



ORDER

Revision of tariff for treated waste water uses (under section 18 of the HWRA Act)

Notification No.198/N/LA/HWRA/2022.- In the exercise of power conferred under Sub-Section (1) of Section-18 of the Haryana Water Resources (Conservation, Regulation and Management) Authority Act, 2020 (hereinafter referred as the Act), as amended upto date, the Haryana Water Resources Authority vide Agenda No.2 of 17th meeting held on 15.07.2022, approved the revised tariff for bulk water uses of treated waste water. Therefore, the revised tariff is hereby notified.

The Haryana Water Resources Authority (hereinafter referred as 'Authority') has been established by the government for conservation, regulation and management of water resources in the state of Haryana.

The Authority has been given the mandate to decide the tariff for Bulk uses of treated waste water, as per Section-18 of the Act, Amended in 2022 is reproduced as under:-

“18. (1) The Authority shall decide tariff for bulk water uses of surface water and of treated waste water on the principles of economy, efficiency, equity and sustainability. The tariff shall be based on volumetric measurements of water consumption and shall be designed reasonably.

(2) The Authority shall recommend to the Government retail tariff of water for individual household, industry or commercial establishment, supplied by concerned entity.

18 (A) It shall be the duty of the Authority to enforce the policy issued by the Government for re-use of treated waste water from time to time.

18 (B) (1) An appeal may be preferred to the Government on tariff decided by the Authority under sub-section (1) of section 18, within thirty days from the date of such decision.



(2) The appeal under sub-section (1) shall be made in such form and manner, as may be prescribed

(3) The Government may, by order reject the appeal or revise the tariff and the decision of the Government shall be final”

The Authority had held series of meetings with the concerned Departments including HSVP, GMDA, FMDA, HSIIDC, ULB and PHED to propose the tariff for use of treated Waste water along with the cost analysis.

The PHED which is the nodal Department has submitted the cost analysis on 03.02.2022 as under (Annexure-‘A’): -

COST ANALYSIS FOR TWW

Sr. No.	Description	Total	Assuming 40% recovery, tariff rates
1	Number of Towns / STPs	80 / 124	
2	Capacities of SsSTPs / CETPs (in MLD)	1036.90	
3	Per Kilo Ltr Cost of Sewage Treatment Plant / Tertiary Treatment Plant (In ₹.)	2.28	0.91
4	Per kilo Ltr Cost of laying of sewerage system (In ₹.)	1.93	0.77
5	Per Kilo Ltr Cost of STPs + Sewerage System (In ₹.) Sr. No. 3 + Sr. No. 4	4.21	1.69
6	Per Kilo Ltr Cost of Operation & Maintenance (In ₹.)	5.61	2.24
7	Per Kilo Ltr Cost of sewerage system + Operation & maintenance (In ₹.) Sr. No. 5+ Sr. No. 6	9.82	3.93
8	Per Kilo Ltr cost of conveyance system of TWW to doorstep of the consumer (In ₹.)	1.85	0.74
9	Total Per Kilo Ltr Cost (In ₹.) Sr. No. 7 + Sr. No.8	11.67	4.67
<p>Note 1 :- It is proposed that the tariff of treated waste water may please be fixed as ₹. 3.93/- per KL at STP(40% recovery) + ₹. 0.74/- Per KL at doorstep = ₹. 4.67/- per Kilo ltr.</p> <p>Note 2 : - Per Kilo Ltr cost of O&M is ₹. 5.61/- and with 40% recovery, it is ₹. 2.24 /- per kilo Ltr.</p>			



1. The Authority has considered the recommendations and cost analysis given by the Public Health Engineering Department, being nodal department for this issue by taking inputs from HSVP, GMDA, FMDA, HSIIDC, ULB and PHED. Two types of TWW tariff have been proposed i.e. tariff at 'STP' site and tariff at 'doorstep'. In the cost analysis it is proposed that major cost is involved in operation and maintenance (O&M) and therefore, the increase in tariff may be considered from existing tariff of ₹ 2/- per KL at STP site and ₹ 3/- per KL at doorstep to ₹ 4/- per KL and ₹ 5 per KL respectively.
2. A further communication received from PHED on 15.07.2022 that Irrigation Department may be supplied treated waste water free of cost for use in agriculture (**Annexure-'B'**).
3. In view of this, the proposal for revising tariff for usage of treated waste water requires in-depth scrutiny and analysis. The revision of tariff of TWW will help implement the provisions of the Haryana Water Resources Authority Act provided under Section 18 pertaining "to the principles of economy, efficiency, equity and sustainability". As far as possible, the tariff shall be based on volumetric measurements of water consumption and shall be designed reasonably".
4. The general principles of said water tariffs are cost recovery reasonability, water use efficiency and social equity. The department should atleast recover operation & maintenance, depreciation and interest cost, if not the entire costs by way of tariff
5. However, it would involve increasing the rates manifold, Therefore, HWRA is constrained to restrict the steep hike in the proposal.
6. The major objective for increase in tariff of treated waste water is increasing the revenue for financial sustainability of treated waste water system and gradual shifting to reuse of treated waste water from surface and groundwater by stakeholders and promoting economic efficiency in the use of water.
7. The efficient water usage is an essential part of water consumption and behavioral change of the users is need of the hour to save groundwater and surface water by use of treated waste water. The main objective is also to ensure that the treated waste water should not go into drains and is utilized effectively. The rates



have been kept low due to the fact that the users should understand the need for use of TWW in wake of stresses on water resources.

8. Now, therefore, the Authority, in the exercise of the powers conferred under the Section 18 (i) of the Haryana Water Resources (Conservation, Regulation and Management) Authority Act, 2020 hereby decide the revision of treated waste water tariff, other than agricultural use. The revised rates will be as under:-

TWW Existing Tariff	TWW Tariff decided by the Authority
₹ 2/- per KL	₹ 4/- per KL at STP site
₹ 3/- per KL	₹ 5/- per KL at door step

9. The government has already decided that tariff for TWW for Agriculture is exempted. HWRA is in agreement to the proposal of PHED that TWW may be supplied free of cost for use in agriculture. These rates will be applicable w.e.f 1st August, 2022.

Date: 15/07/2022.

-sd-
Chairperson,
Haryana Water Resources Authority

[Note: This order is appealable under Section 18 B of the HWRA Act, 2020. Haryana Water Resources (Conservation, Regulation and Management) Authority Draft Rules, 2022 available on the website of I&WRD i.e. <https://hid.gov.in/>].



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PUBLIC HEALTH ENGINEERING DEPARTMENT, HARYANA

Bays No. 13-18, Sector-4, Panchkula-134112
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SNK Toll Free No. 1800-180-5678

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PHED-I

From

The Engineer-in-Chief, Haryana
Public Health Engineering Department
Panchkula

To

The Chief Executive Officer,
Haryana Water Resources Authority,
Sector-6, Panchkula.

Memo No. 10135 -PHED(Urban) Dated, the 03.02.2022

Subject Meeting regarding implementation of re-use of Treated Waste Water Policy, 2019 – Refixation of tariff for Treated Waste Water.

Kindly refer to your office memo No. 126-36/CEO/HWRA Dated 01.02.2022 vide which it has been asked to send a self speaking note on calculations of treated water & bulk water, availability of water the subject noted above,

In this connection, it is intimated that Public Health Engineering Department is the principal department of the State Government for providing and maintaining drinking water supply in rural areas and water supply, sewerage and storm water drainage facilities in the urban areas as well as construction of Sewage Treatment Plants in the Towns except that in Faridabad, Gurugram, Karnal, Sonipat, Panipat & Panchkula. The drinking water supply schemes are predominantly based on tubewells / surface sources (canal based) and Ranney Wells. There are 123 Sewage Treatment Plants installed in various towns at the level of Public Health Engineering Department. In addition, recently, one 8 MLD STP at Bhuna has been installed and the same is under trial run period. In reference to letter received from HWRA, the following is submitted as under:-

- 1) **Haryana State has notified on 05.11.2019 Reuse of Treated Waste Water (TWW) Policy** which envisages maximizing the collection and treatment of sewage generated and reusing the TREATED WASTE WATER on a sustainable basis, thereby reducing dependency on fresh water resources and to promote TREATED WASTE WATER as an economic resource". The said policy includes para-13 on the pricing principles and the same are reproduced as under:-



13 PRICING PRINCIPLES

The TWW shall be considered as an economic commodity while determining the price of TWW. The price of TWW shall be determined keeping in view a cost or factors such as investment made on developing infrastructure for sewage collection and treatment, quality of treated water supplied, requirement of distribution infrastructure and other social, cultural and business factors.

13.1 Price of fresh water

The price of TWW shall be kept lower than the price of fresh water as notified by the Government from time to time.

13.2 Factors for consideration

While deciding the price of TWW, the SLHPC shall consider the following factors:

- 1) Life cycle cost analysis (15 years) of the STPs, which include capital, operation & maintenance cost of the project.
- 2) Recovery of part capital and operation & maintenance cost incurred on the distribution network and allied structures for providing TWW.
- 3) Recovery of part operation & maintenance cost of STP.
- 4) Recovery of part capital as well as operation & maintenance cost of providing tertiary treatment, if any at the STP.
- 5) Recovery of part operation & maintenance cost of sewage collection system may also be considered.

13.3 Variation and escalation

The price fixed for TWW shall be for the first year and a suitable price escalation clause shall be incorporated in the agreement to be executed with the users. The price of TWW can be reviewed again, after every five years by SLHPC.

13.4 Recovery and Billing

Implementing Agency shall develop and have in place automated systems of measurements, billings and recovery of water charges. Facility of on-line payments shall also be provided for the benefit of the users.



13.5 Purchase Agreements

A purchase agreement shall be executed between the implementing agency and the user. The agreement shall be comprehensive and should not contain any ambiguity. It should vividly indicate the terms and conditions of the water purchase and shall include in-built provisions for settlement of disputes, arbitration etc.

- 2) In the State, there are 170 Sewage Treatment Plants (STPs) / Common Effluent Treatment Plant (CETPs) having total capacity of 1966.50 MLD installed by different departments i.e. PHED, HSVP, HSIIDC, GMDA, ULBD in various towns. At present, 1202.96 MLD sewage is being generated from these STPs / CETPs – A sheet showing number of STPs/ CETPs, their Capacities and present generation is attached for your reference as **Annexure-1.**
- 3) Earlier, Minutes of Meeting held on 04.02.2020 under the Chairmanship of worthy Additional Chief Secretary to Government Haryana on Implementation of Reuse of Treated Waste Water Policy – Recommendation on Tariff of Treated Waste Water (TWW) for use in Irrigation and other purposes etc. It was decided that the rates be kept at par with other departments and already notified by Government which are as under:-
 - a) **The rate for supply of treated effluent at STP site for consumption other than agriculture shall be Rs. 2/- per Kilo Litre (KL).**
 - b) **The rate for treated effluent at door step of industrial unit shall be Rs. 3/- per Kilo Litre in case the infrastructure already exists**

It was also decided that State Level Technical Committee (SLTC) of TWW may get issued the notification for rate of supply of the Treated Waste Water for different purposes on above suggested basis.

- 4) Haryana Government has notified vide No. 19/1/2017-3PH dated 03.04.2021 on Water Tariff in supersession of Haryana Government notification issued vide No. 11/79/89-PH(4) dated 09th /10th January, 1991 and instruction issued from time to time on water charges and water connections fees, the Governor of Haryana pleased to revise the rates on tariff of water charges, water connection fees and other rates for villages other than villages falling under Municipal areas as below:-



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PUBLIC HEALTH ENGINEERING DEPARTMENT, HARYANA

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“The rates for supply of treated effluent at STP site for consumption other than agriculture shall be Rs. 2/- per Kilo Litre (KL). The rate for treated effluent at door step of industrial unit shall be Rs.3/- per Kilo Litre in case the infrastructure already exists.”

- 5) It has been desired to revise the tariff for treated waste water and the recommendations thereof to Government for issuance of notification. Accordingly, cost analysis for fixation of tariff of treated waste water has been carried out and a copy of the same is attached for your reference. The following assumptions have been made as under:-

Capital Cost of STP	Rs. 125.00 Lakh per MLD cost
Capital cost of sewer line (in big city)	Rs. 25.00 Lakh per km
Capital cost of sewer line (in small city)	Rs. 21.00 Lakh per km
O&M Cost (STP + Sewerage network)	Actual as per Annual maintenance estimates
Cost of conveyance system of Treated Waste to doorstep of the consumer	Rs. 1.00/- Per Kilo Liter

- 6) The extract of the tabulated information is as under:-

Sr. No.	Description	Calculation	Total
1	Number of Towns	-	80
2	Number of STPs	-	123
3	STP / Tertiary Treatment etc. installed – Capacity (in MLD)	-	1028.90
4	Length of sewerline (in KMs)	2630 KMs for 59 towns and 5944.17 KMs for 21 towns	9271.12
5	Unit cost of STP (Rs. In lakh / Per MLD)	Rs. 125.00 Lakh / Per MLD	125.00
6	Average Unit cost of laying of sewerline (Rs. In Lakh / per KMs) of different sizes	21.00-Small Towns and 25.00 – Big Towns	21.00 / 25.00
7	Per year Cost of sewage treatment plants / tertiary treatment (Rs in Lakh) (Life of STP taken 15 years) Sr. No.3 x Sr. No. 5 / 15	(1028.90 x 125) / 15	8574.17
8	Per year Cost of laying of sewerage system (in Rs in Lakh.) (Life of STP taken 30 years) Sr. No.4 x Sr. No. 6 / 30	(2630x21+5944.17x25) / 30	7250.18
9	Per Year Total cost of STP + Sewerage (Rs in Lakh) (Sr No.7 + Sr No 8)	8574.17 +7250.18	15824.35

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PUBLIC HEALTH ENGINEERING DEPARTMENT, HARYANA

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Sr. No.	Description	Calculation	Total
10	Cost of Maintenance estimates (Rs in Lakh)	Based On Maintenance Estimates	21050.21
11	Total cost of Sewerage System + O&M (Rs in Lakh) (Sr No.9 + Sr No10)	15824.35+21050.21	36874.56
12	Per KL Cost (in Rs.) for Sewerage System + O&M {(Sr No.11 /Sr No 3) x(100000/1000)} /365	$\{(36874.56/1028.90) \times (100000/1000)\} /365$	9.82
13	Per KL Cost of Conveyance system of Treated Waste water to doorstep of the consumer (in Rs.)	1.85	1.85
14	Total Per KL Cost (in Rs.)	9.82+ 1.85	11.67
15	Per KL Cost (in Rs.) for Sewerage System + O&M, Assuming 40% recovery (Sr. No.12 x 0.40)	9.82 x 0.40	3.93 (Say Rs.4.00)
16	Per KL Cost of Conveyance system of Treated Waste water to doorstep of the consumer (in Rs.) Assuming 40% recovery (Sr. No.13 x 0.40)	1.85 x 0.40	0.74 (Say Rs. 1.00)
17	Total (in Rs.) (Sr. No.15 + Sr. No. 16)	3.93 + 0.74	4.67 (Say Rs. 5.00)

Note: - A sheet showing the details of above towns is attached as Annexure-

2.

In view of the above, it is recommended that the tariff of treated waste water may please be fixed as Rs. 4.00/- per KL at STP + Rs. 1.00/- Per KL at doorstep = Rs. 5.00/- per Kilo ltr.

DA/ As Above

Executive Engineer (Urban)
For Engineer-in-Chief, Haryana



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Annexure-'B'

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To be substituted bearing same no. and date

From

The Engineer-in-Chief, Haryana
Public Health Engineering Department
Panchkula

To

The Chief Executive Officer,
Haryana Water Resources Authority,
Sector-6, Panchkula.

Memo No. 62149 -PHED(Urban) Dated, the 15.07.2022

Subject Regarding implementation of re-use of Treated Waste Water Policy, 2019 – Refixation of tariff for Treated Waste Water.

In continuation to this office memo No. 10135-PHED(Urban) Dated 03.02.2022 and as discussed in the meeting regarding issue of finalization of clear bulk water and TWW rates under HWRA act held on 15.07.2022 on the subject noted above, the following is clarified / recommended as under:-

- 1) The rate for supply of treated waste water at STP site for consumption other than agriculture shall be considered as Rs. 4.00 per Kilo Litre (KL).
- 2) The rate for treated waste water at doorstep shall be considered as Rs. 5.00/- per Kilo Litre (KL).
- 3) In the 54th meeting of WSSB held on 30.06.2021 under the Chairmanship of Hon'ble CM, Haryana in the capacity of President, WSSB, it has been proposed that Irrigation Department may be supplied treated waste water free of cost for use in agriculture.

This is for your information and necessary action.

J. Saini
15/7/2022
Assistant Engineer (Urban)
For Engineer-in-Chief, Haryana

15/07