



Maratha Vidya Prasarak Samaj

G. M. D. Arts, B. W. Commerce and Science College, Sinnar, Dist. Nashik

Affiliated to Savitribai Phule Pune University, Pune

Best College Awarded by SPPU2012-13

ISO 9001:2015 Certified College

Id.No.PU/NS/ASC/013/1969

AISHE:C-41292

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www.gmdcollege.in

INTERNAL QUALITY ASSURANCE CELL

CRITERION VII: INSTITUTIONAL VALUES AND BEST PRACTICES

7.1.2 Water Management & Utilization Report



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Maratha Vidya Prasarak Samaj's
G.M.D. Arts, B.W. Commerce
& Science College, Sinnar

Tal. Sinnar, Dist. Nashik - 422 103 (M.S.) INDIA

Best College Award by Savitribai
Phule Pune University 2012-13

Dr. P. V. Rasal

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Affiliated to Savitribai Phule Pune
University ID No. : PU/NS/ASC/013/(1969)

Junior College No. J.13.13.001

HTE Sevaarth ID - 06220100119_AST AISHE - C - 41292

Ref. No. 537/2023-24

Date : 13/07/2023

DECLARATION

This is to declare that the information, reports, true copies of the supporting documents, numerical data, provided links, institutional data, photographs etc. submitted/presented herewith is verified by Internal Quality Assurance Cell (IQAC) of this college and is correct as per the records. This declaration is for the purpose of NAAC accreditation of HEI for the 4th Cycle during the period from 2017-2018 to 2021-2022.

Date: 13/07/2023

Place: Sinnar

Dr. C. E. Gurule
Coordinator, IQAC
Co-ordinator
IQAC

G. M. D. Arts, B.W. Commerce & Science
College, Sinnar, Dist. Nashik 422103



Dr. P. V. Rasal

Chairman, IQAC and Principal

PRINCIPAL

G.M.D.Arts, B.W.Commerce and
Science College, Sinnar,Dist.Nashik

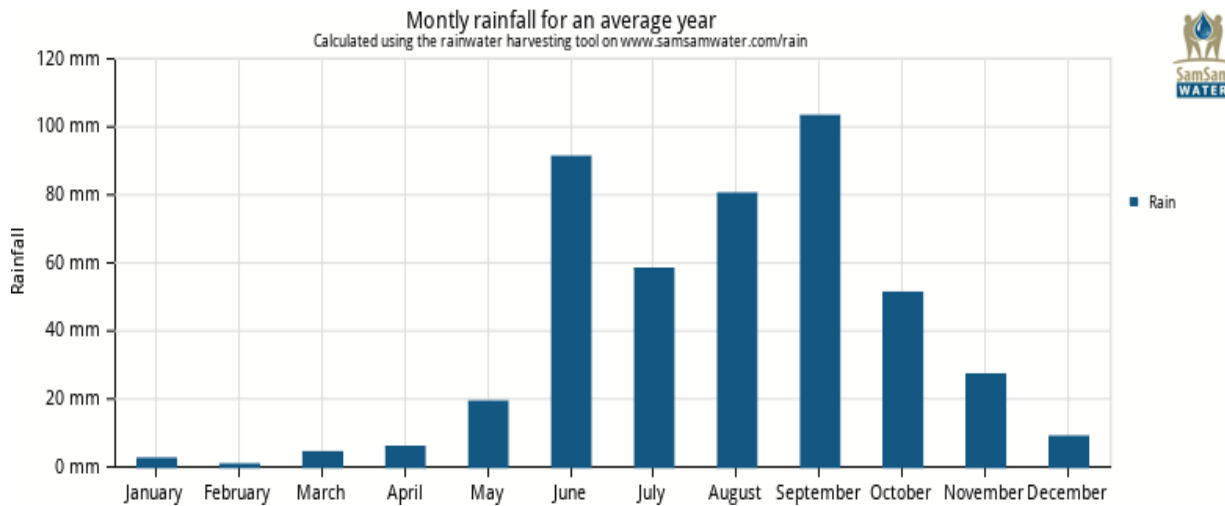


**Maratha Vidya Prasarak Samaj's
G.M.D. Arts, B.W. Commerce & Science College, Sinnar, Tal. Sinnar, Dist. Nashik**

Water Storage and Utilization Report

Rainfall:

The average rainfall at this location varies between 0.7 mm in the driest month (February) and 103.2 mm in the wettest month (September). The total annual average rainfall in an year is 453 mm.



Calculation of Water Requirement:

In the investigation, one well which is about 500 meter away from the college campus was identified as important source of water. The well bears water throughout the year and fulfills need of water for toilets, laboratories and gardening. Drinking water in the hostels and college premises were obtained through the water connection from Sinnar Municipal council. Well water is used in the canteen, bathrooms, laboratories, hostels, staff quarters and on the grounds. There were no leaks or overflows of water from above tanks throughout the survey, thus there was no water loss. A small artificial pond is also providing some water for trees planted in the

college campus. In monsoon water from main building and hostel building is released in the pond as a part of rain water harvesting. Pond is also becomes home for many Phytoplanktons, Zooplanktons, Fish and various Hydrophytes.

The following water sources was identified in the college campus:

1. Well 500 meters away from college campus.
2. Pond in the College campus.

Table 1 Source of water

Sr. No.	Source of water	Number of times the water is uplifted from the source	Average quantity of water uplifted. (Lit)
1	Well 500 meters away from college campus	2 times a day (total 5 hrs)	40000
2	Pond in the College campus	1 time a day (total 5 hrs)	30000
Total Water uplifted in the campus:			70,000

Major Water Source in the College Campus



Well as a water resource



Pond in College campus

Table 2: Total Average requirement of water in campus

Sr. No.	Particulars	Total population	Required Water Supply (liter per person per day)	Water Requirement (liter per day)
1	College Staff (Teaching and Non-Teaching)	139	20	2,780
2	College Students (Girls and Boys)	3229	20	64,580
3	Residential Students	11	45	495
4	Residential Staff	20	45	900
5	Floating Population (Visitors)	25	20	500
Total		5498	-	69,255

The data gathered from all departments is double-checked and verified. The college uses 69,255 ltr./day on average, with 2,780 ltr./day for staff and 64,580 ltr./day for students. While the residential staff uses total 900 L water per day. Residential students use 495 ltr./day. That means the water demand for whole year is 2,52,78,075 liters.

Waste water Management:

Water usage can be described as the amount of water consumed on campus for all activities from various water sources. This applies to all residences, academic buildings, on-campus, and on-grounds usage. Water that is moved off campus is referred to as wastewater. Based on data on water usage and the fact that around 80% of the water supplied is converted to waste water via washrooms, chemical laboratories, and other means, the campus created approximately 56,000 liters of waste water every day.

There is a combined drainage system in place that carries all liquid effluent to a sewage system. It is necessary to collect grey and black water. After minimal treatment, grey water is used for plant irrigation, and black water is effectively treated with a simple septic system and soak pits.



Drainage system of Chemistry department



Sewer for wastewater from toilet at Main Building



Septic tank near toilet of main building

Rain Water Harvesting Potential:

There are four adjacent buildings possess large terrace areas and paved surface. All of the buildings had Rain Water Harvesting (RWH) System implementation. But as construction is in progress, RWH are not in working. But, after completion of construction work RWH will be reinstalled. The harvested water is released in the pond available in the college campus. The water harvested in the pond is utilized for the purpose of gardening in the college campus.



Rain Water Harvesting Installation unit (Work in progress)

Quail
CO-ORDINATOR
IQAC
G.M.D. Arts, B.W. Commerce
And Science College, Sinnar



Quail
Principal
G. M. D. Arts, B. W. Commerce and
Science College, Sinnar, Dist. Nashik

Photos of Water Management and Distribution System



College Open Well



Water Storage Tank



Water Circulation from Pond



Storage Tank Near Canteen



Water Storage Tank



Water Filter Near Tea Club



Pipe Line



Nakshatra Vana



Rashi Vana



Saraswati Vana