GIS AIDED UTILITY MANAGEMENT SYSTEM FOR

NATIONAL WATER SUPPLY & DRAINAGE BOARD

P.V.R.U. Ponnawila

Postgraduate Institute of Science

University of Peradeniya

Sri Lanka

The problem identified for the project is the inefficient, time consuming and costly, manual and standalone new water connection process and customer complaint process at National Water Supply and Drainage Board. Procedures and mechanisms used to handle new connection requests are different from location to location. There is no exact method to find connection length and pipe diameter and different tariff methods are used to prepare new connection estimations. Hence there is a need to develop and maintain a better system to eradicate the problems with the current system and to benefit from current technologies available to support the business functions efficiently, accurately and cost effectively.

This project proposes a GIS aided utility management system to address the above problems. The system facilitates the customer to make an online request for new water connection, to make online payments, to see the status of the connection process and to make online complaints. It also supports the staff to respond customers quickly, to analyse feasibility effectively, to calculate estimates accurately and to get MIS reports easily. This project was done adhering to the Rapid Application Development approach which was well suited for this project. The online software is developed using PHP, MySQL, Apache web server and validation technique like JavaScript.

Evaluation and testing of the software was done to validate and verify the system both from engineering and user point of views. The user feedbacks were positive. The system was found to be easy to use and extremely helpful and beneficial over the previously used standalone software components and systems.