

Floodplain Managers & Planners

waterRIDE™

www.waterRIDE.net

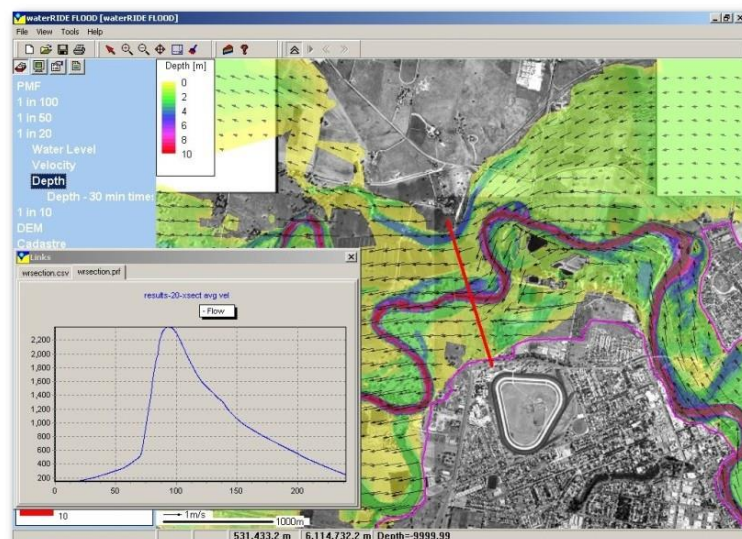
Successful floodplain management and planning requires a thorough understanding of local flood behaviour. Occasionally, this can be garnered from actual flood events, but more commonly, this understanding needs to come from computer hydraulic models. Traditional and common place model interrogation approaches use static "snapshots" of model results are taken at the peak of the flood and used to derive hydraulic parameters such as peak water levels, peak velocities, velocity times depth (VxD), and hydraulic hazards.

The limitation of such an approach is that it neglects the fact that a flood develops over time. This means information critical to the full understanding of flood behaviour is lost (such as rates of rise, time to inundation, time available for evacuation etc). In some cases, using peak values to derive hydraulic parameters such as velocity times depth and flood hazard is misleading, as peak depth does not necessarily occur at the same time as peak velocity!

The team of engineering programmers and hydraulic modellers at WorleyParsons have developed waterRIDE™ FLOOD Manager to provide floodplain managers and planners with easy access to their flood modelling results from any model. You no longer need to be a technical flood modeller or GIS expert to access your full, time-varying model results.

Key Features for Floodplain Managers and Planners

- **Thematic Flood Surfaces** - a library of design flood surfaces at your fingertips. Readily interrogate terrain, water level, depth, velocity, VxD, hazard, froude, and shear at any location in the model, for the hydrograph!
- **Single Interface** - interrogate any of your model results with the convenience of a single interface
- **Plot Hydraulic Parameter Data** - create time series, profile, and flow plots using the model results at any location(s) in the model.
- **GIS Backdrop** - enhance your understanding of the model results using rich and familiar GIS datasets as backdrops.
- **Flood Extents** - rapidly generate GIS flood extents (with various automated smoothing options) for ready identification of flood affected properties and exporting to any GIS package.
- **Rate of Rise** - display rates of rise at any location in the model to improve understanding of the time varying nature of your flooding issues
- **Floodway, Flood Storage, Flood Fringe** - Boolean logic queries allow you to identify zones where velocity and depth meet certain criteria to assist with definition of floodways, flood storage areas and the flood fringe.



A library of flood information is at your fingertips



Quickly map the flood planning area represented by the defined flood (blue) plus freeboard (yellow).

GIS Integration - easily populate GIS layers with data from your model results (such as peak flood levels and flood hazard), or use your GIS data in conjunction with the model results to calculate values such as depth of over floor flooding, or depth over evacuation routes.

Peak of Peaks - easily calculate the peak flood envelope (water level, extent, velocities, VxD, hazard etc) from a series of model results (eg different 100yr rainfall intensities and durations).

Flood Planning Level - automatically add a buffer to peak flood levels to derive a flood planning surface, readily showing those properties in the flood planning zone and required minimum floor levels.

Parameter Queries - query your model results for specific hydraulic queries for identification of dangerous flooding conditions

Flood Damages - easily calculate flood damages across all flood events, for all properties in your catchment, including calculation of Average Annual Damage (AAD) and present value analysis. Easily carry out Benefit/Cost analysis of various floodplain management options.

Metadata - tag all of your model results with additional information (such as source report, results date, comments etc) for quality assurance purposes.

Quality Assurance - Free up your time with rapid and consistent issuing of flood information.