

NATIONAL WATER ACADEMY, PUNE

**Training-cum-Workshop on
"Fish Pass Design"
21-22 February, 2018
*REGISTRATION FORM***

Name (in capitals): _____

Designation: _____

Organization: _____

Responsibilities (in brief): _____

Full Postal Address: _____

Tel Nos. (with STD Code) : _____

Fax No: _____ Mobile : _____

E-mail: _____

Whether accommodation required in NWA Guesthouse ? YES / NO

Date _____ (Signature of the participant)

SPONSORING AUTHORITY

Full Postal Address: _____

Tel Nos. (with STD Code) : _____

Fax No: _____ Mobile : _____

E-mail: _____

Date _____ (Signature and Seal)

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



सत्यमेव जयते

**Government of India
Ministry of Water Resources,
River Development & Ganga Rejuvenation
Central Water Commission**



**Training-cum-Workshop on
Fish Pass Design
21-22 February, 2018**

**Organised by
National Water Academy
Pune**

INTRODUCTION AND OBJECTIVES

In India over 5,000 large dams have been constructed for various uses including irrigation, flood control, navigation and hydroelectric power generation. These dams provide the society with substantial benefits, but if poorly planned, designed or operated, they can also have adverse impact for the ecological health of rivers and the economic and social well-being of communities dependent upon the goods and services provided by healthy rivers. As the number of dams continue to increase, so too has concerns for their effects on fish populations. One of the most obvious and immediate effects when a water resources structure is constructed is the prevention of the longitudinal migration of fishes.

Any artificial obstruction which prevents the free passage of migratory fish to and from their spawning ground is naturally detrimental to fisheries, as it is bound to materially reduce or even prevent the propagation and perpetuation of stock by the loss of upstream spawning and rearing grounds. Migratory species are particularly affected by dams and other obstructions on water courses if they are unable to reach their spawning grounds, may become extinct ultimately. In this background, the role of fish passages are paramount for maintaining sustainable riverine fish population. Thus, it is important to provide the fish passage to allow free movement of fishes on various water resources structures. It is essential that designers of Water Resources Structures also have knowledge about the mechanism of fish pass, design of fish pass, efficacy of fish pass under Indian conditions etc. Indeed, Capacity Building of Indian Professionals in Ecological, Hydrological, Hydraulic and Structural aspects of Fish Ladder design is very much important for longitudinal connectivity of rivers.

The NWA conducts training programs for Engineers from Central / State/ Public Sector Undertakings/ Private Organizations on design aspects of Water Resources Structures like Dams, Barrages, Weirs, Canal Network etc. In its efforts to build the capacity of concerned designers in understanding the mechanism of fish pass, design of fish pass, efficacy of fish pass under Indian conditions etc., NWA is proposing to conduct a two day workshop on Design of fish passes.

PROGRAM CONTENTS

The program will comprise of classroom sessions, case studies and discussions and will cover the following topics:

- Status of Fish Pass in India – History, Present and Future Plans
- Role of Hydrology, Hydraulics in Designing of Fish Pass – case studies from Indian Rivers
- Fish Pass Design at Cross River obstacles
- Swimming and orientation behavior of fishes in upstream direction
- Common types of fish ways – examples of well functioning of fish pass – an overview
- Maintenance of Fish Ways
- General Design of fish pass, fish lock in Farraka Barrage – experience
- Fish lifts and fish sluice; General hydraulic design;
- Technical details (design of intakes, outlets and lighting conditions)
- Open house discussion

PROGRAM FEE

There is **no program fee** for participants from **Central and State Govt. departments**. Charges for participants from other categories are:

| Category | Description | Fee in Rs. (per participant) |
|----------|--|------------------------------|
| A. | Central/State/Local Government Depts. including their autonomous bodies: | Nil |
| B. | 'Not for Profit' Central and State PSUs | Nil |
| C. | Recognized academic institutions, NGOs | 600/- |
| D. | Central and State Public Sector Undertakings | 4000/- |
| E. | Private Companies, individuals | 6000/- |

Discounts applicable : (a) 50% for PSUs of MoWR i.e. WAPCOS & NPCC (no group discount); (b) For others – 20% discount for 3-4 participants; 30% discount for 5 or more participants from the same organization. For modalities in respect of payment of fee, please refer to our website or contact the Program Coordinator.

RESOURCE PERSONS

The resource persons for the program would be subject experts, Retired Officers and Eminent persons.

DURATION

21-22 February 2018. The participants are expected to reach NWA by the evening of 20 February 2018 and should plan to leave only after 1800 Hrs. of 22 February 2018.

VENUE

National Water Academy, Khadakwasla, Sinhagad Road, Pune-411 024.

TARGET GROUP

Officials in the rank of SE/EE/AEE etc. who are involved in Design, Construction & maintenance of Water Resources Structures from the various Central/State/PSU/Academic Organisations etc..

PARTICIPATION

The nomination of the officers fitting the target profile may be sent to the Program Director latest by **15 Feb 2018** The nominated officers are requested to start for the program **only after** confirmation of their nomination. The accepted nominations will be displayed on NWA's website on **16 Feb 2018**.

LOCAL HOSPITALITY

NWA has a self-contained residential campus, and all out-station participants would be provided with lodging and boarding in the campus, to be borne by participants themselves. Local pickup/drop will have to be arranged by the participants.

WEATHER

During the month of November the average temperature of Pune may be around 25°C varying around with occasional rainfall.

CONTACT

For **sending nominations** or for any information, please contact:

Shri D S Chaskar,

Director – Designs & Program Co-ordinator

National Water Academy, CWC, Khadakwasla, Sinhagad Road, Pune – 411 024

Tel: 020 – 24381212/24380678, Fax: 020-24380110

E-mail: dschaskar@yahoo.com ; nwa.mah@nic.in

(for more info on NWA, visit <http://nwa.mah.nic.in>)