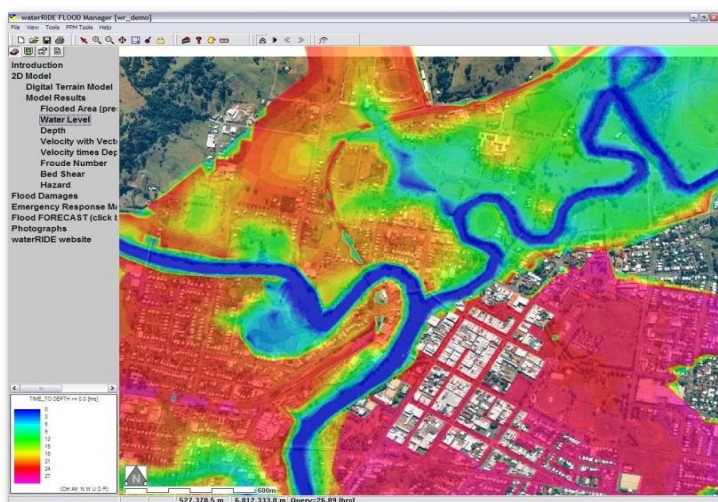# Flood Emergency Managers

waterRIDE™

The waterRIDE™ environment provides the emergency manager with a host of tools to assist in managing a flooding emergency, both during the event and in a planning context.

The tools are designed to make flooding and hydraulic information readily available to the emergency manager, in an easy to use interface. This ensures that the manager has a system that can be relied upon during the high pressure situation of managing a flood emergency.
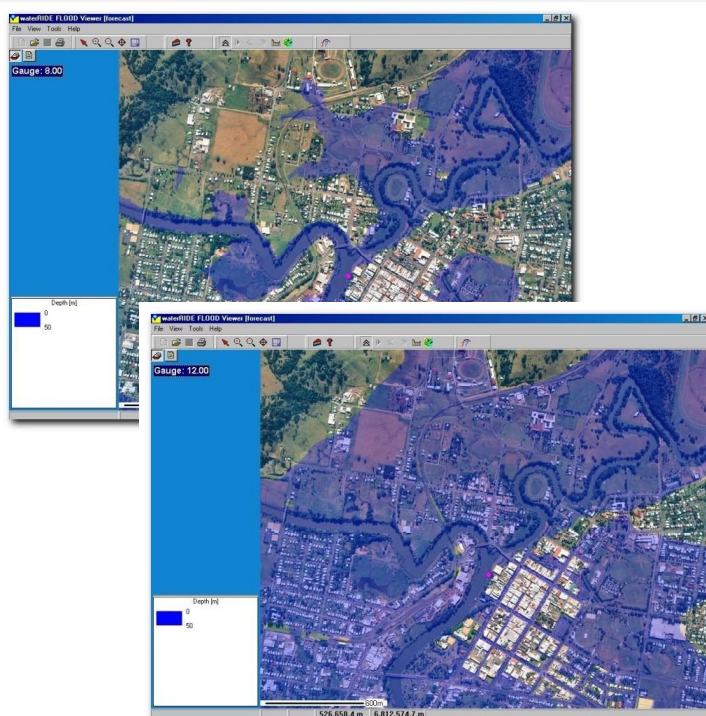
The **unique** ability of waterRIDE™ to integrate time varying model results (of any model) in a purpose built GIS environment provides the flood manager with crucial time based information (such as time available to evacuate), a feature not found in conventional GIS packages.

Key Features for Flood Emergency Managers

- **Time-based Queries -** provide a firm understanding of evacuation issues by deriving time based information such as *time available for evacuation (time to inundation)*, *duration of inundation,* and *rates of rise.*

- **Parameter Queries -** identify areas where velocity and depth exceed safe criteria, at any point in time

- **Evacuation Planning-** interactive animation of your model results in a live GIS environment allow you to visualise and interrogate how your floods develop over time, providing essential information for evacuation phasing and planning.

- **Flood Forecasting -** rapidly interpolate a predicted peak flood surface from a predicted level at a gauge (or multiple gauges). This allows you to see what a flood prediction will look like, providing valuable information such as: Indicative flood extent; Evacuation route closure; Flood affected properties; Impact on critical infrastructure.

- **Multiple Gauge Forecasting –** derive a predicted flood surface from multiple gauges. The flood surface is warped to account for differing degrees of flooding in various parts of the catchment (eg 1 in 67 year in one part and 1 in 134 in another)

Thematic map of Time to Inundation

- **GIS Integration -** automatically integrate GIS datasets with the model results to show derived information such as *depth above evacuation routes, depths above critical infrastructure*, or *time to evacuation route closure.*

- **Flood Extents -** extract GIS flood extents for rapid determination of properties at risk during a flood event.

- **Property Photos -** integrate flood levels with scaled property photos to provide a realistic representation of flooding at an individual property and greatly enhance community flood awareness and understanding

- **Rate of Rise -** interrogate the rate of rise at any location in the model

- **Community Education –** the highly visual nature of waterRIDE™ facilitates understanding of flooding issues by all members of the community