



Spotlight

Interview with Mr. Manatsawee Nawik
Section Chief Of Water Treatment, Distribution System Design Section
Metropolitan Waterworks Authority (MWA), Thailand.

PUB: Please tell us about yourself and your company / organisation.

Manatsawee: I work for Metropolitan Waterworks Authority (MWA) as section chief of water treatment, distribution system design section. My 16 years of experience started as an operations engineer overseeing construction, leakage control, and pipe maintenance for 8 years. Then, I was promoted to management level in transmission pipe design and moved to my current section 3 years ago. I have two Bachelor degrees in water resources engineering and civil engineering and two Masters degrees in Finance and Geo-technical engineering.

MWA was established on August 16, 1967. Our responsibility is to provide clean water to all customers so as to support the economic growth of Thailand. MWA serves approximately 5 million cubic meters of clean water per day to 10 million people covering 2,418 km² of land area which include Bangkok, Nonthaburi, and Samut Prakan provinces. Additionally, MWA's vision is to be a high-performance water supply organization with excellent corporate governance at international standards. To reach this vision, MWA aims to achieve the following goals;

1. Develop organizational growth and sustainability.
2. Implement Water Safety Plan according to WHO standards by assuring the stability of water resource production and transmission.
3. Deliver professional water supply service to reach and balance stakeholders' needs.
4. Improve people's quality of life by expanding water services and societal responsibility.



Bangkhan water treatment plant in Bangkok, Thailand.

PUB: What are the issues that keep you awake at Metropolitan Waterworks Authority?

Manatsawee: I realised that the world is constantly changing and communities are ever evolving to develop themselves into a society with more efficient connectivity. If one is unable to move with the technological and cultural changes, this will eventually lead to a deterioration in our community. An example of this is when countries globally faced significant economic strain during the Covid-19 pandemic. Many countries had to adapt to this unprecedented situation in order to better the lives of their citizens. By introducing new technology for people to work from home, has become the new normal in order to cope with the pandemic. Thus, societal development is the main issue that keeps me awake at MWA. The fact that we are part of this society, that we are able to drive change in the socio-economic growth of our country and in doing so, the well-being of the people.

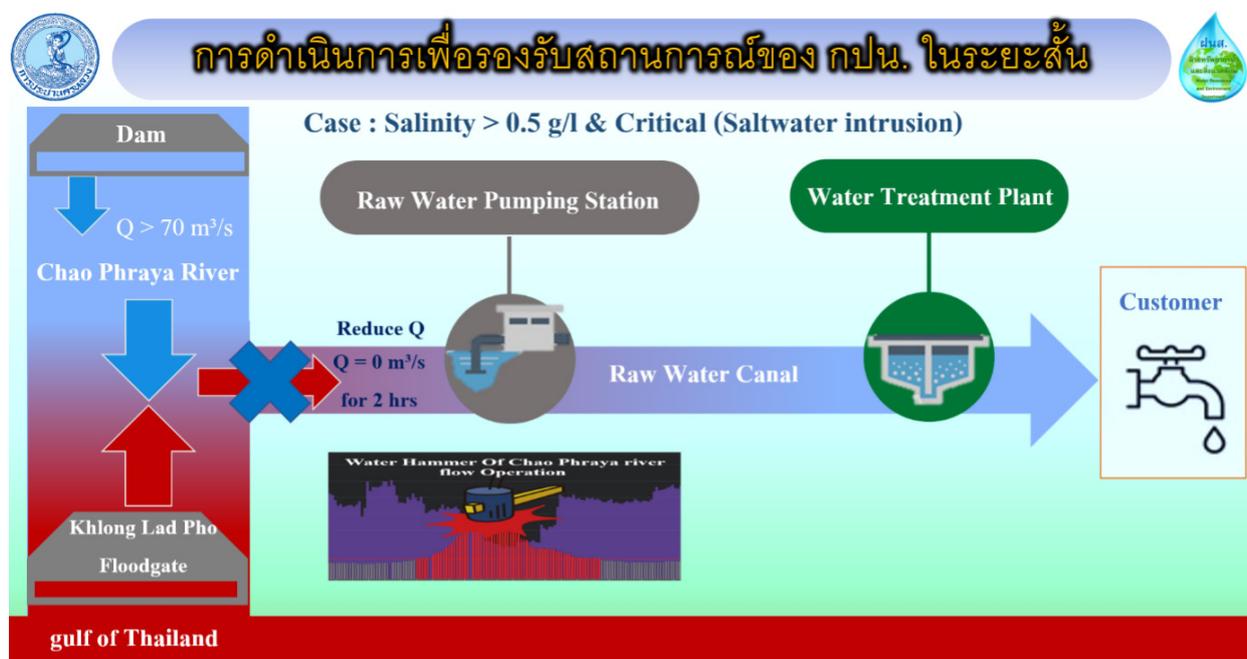


High quality tasks to transfer MWA's value for social development.

PUB: With prolonged period of drought and water scarcity being a global threat that is estimated to hit Thailand hard by 2025, what are some of the initiatives being taken to manage these challenges?

Manatsawee: Over the last 5 years, saltwater intrusions and insufficient raw water are some of the issues that have impacted the MWA. These issues have severely affected the lives of people. For saltwater intrusions, MWA monitors this closely with the use of technology that predicts critical periods of rise in seawater levels, which then informs us on the appropriate raw water flow to the water treatment plant. This innovation collects considerable amounts of data for training and testing of data sets. Artificial Intelligence (AI) technology is able to forecast saltwater intrusion 1 day before its occurrence, and this alerts the pumping station to schedule the raw water pumps ahead of time. For insufficient raw water, MWA has a close collaboration with the irrigation department to increase the flow of raw water from the pumping station in order to keep up with the demand when needed. This partnership is vital as it will have significant impact on agriculture.

MWA has a three layer plan that deals with drought and water scarcity in short, mid and long term durations. The short term plan involves collaboration with the irrigation department in order to maintain water levels in the Chao Phraya River. Mid-term plans can be made with data on raw water intake above the existing pumping station by approximately 50km. For the long-term plan, we aim to prepare feasibility studies to establish MWA's raw water sources.



Short term plan for reducing saltwater intrusion.

PUB: The Singapore Water Academy has a broad alumni network, which presents opportunities to co-create solutions that address the world's water challenges. How can the SgWA alumni collaborate with Metropolitan Waterworks Authority in this regard?

Manatsawee: I am grateful to participate in the course created by the Singapore Water Academy. The knowledge and experiences from the host and participants has impacted my professional perspective. I believe that collaboration with the SgWA alumni, through networking and drawing from their experiences can help to address the world's water challenges. MWA has numerous experts in many water-related fields such as water tariffs, raw water quality management, corporate social responsibility, good governance, and large-scale water treatment management, that are ready to share their expertise with the alumni network. Moreover, we have the internship, seminar, on-the-job training for organizations who signed up for the memorandum of understanding with MWA, and the academic and private sector as well. Finally, I expect MWA will be part of networks that generate effective solutions for water challenges.



Temasek Foundation Water Leadership Programme participants In 2018.