

monitoring evaluation of progress towards sustainable systems development and considers that indicators of TQM are powerful decision-making tools. The sustainability is a great challenge to water systems (WSs). The greatest challenges are in the fields of planning and management. With a steep increase in the demand for water, the contemporary management of WSs is committed toward sustainable development of such products. At recent researches reveal that numerous global attempts have been made to the sustainability of WSs. However, water quality concerns have not yet been sufficiently addressed by integrations between operation, maintenance, management with customer satisfaction. Through a point view of industrial engineering, the technique of Quality Function Deployment (QFD) with its application are summarized toward sustainability of water systems performance. This research to detect the sustainability was applied in one of WSs in Ramadi City/Iraq because it is plagued by technical, anthropogenic and environmental driving forces and its performance has fallen below the standard in recent years. The methodology summarizes the process of translating customer needs (CNs) and sustainability factors (F) and into a specific change in Technical Requirements (TRs) or sustainability parameters (P) that are expected to solve WS problems and recommend solutions to the water system manager. This study provides a methodology can making decision to formulated strategic alternatives plans via sustainability factors (Fs) in operation ...