ABOUT THE SINGAPORE WATER STORY
As a small island that does not have natural aquifers and lakes and with little land to collect rainwater, Singapore needs to maximise whatever it can harvest. Driven by a vision of adequacy, reliability and sustainability in water, Singapore has been investing in research and technology. Today, the nation has built a robust, diversified and sustainable water supply from four different sources known as the Four National Taps (water from local catchment areas, imported water, reclaimed water known as NEWater and desalinated water).

By integrating the system and maximising the efficiency of each of the four taps, Singapore has ensured a stable and sustainable water supply capable of supporting the country’s continued growth.

ABOUT THE SINGAPORE WATER ACADEMY
The Singapore Water Academy is a practitioner-focused learning institute in urban water management. Established by PUB, Singapore’s National Water Agency, the Academy enhances capability development for water professionals both locally and internationally.

REGISTER YOUR INTEREST TODAY
For enquiries and course registration, please contact:

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The five-day course provides an in-depth understanding into holistic and sustainable urban stormwater management, and how to integrate stormwater management into urban planning to improve cities’ flood resilience.

Experienced PUB water practitioners will give an overview of Singapore’s approach in managing stormwater, focusing on both drainage planning and operations. International experts will share their experiences on building cities for flood resilience based on case studies from the Netherlands. The course will also highlight the role of Water Sensitive Urban Design (WSUD) for sustainable cities. WSUD is also known as the Active, Beautiful, Clean (ABC) Waters Programme in Singapore.

HIGHLIGHTS OF THE 5-DAYS COURSE INCLUDE:

Singapore’s Approach to Sustainable Urban Stormwater Management
- Overview of PUB’s approach to sustainable stormwater management through an integrated source-pathway-receptor approach.
- Developing regulations and policies for drainage development and leveraging on technology for drainage operations.
- Singapore-based case studies on Singapore River clean-up and Bukit Timah drainage diversion scheme.
- Site visits to various drainage solutions implemented by Singapore, including the Marina Barrage, Singapore’s first reservoir in the city and the Stamford Detention Tank and Division Canal, an innovative drainage solution.
- Flood Information Management System and real-time monitoring of rainfall, water levels and CCTV images for hotspots at the PUB Ops Centre.

Adapting Cities for Flood Resilience — The Netherlands’ Experience
- Flood control policies in the Netherlands – prevention, adaptation and evacuation.
- Holistic approach in developing and managing flood resilience solutions, including storm surge.
- Engaging stakeholders to manage the impact of rising sea levels and climate change, through linking asset management with climate adaptation.

Advances in Hydroinformatics for Catchment Management
- Application of urban drainage modelling tools covering hydraulic, hydrologic and environmental engineering systems to aid in decision making.
- Using GIS-based systems for planning, problem solving and flood risk management.
- The advantages and limitations of different software tools.

Singapore’s Active, Beautiful and Clean (ABC) Waters Programme
- Strategic objective of ABC Waters and the masterplan for implementation in Singapore.
- Encouraging public adoption of ABC Waters concepts, including Singapore-based case studies.
- Site visits to various ABC Waters projects implemented in Singapore, including the iconic Bishan Ang Mo Kio Park, which features a naturalised drainage waterway in parklands, and the Waterway Ridges at Punggol, an ABC Waters residential project.

The Role of Water Sensitive Urban Design for Future Cities
- What makes a water sensitive city, and how to influence policy to implement water sensitive urban designs.
- Integrating landscape and drainage designs, in the form of constructed wetlands, bioretention systems and other approaches.
- Future trends in water sensitive urban design.

WHO WILL BENEFIT
Engineers or scientists with at least 5 years of experience in drainage operations and planning, stormwater management and sustainable urban design.

Course Fee: SGD$2,990.00 (excluding 7% Goods and Services tax)