सत्यमेव जयते

Government of Maharashtra
Water Resources Department

Citizen Charter

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HP

Chief Engineer,

Hydrology & Dam Safety, Nashik

1. Preamble:

Under National Hydrology Project with financial aid of World Bank, Office of Chief Engineer, Hydrology Project, Nashik has been established with Maharashtra Government Resolution dated on 14/06/1996 for collecting Hydrometeorological Data relevant to Surface Water. This office has renamed as 'Chief Engineer, Planning & Hydrology' as per Maharashtra Government Resolution dated on 12/10/2010 in Official Restructuring. As per Maharashtra Government Resolution dated on 14/01/2015, Circle of 'Dam Safety Organisation (Along-with Instrumentation Research Division) is attached to 'Chief Engineer, Planning & Hydrology'. As per Maharashtra Government Resolution dated on 17/09/2020, this office has been renamed as 'Chief Engineer, Hydrology & Dam Safety'.

In Maharashtra, a total of 2059 large dams of various types (concrete, masonry and Earthen dams etc.) and the dams under construction are 283 with a total of 2342 dams. Important villages and towns are situated along the banks of these rivers. Therefore, in order to ensure the safety of the big dams in Maharashtra state and to avoid the possibility of loss of life and property on the downstream of dam, Dam Observatory, Nasik was established on 10/09/1980 and later in March 1985, the dam observatory was renamed as a Dam Safety Organization as a circle and from 01/01/2003 a division for canal and canal structure inspection established.

2. Objectives :

The prime objective of Hydrology Project is to develop and implement a sustainable Hydrological Information System (HIS) through improvement and strengthening the infrastructure of Hydro-meteorological stations, training extensively the personnel involved and computerization of the data for meaningful analysis and dissemination to the users.

Objectives of Hydrology Project Phase-I (HP-I)

- Using advanced techniques and equipments for basic data measurement & collection.
- Computerized data entry validation of Hydrometeorological & water quality data with use of softwares like SWDES & HYMOS. analysis.
- Easy and friendly user data dissemination of Hydrometeorological & water quality data.
- To enhance publication and access of information to eligible data user i.e. hydrology data users group members.
- Upgradation of Hydrometeorological stations network and water quality laboratories.
- Planning of the water resources and its relevant usage.
- Evaluation of basic water resources and developmental works.
- Strengthening of flood controlling system.
- Sedimentation survey of reservoirs.

Objectives of Hydrology Project Phase-II (HP-II)

- To extend and promote sustained and effective use of Hydrological information system by all potential users concerned with planning and management of water resources.
- To improve productivity in the cost effectiveness of water related investments in the state/central agencies.

Objectives of Hydrology Project (National Hydrology Project)

- Maintenance and Upgradation will be provided to Existing Hydromet Network already established in Hydrology Project Phase-I and Hydrology Project Phase-II.
- Real Time Data Acquisition System which was developed for Krishna-Bhima Basin in Hydrology Project Phase-II shall be implemented for Panchganga Sub-basin in National Hydrology Project.
- Real Time Data Acquisition System and Application Software development for rest of Maharashtra including Godavari Basin, Tapi Basin, Vidarbha Vainganga Basin andWest Flowing Rivers (Partly) is proposed in National Hydrology Project.

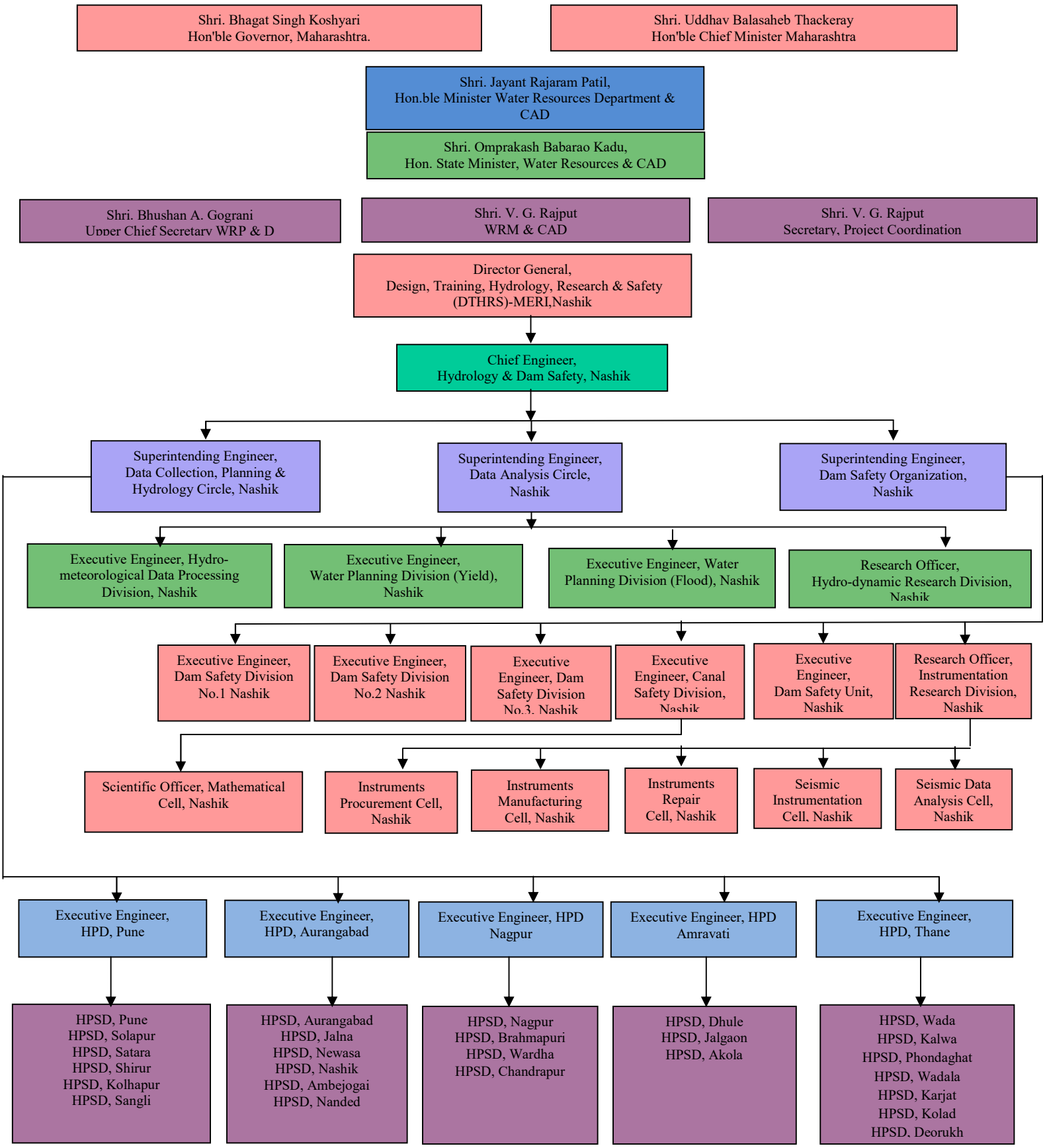
Objectives of Dam Safety Circle:

- Assist field offices in identifying causes of potential distress in dams .
- Perform a coordinative and advisory role regarding dam safety for field offices in the state .
- Lay down guidelines, compile technical literature, organize trainings,etc.
- Create awareness in the state about dam safety.

3. Vision :

To achieve and maintain top position in India in Hydrological Information System (HIS) and to strive to become an organization with identity of excellence, built through quality leadership and positive healthy and improved work culture; engaging in collection, processing and dissemination of quality and cost-effective Hydrometeorological data and water quality data; satisfying competing users' needs, and ensuring easy and timely accessibility of data to users of all categories and helping the state in formulation of widely acceptable water – use policy, for achieving optimal use of water.

4. Organization Chart for Chief Engineer, Hydrology & Dam Safety, Nashik



5. Working Profile:

There are Three Circle Offices working under office of Chief Engineer, Hydrology & Dam Safety, Nashik

- Superintending Engineer, Data Collection, Planning and Hydrology Circle, Nashik
- Superintending Engineer, Data Analysis Circle, Nashik and
- Superintending Engineer, Dam Safety Organisation Circle Nashik

5.1 Superintending Engineer, Data Collection, Planning and Hydrology Circle, Nashik

Five divisional offices are under the control of this office. The headquarter of these division offices are situated at Pune, Aurangabad, Amravati, Nagpur and Thane.

1. Hydrology Project Division, Pune (Krishna & Bhima Basin)
2. Hydrology Project Division, Aurangabad (Upper Godavari Basin)
3. Hydrology Project Division, Amaravati (Tapi & Purna Basin)
4. Hydrology Project Division, Nagpur (Lower Godavari & Painganga Basin)
5. Hydrology Project Division, Thane (West Word Flowing Rivers of Kokan region)

The Hydrology Project Division namely Pune, Aurangabad, Amaravati, Nagpur, Thane are entrusted with the work of collection of Hydro Meteorological data, WQ and sediment data, Validation and thereafter transfer the same to the State Data Processing Centre i.e. HDPD, Nashik for final Validation, Dissemination further publicity of the data.

Following table shows the information of Data Collection Stations under jurisdiction of Data Collection, Planning & Hydrology Project Circle, Nashik.

Table – 1 (Details of Conventional Stations under HP)

Sr.No.	Station Type	Commissioned Stations
1	Standard Rainguage Stations	589
2	Automatic Rainguage Stations	346
3	Full Climatic Stations	152
4	River Guaging Stations	253
5	Water Quality Lab Level-II	06
6	Water Quality Sampling Locations	130

Method of Data Collection at Hydrometeorological Stations under Jurisdictions of Hydrology Project.

- Rainfall – Hourly (Autographic Standard Raingauge Station), Twice Daily (Standard Raingauge Station)
- Maximum & Minimum Temperature – Twice Daily
- Dry & Wet Temperature – Twice Daily
- Evaporation - Twice Daily
- Relative Humidity - Twice Daily
- Wind Speed - Twice Daily
- Wind Direction - Twice Daily
- Sunshine Duration – Hourly

Water Quality:

Excellent Quality Water is required for Farm, industries and Drinking. Hence Water Quality is checked at these Labs. There are total Six Water Quality Labs working under Hydrology Project including Nagpur, Aurangabad, Nashik, Thane, Kolhapur & Pune WQ Labs.

National Hydrology Project (NHP) –

After the completion of the work of Hydrology Project phase-II, the work National Hydrology Project phase-II funded by the World Bank and Central Government has been proposed by the Ministry of Water Resources, New Delhi. The Project has duration of 8 years, the scope of the project covers the whole country.

Under this project, conversion of Tapi, Godawari (Marathwada & Vidarbha), Konkan, Partially Krishna Basin (Which was not included in Hydrology Project- Phase-II). Raingauge, FCS, GD & Reservoir Gate sensors to be installed to have Real Time Data Acquisition System (RTDAS).

Updating the Water Quality labs level- II

Construction of newly proposed Water Quality Lab at Jalgaon, Updation of existing Water Quality Labs. to arrange various experts advisors for project development and monitoring, regional and technical manpower required for water quality lab and data collection etc. includes in this project.

Proposed Network in NHP –

The proposed Real Time Data Acquisition System under National Hydrology Project and Existing Manual Hydromet stations network for River Basins in Maharashtra (SW) is as under.

Table – 2 (Details of Proposed Network in NHP)

Sr. No.	Basin	ARS	AWS	AWLR – River	AWLR – Dam	E-Pan	Spillway Gate sensors/ Dam	Total	Remark
01	**Godavari**	142	8	28	93	28	577/50	299	Proposed
02	**Tapi**	97	6	19	36	6	171/16	180	Proposed
03	**Krishna**	127	39	37	46	0	171/26	249	Working
		18	1	6	8	18	72/10	61	Proposed
04	**Konkan**	39	2	16	3	3	11/3	63	Proposed

5.2 Superintending Engineer, Data Analysis Circle, Nashik
Total Four Divisions are working under this Data Analysis Circle

1. Executive Engineer, Hydrometeorological Data Processing Division, Nashik
2. Executive Engineer, Water Planning Division (Yield), Nashik
3. Executive Engineer, Water Planning Division (Flood), Nashik
4. Research Officer, Hydro-dynamic Research Division No.1, Nashik

Brief Work Description under each division is as follows;

A. Executive Engineer, Hydrometeorological Data Processing Division, Nashik

Final Validation of Hydrometeorological Data of Upper Godavari Basin, Lower Godavari Basin, Tapi Basin, Konkan Basin and Krishna-Bhima Basin is carried out using Computer Software – **'SWDES' & 'HYMOS'**. This validated data is sent to State Data Storage Centre, Nashik for Dissemination purpose through Computer Software – **'WISDOM'**. Consolidation of Water Quality Data is done in SWDES. Website of Chief Engineer, Hydrology & Dam Safety, Nashik is maintained, State Chapter of India-WRIS is to be developed under National Hydrology Project (NHP), HDUG Membership registration and renewation is also carried out, Dissemination of Hydrometeorological and Water Quality Data to HDUG Members, overall management of Water Information Management System (WIMS) is being done through this division, All training under NHP are being arranged, Water Year Book are published, etc works are carried out in this division.

B. Executive Engineer, Water Planning Division (Yield), Nashik

Yield study at Project site, Water availability study and Hydrological study for proposed projects in different basins of Maharashtra, Checking of Hydrological study of Sub basin wise Integrated State Water Plans,SLTAC-Hydrological checking of Administrative Approval/ Revised Administrative Approval Proposals, etc works are being done in this division.

C. Executive Engineer, Water Planning Division (Flood), Nashik

Flood study of all Major and Medium projects in Maharashtra, Simulation Study of projects, To impart training on Flood Line Marking to all field officers organized at Maharashtra Engineering Training Academy, Nashik, SLTAC-Flood Study of Administrative Approval/ Revised Administrative Approval Proposals

D. Research Officer, Hydro-dynamic Research Division No.1, Nashik

1. **Backwater study of dams in Maharashtra State-**

The Backwater study is carried out by using HEC-RAS computer software. For this study the technical data is received from concerned field office as per check list given by this office. The backwater study is carried out as per Govt. Resolution No. संकीर्ण – २०२०/प्र.क्र.३२३/मो.प्र.-२, दि.१७/०२/२०२१

2. **Discharge Measurement of Canals and S.W.F. Calibration**

Discharge measurement of canals and calibration of S.W.F. is proposed by field officer of Water Resources Department to this office. Discharge measurement and S.W.F. calibration of canals are carried out after the preparation of canal site by field officers as per norms given in I.S: 1192-1981. Generally Discharge measurement of main canals is carried out by this office.

5.3 Superintending Engineer, Dam Safety Organization, Nashik
Total Six Divisions are working under this Dam Safety Organization, Nashik

1. Executive Engineer, Dam Safety Division No.1, Nashik (Konkan and Pune Region)
2. Executive Engineer, Dam Safety Division No.2, Nashik (Amravati and Nagpur Region)
3. Executive Engineer, Dam Safety Division No.3, Nashik (Nashik and Aurangabad Region)
4. Executive Engineer , Canal Safety Division, Nashik
    a. Scientific Officer, Mathematical Cell, Nashik

5. Research Officer, Instrumentation Research Division, Nashik
    a. Instrument Procurement Cell Nashik
    b. Instrument Manufacturing Cell Nashik
    c. Instrument Repair Cell Nashik
    d. Seismic Instrument Cell Nashik
    e. Seismic Data Analysis Nashik
6. Executive Engineer, Dam Safety Unit, Nashik

Objectives and structure of Dam Safety Organization –

1. The primary responsibility of dam safety is with the regional authorities. The organization controls/ monitors whether it is carried out properly or not. In this regard, the following important functions come under jurisdiction of Dam Safety Organization.

2. Test Inspection of large dams

    This inspection examines the deficiencies previously observed. Also, if a dam is in danger, a special inspection is carried out. The observed deficiencies are reported to all concerned regional authorities. All dams belongs to private institution are inspected on a consultancy basis before and after monsoon.

3. Action taken on report on deficiencies

    The Dam Safety Organization recommends remedies for deficiencies reported during inspection of dams. This health status report containing above deficiencies along with remedial measures is circuited to all concerned Regional Officers for Compliance.

4. Dam instrumentation

    There are 5 cell working under the Instrumentation Research Division, Nashik-4

A. Instrumentation Procurement Cell

Checking of Dam Safety Equipments installed at Major & Medium Dams, Guidance over Repair and Guidance for installation of Dam Safety Equipment for dams newly being constructed, completing tender process for procurement of dam safety instruments, Lab equipment through Technical specification committee, Installation of Dam Safety Instruments, Pre Monsoon and Post Monsoon Inspection of Dam Safety Instruments, etc works are carried out in this cell.

B. Instrument manufacturing Cell

Important Dam Safety Instruments are being manufactured by this Cell. It includes Conventional plumb bob, Inverted Plumb bob, Open Pan Evaporimeter, Surface Settlement Plug, Uplift pressure Cell, Maintenance and repairs of Dam Safety Instruments, Manufacturing of special type of Instruments Erection of dam safety instruments

C. Instruments Repair Cell

Inspection, Testing, Repairing and Calibration of following instruments is being done in this cell. It includes repair of Dumpy level, Theodolite, Prismatic Compass, Stards and staves, Planimeter.

D. Seismic Instrumentation Cell

Inspection, Monitoring and maintaining 35 Seismological observatories and 13 Accelerographs installed in Maharashtra State, Daily Maintenance of Nashik Seismic observatory and Reporting of Daily Seismic Record in Nashik Seismic observatory, etc works are being done in this division.

E. Seismic Data Analysis Cell

Collection, Preserve and Analysis of Seismic Data of 35 Seismological observatories and 13 Accelerographs installed in Maharashtra State, Daily Seismic Data Analysis of Nashik seismic observatory, Publishing and Distributing the quarterly seismic bulletin , Bi-yearly technical report (Seismicity In Maharashtra) and Civil (Stapatya) magazine etc works are being done in this division.

Dam Rehabilitation and Improvement Project (Phase-II)

The Dam Rehabilitationand Improvement Project (DRIP) is one of the major projects of the Ministry of Water Resources, River Development and Ganga Rejuvenation (Jal Shakti) of the Central Government. Under DRIP 2 and 3, 18 States and 2 Central Institutions are covered. The total duration of Drip 2 and 3 is 10 years. The scheme will be implemented from April 2020 to March 2030. Drip 2 and 3 schemes are planned for about 600 dams across the country.

Objectives :-

Improving dam safety, Increase efficiency, Empowerment of the organization, Improving long-term efficiency are some of objectives of DRIP.

State Project Monitoring Unit (SPMU) :-

The Central Project Coordination Cell (CPMU) under the aegis of The Dam Safety Organization, Central Water Commission, New Delhi. As per the Government Decision dated 11/04/2019, a State Project Monitoring Unit has been set up to coordinate with the Central Government, the World Bank and the State Level Project Implementation Machinery and to examine the proposals.

The dam rehabilitation and improvement project as well as to facilitate administrative work. The Project Director of this SPMU is the Superintending Engineer, Dam Safety Organisation, Nashik and the Nodal Officer is the Chief Engineer, Hydrology and Dam Safety, Nashik.

6. Water Availability Study

Considering the reliable and quality hydrometeorological data collected with HP and due to having trained manpower in HIS, data processing, associated softwares provided in HP I (SWDES, HYMOS, WISDOM), Government of Maharashtra has assigned the responsibility of issuing water availability certificates of new water resources and conservation projects having capacity more than 5 Mcft (150 TCum) to Chief Engineer, Hydrology and Dam Safety, Nashik. This certificate is made mandatory requirement for according administrative approval to the project.

7. Publications under CE, Hydrology and Dam Safety

- Hydrology Project publishes Water Year Book annually, Real Time Stream flow Forecasting and Reservoir Operation System for Krishna and Bhima in Maharashtra (RTSF & ROS) for monsoon 2018, Hydrodynamics Research Division No.1, Nashik-List of Model Studies Technical Reports are being published.
- Dam Safety Organization also publishes 'Annual Consolidated Health Status Report of Identified Large Dams' and 'Tri-annual Health Status Report of Century Old Identified Large Dams In Maharashtra State' as per guidance of CWC.

8. Hydrological Data Users group (HDUG)

It is a State or National Level representative Group of data users who have a stake in water resources utilization, assessment & management.

Purpose of establishing HDUG

- To provide a common platform for discussion between hydrometeorological data users & data provider.
- To create awareness amongst users about Hydrological Information System (HIS) & educate them.
- To understand, analyze & update information on the changing needs of data users.
- To review & recommend addition/ deletion in the data collection networks related to HIS, if appropriate.

Various institutes are taking advantage of hydrometrological data e.g. Water Resources Deptt., Water Supply Deptt., Water Conservation Deptt., Public Works Deptt., Railway, Forest, Pollution Control Board, Private institutes, Educational institutes, students, Researchers, State and Central institutes etc. Hydrometeorological data is supplied to HDUG members only. The registration for membership of the HDUG is open to all by paying Rs.500/- as a membership fee for duration of 5 years, which can be renewed and Rs. 2500/- for life membership.

The data is supplied to HDUG members with price. Details regarding pricing of data, discount thereof, Registration Form for membership and data request form are available on website 'www.mahahp.gov.in'.

9. Contact Information

Sr. No.	Name of Office	Address	Telephone Number	Email ID
1.	Chief Engineer, Hydrology & Dam Safety, Nashik Maharashtra	Jalvidyan Bhavan, CDO-MERI Campus, Dindori Road Nashik-422004, Maharashtra (India)	0253-2530227	cehp.nashikwrd@maharashtra.gov.in, cehpswnasik@gmail.com
2.	Superintending Engineer, Data Collection, Planning & Hydrology Circle, Nashik	Jalvidyan Bhavan, CDO-MERI Campus, Dindori Road Nashik-422004, Maharashtra (India)	0253-2532972	sedcphpc.nashikwrd@maharashtra.gov.in
3.	Superintending Engineer, Data Analysis Circle, Nashik	Jalvidyan Bhavan, CDO-MERI Campus, Dindori Road Nashik-422004, Maharashtra (India)	0253-2533408	sedac.nashikwrd@maharashtra.gov.in, sedacnashik@gmail.com
4.	Superintending Engineer, Dam Safety Organisation Circle, Nashik	CDO Building, Dindori Road Nashik 422004, Maharashtra (India)	0253-2530030	se.damsafety@gmail.com, sedso.nashikwrd@maharashtra.gov.in
5.	Executive Engineer, Hydrometeorological Data Processing Division, Nashik	Jalvidyan Bhavan, CDO-MERI Campus, Dindori Road Nashik-422004, Maharashtra (India)	0253- 2532964	eehdpd.nashikwrd@maharashtra.gov.in, sdscnashik@gmail.com
6.	Executive Engineer, Water Planning Division (Yield), Nashik Maharashtra	Jalvidyan Bhavan, CDO-MERI Campus, Dindori Road Nashik-422004, Maharashtra (India)		eewpdnashik@gmail.com ; eewpd.nashik@wrd.maharashtra.gov.in
7.	Executive Engineer, Water Planning Division (Flood), Nashik Maharashtra	CDO Building, Dindori Road Nashik 422004, Maharashtra (India)	02532-970266	eewpdnashik@gmail.com ; eewpd.nashik@wrd.maharashtra.gov.in
8.	Research Officer, Hydro-dynamic Research Division, Nashik	Near Canal, Dindori Road, Nashik - 422004 Maharashtra	0253-2511755	rohydro1@gmail.com
9.	Executive Engineer Hydrologyy Project Division, Pune	G Barrak, Central Building, Pune - 411001, Maharashtra (India)	020-26126918	eehpd.pune@gmail.com
10.	Executive EngineerEngineer, HPD, Aurangabad Division	Near Hedgewar Hospital,Garkheda Parisar,Aurangabad-431005, Maharashtra (India)	0240 2321428	Pbhpdabad@Gmail.Com
11.	Executive Engineer Hydrologyy Project Division Nagpur	Jalsampada Bhawan, Wainganaga Nagar, Ajni, Nagpur 440003 Maharashtra (India)	0712-2890146	eehpdiv.nagpur@gmail.com
12.	Executive Engineer Hydrologyy Project Division Amravati	Divisional Commissioner Office Premises Amravati, Maharashtra (India)	0721-2662826	eehpd.amravati@gmail.com
13.	Executive Engineer Hydrologyy Project Division Thane	Opp.Sahakar Vidyalay, Old Mumbai-Pune Highway, Kalwa (Thane) PIN – 400605 Maharashtra (India)	022-25426053	eehpthn@rediffmail.com
14.	Executiv Engineer, Dam Safety Division No.1, Nashik	CDO Building, Dindori Road Nashik 422004, Maharashtra (India)	0253-2530030	eedsdiv1@gmail.com
15.	Executiv Engineer, Dam Safety Division No.2, Nashik	CDO Building, Dindori Road Nashik 422004, Maharashtra (India)	0253-2530030	eedsd2nashik@gmail.com
16.	Executiv Engineer, Dam Safety Division No.3, Nashik	CDO Building, Dindori Road Nashik 422004, Maharashtra (India)	0253-2530030	dsdiv3@gmail.com
17.	Executive Engineer, Canal Safety Division, Nashik	CDO Building, Dindori Road Nashik 422004, Maharashtra (India)	0253-2530030	eecsddsonsk@gmail.com
18.	Research Officer, Instrumentation Research Division, Nashik	MERI Campus, Dindori Road Nashik 422004, Maharashtra (India)	0253-2530095	roird.dso@gmail.com
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