NORMS FOR PROVIDING POTABLE DRINKING WATER IN RURAL AREAS

While implementing the Rural Water Supply Schemes, the following norms are adopted for providing potable drinking water to the population:

40 litres per capita per day (lpcd) for humans to meet the following requirements.

Purpose	Quantity (LPCD)
Drinking	3
Cooking	5
Bathing	15
Washing utensils & house	7
Ablution	10

With normal output of 12 litres per minute, one handpump or standpost is estimated for every 250 persons. In case of an independent habitation/hamlet/Wadi/Tola/Majra/Mohra etc, if their population is less than 250 persons and there is no potable water source within its location, one source may be provided . A rural habitation not having any safe water source with a permanently settled population of 20 households or 100 persons, whichever is more, is taken as the unit for coverage with funds under the ARWSP. However, the State Government could cover any habitation regardless of its size/population/number of households with funds under State Plan.

Definition of habitation

A 'Habitation' is a locality within a village where a cluster of families reside. The total population should be 100 or more for consideration for coverage under the rural water supply norms laid down by the Department (Section 2). It is generally assumed that around 20 families reside in a habitation. Average number of persons in a family is taken as 5. In case of hilly areas, a habitation may have a population, which is less than 100.

Coverage Status

NC (= Not Covered) for the census village means there is not even a single safe of drinking water in the village as per existing norms and guidelines of the Mission. The drinking water source/ point does not exist within 1.6 k.m. of the habitation in the plains or 100 meter elevation in hilly areas. (The source/ point may either be public or private in nature); Habitations having a source affected with quality problems such as excess salinity, iron, fluoride, arsenic or other toxic elements or biologically contaminated; Habitations where quantum of availability of safe water from any source is not enough to meet drinking and cooking needs (i.e. below 10 lpcd).

PC (= Partially Covered) means that supply of drinking water is less than 40 litres per capita per day as per the existing norms and guidelines of the Mission. Habitations which have a safe drinking water source/ point (either public/ private) within 1.6 k.m. in plains and 100 meter in hilly areas but the capacity of the system ranges between 10 lpcd to 40 lpcd, should be categorized as Partially Covered (PC).

FC (= Fully Covered) means that entire population in all the habitations including the main habitation is providing with drinking water as per the existing norms and guidelines of the Mission.

Level of Water Supply

The level of water supply means actual quantity of the drinking water in litre per capita per day (lpcd) provided to the population.

Number of Water sources required as per norms.

Number of sources required for habitations other than main habitation – the number of sources actually required is to be calculated on the basis of one source for every 250 persons. However, if the population of the habitation is less than 250 but the habitation is located within 1.6 k.m. of another habitation or main habitation, the population can be grouped in cluster of 250 each to determine the number of sources. In case the habitation is located at more than 1.6 k.m. from the main/ nearest habitation, one source is needed independently irrespective of the population. Accordingly the number of sources required are to be worked out and entered in this column.

Safe Source

A source is said to be safe if it is free from physical, chemical bacteriological and biological contamination and conforms to the drinking water quality standards prescribed. The recommended standards acceptable and cause for rejection for drinking water in India by WHO and BIS is as follows:

Sl.No.	Characteristics	Acceptable	Cause for rejection
1.	Turbidity (NTU)	1	10
2.	Colour (Units on Platinum Cobalt Scale)	5	25
3.	Taste and Odour	Un objec-tionable	Objectionable
4.	PH	7.0 to 8.5	<6.5 or >9.2
5.	*Total dissolved solids (mg/l)	500	2000
6.	Total hardness (as CaCO3) (mg/l)	200	600
7.	Chlorides (as Cl) (mg/l)	200	1000
8.	Sulphates (as SO4) (mg/l)	200	400
9.	Fluorides (as F) (mg/l)	1.0	1.5
10.	Nitrates (as NO3) (mg/l)	45	45
11.	Calcium (as Ca) (mg/l)	75	200
12.	Magnesium (as Mg) (mg/l)	30	150
13.	Iron (as Fe) (mg/l)	0.1	1.0
14.	Manganese (as Mn) (mg/l)	0.05	0.5
15.	Copper (Cu) (mg/l)	0.05	1.5
16.	Arsenic (mg/l)	0.05	0.05

* For determination of habitation with salinity problem, TDS limit (cause for rejection for rural areas)is fixed at present at 1500 mg/l against the recommended limit of 2000 mg/l. According to convention, salinity is measured based on TDS characteristics. TDS has close co-relation with salinity.

B. Design

(a) In order to have maximum coverage with the limited available resources, the schemes to be taken up under the ARWSP are designed on the basis of 40 litres per capita per day (lpcd).

(b) In case of hand pump schemes one source should be provided for every 50-300 persons. Pipe water supply schemes are designed for supplying water through public stand-posts and house connections (where adequate drinking water is available). In Meghalaya, being a hilly terrain & people are living scatteredly in a habitations, no fixed norm for the number of stand-posts can be fixed and is based on actual requirement vis-vis technical feasibility & availability of water.

(c) The schemes are framed for a designed the population in a period of 15 years. In general, the increase in the projected population for the design period should not exceed 40% of the 2001 census population.

(e) Cost effective designs evolved under the Technology Mission are adopted under the ARWSP & State Sector (MNP).