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SURACHON GUNVIJIT : FINANCIAL VALUATION OF MAKKASAN SWAMP FOR HYDRAULIC LOADING CAPACITY AND WATER QUALITY IMPROVEMENT (BOD) THESIS ADVISORS: SAYAM ARUNSRIMORAKOT, M.Sc.,KOBKAEW MANOMAIPIBOON,M.Eng.,SANSANEE CHOOWAEW,Ph.D., SUVALUCK SATUMANATPAN, Ph.D. 112 p. ISBN 974-664-625-7

The objective of this study was to estimate financial value for hydraulic loading capacity and water quality improvement of Makkasan swamp by using the preventive expenditure approach to estimate valuation. This approach to valuation of environmental quality can be obtained from empirical data showing a willingness to incur costs for eradicating or reducing adverse effects on the environment. Investment, operating and maintenance costs of a Multi purpose project had two functions: hydraulic loading capacity and water quality improvement, which replaced the ability of Makkasan swamp.

The result of this study demonstrates the financial valuation of benefit from Makkasan swamp that has a present value of 135,867,440.87 baht, 118,567,613.90 baht, and 110,170,621.41 baht at a discount rate of 6.75%, 10.00%, and 12.00% respectively over a 20 year period. The direct use value of Makkasan swamp's function for hydraulic loading capacity and water quality improvement can be defined as the external impact values: damage from flooding, and degrading. Effective measures must be taken to preserve Makkasan swamp because without it, the city of Bangkok will lose its retarding basin and water improvement lagoon.