

# # 417 41900 25: MAJOR URBAN PLANNING

KEYWORD: WASTEWATER/HOUSING SUBDIVISION/MANAGEMENT

ALISA SATTAYAPUNTU: GUIDELINES FOR WASTEWATER MANAGEMENT IN HOUSING  
SUBDIVISION IN BANGKOK.

THESIS ADVISOR: ASSOC.PROF.SAKCHAI KIRINPANU, Ph.D., 194 pp. ISBN 974-03-1009-5

The objectives of the study were as follows: 1) To study the wastewater management in housing subdivision in Bangkok, 2) To evaluate the problems and obstacles of the wastewater management in housing subdivision in Bangkok, and 3) To propose the solutions of the wastewater management in housing subdivision in Bangkok. This study covered 150 cases of housing subdivisions, which are studied mainly through field survey, and questionnaires namely developers or subdivision managers and residents. In addition, interviews had been done with the relevant parties and stakeholders of the neighboring communities' residents affected by the wastewater management of those housing subdivisions. The conceptual framework of this study is based on the wastewater management principles, which focus on the wastewater treatment process in order to obtain standard wastewater as stated by the laws.

This study showed that 43 housing subdivisions are not equipped with wastewater treatment system, whilst 107 subdivisions are equipped. In these 107 subdivisions, 44 are found with only onsite wastewater treatment system, which keeps them from standard wastewater treatment, and 63 provide with central wastewater treatment plant, but most are left un-operated and/or without proper maintenance. Therefore, most wastewater drained from the housing subdivisions is under the legal standard. Such ineffective management has caused water pollution within the housing subdivision and their neighboring communities. This performance has been the main source of germ and insects, and resulting in lacking of sources of clean water for residents' consumption.

The analysis revealed 3 main factors concerning the wastewater management problem. First, most housing subdivisions still lack staff, budget and understanding in wastewater management, which are the key elements to the successful wastewater management for housing subdivisions. Second, the existing laws and measures are uncovered in practicing, monitoring and assessing. Furthermore, the existing landuse regulations lack of the effective elements in controlling the land subdivision activities to respond with the city planning. The failure causes most of the housing subdivisions have been developed in suburban areas that are still lacking of sufficient infrastructure provided by the Government.

In this study, the proposed guidelines for wastewater management in housing subdivisions in Bangkok area are as follows: 1) The subdivision management pattern should be developed in order to have more strength in wastewater management. The local governments should strongly extend their activities in examining and controlling housing subdivisions' wastewater management. In addition, the Government has to revise appropriately by the Land Subdivision Act particularly on the wastewater management. Moreover, the infrastructure plans should be promulgated to control and serve the housing subdivision development and respond with the urban planning 's land use regulation.