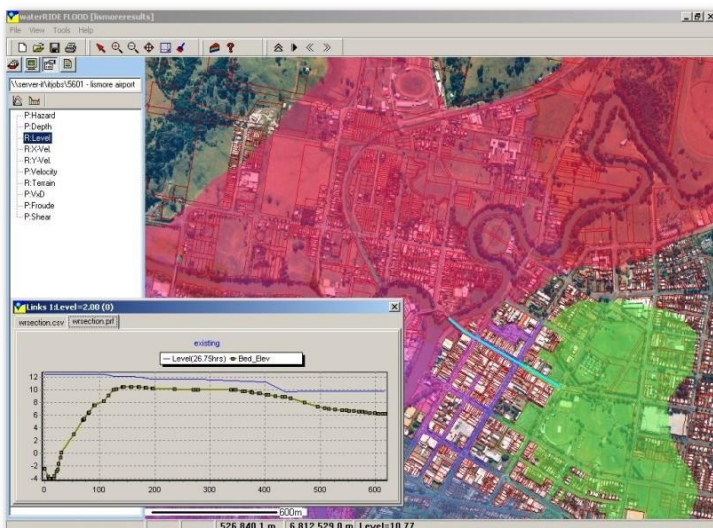# *Modellers*

waterRIDE™

The waterRIDE™ environment provides the flood modeller with powerful, purpose built tools for integrating their time varying modelling results (both 1D and 2D) with GIS datasets (such as aerial photography, DTM's, cadastre, property databases etc).

The waterRIDE™ environment was developed by "engineering programmers" at WorleyParsons (who themselves are hydraulic and water quality modellers) to overcome the limitations of conventional GIS platforms in their distinct lack of support for integrated time varying datasets. It was also designed to provide a 2D representation of 1D model results, to allow model owners to get better value from their 1D models, and model builders to understand what they are modelling. It has been progressively expanded over the years to provide a host of tools to help modellers get their work done better, smarter, quicker, and with greater understanding!
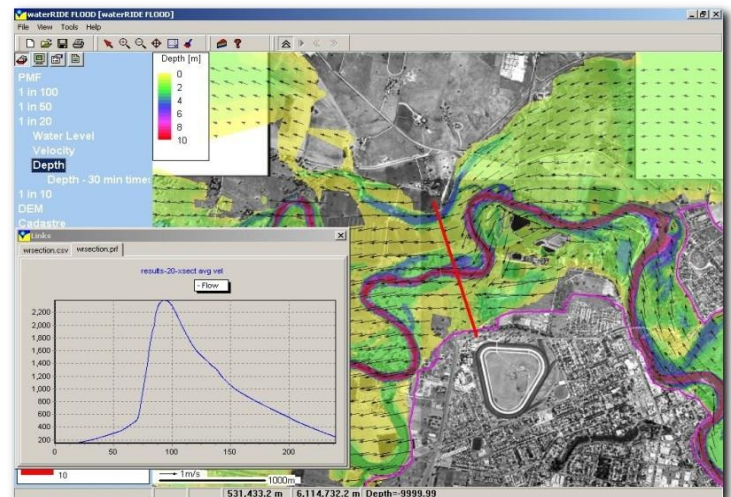
Models supported by waterRIDE ™ include (both 1D and 2D): MIKE11, MIKE21, RMA-2, TUFLOW, SOBEK, FLS, ANUGA, EXTRAN (XP-SWMM), HEC-RAS, RUBICON, InfoWorks, SELFE, DELFT 3D, DRAINS overland flow, ESTRY, generic link node models, and even results from hard copy and physical models

Key Features for Modellers

- **Sophisticated Interrogation Tools -** easily create thematic maps, create and extract (to GIS and Excel) time series plots, profile plots, flow plots, and calibration data at *any* location in your model.

- **Common Interface –** regardless of the model you use, 1D or 2D, waterRIDE™ provides a common interface to your model results, ensuring you have the same powerful toolset for all your modelling.

- **Time Varying GIS Analysis –** the unique ability to integrate time varying model results with GIS datasets allows rapid time varying analysis such as: time to inundation, duration of inundation, interactive results animation, Boolean logic queries on hydraulic parameter combinations, calculation of true peak values across the entire hydrograph, verification of modelling results and quicker discovery of the causes of model instabilities.

- **Erroneous Model Behaviour-** view interactive animations of your modelling results to identify sources of erroneous model behaviour.

- **Easily Export Results –** export any raw or processed model results to GIS

Extract Flow hydrographs at any location in your model

- **Quick Manning's Calculations-** quickly carry out Manning's calculations to "sensibility" check your model results.

- **Compare Results-** sophisticated difference and data extraction tools allow comparisons between model runs to be easily made, even when different model networks are used.

- **Import External Data-** tools are provided to import various external datasets such as DEM's and surface grids.

- **Client Presentation –** the structure of waterRIDE™ facilitates high quality presentation of results to your clients, with all the data you need at your fingertips, ensuring "end-user" understanding and appreciation of your work.

- **Quality Assurance –** the highly visual nature and powerful toolsets of waterRIDE™ provide modellers with a rapid means of identifying modelling errors, understanding model (and natural) behaviour, verifying and calibrating models, and providing consistent, high quality deliverables.

- **"Modeller Built" Tools –** waterRIDE™ is developed by modellers. There are a myriad of tools designed to streamline working with model results.

Rapid extraction of Longitudinal Profiles