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F. No. RW/NH-33044/14/2003-S&R(R) pt. II
Government of India
Ministry of Roads Transport & Highways
(S&R (P&B) Section)
Transport Bhawan, 1, Parliament Street New Delhi-110001

OFFICE MEMORANDUM

Dated : 18th October, 2019

Subject: - Citizen and State actions for water conservations, augmentation and preservation- reg...

Ref: (i) Ministry's even no. circular dated 05th September, 2013.
(ii)Ministry's even no. circular dated 03rd September, 2019.
(iii)OM No. M-65022/11/2019-NWM/592-595 dated 19th June, 2019 (issued by Ministry of Jal Shakti)

Kindly refer to the OMs mentioned at reference regarding water conservations, rain water harvesting and Artificial Recharging of ground water.

2. As we are aware, water is not an infinite resource and sources of water get dwindled day by day and in some of the areas in India have come into category of severe to critical due to over-exploited and soon those areas may reach the level of "Day Zero". Hence there is an urgent need to conserve every drop of water.

3. Vide ref. (iii) above, Department of Water Resources, RD & GR, Ministry of Jal Shakti has requested to spread awareness of Water Conservations among officials. It is also suggested that we can reduce the water usage while washing hands in toilets and canteens, if a contraption called "Aerator" which is easily available in the open market and through online shopping is attached to the taps. It can save upto 80% of tap water in every use this way. In total million liters of water can be saved all over the country if this intervention is implemented.

4. In the view of the above, it is requested to ensure that **"Rain Water Harvesting Structures"** (RWHS) like dug wells, bore wells, recharge trenches, recharge pits etc. are built in every premises so that rainwater is conserved and used to *recharge the groundwater aquifers* & **Aerators** may be installed in all taps of toilets in offices to save water..

Raj Kumar 18.10.2019

(Raj Kumar)
Assistant Executive Engineer, S&R
For DG (RD) &SS

Encl: As Above

To,

1. **All CE-RO/SE- RO MoRTH**
2. **Joint Secretary, General : With a request to take necessary action in the matter.**
3. **Director, NIC: With a request to host it on MoRTH's Website**

Copy for information and necessary action to:-

1. PPS to Secretay (RT&H)
2. PPS to DG (RD) & SS
3. PPS to SS&FA
4. PS to ADG (SSN)
5. PS to ADG (YB)

No. RW/NH-33044/14/2003-S&R(R) Pt. II
GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
(S&R(P&B) Section)
Transport Bhawan, 01, Parliament Street, New Delhi-110 001

Dated: 03rd September, 2019

To,

1. The Chief Secretaries of all the State Governments/ UTs
2. The Principal Secretaries/ Secretaries of all States/ UTs Public Works Department dealing with National Highways, other centrally sponsored schemes.
3. All Engineers-in-Chief and Chief Engineers of Public Works Department of States/ UTs dealing with National Highways, other centrally sponsored schemes.
4. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi-110 010.
5. The Chairman, National Highways Authority of India, G-5 & 6, Sector-10, Dwarka, New Delhi-110 075.
6. The Managing Director, NHIDCL, PTI Building, New Delhi-110001
7. All CE-ROs, ROs and ELOs of the Ministry

Subject:-Rain Water Harvesting and Artificial recharging along National Highways-Standard Operating Procedure.

One of the way of improving the water table is to capture the rain water and utilize it for recharging of ground aquifers. It should be endeavour of all the Authorities including Highway Authority to contribute towards improving the ground water table and making available more storage of water for our needs. Ministry has already issued guidelines for the construction of rain water harvesting along National Highways vide circular dated 05th September, 2013 (copy enclosed).

2. Adopting the guidelines as stipulated in above said circular dated 05th September, 2013, the following Standard operating procedure to be adopted for providing Water Harvesting:

(i) The Consultant shall identify the locations of Rain Water Harvesting and Artificial recharging along National Highways and shall include this as a part of draft/final DPR.

(ii) The locations and design of such structures (i.e. dia/length of recharge shaft etc.) shall be based on the rain fall intensity and geo-technical strata. The guidelines & norms issued by Central Ground Water Board may also be adopted while finalizing the location and design of Rain Water Harvesting.

(iii) Rain Water Harvesting and Artificial recharging shall be provided on all the building

Aditya Dhar 03/09/19

and structures such as Toll Plaza building, wayside amenities, grade separated structures etc. which are to be developed as a part of the project corridor.

(iv) Details of locations etc. of the Rain Water Harvesting and Artificial recharging structure shall be incorporated in Schedule C invariably.

(v) In cases where DPR has already been completed necessary provision for such structures may be incorporated in Schedule C by the executive agencies as per site requirement.

(vi) Generally in Schedule C provision of Rain Water Harvesting has been kept as per applicable rule of Government of India. All the executive agencies shall ensure that Rain Water Harvesting arrangements are provided by all the Contractor/Concessionaire.

(vii) It should be ensured by all the executing agencies before issuance of completion certificate that Rain Water Harvesting and artificial recharging arrangements have been provided by the Contractors/Concessionaires and these are functional and recorded in completion certificate with location Chainage.

(viii) Periodic cleaning and maintenance of such structures/ arrangements to ensure its proper functionality shall also be the part of the maintenance contract/ EPC contract/ HAM contract during operation period.

4. The action taken report on this circular may be submitted to this Zone of the Ministry as per the given Performa:-

Month:

Name of State	Project Name	Rain Water Harvesting Constructed (Nos.)	Rain Water Harvesting maintained/ functional (Nos.)

5. The contents of this Circular may please be brought to the notice of all the Concerned in your Organization.

Adityadhar
03/09/19

6. This Circular issues with the approval of Secretary (RT&H).

Yours faithfully,

Aditya Dhar 03/09/19

Encl : As above

(Aditya Dhar Dwivedi)
Assistant Executive Engineer - S&R (P&B)RS
For Director General (Road Development) & SS

Copy to:

1. All CEs in the Ministry of Road Transport & Highways
2. The Secretary General, Indian Roads Congress
3. Technical circular file of S&R (R) Section
4. NIC-for uploading on Ministry's website under "What's new"

Copy for kind information to:

1. Sr. PPS to Secretary (RT&H)
2. PPS to DG (RD) & SS
3. PPS to AS&FA
4. PS to ADG-I/ ADG-III
5. PS to JS (T)/ JS (H)/ JS (LA&C)/ JS (EIC)

GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Transport Bhawan,
1, Parliament Street,
New Delhi – 110001

No. RW/NH- 33044/14/2003- S&R(R) (Pt.II) Dated: the 5 September, 2013

To

1. The Chief Secretaries of all State Governments/U.Ts.
2. The Principal Secretaries /Secretaries of all States/U.Ts. Public Works Department dealing with National Highways, other Centrally Sponsored Schemes and State Schemes.
3. The Engineers-in-Chief and Chief Engineers of Public Works Departments of States/U.Ts dealing with National Highways, other Centrally Sponsored Schemes and State Schemes.
4. The Chairman, National Highways Authority of India, G-5 & 6, Sector-10, Dwarka, New Delhi-110 075.
5. Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi- 110 010.

Subject: Tentative Guidelines for drainage through Rain Water Harvesting and Artificial recharging along National Highways

The surface run-off from roads is huge in quantity and is further increasing due to large construction programme of roads in the country. This run-off needs to be properly managed so that it does not go waste. One of the ways is to utilize this water to recharge ground water which is depleting due to increasing use of water for various development activities.

2. Considering that the average annual rainfall in India is about 1100 mm, the total annual volume of run-off from a 1 km long National Highway, taking run-off efficiency as 80%, is: 1000 m x 7 m x $\frac{80}{100}$ x $\frac{1100}{1000}$ mm = 6160 cubic metres = 61,60,000 litres.

3. As per Ministry of Environment and Forests Notification, dated 8 October, 2009 and 23 April, 2010, construction of Rain water harvesting structure/ adoption of artificial recharge of ground water in the country is to be taken up by all government departments to augment ground water resources and to save it from further depletion. In this regard this Ministry had also issued necessary directions vide OM No RW/NH/33023/1/2008- S&R (R) dated 1st June, 2010.

4. Indian Road Congress has recently revised the guidelines on urban drainage viz. IRC: SP: 50 to address the large number of infrastructure projects like widening of roads to multilane facilities, construction of flyovers, subways, metro etc. to address internal drainage of pavement structure, drainage of sub grade, surface and sub-surface drains etc. IRC SP 50 also has emphasized the need for artificial recharging.

5. It has, accordingly, been decided to introduce artificial recharging methods along the National Highways to substantially improve drainage as per IRC SP 50.

6. Filter system shall also be ensured as per IRC SP 50.

7 Artificial recharging can be taken up under Plan works where required.

8. The advice of Central Ground Water Board shall also be utilized for developing site specific cost-effective recharge augmentation techniques.

9. Where no guidelines are available, as a thumb rule, all Road projects may have one recharge shaft of 0.5 m dia for 10 to 15 m depth (as indicated in Expressway guidelines published by Ministry) one on each side of the carriageway along the side drain at the lowest point/ where water stagnates, in each km as part of the project.

10. The contents of this Circular may please be brought to the notice of all concerned in your Organization. Feedback on these guidelines is solicited, so that appropriate policy guidelines could be evolved for adoption.

This issues with the approval of Competent Authority.

Yours faithfully,

(Sanjay K Nirmal)
Superintending Engineer (S,R&T) (Roads)
For Director General (Road Development) & SS

Copy for information and necessary action to:

1. PS to Honourable Minister RT&H
2. PPS to Secretary, RT&H
3. PPS to DG(RD) & SS
4. All ADGs / JS (H) / JS (E&IC)
5. All Technical officers in the Ministry of Road Transport & Highways
6. All ROs and ELOs
7. The Secretary General, Indian Roads Congress
8. The Director, IAHE
9. Technical Circular file of S,R&T Section
10. NIC, for uploading on the website

M-65022/11/2019-NWM/592-595
Government of India
Ministry of Jal Shakti
Department of Water Resources, RD & GR
(National Water Mission)

2nd Floor, Block No.3
CGO Complex, Lodhi Road, New Delhi
Dated: 19th June, 2019

Office Memorandum

Sub: - Citizen and State actions for water conservation, augmentation and preservation.

The undersigned is directed to say that water is not an infinite resource and sources of water will dwindle due to global warming, over-exploitation, human errors etc. Water table is going down day-by-day and in some of the areas in India have come into the category of severe to critical. Some of the areas are over-exploited and soon those areas may reach the level of "Day Zero". Hence there is an urgent need to conserve every drop of water.

2. A lot of water is being used in toilets and canteens of Govt. Offices. It is noticed that many times water taps used there are not closed properly resulting in the wastage of a large quantity of water due to free flow of water these open taps. It should be ensured that leakages from these taps are plugged.

3. We can reduce the water usage while washing hands in toilets and canteens, If a contraption called "Aerator" Which is easily available in the open market and Through online shopping is attached to the taps (as enclosed). We can save upto 80% of tap water in every use this way. In total million liters of water can be saved all over the country if this intervention is implemented.

4. It is requested that awareness for Water Conservation water may be spread among officials of your Ministry/Department by issuing directions to keep water taps closed when they are not in use. Directions may also be issued to all concerned to install a water saving device i.e. "Aerator" at the outlet of water taps as a contribution towards Water Conservation.

5. This issues with the approval of Mission Director, National Water mission.

Encl: As above

Vinod

(Vinod Kumar)
Under Secretary to the Govt. of India
Ph. 24368985

To all Ministries/Departments.

Copy for information to:

1. O/o Hon'ble Minister for Jal Shakti, Shram Shakti Bhawan, New Delhi.
2. O/o Hon'ble MoS, Jal Shakti, Shram Shakti Bhawan, New Delhi.
3. O/o Secretary, Department of WR, RD&GR, Shram Shakti Bhawan, New Delhi.
4. O/o Addl. Secretary, Department of WR, RD&GR, Shram Shakti Bhawan, New Delhi.
5. MD(NWM), Block-3, CGO Complex, New Delhi.

2AA

Subject: [No subject]
To: G Asok Kumar <ed.projects@nmcp.nic.in>

Date: 06/08/18 01:35 PM
From: "G Asok Kumar" <asok.nwm@gov.in>

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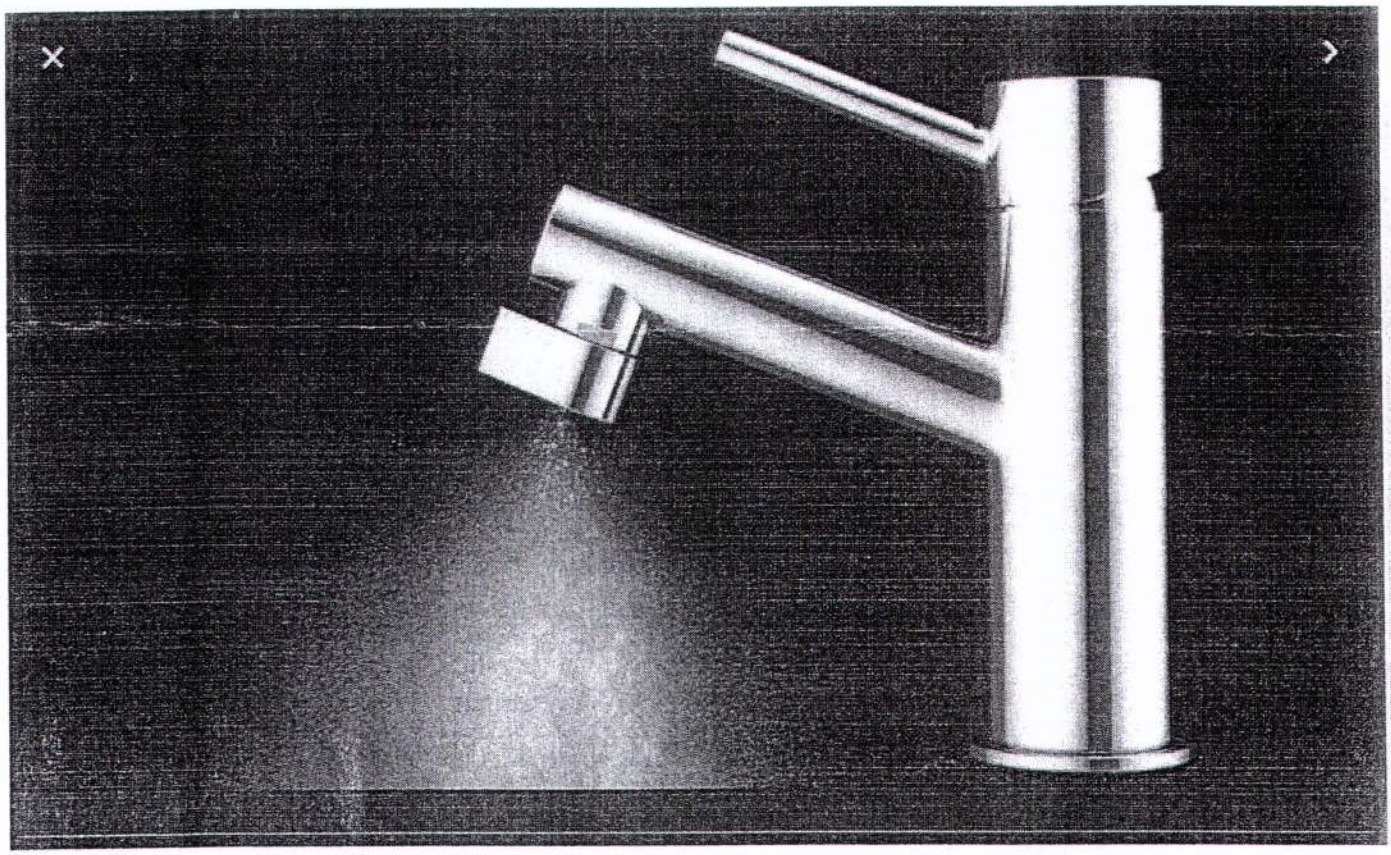
Capture 1.JPG



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