

## OFFICE OF THE ENGINEER IN CHIEF PUBLIC HEALTH ENGINEERING DEPARTMENT "JAL BHAWAN"BANGANGA, BHOPAL Telephone No. (0755) 2779411-12 (An ISO 9001:2015 Certified Office)

No. 4024 / Moni / E-in-C / PHED / 2020

Bhopal, Dated |9|6/20

Email

To,

Ms. Renjitha M.H. Deputy Secretary (JJM-1) Govt. of India Ministry of Jal Shakti Department of Drinking Water and Sanitation 8th Floor, Pt. Deendayal Anyodaya Bhawan CGO Complex, Lodhi Road New Delhi - 110003

Subject : Water Demand calculation for Source Design of Single Village Schemes (SVS) under Jal Jeevan Mission (JJM).

Ref: Operational Guidelines issued by JJM

Please refer to Operational Guideline issued by Jal Shakti Ministry, Government of India for the implementation of the Jal Jeevan Mission (JJM) wherein Functionality of a Tap Connection is defined as having infrastructure, i.e. Functional Household Tap Connection providing water in adequate quantity, **i.e. at least 55 LPCD**, of prescribed quality, i.e. BIS:10500 standard, on regular basis, i.e. continuous supply in long-term. JJM envisages providing FHTCs to all rural household at minimum service level of 55 LPCD. Please also refer to letter No. W-11042/36/2019–Water–II dated 31.12.2019 vide which it was advised to adopt the engineering principles mentioned in the **CPHEEO manuals** in planning and implementation of the water supply systems to ensure that systems created last their full design period both structurally and functionally. Hence to provide **minimum service level of 55 LPCD** at each household Tap connection in Single Village Water Supply Scheme (SVS), design demand at source i.e Tube well/Dug well (Ground water based scheme) is adopted as per details in column -3 of table attached as Annexure.

If design demand at source for Single Village Water Supply Scheme (SVS) is taken 55 LPCD than the minimum service level that can be provided to each rural house hold **reduces to around 43 LPCD** as per column 4 of above table which is against the vision and objective of the JJM. In order to achieve the minimum service delivery level of 55 LPCD through FHTC, we have considered the quantity calculation mentioned in column -3 of the table attached as Annexure.

We would also like to request to issue revised "Manual for preparation of Detailed Project Report for Rural Piped Water Supply Schemes" issued vide letter no. F.No. W-11011/01/2021-W-1 Dt 20-02-2013 by Ministry of Drinking Water & Sanitation, GoI in light of provisions of JJM guidelines to have uniformity in the SVSs across the Country.

19.6.20 (K. K. Songaria) **Engineer in Chief** 

Endt. No. 4024 / Moni / E-in-C / PHED / 2020 Copy to :

Bhopal, Dated 19/6/20

Principal Secretary, Govt. of Madhya Pradesh, Public Health Engineering Department, Vallabh Bhawan Bhopal M.P. for information please.

19.6.2220 **Engineer in Chief** 

S.No.	Description	Litre Per Capita Per Day	Litre Per Capita Per Day	Reference
1	2	3	4	5
1.	Minimum quantity of water to be provided through the Tap to the household	55	43	JJM Guideline - Definitions - Functionality
2.	Insititunal need - 5 % of S.No. 1	2.75	2.15	Manual for preparation or DPR for Rural PWSS issued vide F No. W- 11011/01/2012-W-I dated 20-02-2013 by MoDWS GoI Para-5.B & C
3.	Fire Demand - 5% of S.No. 1+2 (Note : Although fire demand is insignificant in villages but it has been considered to meet cattle water demand)	2.89	2.25	
4.	Unaccounted for Water (UFW) - 15% of S.No. 1 + 2 +3	9.10	7.11	As per CPHEEO Manual on Water supply and treatment clause 2.2.8.3, Note-(ii)
	Total-	69.74	54.51	
	Water quantity required at source Say	70	55	0.

## Water Quantity Calculation for Design of Source of Scheme to supply 55 LPCD through Functional Household Tap Connection (FHTC) at household.

19.6.2020