

Abstract

This research attempts to set geographic information system for infrastructure planning, to analyze the adequacy of existing infrastructure and to recommend the guidelines toward infrastructure system setting to suit urban growth in Mueng Tha Khlong Municipality to healthy and sustainable city. The analysis is included the setting of geographic information system for infrastructure planning in transportation system, piped water system, wastewater treatment, garbage disposal and disaster prevention and mitigation system.

The study reveals that land use in Mueng Tha Khlong Municipality exhibited the ribbon development pattern along the major artery-Phahonyothin. Urban structure in the municipality follows the pattern expressed in the sector theory. It was found that the residential area were near the urban center. Comparative study of the urban plan standard reveals that Mueng Tha Khlong Municipality had inadequate land use for transportation resulting in traffic congestion. Service for piped water was low quality. Waste water treatment and garbage disposal were inadequate because the municipality did not have any facilities for both services leading to complaints. Service for disaster prevention and mitigation was found to be inadequate by the residents.

As guidelines for the development of Mueng Tha Khlong Municipality, it is recommended that feeder roads be widened. Such improvement should alleviate traffic congestion. Area for piped water system should be set. Areas for garbage disposal should be set aside and the central waste water treatment should be constructed to lessen the problem of garbage and water pollution and should set minor fire station in risky area.