

# An Explore of Drinking Water Portability Status from Schools of Sahastrakund Dist. Nanded Maharashtra State

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**Abstract:** A survey was implemented to assess the physical and chemical parameters of the drinking water available residential school Sahastrakund Nanded district. From one Km distance Penganga river passing but this rivers water is not useful for drinking purpose it's useful for agriculture and commercial. Only ground water is source of drinking purpose and it originate from recharge rainwater infiltration from surface area. The understand zone of land helps to reduce the concentration of water containing pollutants like harmful microorganisms but it may also act as a store of beneficial quantities of pollutants such as chlorides, fluoride, calcium, magnesium, phosphate etc .In present study the water quality of Six school in area of Sahastrakund was analysed to check it's portability status and after an investigation it is observed that out of eight parameters chlorides, total hardness fluoride and sulfates has found slightly high concentration as compared to other elements. If concentration of Fluoride leads to increase causes different types of dangerous disease like bone deformative, renal stones, osteoporosis, kidney failure etc. After an investigation the area of drinking water is not useful directly proper filtration or other water treatment essential otherwise it causes many harmful disease.

**Keywords:** Ground water, Sahastrakund School, water quality, portability, water filter parameters

## I. INTRODUCTION

Water is most important universal solvent it's useful for all living organisms including human being for drinking purpose. Most of our demands for water is fulfill by rain water which deposited in surface and ground water resources. Water occupies 71 percent of the earth out which only 2 to percent fresh water. Main source of fresh water is damp, lake, pond, Rivera d also ground water but our which ground water is better for drinking purpose because other sources of water is contaminated ie polluted water supported by (Fair G.M.etal1971). Ground water is most valuable and limited quantity for human and other animal. The quality of Ground water is deteriorated by action such as live stock, landfills, manual stacks, pesticides, insecticide and fertilizers etc. How to protect ground water it's our primary aim and avoid far away from School and college are centers for social economic development of living society and such institutes are leaders of next generation. Therefore maintenance of healthy environment in schools is essential and drinking water is primary requirement for healthy life and the integrity of aquatic ecosystems (Hiyama,2019). The available water in schools should be potable .

## II. MATERIALS AND METHODS

Drinking water samples were collected from the main Container of water from 6 different schools in plastic bottles . The samples were analyzed for 08 physicochemical and bacteriochemical parameters. Water samples were analyzed according to the standard methods directed by APHA(1995) and the standard methods of NEERI by Thrived and Goel (1986). water analysis addressed by pH value, fluoride and Kjeldahl nitrogen, electrical conductivity etc method

Physico-Chemical analysis of water samples collected from storage tank of six schools area of Sahastrakund.

Sr.no.	Parameters	Site 1st	Site2nd	Site3rd	Site4th	Site5th	Site6th
1	colour	colourless	colourless	colourless	colourless	colourless	colourless
2	odourless	odourless	odourless	odourless	odourless	odourless	odourless
3	Taste	salty	slight salty	salty	bitter	slight salty	bitter
4	pH	7.91	7.86	8.62	8.64	8.21	7.94
5	Dissolved oxygen	6.81	6.21	6.89	4.86	6.27	4.91
6	Total Hardness	291	286	309	356	291	336
7	Chlorides	281	268	283	409	301	401
8	Sulphate	108	103	148	198	118	203
9	Fluoride	0.81	0.76	0.83	1.13	0.74	1.16

All values are in Mg/lit.

### Study Area

Sahastrakund is small village but it is famous for water fall in Marathwada division. Near by Sahastrakund Penganga river passing and it's boundry of Marathwada and Vidharbha. From Sahastrakund two kilometres Islapur is big town and which contains near about 25 villages. Sahastrakund is away from Nanded 98 km in East. It is holly village and also famous water fall. In rainy season thousand of people visited. Feture plane of government of Maharashtra is production electricity by using waterfall. Including Sahastrakund near about six villagees ground water samples collected people used for drinking purpose. Ekalavya Central Ashram school Sahastrakund (site1), Zilla parishad highschool Islapur (site2), Vasantao Naik junior college Islapur (site3), (Zilla parishad primary School Pangri (site4), Sant Dnyeswar junior college Islapur (site5) and Government Ashram School Sahastrakund (site6). It is different selected area of Sahastrakund collected ground water samples for analysis.

### III. RESULT AND DISCUSSION

After an investigation of water samples of ground water we observed that most of the parameters were acceptable like their original value. Near about 10 km around the areas six different schools ground water samples selected.

pH is an important parameters about water analysis to measure the amount of acidity and alkalinity of water and provides an information of many types of geochemical equilibrium and water solubility (Shyamala et al., 2008). The collected water samples (site 4) Z.P. primary school Pangri pH is slightly high ie 8.64 as compared to other site and normal range of potable water is 6.5 to 8.5. As consult about hardness (site 6) Government Ashram school Sahastrakund 336 and (site 4) Z.P. primary school Pangri 356 as compared to site 1, site 2, site 5 an average better hardness is 300mg/lit. Hardness concentration in water mainly depends upon carbonate and bicarbonate (singh et al 2012). The dissolved oxygen except site 4th and 6th other site is better range an averagely. An average dissolved oxygen level is less than 5 Mg/lit. The percentage of chloride is more all sites as their level and Sulphate level site 6th 203mg/lit is better as compared to other site. The consumption of high percentage chloride water causes many diseases like renal stones, kidney failure, hypertension etc. (Mc Carthy, 2004., Ramesh and Soory, 2015). An average concentration of Fluoride is better two site is Site 4th and site 6th as compared to other site and average concentration of Fluoride should be 1mg/lit. If high concentration of Fluoride occurs in drinking water causes disease like bone fluorosis, dental problem, knee joint etc (Saxena and Saxena, 2013).

#### **IV. CONCLUSION**

After an investigation of ground water of six different sites an average all sites showed slight difference chemical nature of water. The water is very hard for drinking purposes because it contains more chloride, sulphate and Fluoride. Water is necessary to give treatment like filtration before use for drinking and domestically.

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