



**Post Graduate Government College for Girls,  
Sector 42, Chandigarh**

Affiliated to Panjab University, Chandigarh



**NAAC Accredited 'A' Grade (CGPA – 3.21)**

**AISHE Code : C-29391**

**Internal Quality Assurance Cell (IQAC)**



Prof. Lakhvir Singh  
IQAC Coordinator

Prof. Nisha Aggarwal  
Principal



0172-2676005

Office



0172-2676005

FAX

# POST GRADUATE GOVT. COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

## Criterion- VII

### 7.1.4: Water conservation facilities available in the Institution:

1. **Rain water harvesting**
2. **Borewell /Open well recharge**
3. Construction of tanks and bunds
4. **Waste water recycling**
5. Maintenance of water bodies and distribution system in the campus

- E. None of the above
- D.1 of the above
- C. 2 of the above
- B. 3 of the above
- A. Any 4 or all of the above

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**1. Rain Water Harvesting** - Rain water harvesting systems are used for groundwater recharge by diverting storm water drains and water harvested from rooftops to abandoned boreholes. It is a recharging point for collecting rainwater from rooftops and storm water generated from the premises. There are three rainwater harvesting units in the college campus. E.W.H units also have a filtration system. Cleaning of filters is undertaken annual.

**2. Bore well / Recharge well-** Bore well recharging system is an important tool in the sustainable management of the rain water in the Institution which helps in reducing rainwater run- off and increasing its infiltration into the soil and aquifers. Our Institution has three bore wells with a depth of 250 feet and 8" diameter consisting of primary and secondary filtration systems, that take water run- off from rooftops, paved areas, filter it and send it underground to increase the water table.

**3. Construction of Water Tanks** - Three underground tanks of concrete (5m x 3m x 4m) with a desilting chamber (2m x 1.5 m x 1m) that can store around 60 KL of roof top water connected via a catch basin, through a network of pipes, were installed on the college campus. The top of underground water tanks is covered with cement rings to allow the sediments from running off. Overhead fresh water storage tanks are mini reservoirs. The stored water in the tanks serves both the purpose of drinking and cooking in the mess/canteen of the Institution

**4. Tertiary / Recycled Water Supply** - With water conservation a top priority for the Institution and to prevent the wastage of potable fresh water, the college has taken connection of tertiary water supply from sewerage treatment plant (STP). This treated water is used to water the various areas such as sports ground, lawns, gardens by hydrants. There are eighteen hydrants of tertiary water and all are marked with signage boards.

**5. Use of Sprinklers/ Drips** - Green houses in the college are fitted with drip irrigation systems and sprinklers are used for lawns /gardens for efficient use of water. It not only saves the water, but also each dripper delivers water directly to the plant's root zone for uniform distribution of water and nutrients.

**5. Sensor based and push and puller cock water taps for wash basins** -All traditional taps were replaced with water saving push and puller cock taps in all restrooms of the Institution.

From The Chief Engineer,  
Union Territory, Chandigarh.

To The Superintending Engineer,  
Public Health Circle, Chandigarh.

Memo No. W1/2014/  
Dated, Chandigarh, the

3593 9/12/14  
DAILY REPORT  
SUPERINTENDING ENGINEER  
E.E.P.

**Subject:-** Detailed estimate for Providing Rain Water Harvesting System in Govt. College for Girls, Sector 42-D, Chandigarh.

**Ref:-** Your office Memo No. 2982 dt.19.11.2014 on the above noted subject.

The Chief Engineer, UT, Chandigarh has accorded Technical sanction to the estimate amounting to Rs.55,76,000/- (Rupees Fifty Five Lac & Seventy Six Thousand Only) for the under mentioned work:

Name of work	Administrative approval No., date and amount	Amount of Technical sanction	Head of Classification
Detailed estimate for Providing Rain Water Harvesting System in Govt. College for Girls, Sector 42-D, Chandigarh	Vide t/o. Memo No.3995-98 dt.25.02.2011 amounting to Rs.50.69 Lacs	Rs.55,76,000/- (Rupees Fifty Five Lac & Seventy Six Thousand Only)	4202 C.O (P) U & OHE

The detailed estimate is returned herewith for further necessary action after observing requisite administrative, financial & technical regularities.

The Abstract of cost together with copy of the estimate may please be furnished to the Accountant General (Audit) Punjab & UT, Chandigarh direct under intimation to this office.

DA/- As above  
Endst.No.W1/2014/

Executive Engineer (W&E)  
for Chief Engineer, U.T. Chandigarh.  
Dated:

A copy is forwarded to the Accountant General(Audit),Punjab, Chandigarh for information.

DA/-  
Endst. No.w1/2014/21122

Executive Engineer (W&E)  
for Chief Engineer, U.T. Chandigarh  
Dated:- 8-12-14

A copy is forwarded to the Executive Engineer, P.H.Divn.No.7, Chandigarh for information and necessary action.

DA/-  
Endst.No.W1/2014/

Executive Engineer (W&E)  
for Chief Engineer, U.T. Chandigarh  
Dated:-

A copy is forwarded to the CDM(P)/Superintendent Budget of this office for information.

DA/Estimate copy for CDM(P).

Executive Engineer (W&E)  
for Chief Engineer, U.T. Chandigarh.  
Principal  
P.G. Govt. College for Girls  
Chandigarh

H.D.M

**Estimate expenditure of rainwater harvesting system installed**



Estimate - 285  
S.W.D

**DEEP TUBEWELL DRILLERS PVT LTD**

H.NO 3041, 1ST FLOOR, SECTOR 20 D, CHANDIGARH

Recharging Well at : GCG Sector 42 D, Chandigarh, Well No 1

Customer : Executive Engineer (Project), PH Division No 7, Chandigarh Administration, Chandigarh

Well Size: 8" Straight

DEPTH FROM	TO	NATURE OF STRATA	WELL		CHRONOLOGY	
			8" Straight	0.50 AGL		
0	12.00	Surface Clay			Above Ground Level	0.50 Mtr.
12.00	16.78	Coarse Sand			Total Pipe Size & Qty.	8" 85.00 Mtr.
16.78	55.50	Clay	12.50 M	12.50 Mtr. 8"PVC Blind Pipe	PVC Blind Pipe Size & Qty.	8" 70.00 Mtr
55.50	62.50	Medium Sand			PVC Screen Size & Qty.	8" 15.00 Mtr.
62.50	67.59	Clay	16.00 M	3.50 Mtr. 8" PVC Screen	Bail Plug	8" 1 No.
67.59	72.47	Coarse Sand + Bajri			Housing Clamp	8" 1 No.
72.47	76.36	Clay			Well Cap	8" 1 No.
76.36	79.15	Fine to Medium Sand			Centre Guides	8" 5 Nos.
79.15	88.71	Clay				
88.71	90.24	Very fine sand	56.00 M	40.00 Mtr. 8"PVC Blind Pipe		
90.24	100.00	clay				
			62.00 M	6.00 Mtr. 8" PVC Screen		
			68.00M	6.00 Mtr. 8"PVC Blind Pipe		
			72.00M	4.00 Mtr. 8" PVC Screen		
			77.00M	5.00 Mtr. 8"PVC Blind Pipe		
			78.50 M	1.50 Mtr. 8" PVC Screen		
			84.50 M	6.00 Mtr. 8" PVC Blind Pipe with Bail Plug		

For Deep Tubewell Drillers Pvt Ltd  
Director

*[Handwritten Signature]*

*[Handwritten Signature]*  
Sub Divisional Engineer,  
PH, W/G Sub Division  
Sector 11-D, Chandigarh

*[Handwritten Signature]*  
Principal  
P.G. Govt. College for Girls  
Sector 42, Chandigarh

**Bore Well Plan**





## SUNRISE WATER SOURCES

TUBEWELL ENGINEERS & CONSULTANTS

SERVICES :

Digital Electronic Well Logger upto 600 m

Resistivity Survey upto 1000 m

Survey for Rain Harvesting Wells

Near Canal Bridge, Ropar, (Punjab)

| gurbhej1628@rediffmail.com

| +91 90146 59909, 97803 00086


### REPORT ON GEOPHYSICAL ADVANCED DIGITAL ELECTRONIC LOGGER PROVIDING RAIN WATER HARVESTING SYSTEM IN POST GRADUATE GOVERNMENT COLLEGE OF GIRLS, SEC. 42/D, CHANDIGARH.

The borehole at the site was drilled down to 100 mtr., as reported by Drilling Incharge and the same could be electronically logged down to the depth of 99.50 mtr. The logging conducted on dated March 26, 2015.

#### OBSERVED

The following granular zones have been observed beyond the static ground water level with the help of Advanced Electronic Geophysical Logger

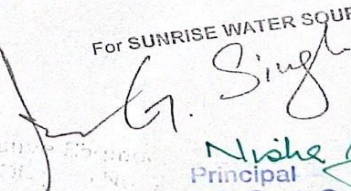
Depth Range In Mtrs. (B.G.L.)		Thickness (Mtrs.)	Probable Strata
12.00	16.78	4.78	Coarse Sand
55.00	62.50	7.50	Medium Sand
67.59	72.47	4.88	Coarse Sand + Gravel
76.36	79.15	2.79	Fine to Medium Sand
88.71	90.24	1.53	Very Fine Sand

  
Sub Divisional Engineer,  
A/c. W&S Sub Division No. 2,  
Sector 44-B, Chandigarh

  
Executive Engineer,  
P. O. G. C. No. 42,  
CHANDIGARH

For SUNRISE WATER SOURCES

Prop.

  
Nisha Jassi  
Principal  
P.G. Govt. College for Girls  
Sector 42, Chandigarh

**Bore Well Plan**





## SUNRISE WATER SOURCES

TUBEWELL ENGINEERS & CONSULTANTS

SERVICES :

Digital Electronic Well Logger upto 600 m

Resistivity Survey upto 1000 m

Survey for Rain Harvesting Wells

Near Canal Bridge, Ropar, (Punjab)

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#### RECOMMENDATIONS

The following recommendations are being made for the location of Screen pipes for the design of Tubewell Assembly on the basis of Advanced Electronic Geophysical Logging.

Depth Range In Mtrs. (B.G.L.)		Thickness (Mtrs.)
12.50	16.00	3.50
56.00	62.00	6.00
68.00	72.00	4.00
77.00	78.50	1.50
TOTAL		15.00 Mtr.

For SUNRISE WATER SOURCES

*G. Singh*

Prop.

*Jaswant Singh*

**Jaswant Singh**  
Retd. Assistant Geologist,  
Haryana Ground Water,  
Water Diviner/ Consultant.

*[Faint signature]*  
Sub-Division No. 2,  
CHANDIGARH

*Nisha Jassi*  
Principal  
P.G. Govt. College for Girls  
Sector 42, Chandigarh

**Bore Well Plan**