# OVERVIEW OF

# HYDROLOGIC AND HYDRAULIC MODELS

## AND THEIR APPLICATION IN ONTARIO

Presented By:

**XXXXXXX**

# FREQUENTLY USED URBAN DRAINAGE PROGRAMS IN ONTARIO

**Determination of Runoff Volumes and Peak Flows** (hydrologic modelling)

- OTTHYMO 89 (and its successors)
- MIDUSS
- SWMM
  - Model calibration using measured flows is very important
  - Design storms guidelines provided by regulatory authorities

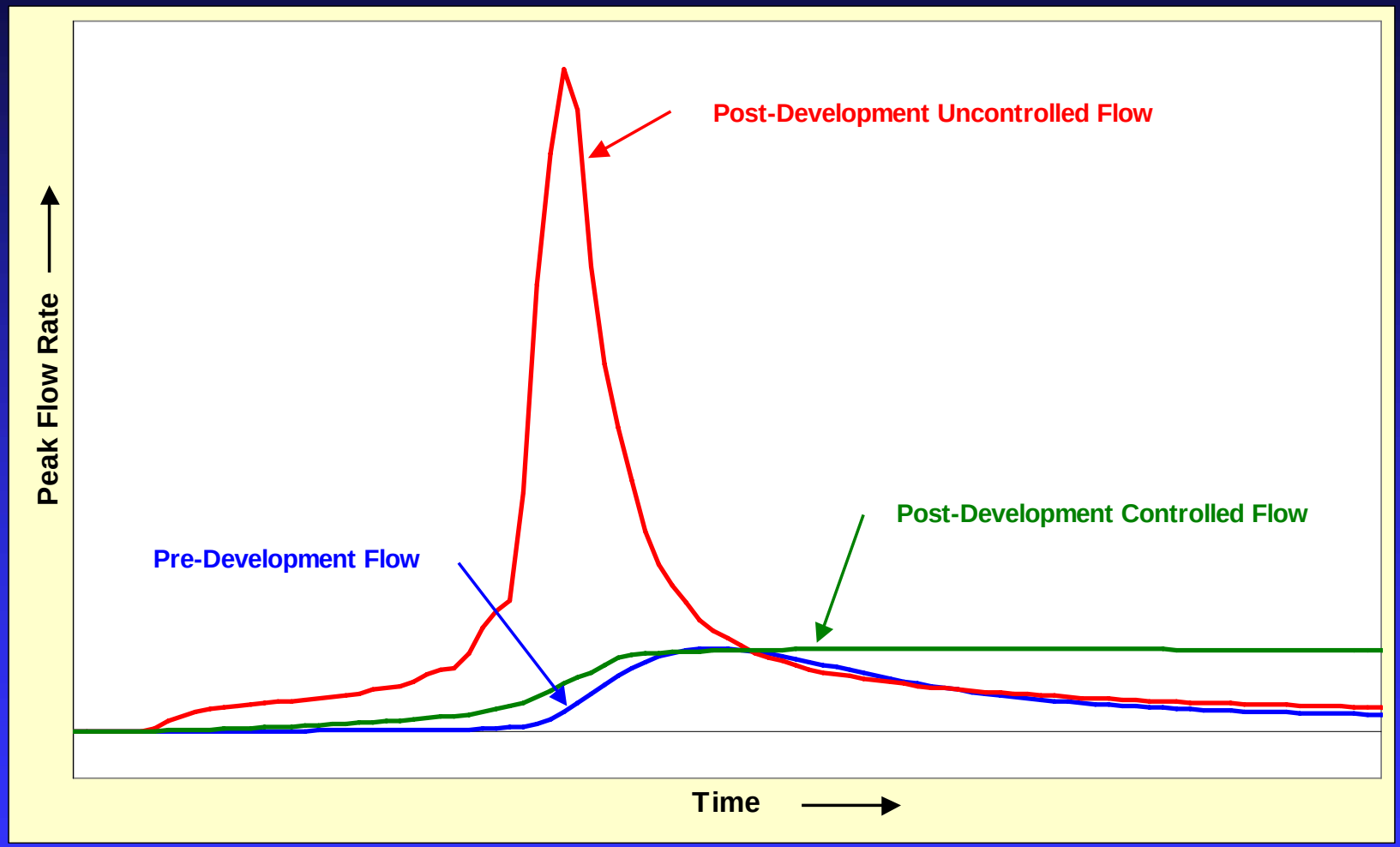
**Evaluation of Sewer Flow and Overland Flow** (hydraulic grade line analysis)

- OTTSWMM

**Floodplain and Erosion Analysis** (hydraulic modelling)

- HEC-2
- HEC-RAS

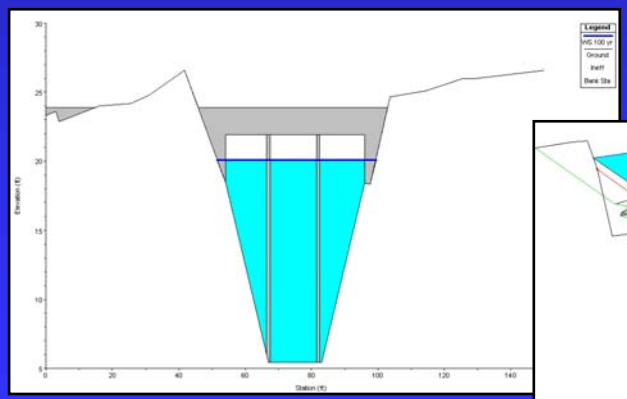
# OTTHYMO 89 – HYDROLOGIC MODELLING (cont'd)

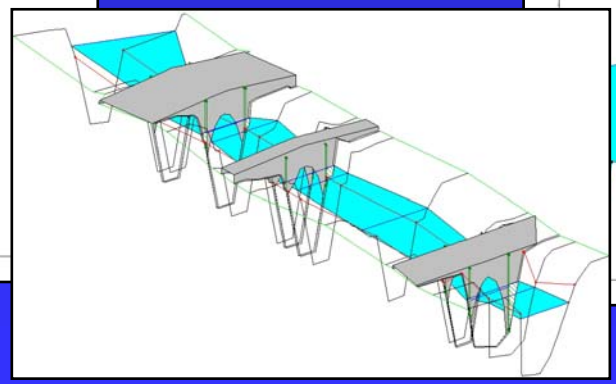


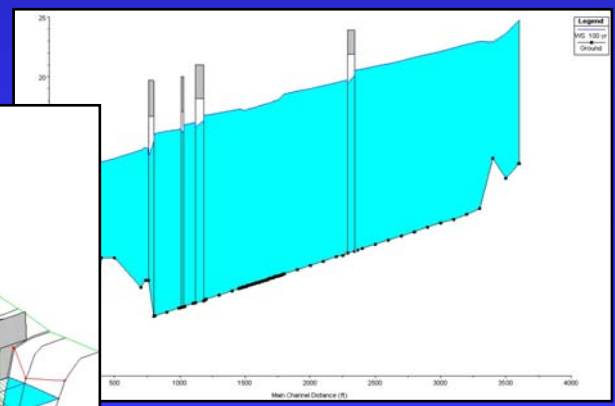
# HEC-RAS – RIVER ANALYSIS SYSTEM

## Program Characteristics:

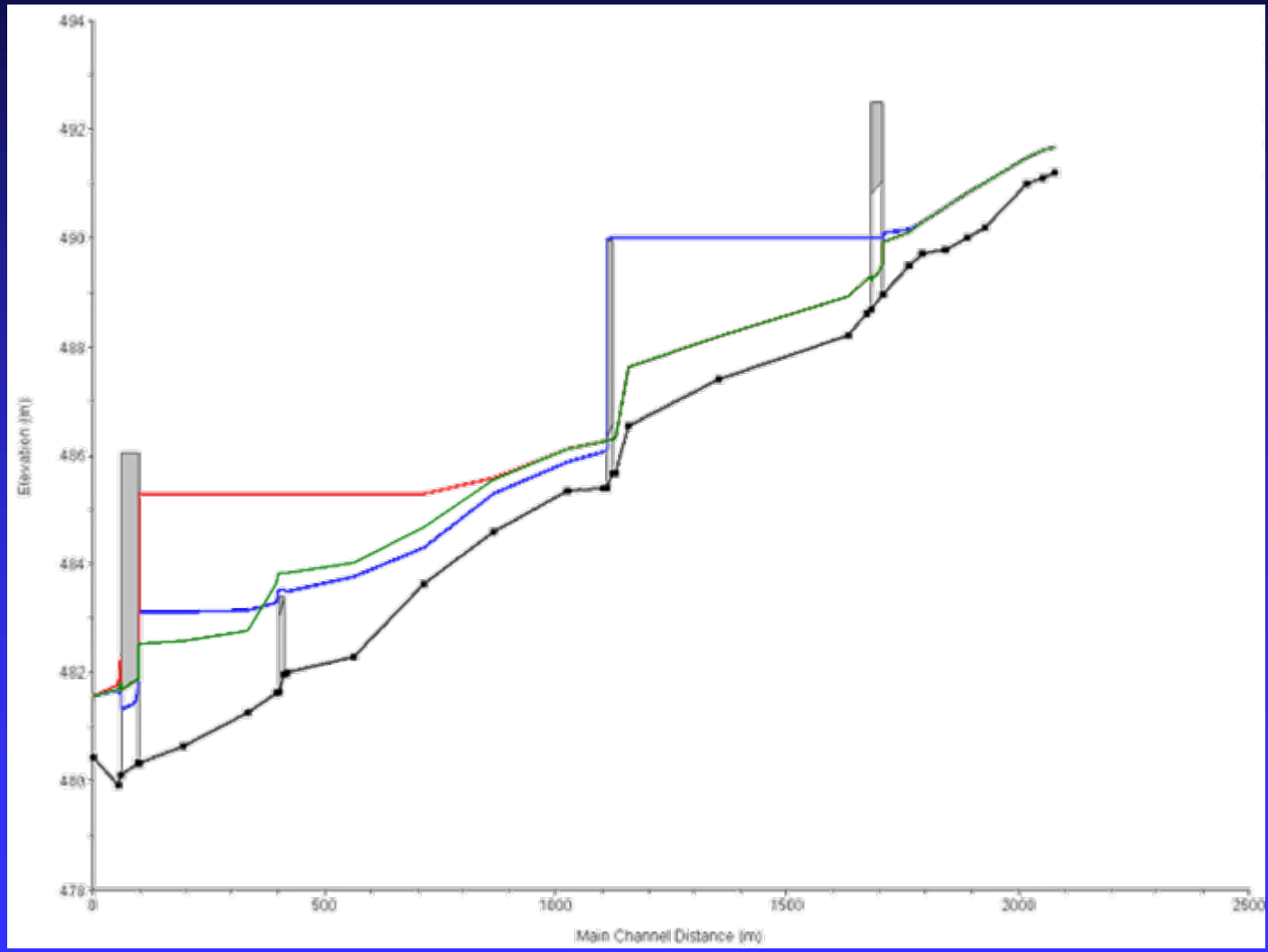
- Graphical User Interface (GUI)
- Steady and unsteady flow water surface profiles
- User-friendly data storage and management
- Presentable graphics and reporting
- Sediment transport computations and water quality analysis (in upcoming version)







# EXAMPLE OF A FLOODPLAIN ANALYSIS PROJECT (cont'd)



# EXAMPLE OF AN EROSION ANALYSIS PROJECT