

# Reconnaissance Study on Saltwater Intrusion Control at Main Raw Water Pumping Station of Metropolitan Waterworks Authority (Thailand)

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**Abstract**— At present, saltwater intrusion in water resource is highly concerned as it could severely affect various sectors such as water utilization, irrigation as well as water supply production process. This study aims to assess the problem of saltwater intrusion in raw water resource of Metropolitan Waterworks Authority (Thailand). In addition, a conceptual framework to handle this crisis was developed based on literature review and revised by the experts for applicability and sustainability of the proposed framework. From study, it can be noted that saltwater intrusion in this case could be effectively controlled by integrating several methods such as water diversion, fresh water discharge, barrage with sluice gates, submerged weir/rubber dam, Abstraction Desalination and Recharge (ADR), and Cutoff wall. Moreover, water resource management should be well considered and applied to overcome such problem.

**Keywords**—Saltwater, Intrusion, Water Supply, Water Resource