

# **Planning, Design, and Construction of Storm Water Management Systems**

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## **Abstract**

The application of the principles of hydrology and hydraulics in storm water management systems from a planning, design, and construction standpoint are addressed within this presentation. The basic planning and design approaches employed to develop such storm water systems are presented which includes the incorporation of rural and urban hydrology, floodplain hydraulics, and the design of urban storm drainage facilities such as inlets, storm sewers, and open channels. Also included within this discussion are the elements of flood control and mitigation as well as sediment and pollutant control amenities to these systems.

Particular storm water design and management methods are presented which include conventional and advanced analyses procedures using industry standard computer models as well as next generation technologies. Also presented are the issues of new construction methodologies being employed in these storm water management systems. The basis of this presentation is to bring the theories of hydrology and hydraulics into real applications as are utilized to analyze and solve simple to complex watershed problems.