

# JAMNAGAR MUNICIPAL CORPORATION

## WATER WORKS

### DRINKING WATER QUALITY MONITORING SYSTEM

#### Treatment of Water

Water treatment plants consist of units like Raw water chamber, Raw water canal, Flash Mixer, clarifier with stirrer, Sedimentations tank , Rapid gravity sand filter beds with false floor slab having nozzles Chemical house with chemical storage & dosing facilities, backwash tank and clear water sump etc.

#### Treatment given to water:

- Pre-Chlorination
- Alum/PAC 10 dosing/mixing
- Clariflocculator by CLR type clarifiers
- Filtration by declining rate type rapid gravity sand filters
- Post Chlorination

#### Water Quality Standards

Water Quality is maintained as per drinking water standards given in IS:10500

Sr No	Parameter	Unit	Acceptable limit Max.	Permissible limit in the absence of Alternate Source Max.
1	Colour	Hazen	5	15
2	Odour	-	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable
4	Turbidity	NTU	1	5
5	pH at 25 c	-	6.5 to 8.5	No relaxation
6	Total Dissolved Solid	mg/l	500	2000
7	Total hardness (as CaCO <sub>3</sub> )	mg/l	200	600
8	Calcium (as Ca <sup>+2</sup> )	mg/l	75	200
9	Magnesium (as Mg <sup>+2</sup> )	mg/l	30	100
10	Chloride (as Cl <sup>-</sup> )	mg/l	250	1000

11	Sulphate (as SO <sub>4</sub> <sup>-2</sup> )	mg/l	200	400
12	Nitrate (as NO <sub>3</sub> <sup>-</sup> )	mg/l	45	No relaxation
13	Fluoride (as F <sup>-</sup> )	mg/l	1	1.5
14	Total Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600

## Water Quality Monitoring

Water Quality is maintained as per drinking water standards given in IS:10500. Sampling of water is done at different stages to ascertain & assure right quality of water supplied to consumers. Detail of water sampling is given below:

Stage	Type of Test	Frequency
<b>Source of Raw water chamber</b>	Turbidity, FRC, pH	Twice a Day
	Physical-Chemical tests	Twice a Day
<b>WTP Outlet</b>	Turbidity, TDS, FRC, pH	Twice a Day
	Physical-Chemical tests	Monthly
	Bacteriological tests	Monthly
<b>Intermediate (At WDS)</b>	FRC – during inlet from WTP	Once in every supply from WTP
<b>Consumer end (During supply)</b>	FRC (At site)	Daily 50-60 samples
	Bacteriological tests	Daily one sample in one ward

If the citizen of Jamnagar city has any complain regarding quality of water supply through tap by Jamnagar Municipal Corporation they can approach and lodge complain at nearest zone ESR/JMC office or through website -mcjamnagar.com or through toll free number-18002330131/02882550131 or email at mcjamnagar@gmail.com.