

## Proposed Programme:

8:30 am • Registration & Breakfast

9:15 am • Opening Remarks by MWA President

9:30 am to 10:30 am • Session 1

Topic: **Benefits of Dam Aeration and Extraction of Water from Inlets of Variable Drawoff Towers**

by **Ir. Chan Chiang Heng, Pioneer Member of MWA**

10:30 am – 10:45 am • Morning Tea Break

10:45 am – 12:15 pm • Continue Session 1

12:15 pm •

Introduction of new book: “Practical Operations of Water Treatment and Dam”  
by author **Ir. Chan Chiang Heng**

12:30 pm – 2:00 pm • Lunch Break

2:00 pm • Session 2

Topic: **Applying Lean Management in Optimisation of Dam Release**  
by **Ir. Hj. Mohmad Asari Daud, Vice President of MWA**

3:00 pm • Session 3

**FORUM on Raw Water Sustainability**

4:00 pm – 4:15 pm • Afternoon Tea Break

4:15 pm – 5:00 pm • Continue Session 3

• Closing / Summary & End

**BEM CPD HOURS  
APPLIED**



## MWA SYMPOSIUM ON WATER RESOURCES MANAGEMENT

Date: 4 October 2018 (Thursday)

Time: 8:30 am – 5:00 pm

Venue: Kota Permai Golf & Country Club,  
Shah Alam, Selangor (Room Danau 3)

**Talks on.....**

**Benefits of Dam Aeration and Extraction of Water from Inlets  
of Variable Drawoff Towers**

**Applying Lean Management in Optimisation of Dam Release**

**Forum on.....**

**Raw Water Sustainability**

What are the main issues ahead of us and what needs to be done?  
Let's look at several perspectives and try to resolve.

**Limited Places. Register Now !!!**

**Registration Fees/Head:**

RM 190.00 (MWA member) / RM 230.00 (non-member)

## INTRODUCTION

This theme is chosen as the country has been having a long period of complacency due to adequate rainfall over the past two years (the last long drought for Klang Valley was in 2012 – 2014 which ended up with rationing in 2014). As we are approaching 2019, we are expecting rain in the coming North East Monsoon. However, the Meteorological Department had warned of the 60% probability of El-Nino phenomenon to happen before the end of the year.

Hence it is vital that MWA members and the industry get together to share experience and lesson learnt from earlier calamities to prepare ahead on any untoward possibilities. Dam water withdrawal and lean management in optimisation dam operations are two subjects chosen for discussion in this Seminar which will be presented by two experienced water engineers.

## THE SPEAKERS



**Ir. Chan Chiang Heng**  
**Pioneer Member of MWA**

Ir. Chan Chiang Heng has been involved in the water industry since 1957. He commenced his career working as a Technical Cadet with the Public Works Department in the construction of the Klang Gates Dam. He qualified as an engineer in 1960 after passing Part I (A and B) and Part II of the Institution of Civil Engineering Examinations (UK). He retired from Government Service in May 1983 as the Director Water Supply, Selangor.

Since June 1986 until December 2012, he worked in the Water Division of the Taliworks Group of Companies fully involved in the Management, Operation and maintenance under the Government Privatisation Policy of portable water treatment of nine (9) Potable Water Treatment Plants and four (4) dams in the state of Selangor, Negeri Sembilan and Kedah.

Moderator & Panel Members  
(to be confirmed)



**Ir. Hj. Mohmad Asari Daud**  
**Vice President of MWA**

Ir. Hj. Mohmad Asari Daud graduated in Bachelor of Engineering with Honours from UTM in 1984 and later he obtained M.Sc. (Supply Chain Management) from University of Liverpool in 2014. Ir. Asari specialised in water resources and water supply at several capacities - consultant, constructor, trainer and activist. He was involved in assessment, trouble-shooting, problem-solving, refurbishment, upgrading, capacity building and managing of water supply systems in Malaysia.

Ir. Asari is currently the Vice President of the Malaysian Water Association. He is a Fellow of the Institution of Engineers Malaysia, Registered Professional Engineer with the Board of Engineers Malaysia, Registered Industry Expert, Registered NOSS Panel and Associate of Academy of Sciences Malaysia. He specialised in lean management, water resources, treatment, distribution and NRW management and had experience in conducting hands-on training at several water companies in Malaysia, Brunei, Philippines and Indonesia.

## Benefits of Aeration of Dam and Extraction of Water from Inlets of Variable Drawoff Tower

It is observed there are many dams constructed before 1957 and a few after 1957 has water impounded in the dam but not abstracted for treatment due to deteriorating water quality and / or lacking in treatment facilities. This deterioration in water quality is caused by stratification in the impounded water.

As raw water source is getting scarce and further aggravated by climatic changes every effort has to be made to make use of whatever water impounded in the dam as far as possible.

The presentation highlights two proven solutions namely the introduction of diffused air aeration system to eliminate stratification formed initially and when necessarily subsequently. The other solution is the introduction of a variable drawoff tower to facilitate the abstraction of water quality amiable to treatment at selected depth.

The objectives of the presentation are to enable participants derive the following benefits:

- Possibilities to improve on the water quality of impounded water
- Advantages in abstracting water from the most appropriate layer
- To enable the usage of maximum volume of impounded water at anytime for treatment
- To treat impounded water as economical as possible since water quality has direct impact on treatment costs.

## DISCUSSION TOPICS

### Raw Water Sustainability

Deforestation and land clearing in a developing nation is unavoidable and encroachment into water catchment has resulted to deterioration of raw water quality and reduced availability of water in rivers. Flash flood and high stormwater with less retention had affected river yield. Dams were built to support the recurring dry spell based on historical data which however had changed over time. Severe dry and wet spells due to climate change, urban warming and low retention in the ground had created new challenges among water users. What are the main issues ahead of us and what need to be done? Lets look at several perspectives and try to resolve.



## Applying Lean Management in Optimisation of Dam Release

Lean technique has been well accepted in manufacturing but has not made substantial inroads in water related industry. Lean approach offers a well-coordinated, cost effective and fast result through initiatives focussed at eliminating wastes. With the unprecedented fast dropping water level in the Sungai Selangor and Sungai Tinggi dams in early 2014, the state authorities looked intensely into measures to reduce losses and stretched the sources to avoid water crisis once the water level in the dams dropped below the critical level.

In pursuing with mitigation plans, the qualitative and quantitative levels of the alternative option of water source are pre-requisite. Technical limitations in abstraction of water were overcome through innovative regulating off-bank abstraction system.

The implementation of lean source of water had survived Selangor river basin water treatment plants for the dry period of northwest monsoon which would have been in catastrophe should the water treatment plants depended solely on the water availability in the dams in Malaysia.

### Who Should Attend ?

Policy makers and planners, engineering consultants, water resources professionals, water & wastewater managers and operators, regulators, fund managers, contractors, equipment suppliers, academician and graduate students

**MWA SYMPOSIUM ON  
WATER RESOURCES MANAGEMENT**

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Time: 8:30 am – 5:00 pm

Venue: Kota Permai Golf & Country Club, Shah Alam, Selangor

**Registration Fees/Head:**

RM 190.00 (MWA member)

RM 230.00 (non-member)

**REGISTRATION FORM**

(deadline with payments before/by 3 October 2018)

I/We, hereby confirmed the registration for the followings:

**A. PARTICIPANTS DETAILS**

Participant 1:

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

E-mail: \_\_\_\_\_

Participant 2:

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

E-mail: \_\_\_\_\_

Participant 3:

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

E-mail: \_\_\_\_\_

For enquiries/registration: MWA Secretariat  
Tel: 03 6201 2250 / 6201 9521 Fax: 03 6201 5801

Registration – En. Johari ([johari@mwa.org.my](mailto:johari@mwa.org.my)) / En. Hakim ([hakim@mwa.org.my](mailto:hakim@mwa.org.my))  
Billing – Ms. Caroline ([caroline@mwa.org.my](mailto:caroline@mwa.org.my)) / Ms. Emi ([emi@mwa.org.my](mailto:emi@mwa.org.my))

Organisation & Address: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Contact Person: \_\_\_\_\_

E-mail: \_\_\_\_\_

**B. PAYMENT DETAILS**

Enclosed herewith payment by cheques/Local Order \_\_\_\_\_

For the amount of RM\_\_\_\_\_.

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Authorised Signature

Date & Org. Stamp

**Important Notes:**

1. Participations are confirmed upon received of full payments.
2. All registration fees are to be paid before the event.
3. No cancellation of participations but substitutions are allowed.
4. Local Order (LO) is applicable to Government agencies.
5. Participants are entitled for presentation materials, F&B and certificate of participation & BEM CPD Hours (subject to full attendance).
6. Transportation and hotel accommodation are by own arrangements.