This research has applied the Square-Grid Model,a water demand forecasting model, to serviced area of Khon Kaen Waterworks , with the aims are as follow   a.) focusing the use and methodology of the Model b.) analysing the accuracy of the Model and c.) can apply the Model to other communities or other projects which are similar to the study of water demand forecasting.

Three important parameters which will be provided in order to calculate the water demand are 1.)demographic analysis 2.)land use analysis and 3.)water demand evaluation. The mathematical model was created and run on the PC by using a spreadsheet software. Accuracy of the results depending on the assessment of three parameters stated above.

After proceeding,it found that the study area 's water demand forecasted by the Model is different from the demand of the PWA's previous study (1985). Otherwise ,the Model is suitable to use in the large community which is combined of complicated land use.