Singapore’s Approach to Coastal Protection

Ho Chai Teck | Deputy Director (Master planning and Regulatory Division), Coastal Protection | PUB

As the national water agency, PUB manages Singapore’s water supply, water catchment and used water in an integrated way to ensure a diversified and sustainable supply of water for Singapore with the Four National Taps. Since April 2020, PUB was appointed as the National Coastal Protection Agency and tasked to lead and coordinate whole-of-government efforts to develop long-term strategies to protect Singapore from the threat of rising sea levels.

To strengthen Singapore’s flood resilience against climate change, PUB will address inland flooding and coastal inundation risks together in a holistic manner. A Coastal-Inland Flood Model is being developed to better assess the risks from the combined effects of rainfall, sea level rise, as well as coastal surges and tides. This helps to inform the extent of coastal protection infrastructure that needs to be implemented to protect Singapore against this flood risk due to climate change. As a tiny island surrounded by the sea, land is scarce and Singapore does not have the luxury to explore options such as relocation or retreating further inland. Compounded with the uncertainties in climate projections, including sea level rise, it is imperative that we start planning now as it takes time for Singapore to study suitable and effective adaptation options and for coastal protection measures to be implemented.

This session will provide insights on the key strategies and approaches for coastal protection that PUB will adopt in order to enhance Singapore’s resilience against sea level rise and take this opportunity to reimagine Singapore’s coastline. Aligned with this set of approaches, PUB will embark on site specific studies, develop a Coastal Protection Masterplan and drive research studies to build knowledge and develop local capability in coastal protection.

Mr Ho Chai Teck currently holds the post of Deputy Director (Masterplanning and Regulatory Division) in the Coastal Protection Department at PUB. Chai Teck has more than 20 years of work experience in coastal protection and infrastructure projects, spanning both government and private sectors. He served in several capacities as engineer and project manager, covering planning, design, construction supervision and maintenance operations of major infrastructure as well as land reclamation projects.

Some of the key projects that he handled included the Coastal Adaptation Study, Reclamation and Infrastructure Development at the Southern Islands, Submarine Services Link from Sentosa to the Southern Islands, Shoreline Restoration Project at East Coast Park and foreshore structures maintenance operations.