information for the HEC-Ras modelling. This flood mapping was included as a Land Subject to Inundation Overlay in South Gippsland Shire's Planning Scheme in 2016.

While only the Bass River and its tributaries have been included in the Land Subject to Inundation Overlay (LSIO) prior to this, the flood extents on the other waterways have been provided to Council and have been used to provide guidance to council Planners on where referral advice is required from Melbourne Water.

Including all the waterway flood extents as LSIOs in the Planning Scheme will make the information more accessible and provide a consistent trigger for planning proposals to have flooding issues properly considered. In some cases, more detailed modelling may then be undertaken when development proposals are received.