**Section 375.404 Modeling**

a) If all of the overflow locations to be studied cannot be sampled and monitored, or field conditions were not available through direct field measurement as described in Section 375.403, then other methods, including modeling of section(s) of the study area, shall be required to determine first flush. These methods should be used to:

1) Predict the quality and quantity of loads and concentrations.

2) Identify significant sources.

3) Analyze hydraulics of the tributary system.

b) Data supplied for the modeling must be based on factors particular to a given system or study area and should include:

1) Rainfall data

2) Size of drainage area

3) Land use

4) Population density

5) Hydraulics of area

6) Percentage of combined and/or separate sewers

c) The type of modeling to be used for a given collection system or study area shall be addressed in the Plan of Study for the CSO Analysis. References, such as textbooks, technical papers, etc., for the modeling methods to be used shall be listed.

d) Verification that the model(s) is valid shall be provided by comparing the output obtained from the model(s) with actual sampling and monitoring data from overflow points specified in accordance with Section 375.403 for two or more storms.

(Source: Added at 8 Ill. Reg. 19436, effective September 26, 1984)