

CRITERIA FOR DISTRIBUTION OF  
SURFACE WATER ENTITLEMENTS BY  
RIVER BASIN AGENCIES FOR DOMESTIC  
& INDUSTRIAL USES

Maharashtra Water Resources Regulatory Authority  
Mumbai  
September 2017



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## LIST OF ABBREVIATIONS

BCM	Billion Cubic Meters
CCA	Cultivable Command Area
CPCB	Central Pollution Control Board
CPHEEO	Central Public Health and Environmental Engineering Organization
cum	Cubic Meter
DBWU	Domestic Bulk Water User
GoI	Government of India
Ha	Hectare
IBWU	Industrial Bulk Water User
lpcd	Liters per Capita Per Day
Mcum	Million Cubic Meter
MGW Act	Maharashtra Groundwater (Development & Management) Act
MIDC	Maharashtra Industrial Development Corporation
MPCB	Maharashtra Pollution Control Board
MWh	Million Watt Hour
MWRRRA	Maharashtra Water Resources Regulatory Authority
NGO	Non-Governmental Organisation
NRDWP	National Rural Drinking Water Program
NRW	Non-Revenue Water
RBA	River Basin Agency
SCADA	Supervisory Control And Data Acquisition
STP	Sewage Treatment Plant
TMC	Thousand Million Cubic Feet
TPS	Thermal Power Station
UFW	Unaccounted for Water
WRD	Water Resources Department



# महाराष्ट्र जलसंपत्ती नियामन प्राधिकरण

**Maharashtra Water Resources Regulatory Authority  
(MWRRA)**

9th Floor, Centre-1, World Trade Centre, Cuffe Parade, Mumbai - 400 005. Tel.: (O) 2215 2019 Fax.: 2215 3765 E-mail.:mwrra@mwrra.org

IN THE MATTER OF  
CRITERIA FOR DISTRIBUTION OF SURFACE WATER ENTITLEMENTS  
BY RIVER BASIN AGENCIES FOR DOMESTIC & INDUSTRIAL USES

**CORUM**

**Shri. K. P. Bakshi, Chairman**

**Shri. V. M. Kulkarni, Member (Water Resources Engineering)**

**ORDER**

Date: 22<sup>nd</sup> September 2017

**1. PREFACE :**

- 1.1. As per the Constitution of India Water is a State subject. Constitution does not explicitly recognize the right to water as a basic human right. However, this right is recognized implicitly with the Supreme Court's interpretations of the Article 21 of the Constitution as right to life with dignity<sup>1</sup>. To protect the right to drinking water for all, distribution of entitlements & appropriate pricing of water are steps forward in this direction.
- 1.2. The Maharashtra Water Resources Regulatory Authority (MWRRA) was established as per the provisions in Section 3 of the MWRRA Act 2005 vide notification dated June 8, 2005. Maharashtra is the first State in the country to establish a regulatory authority in water sector. The powers, duties and functions of the Authority are laid down in MWRRA Act 2005 which was amended first in April 2011 & second time in January

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<sup>1</sup>Report of the Working Group on Urban and Industrial Water Supply and Sanitation for the Twelfth Five-Year Plan (2012-2017)

2017. The mandate given to the Authority is to regulate water resources within the State, facilitate & ensure judicious, equitable & also ensure sustainable management, allocation and utilization of water resources. The Authority is required to fix the rates for use of water for agriculture, industrial, drinking and other purposes. The Maharashtra Groundwater (Development & Management) Act 2009 (MGW Act) came into force on December 3, 2013. Section 3 of this Act has entrusted MWRRRA, the additional responsibility of regulating groundwater resources of the State.

- 1.3. Section 11(a) as amended by the MWRRRA (Amendment & Continuance) Act, 2011 stipulates that MWRRRA shall determine the criteria for the distribution of entitlements by the River Basin Agencies (RBAs) within each category of use, on prescribed terms and conditions after sectoral allocation is made by the Government under Section 16(A) of the said Act. Section 11(q) of the Act also empowers the Authority to fix reasonable use criteria for each Category of Use.
- 1.4. Criteria for Distribution of Entitlements by RBAs for domestic and industrial uses were evolved by the Authority earlier in November, 2012. As per Para 7 of this criteria, the said criteria are valid for a minimum period of 3 years, at the end of which Authority may undertake revision, if considered necessary.

The Government Resolution (GR) dated November 17, 2016 has decided the sectoral allocation of water under Section 16A of the MWRRRA (Amendment and Continuance) Act, 2011. As per the said GR, water allocated at a project level to domestic, industry & irrigation sectors is 15, 10 and 75 percent respectively. With this development, the earlier criteria of November 2012 have now been revised.

## **2. WATER USE SCENARIO IN THE STATE :**

- 2.1. In a normal year, the total surface water use from the State Sector projects and notified rivers of the State is estimated to be about 34 Billion Cubic Meter (BCM) (1200 TMC). In a normal year, the domestic water use is about 20% and industrial use is below 3%<sup>2</sup>. As domestic water supply has the highest priority, in a deficit year comparatively a sizable

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<sup>2</sup> Proposal of WRD for determination of Bulk Water Tariff dated March 18, 2017.

cut is applied on other sectors and consequently, the domestic water use rises to about 35%- 38% of the total water usage.

At present, in industrial sector almost 37% water supply is through Maharashtra Industrial Development Corporation (MIDC). In general, out of the total water use by the industrial sector, thermal power plants' share is about 30% and that of agro-based industries and sugar factories' share is 5% each. The aggregate water use by distilleries, beverages, mineral water together is 0.03% of the total water use (1.37% of industrial use)<sup>3</sup>.

The Government of India has launched the Delhi-Mumbai Industrial Corridor Project to develop industrial zones along the entire corridor including those across Maharashtra. These zones together with Smart Cities initiative will substantially increase industrial and urban water demands in near future.

### 3. DEFINITIONS :

- (i) "Allocation" means portion or percentage of an entitlement declared annually or seasonally based upon the availability of water for the period within the river basin, sub-basin, project, storage facility as the case may be for the season or year.
- (ii) "Domestic Bulk Water User (DBWU)" means any public body or organization (Gram Panchayat, Urban Local Body, Maharashtra Jeevan Pradhikaran, Maharashtra Industrial Development Corporation) to whom bulk water is made available by the RBAs for domestic use.
- (iii) "Entitlement" means any authorization by any River Basin Agency to use the water.
- (iv) "Industrial Bulk Water User (IBWU)" means any industry (including Maharashtra Industrial Development Corporation) to whom bulk water is made available by the RBAs for industrial use.

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<sup>3</sup>Non Irrigation Database available on WRD website ([wrd.maharashtra.gov.in/portal](http://wrd.maharashtra.gov.in/portal))

- (v) "Quota" means a volumetric quantity of water made available to an Entitlement holder, which is derived by multiplying an Entitlement by an Allocation percentage.
- (vi) "Unaccounted for Water (UFW)" means the difference between "net production" (the volume of water delivered into domestic water distribution network) and "consumption" (volume of water for legitimate consumption as accounted for assessment purpose). It covers both physical losses and revenue losses (thefts, illegal connections etc.).

3.1. Words and expressions used and not defined specifically in the above paragraph but defined in various irrigation or water resources related parent acts in the State shall have the meanings respectively assigned to them in those Acts.

#### **4. APPLICABILITY OF THE CRITERIA**

These Criteria are applicable for all entitlements given through surface water (rivers, reservoirs) of the state of Maharashtra and will be followed by WRD & RBAs for issuance of Entitlement to DBWUs and IBWUs of the State.

These Criteria shall be applicable from the date of its issue and on that date earlier criteria of November 2012 shall stand superseded.

#### **5. CONSIDERATIONS:**

- (i) State Water Policy, 2003 as modified on May 18, 2011 has given first priority for water use in domestic sector followed by agricultural sector. Industrial sector stands at third priority.
- (ii) Maharashtra Government, while deciding the sectoral allocation vide GR dated November 17, 2016, has indicated that during water deficit years, the deficit shall be shared amongst the different categories of users in the proportion of water use. However, while doing so, the maximum permissible cut to domestic and industrial sectors shall be 25 % & 50 % respectively. Thus, Government has protected minimum allocation of 75% & 50% for DBWUs and IBWUs respectively.

- (iii) The Central Public Health and Environmental Engineering Organization (CPHEEO), which is a technical wing of the Ministry of Urban Development, Government of India has suggested norms for water supply and these norms are being followed by cities and towns in the country while designing water supply schemes.
- (iv) Norm of 40 lpcd for providing potable drinking water to rural population has been continuing since 1972. National Rural Drinking Water Program (NRDWP), considering the focus of the XII Five Year Plan approach, has enhanced service level for rural water supply from the norm of 40 lpcd to 55 lpcd for design of the water supply system.<sup>4</sup>
- (v) Water requirement norms for various industries have been critically examined and specific water consumption values have been reviewed and revised with an intention to promote best technological alternatives available elsewhere in the world for water saving / recycling.
- (vi) DBWUs shall compensate for water used beyond project-level sectoral allocation by making available equivalent quantity of water to agricultural sector after treating it to agricultural water use standards.
- (vii) Water allocation policy has also been used as a tool for water quality improvement. Certain time-based actions have been mandated on DBWUs regarding wastewater treatment. However, in case of IBWUs, it is proposed to stop industrial water supply if the industry fails to comply with the MPCB norms.
- (viii) In the process of revision of these criteria, consultation of various line departments of the Government, municipal corporations, NGOs and experts in water sector was sought by inviting their comments / suggestions. Appropriate comments and suggestions, received in writing and also during stakeholder consultation meetings conducted in the office of the Authority on August 23 & 24, 2017, have been given due thought before finalising these criteria.

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<sup>4</sup> National Rural Drinking Water Program, Guide Lines issued by Ministry of Drinking Water & Sanitation , Government of India, June 2013. ([www.mdws.gov.in](http://www.mdws.gov.in))

6. **CRITERIA FOR DOMESTIC WATER USE :**

6.1. The applicable per capita norms for entitlement to DBWU shall be as under.

**Table No 1**

<b>Sr. No.</b>	<b>Category</b>	<b>Norm (lpcd)</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
1	Rural Water Supply Schemes	55
2	Peri-urban Area	70*
3	Municipal Councils 3a) C - Class 3b) B - Class 3c) A - Class	70* 100* 125*
4	Municipal corporations (having population less than 50 lakh)	135*
5	Metropolitan centers (having population equal to or more than 50 lakh)	150*

\* **Note 1:** Urban population (in Category 2 to 5) where water is provided with public stand post, norm shall be restricted to 55 lpcd for such population clusters and in areas where water is provided with piped water supply but without sewage system, norm shall be restricted to 70 lpcd.

**Note 2:** Norms mentioned in column No. 3 are maximum water supply levels. DBWUs at Sr. No. 2 to 5 shall strive to reduce their demand of freshwater by conjunctive use of water that can be made available by rainwater harvesting and recycling.

**Note 3:** Norms are exclusive of UFW. Entitlements for the first year shall include UFW limited to 15 % over and above the quantity arrived with prescribed norms. This limit of UFW shall be reduced by 1 percent per year during subsequent years of the control period (2<sup>nd</sup>& 3<sup>rd</sup>).

**Note 4:** Norms are inclusive of commercial, institutional and minor industry requirements. However, for billing RBAs shall charge DBWU separately for such portion of water supply with applicable rates.

- 6.2. The RBAs shall observe the following conditions while distributing the entitlements.
- (i) The entitlement shall be given from the reservoir. DBWUs shall lay pipelines from the reservoir up to the water treatment plant to avoid transit losses.
  - (ii) DBWU shall submit the water budget, prepared on the basis of criteria evolved and conditions laid down by the Authority. RBA shall scrutinize the water budget & sanction the entitlement. Entitlement so sanctioned shall remain unchanged for the control period of the criteria.
  - (iii) The entitlement beyond sectoral allocation shall only be given after approval of the competent authority as declared by the Government from time to time. However, in such instances, DBWU shall mandatorily compensate for the extra water (over and above the sectoral allocation) by making it available for agricultural use at location mutually decided by DBWU and RBA. The treated water shall be of standards as stipulated by the Central Pollution Control Board (CPCB) vide letter dated April 21, 2015 and subsequent modifications that may be made by CPCB/MPCB from time to time. In case of dispute between RBA and the DBWU regarding the location at which the treated wastewater is to be made available, DBWU may refer the matter to the Authority and the decision of the Authority in this regard shall be final and binding on both parties.
  - (iv) The actual delivery of water under the entitlement shall be given only after installation of the flow meter. Ultrasonic flow meter preferably SCADA based are mandatory except for rural water supply schemes. If the meter is found to be tampered / faulty / non-working, RBA shall modify the water bills at penal rate retrospectively from the date of last inspection.
  - (v) Under the provisions of Section 11(q) of the Act, the Authority makes it mandatory for all municipal councils, municipal corporations and metropolitan cities to publish the water budget and the annual audited water account. It is the responsibility of the DBWU to get the water audit done from the Chief Auditor, Water & Irrigation, Maharashtra State. The Audit report shall also be submitted to the RBA and to the Authority. The procedure and

frequency of carrying out such audit shall be prescribed separately.

- (vi) RBA shall ensure that all municipal corporations and municipal councils have submitted time bound action plan for setting up sewerage system ensuring proper collection, treatment and disposal of entire quantity of treated sewage generated in the local / urban area, as stipulated by CPCB vide its letter dated April 21, 2015 & its subsequent amendments. RBA shall report the status of implementation of such plans to the Authority by the end of June every year.
- (vii) Any new entitlement to municipal councils, municipal corporations and metropolitan cities shall be given only after ensuring that DBWUs have concurrent plans for construction of sewage treatment along with water supply schemes.

6.3. All new agreements shall have a validity of maximum six years. The following clause shall be included in the agreements with DBWUs;

*“Maharashtra Water Resources Regulatory Authority Act 2005 has empowered the Authority to determine the criteria for the distribution of entitlements by the River Basin Agencies on prescribed terms and conditions and also to establish water tariff system. As per the said Act, the entitlement and tariff system is subject to review at intervals of not less than three years. During the agreement period, changes in entitlement and/or prescribed terms and conditions and/or tariff system made by MWRRA shall be binding on both parties.”*

## 7. CRITERIA FOR INDUSTRIAL WATER USE

7.1. The water use standards for various categories of industries shall be as under;

Table No 2

Sr. No.	Name of Industry	Category	Water Use Standards
(1)	(2)	(3)	(4)
1.	Power	Thermal Power Station	3.5 Mcum / MWh for old TPS & 2.5 Mcum/MWh for TPS installed after January 1, 2017 *.
2.	Paper	2a) Agro Residue Based Mill	200 cum / ton of paper produced
		2b) Wastepaper Based Mill	75 cum / ton of paper produced
3.	Ferrous Metallurgical Steel	Iron & Steel	20 cum / ton of finished product
4.	Non-Ferrous Metallurgical Produce	4a) Copper Smelters	100 cum / ton of Copper Metal produced
		4b) Zinc Smelters	50 cum / ton of Zinc Metal produced
5.	Textile	5a) Nylon & Polyester	170 cum / ton of fiber produced
		5b) Viscose Rayon / Cotton	200 cum / ton of fiber produced
		5c) Wet Textile Process Units	Desizing - 5.6 cum/ton Scouring - 28 cum/ton Mercersing - 9 cum/ton Bleaching - 42 cum/ton Dyeing - 14 cum/ton Printing - 33 cum/ton Soaping - 17 cum/ton
6.	Processing of Vegetable & Animal Products	6a) Sugar	0.2 cum / ton of sugarcane crushed
		6b) Maltry	8.5 cum / ton of grain processed
		6c) Brewery	4 liters / liter of Beer produced
		6d) Distillery	15 cum / 1000 liter of alcohol produced
		6e) Starch, Glucose related products	10 cum / ton of maize
		6f) Jute	1.5 cum / ton of Jute produced
		6g) Tannery	30 cum / ton of raw hide
		6h) Dairy Product	4 cum / 1000 liter of milk
7.	Poultry Farm	Poultry Farm	370 liters/1000 birds/day
8.	Fertilisers	8a) Nitrogenous Fertiliser plant /	15 cum / ton

Sr. No.	Name of Industry	Category	Water Use Standards
(1)	(2)	(3)	(4)
		Complex fertilisers having primary product as nitrogenous fertiliser	
		8b) Single Super Phosphate or Triple Super Phosphate / Complex fertilisers having primary product as phosphatic fertilizer	2 cum / ton
9.	Cement	Cement	0.3 cum / ton including domestic use in factory premises
10.	Petro chemicals	Petro chemicals	17 cum / ton
11.	Chemicals	Chemicals	5.5 cum / ton
12.	Automobile	Automobile	5 cum / vehicle
13.	Bottled Water	Bottled Water	1.4 liter / liter of finished bottled water
14.	Carbonated Soft Drink	Carbonated Soft Drink	2 liter / liter of finished Carbonated Soft Drink

\* **Note 1-** As per revised Electricity Policy of GoI dated January 28, 2016, the Thermal Power Station (TPS) located within 50 km radius of STP of local body, shall mandatorily use treated sewage water. RBA shall ensure that such TPS switches over to treated sewage wherever possible as per the policy.

**7.2** The RBA shall observe following conditions while distributing the entitlements to industrial users;

- (i) Water use standards mentioned in Column No. 4 of Table 2 are maximum limits. RBA shall limit the entitlements after reviewing the conditions laid down in environmental clearance given by competent authority and the water that can be made available from rainwater harvesting, recycling etc. Wherever recycling is possible, the entitlement shall only be for top-up requirements.
- (ii) The priority shall be given to agro-based industries.

- (iii) Entitlements to new water-intensive industries such as pulp & paper, thermal power plants, textile, tannery, mineral water plants, brewery, soft drink shall not be given in water scarce sub-basins having average annual water availability less than 3000 cubic meter / Ha of Cultivable Command Area (CCA).
- (iv) The water supply as per the sanctioned entitlement shall be commenced only after installation of the ultrasonic flow meter, preferably SCADA based, by the water use entity and its inspection by the representative of the RBA. If the meter is found to be tampered / faulty / non-working, RBA shall change the water bills at penal rate retrospectively from the date of last inspection.
- (v) Under the provisions of Section 11(q) of the Act, the Authority makes it mandatory for all IBWUs to get the water audit done from Chief Auditor, Water & Irrigation, Maharashtra State and submits the report of such audit to the RBA and the Authority and shall keep in public domain also. The procedure and frequency of such audit shall be prescribed separately.
- (vi) All water used by the industry within its premises shall be considered as industrial use for billing purpose. However, if any industry has specifically obtained separate entitlement for water supply to its residential premises and made separate metering arrangement for the same, domestic usage of such industry shall be charged at domestic bulk water tariff.
- (vii) MPCB shall provide a list of water polluting industries to WRD every month whose effluents are not meeting the stipulated standards. RBA shall charge the water to such polluting industries at higher rate retrospectively from the date of immediately preceding last inspection by the MPCB. Further, WRD on recommendation of the MPCB shall totally stop the water supply of the polluting industry. The water supply so stopped shall be renewed only with NOC of MPCB & after payment of all arrears of water charges including penal charges.
- (viii) Requests of additional entitlements of existing industries for their expansion shall be considered on merit basis. The industries using water efficient technologies, treating the effluent to required standards, practicing water harvesting and groundwater

recharge in its premises or as CSR activities may be given priority. However, in water deficit sub-basins, additional entitlement for expansion of water intensive industry shall not be given.

- (ix) Industries shall not exceed the effluent discharge norms stipulated by MPCB / CPCB whichever is stringent. The industries using recycled water and reducing their freshwater demand shall be incentivized. However, industries using water beyond the entitlement shall be charged at higher rates, as may be indicated in tariff order.

7.3 The following clause should be included in the agreement with IBWU;

*“Maharashtra Water Resources Regulatory Authority Act 2005 has empowered the Authority to determine the criteria for the distribution of entitlements by the River Basin Agencies on prescribed terms and conditions and also to establish water tariff system. As per the said Act, the entitlement and tariff system is subject to review at intervals of not less than three years. During the agreement period, changes in entitlement and/or prescribed terms and conditions and/or tariff system made by MWRRA shall be binding on both parties.”*

7.4 A committee comprising Joint Director of Industries and CE, WRD will decide inter-se priority among competing industries for distribution of entitlement, keeping in view factors like specific water consumption of the industry, importance of the product to the economy of the State, employment potential, pollution aspects etc.

## 8. SHARING WATER DEFICIT

8.1 As per the State Water Policy, the domestic water use for drinking, cooking, hygiene and sanitation including livestock has first priority. However, natural water availability is extremely diverse across the various river basins and sub-basins of the state. Annual variations are approximately within the range of 30%. The annual fluctuations in rainfall and consequent water deficit in the reservoirs need to be

addressed. During the deficit years, the DBWUs will also have to share some deficit. However, while doing so, the basic needs for health & hygiene should not be lost sight of. Considering this aspect, allocation for DBWUs from the reservoir in the deficit year shall be governed by following formula;

$$A_D \text{ (in percentage)} = 70 + [(U \times 30) / 100]$$

Where  $U = \frac{(\text{Reservoir Storage on 15}^{\text{th}} \text{ October} + \text{Kharif Utilisation}) \times 100}{\text{Design Annual Utilization from the Reservoir}}$

$$\text{Applicable cut in \%} = 100 - A_D$$

Note - In case the live storage in the reservoir on 15<sup>th</sup> October is less than or equal to total domestic water entitlements from the reservoir for the balance year, all available water shall be kept reserved for domestic sector.

Illustration :- If the live storage as on 15<sup>th</sup> October plus the Kharif utilization already done is 90% i.e. deficit in water availability is 10%, the deficit to be shared by domestic sector shall be calculated as under;

$$A_D = 70 + [(90 \times 30) / 100] = 97\%$$

$$\text{Applicable cut} = 100 - 97 = 3\%$$

So Bulk Water User in Sr. No. 4 in Table No 1 will get at

$$135 \times 97\% = 131 \text{ lpcd}$$

**8.2** Allocation for IBWU from the reservoir in the deficit year shall be governed by the following formula;

$$A_I \text{ (in percentage)} = 60 + [(U \times 40) / 100]$$

Where  $U = \frac{(\text{Reservoir Storage on 15}^{\text{th}} \text{ October} + \text{Kharif Utilisation}) \times 100}{\text{Design Annual Utilization from the Reservoir}}$

$$\text{Applicable cut in \%} = 100 - A_I$$

## **9. REVIEW OF THE CRITERIA**

The Criteria is valid for a minimum period of three years, at least six months prior to the end of which the Authority will initiate the consultation process for its revision, if considered necessary.

## **10. MONITORING OF ENTITLEMENTS**

Authority as per the Section 11(k) of the Act shall monitor the issuance of entitlements and water delivered against such entitlements. RBA shall submit to the Authority yearly information regarding entitlements issued and water delivered against such entitlements within one month after the expiry of each water year (1<sup>st</sup> July to 30<sup>th</sup> June) in prescribed format. RBA shall make available such information in public domain by displaying on its official website.

## **11. LONG TERM STRATEGY:**

Water is a critical resource which needs to be managed with long term perspective. Freshwater resource is limited. Further, in order to avoid conflict of interests arising among various water user groups, freshwater demands of various user groups will have to be managed within their sectoral allocations. Thus, it may not be possible in near future to cope up with ever expanding water demand of growing population and industry with present supply norms. Hence, it is essential to implement the following strategies with immediate effect to reduce freshwater consumption to cope up with reduced supply norms in future.

### **11.1 Domestic Sector:**

- a) Metering for every society / household.
- b) Leakage reduction by 1 percent per year through detection and repairs till it attains the level of maximum of 10 %.
- c) Reducing freshwater per capita consumption by increasing public awareness and promoting water efficient toilets, showers, basins, washing machines, leak proof fittings etc.
- d) Managing non potable water demands such as toilet flushing, public and private gardening, car washing, fire hydrants etc. from water

that can be made available from rain water harvesting and recycling and thus reducing freshwater demand by 15 percent in next three years.

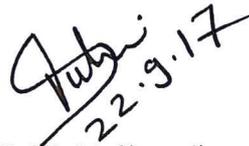
- e) Treatment of entire generated sewage to CPCB / MPCB standards, whichever is stringent, and making it available for reuse.

#### 11.2 Industrial Sector:

- a) Mandatory guidelines stipulated by MoEF/CPCB/MPCB whichever is most stringent, regarding effluent discharge should be strictly followed.
- b) Reduction in consumption by optimizing the process, modifying the equipments and creating awareness amongst the workers.

#### 12. DIFFICULTIES IN IMPLEMENTATION

In case of any difficulty in implementation of these criteria, the DBWU/IBWU/RBA may approach the Authority with specific petition. The decision of the Authority shall be final.



(V. M. Kulkarni)

Member (W. R. Engineering)



(K. P. Bakshi)

Chairman



# महाराष्ट्र जलसंपत्ती नियमन प्राधिकरण Maharashtra Water Resources Regulatory Authority

## CORRIGENDUM

Criteria for Distribution of Surface Water Entitlements by River Basin  
Agencies for Domestic & Industrial Uses

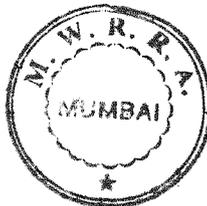
Order No. 19 of 2017

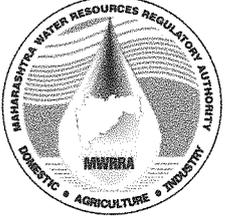
Date : December 27, 2017

Read '3.5 cum /MWh and 2.5 cum / MWh instead of 3.5 Mcum /MWh and 2.5 Mcum / MWh' on Page 9 of the Order No. 9 / 2017 (Table No.2, Sr. No.(1), Column No. 4) issued through MWRA's letter No. MWRA/2017/Draft Criteria/Entitlement/411/dated September 22, 2017).

(V. M. Kulkarni)  
Member (W. R. Engg.)

(K. P. Bakshi)  
Chairman





# महाराष्ट्र जलसंपत्ती नियमन प्राधिकरण Maharashtra Water Resources Regulatory Authority

## ADDENDUM

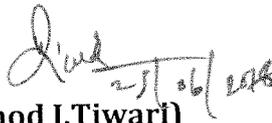
Criteria for Distribution of Surface Water Entitlements by River Basin Agencies for Domestic and Industrial Uses

Order No. 10 of 2018

Date : June 25, 2018

Add after Sr. No.5 in Table No.1 on Page 6 of the Order No. 9/2017 issued through MWRRA's letter No. MWRRA/2017/Draft Criteria/Entitlement/411 dated September 22, 2017 as under :

Sr. No.	Category	Norm (lpcd)
6	Integrated Township Projects/ Townships in Hill Stations notified by Urban Development Department.	90

  
(Vinod J. Tiwari)  
Member (Law)

  
(Dr. S.T. Sangle)  
Member (Eco)

  
(V.M. Kulkarni)  
Member (WR Engg) & Chairman in charge





सत्यमेव जयते



# महाराष्ट्र जलसंपत्ती नियमन प्राधिकरण

## Maharashtra Water Resources Regulatory Authority

### ADDENDUM NO. - 2

#### Criteria for Distribution of Surface Water Entitlements by River Basin Agencies for Domestic & Industrial Uses

Order No. 20/2018

Date : December 27, 2018

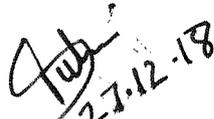
Add after Sr. No. 5 in Table No. 1 on Page No. 6 of the Order No. 9/2017 issued through MWRRA's letter No. MWRRA/2017/Draft Criteria/Entitlement/411 dated September 22, 2017

Sr. No.	Category	Norm (lpcd)
7	Floating population:	
	i) Bathing facilities provided :	45 lpcd
	ii) Bathing facilities not provided :	25 lpcd

Note : i) The floating population shall be certified by Chief Officer / Deputy Commissioner.

ii) Where split up of floating population with & without bathing facilities is not explicitly available, an average norm of 35 lpcd shall be adopted.

  
(S. T. Sangle)  
Member (Economics)

  
(V.M. Kulkarni)  
Member (W. R. E.)



  
(K. P. Bakshi)  
Chairman