

भारत सरकार
केन्द्रीय जल आयोग
राष्ट्रीय जल अकादमी



Government of India
Central Water Commission
National Water Academy

पत्रांक: A-33022/32-II /2011-NWA/

दिनांक : 12 September 2011

SS/2-5451

प्रति

The Director, Software Management
Central Water Commission
Room No. 618 (S)
Sewa Bhawan, R K Puram
New Delhi-110 066

विषय: राष्ट्रीय जल अकादमी, पुणे में **“Hydrological Review of Existing Projects”** विषय पर प्रशिक्षण कार्यक्रम का आयोजन।

महोदय/ महोदया,

राष्ट्रीय जल अकादमी में **14-18 November 2011** के दौरान **“Hydrological Review of Existing Projects”** विषय पर प्रशिक्षण कार्यक्रम का आयोजन किया जा रहा है। इस कार्यक्रम संबंधी प्रमुख बिन्दुएँ पृष्ठांकित (overleaf) हैं। विस्तृत ब्योरा सहित कार्यक्रम विवरणिका (Program Brochure) भी संलग्न है।

अनुरोध है कि संलग्नक में दिए गए स्तर के अधिकारियों को इस कार्यक्रम से लाभ उठाने हेतु यथा शीघ्र नामित करने का कष्ट करें। केन्द्रीय एवं राज्य सरकारों के विभागों के अधिकारियों के लिए इस प्रशिक्षण कार्यक्रम में भाग लेने हेतु कोई भी प्रोग्राम शुल्क नहीं है। अन्य एजेन्सियों / वर्गों के अधिकारियों के लिए प्रोग्राम शुल्क की जानकारी संलग्न विवरणिका (also available at our website) में दी गई है।

भवदीय,

संलग्न: यथोपरि

PTO for salient points in English

अनूप कुमार श्रीवास्तव
निदेशक

भारत सरकार
केन्द्रीय जल आयोग
राष्ट्रीय जल अकादमी



Government of India
Central Water Commission
National Water Academy

NO.A-33022/32-II/2011-NWA/

Dated : 12 September 2011

To,
The Director, Software Management
Central Water Commission
Room No. 618 (S)
Sewa Bhawan, R K Puram
New Delhi-110 066

Sub: Training Program on "Hydrological Review of Existing Projects" at NWA, Pune during 14-18 November 2011 – Call of Nominations – reg.

Sir/Madam,

The National Water Academy is organizing a training program on "Hydrological Review of Existing Projects" at NWA Pune during 14-18 November 2011. As the title of the program suggests, the program lays stress on understanding the factors that constantly influence the catchment characteristics and therefore its response; quantifying the magnitude of altered response of catchment and utilizing this information in re-adjustment of operational plan of structures in order to safeguard it against possible failure or optimize the benefit, as per the case on ground. The topics identified for the programs are presented below in brief:

- Elementary knowledge of statistics, & its application in Flood Frequency analysis; Mean, St Deviation, Skewness, Empirical vs. Theoretical Distribution Functions, Confidence Bands, Expected Probability, How to deal with Outlier, fitting a curve using HEC-SSP software, measuring the Strength of best fit distribution curve etc;
- Concept of developing hydrological models for a basin/sub-basin using HEC-HMS; and its application in computing PMF and routing a flood across structures, consideration of auxiliary spillway, etc.;
- Introduction to dynamic routing techniques and HEC-RAS; and applying this knowledge to carry out dam break analysis;
- Reservoir sedimentation studies and its likely impact over the structure and its operation;
- Creation of no-break discharge series for use in hydrological and hydraulic analyses.

The program has been designed to train a group of 25 officers. Accordingly, the NWA requests to nominate 2-3 officers of your organization, who are involved in the process and keen to attend the program, by not later than 25th October 2011. The NWA confirms the nominations on first-cum-first basis (provided the officer (s) is/are eligible for the program) and therefore timely action on the part willing agency is called for to ensure participation. A list of approved nominations will be placed on the NWA website under the link http://nwa.mah.nic.in/upcoming_events.html on 26th October 2011 and no further confirmation in letter will be dashed off.

There is no program fee for government officials. For participants of non-Govt organizations, it is advised to visit webpage: <http://nwa.mah.nic.in/participation.html> to seek fee structures and the manner payment is to be made to the Academy.

Encl : As above

Yours faithfully,

A K Srivastava
Director

NATIONAL WATER ACADEMY, PUNE

Training Program on Hydrological Review of Existing Projects (14 – 18 November 2011)

REGISTRATION FORM

Name* (In Capitals): _____
Post Held: _____
Organization: _____
Nature of Work: _____
Date of Birth: _____
Full Postal Address*: _____

Telephone Nos: _____
(with STD Code)
Fax No. (with STD Code): _____
Mobile*: _____
E-mail*: _____
* - Mandatory field

(Signature of the participant)

Date: _____

SPONSORING AUTHORITY

Full Postal Address: _____

Telephone Nos: _____
(with STD Code)
Fax No. (with STD Code): _____
Mobile: _____
E-mail: _____

Date: _____ (Signature & Seal)

Completed Registration Form may be sent by
Fax to :020-24380110

NWA IN BRIEF

National Water Academy (formerly known as Central Training Unit) was set up in Central Water Commission by the Ministry of Water Resources, Govt. of India in the year 1988 to impart training to the in-service engineers of various Central/State Organizations involved in the Development and Management of Water Resources. It was established under USAID assistance and strengthened with the subsequent assistance received from the World Bank.

The NWA is headed by a Chief Engineer. The core faculty comprises eight CWC officers who have gathered enough experience in the management of Water Resources Development. The guest faculty comprises academicians and scientists of eminence from premier Research Centers as well as practicing professionals and specialists drawn from other organizations and agencies. All the year round, NWA hosts training programs on multiple topics quite beneficial to practicing engineers. Additionally, it organizes a few courses at client location on deposit work basis. This aside, NWA also conducts 14-week duration Induction Training Programme for the newly recruited Asst. Directors of CWC belonging to Central Water Engineering Services (Group A) on a regular basis.

NWA offers adequate facilities to trainee officers such as computers, library, accommodation, boarding and indoor games facilities within the campus.

For more info visit our website at:
<http://nwa.mah.nic.in>



GOVERNMENT OF INDIA
MINISTRY OF WATER RESOURCES
CENTRAL WATER COMMISSION



TRAINING PROGRAM
ON
HYDROLOGICAL REVIEW OF EXISTING PROJECTS
(14 – 18 November 2011)

Organized by

NATIONAL WATER ACADEMY
PUNE – SINHGAD ROAD,
KHADAKWASLA
PUNE – 411 024

INTRODUCTION

Upland catchment of any hydraulics structure undergoes continual changes for variety of interventions such as human settlements, industrial development etc. This brings about a new land-use pattern partially or fully different since the time the existing project was designed and executed. A gradual change of this nature alters the catchment response which is usually manifested in a peaky inflow hydrograph. A number of other factors such as change in rainfall pattern over the catchment, reservoir sedimentation, aggradation of river bed, diversion of river water too govern the shape of approaching hydrograph. This claims hydrological review of the existing projects in order to safeguard the structures itself in addition to settlements in the downstream reaches against any possible capacity exceedance.

Hydrological review involves revisiting of estimation of PMF in view of rainfall-runoff study based on data availability in recent past, rate of sedimentation and its likely impact over the structure, re-determination of the adequacy of spillway capacity, dam break analysis and a few more. A fresh assessment on these lines helps project engineers take appropriate measures to thwart potential risk to the people downstream of the project or readjust their strategy to maximize net benefits.

Above in view, the course has been designed to touch every aspect, that impact the structural safety, by way of a series of lecture sessions about design flood estimation, sedimentation studies, flood frequency analysis, flood and reservoir routing, reassessment of the need of auxiliary spillway etc. Simultaneously, the participants will be familiarized with a number of soft tools in order to reach findings in all aspects as outlined above.

PROGRAM CONTENTS

The training schedule is designed in two parts viz. lectures and hands-on. This arrangement chiefly lay emphasis on following topics:

- Elementary knowledge of statistics, & its application in Flood Frequency analysis;
 - Mean, St Deviation, Skewness, Empirical vs. Theoretical Distribution Functions, Confidence Bands, Expected Probability, How to deal with Outlier, fitting a curve using HEC-SSP software, measuring the Strength of best fit distribution curve etc;
- Concept of developing hydrological models for a basin/sub-basin using HEC-HMS; and its application in computing PMF and routing a flood across structures, consideration of auxiliary spillway, etc.;
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- Reservoir sedimentation studies and its likely impact over the structure and its operation;
- Creation of no-break discharge series for use in hydrological and hydraulic analyses.

TARGET GROUP

The training course is designed to raise the skill of officers of Central and State Govt. agencies in the rank of Scientific Assistants/ EADs/ AE/ AEE/ EE/SE or equivalent involved in course related activities. **This program is also open for officers of non-Govt sector on payment basis. For more details, kindly visit NWA website.**

FACULTY

Core faculty of NWA and officers of CWC will handle sessions.

VENUE

The course will be conducted at NWA Campus, Pune. The NWA is on the Pune-Sinhagad Road roughly four km ahead of Khadakwasla dam. It is 10 km south-west of Pune Railway Station and about 30 km from Pune Airport.

LODGING AND BOARDING

All participants would be accommodated in Godavari guest house located on the opposite sides of the Academy. Lodging and Boarding is available at nominal cost on payment basis. ***The participants need to make their own transport arrangements to and fro between NWA and Airport/Railway Station/Bus Stand etc.***

WEATHER

Pune is known for high daily fluctuation in temperature. This part of the year, day temperature of Pune is around 30°C while night temperature touches 15°C or even below.

CONFIRMATION OF PARTICIPATION

The nomination of the trainee officers may be sent to A K Srivastava, Director latest by 25th of October 2011. The nominated officers are advised to set out for NWA only on confirmation of their nominations, which will be available on our website: http://nwa.mah.nic.in/upcoming_events.html on 26th of October 2011. Pl note that the NWA will not confirm the participation in letter and list appearing on this web-page on due date should be taken as our 'Confirmed List'.

PROGRAM COORDINATOR

A K Srivastava, Director, NWA

Phone: 020-24380296 (O)/9860423238

Fax : 020- 24380110

e-mail: nwa.mah@nic.in or

asrivastava358@gmail.com

webpage: <http://nwa.mah.nic.in/>