



### **ABSTRACT**

Mahatma Gandhi National Rural Employment Guarantee Scheme – Construction of 9300 Recharge Pit across streams, bed / Natural drain at a unit cost of Rs.34,000/- under MGNREGS for the year 2017-18 – Permission accorded - Guidelines approved - Orders issued

### **RURAL DEVELOPMENT AND PANCHAYAT RAJ (CGS.1) DEPARTMENT**

**G.O.(Ms).No.7**

**Dated: 05.01.2018**

**Read:**

From the Director of Rural Development and Panchayat Raj Letter No. 26932/2017/ MGNREGS-I-1, Dated 02.05.2017

### **ORDER:**

The Director of Rural Development and Panchayat Raj has stated that during the Empowered Committee meeting of the Government of India for approval of Labour Budget, it has been decided to take up 9,300 Recharge Pit for the year 2017-18 under MGNREGS. Further the revised Schedule I of the MGNREGA Act Para 4(1)(l)(i) permits taking up construction of Recharge Pit in common land.

2. The Director of Rural Development and Panchayat Raj has also stated that ground water conservation is particularly important in arid and semi arid regions, with meagre surface and ground water in remote isolated habitations, in difficult terrains and where there is rapid depletion of groundwater due to over exploitation. Further, during rainfall, large amount of water is lost by runoff and drains into river / sea and also evaporation without conservation leads to depletion of ground-water. Therefore, Recharge pit helps to enhance ground water through cost effective artificial recharge techniques.

3. The Director of Rural Development and Panchayat Raj has also stated that a unit cost of the model estimate for the Citizen Information Board of size 2m x 3m is Rs.3,000/-. But, it will be reduced to 850/- per unit if there is any existing wall structural near the recharge structure. If two or more recharge pits are placed in the same Stream/channel, the community type Citizen Information Board will be fixed at a cost of Rs.4,500/- per unit. If there is any existing wall structure near by the recharge pit, then the wall painting with acrylic emulsion paint of approved brand, letter writing and logo painting at a cost of Rs.1,000/- per unit will be adopted. This will be communicated to all the implementing agency at the district level.

4. The Director of Rural Development and Panchayat Raj has further stated that as per the Central Water Board two types of ground water recharge method are suggested:

1. Permeable soil at deeper depth:

- Recharge pit at a depth of 1.5m from ground level and drilling of borehole for a depth of 5m from level of recharge pit upto permeable soil for recharge of ground water with boulder check at a unit cost of Rs.34,000/- is recommended.

## 2. Permeable soil at shallow depth:

- Simple pit for recharging the water with boulder check at a unit cost of Rs.31,000/- is recommended.

5. The Director of Rural Development and Panchayat Raj has worked out the funding pattern for Recharge Pit across streams bed / Natural drain as follows:-

(Rupees in Crore)

| Description                                   | Material Component (70%) |                 |       | Labour Component (30%)<br>(Central Share 100%) | Grand Total |
|---|--------------------------|-----------------|-------|--|-------------|
|   | Central Share 75%        | State Share 25% | Total |  |             |
| Cost for 9300 Recharge Pit (9300 x Rs.34,000) | 16.60                    | 5.53            | 22.13 | 9.49   | 31.62       |

6. The Director of Rural Development and Panchayat Raj has therefore requested orders for construction of 9300 Recharge Pit across streams bed / Natural drain at a unit cost of Rs.34,000/- during the year 2017-18 under MGNREGS and approval of the guidelines therefor.

7. The Government, after careful examination of the proposal of the Director of Rural Development and Panchayat Raj, hereby accord permission for the construction of 9300 Recharge Pit across streams bed / Natural drain at a unit cost of Rs.34,000/- during the year 2017-18 under MGNREGS and approve the guidelines annexed to this order subject to the following conditions:

- To ensure foolproof mechanism to ascertain the depth and limit the actual expenditure to the site situation.
- Geotagging may be ensured and there should be clear mechanism for verifying that the works have actually been done.

8. This order is issued with the concurrence of Finance Department vide its U.O.No.31379/RD/2017, dated 20.11.2017.

**(BY ORDER OF THE GOVERNOR)**

**HANS RAJ VERMA  
ADDITIONAL CHIEF SECRETARY TO  
GOVERNMENT**

To

The Director of Rural Development and Panchayat Raj,  
Chennai – 15.

All District Collectors (Except Chennai) (Thro' the Director of Rural  
Development and Panchayat Raj, Chennai – 15)

All Project Directors, District Rural Development Agencies

(Thro' the Director of Rural Development and Panchayat Raj, Chennai – 15)

The Accountant General, Chennai – 18.

Copy to:

The Pay and Accounts Office (South), Chennai – 35.

The Finance (RD) Department, Chennai – 9

Chief Minister's Office, Secretariat, Chennai-9.

The Senior Personal Assistant to Hon'ble Minister (Municipal Administration,  
Rural Development and Implementation of Special Programme), Chennai-9.

The Principal Private Secretary to Additional Chief Secretary to

Government, Rural Development and Panchayat Raj Department, Chennai – 9.

The Rural Development and Panchayat Raj (OP.2) Department, Chennai – 9

The National Informatics Centre, Chennai – 9.

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**//FORWARDED BY ORDER//**

*A. C.*  
*5/1/18*  
**SECTION OFFICER**

*6/1/18*  
*5/1/18*

## ANNEXURE

### GUIDELINES ON RECHARGE PIT

**(G.O.(Ms).No.7, RURAL DEVELOPMENT AND PANCHAYAT RAJ (CGS-1)  
DEPARTMENT, DATED : 05.01.2018)**

#### **Introduction**

Ground water conservation is particularly important in arid and semi arid regions, where availability of surface and ground water is meager and in remote isolated habitations in difficult terrains, and where there is rapid depletion of groundwater due to over exploitation.

During rainfall, large amount of water are being lost by runoff and drains into natural river / sea and evaporation of the excess water also leads to depletion of ground-water. So, it becomes important to conserve the water available due to excess rains, unexpected non – seasonal rains. Therefore, it is proposed to conserve the rain water through artificial recharge techniques like Recharge pit.

The basic requirements for recharging the ground water reservoir are:

- a) Availability of non-committed surplus monsoon runoff (i.e which otherwise runs into Streams / sea) of suitable quality in duration and time.
- b) Identification of suitable geological environment and sites to enhance the groundwater through cost effective artificial recharge techniques.

#### **RECHARGE PIT:**

Recharge pits are normally excavated pits, which are sufficiently deep to penetrate the low-permeability layers (clay / silt) overlying the unconfined aquifers (weathered rock, murrum). Channel trench is a special case of recharge pit dug across a stream bed. Ideal sites for such trenches are influent stretches of streams.

#### **Site selection:**

- In ponds / tanks / ooranies where the weathered or fractured rocks are at a considerable depth below the top clay soil (about 1- 2 m thickness).
- The permeability of the underlying strata should be ascertained through infiltration tests before taking up construction of recharge pits. Also, the underlying strata may be ascertained from nearby Wells or water bodies (ponds, ooranies).

#### **Construction methodology:**

- The recharging capacity of the pits increase with their area of cross - section. Hence, it is always advisable to construct as large a pit as possible.
- The side slopes of recharge pits shall be decided as per soil strata to reduce clogging and sedimentation on the walls of the pit.
- The bore hole diameter of 150mm – 300mm may be provided at the centre of pit and reaches into the aquifer.
- Unlined bore hole (no casing pipe) may be preferred.
- In case the selected location is stream/channel bed, boulder check dam may be provided to downstream side of the recharge pit to facilitate stagnation of water.
- The borehole may be backfilled with 63 – 40mm metal.
- The depth of bore hole should reach the permeable strata by penetrating the overlying low permeable layer, but need not necessarily touch the water table.

The cost of single unit is Rs 34,000/- The labour, material component ratio for this work is 30:70 .The total man days for this work are 50.

- Photographs shall be taken before execution, during execution and after completion of work.
- Citizen Information Board shall be kept at the work site in 2 X 3 feet with all necessary information as per the framework given by the Gol vide Ref No: k11023/1/12017 – MGNREGA (IV), MORD, Dt. 07.04.2017.The cost of the information board shall be included in the estimate itself.
- Geo Tagging of the Assets shall be done after completion of the work.
- All the work site should have MGNREGS work file (Checklist / Contents) as per the instructions of Gol, Vide Ref No: J-11017/6/2016 – MGNREGA (VII), MORD, dated 21.12.2016.

HANS RAJ VERMA  
ADDITIONAL CHIEF SECRETARY TO  
GOVERNMENT

// TRUE COPY //

*W. C. Singh*  
SECTION OFFICER

*5/1/18*