KUSTOM ENGINEERING

Watercom DRAINS

DRAINS Extension Workshop

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PROGRAM

We have re-developing the DRAINS Extension workshop to better reflect everyday problems that drainage engineers face. Our aim is to provide practical examples, case studies and solutions for DRAINS users to utilise in solving every day complex situations modelled in DRAINS and data exchanges with other programs.

The following is the program reflecting the topics being presented during the workshop. The notes supplied during the workshop will also include extensive additional topics and materials from the previous DRAINS Advanced Workshop and a separate PDF containing the Property Drainage Workshop material.

8.45 am Registration

9.00 am Investigation of drainage problems in established areas
Using the premium hydraulic model to simulate complex overland flows
Modelling recorded rainfall records and probable maximum precipitation (PMP)
- Case Study: Harris Street Sans Souci NSW
- Erehwon

Modelling Channels – Strathfield

10.30 am Morning Tea

10.45 am DRAINS design exercise 'Yeppoon' requiring participants to utilise the knowledge obtained from the Core Workshop to model a typical urban drainage system with existing flooding problems. The exercise will require participants to:
- split overland flows with Premium Hydraulic modelling,
- simplifying 10 upstream pits & pipes into a single inlet pit assuming outlet control,
- using the RAFTS storage routing hydrological model to generate flows from the simplified larger upstream catchment,
- modelling overflow routes with varying cross-sections profiles & characteristics

12.30 pm Lunch

1.15 pm Example 1
Modelling of complex detention basins, including considerations for:
Integrating GPT and water treatment,
Diversion (splitter) pits
Trunk Drainage simulation paired with Storage Network Routing hydrological modelling

3.00 pm Afternoon Tea

3.15 pm Example 2
Simulating large catchment areas using the Storage Network Routing Module (SNRM – RAFTS hydrology)
The role of GIS and 2D flood modelling
Extracting data from DRAINS to use with 2D flood models

4.45 pm Q & A

5.00 pm Close