

MO/1/June 2010

May 9, 2022

To,
Executive Engineer (RWH/GWC)-I
Delhi Jal Board, Room No. 208
Varunalaya Phase-I, Jhandewalan
Karol Bagh, New Delhi - 110 005

Sub: Status report of RWH Structure

Location	Plot Area (to be provided by owner)	Roof-top area (to be provided by owner)	Approving Agency (DJB)/ CGWA/ others)	Existing details			Whether functional (Yes/ No)	Remarks
				Nos. of RWH pits	Size of RWH pits	Nos. / size of bores		
SRCC	63526.18 m ²	S1: 1000m ² S2: 500m ² S3: 500m ² S4: 3000m ² S5: 3000m ² S6: 500m ²	Other	6	1X (6mX2.5mX3m) 2X (4mX2.5mX3m) 2X(5.5mX2.5mX3m) 1X(4m_diaX4m)	7 borewell of 15m depth	Yes	NIL

Principal
Shri Ram College of Commerce
श्री राम कॉलेज ऑफ कॉमर्स
Shri Ram College of Commerce
दिल्ली विश्वविद्यालय / University of Delhi
दिल्ली / Delhi 110007

**PROJECT REPORT FOR RAINWATER HARVESTING
AT SHRI RAM COLLEGE OF COMMERCE,**

Partners: NRCC, Forum for Organised Resource Conservation and Enhancement (FORCE),
KPMG Foundation

STARTED ON	April 2011	COMPLETED ON	July 2011	DEDICATED ON	November 9 2011
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AREA DETAILS

AREA	Shri Ram College of Commerce University of Delhi North Campus, Maurice Nagar, Delhi - 110 007, INDIA.	SITES	5 sites within college premise
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PROJECT RELATED OFFICE BEARERS

Designation	Name	Tel. No.

RWH PROJECT DETAILS

Total Rainwater Harvesting Potential	Approx. 1,33,19,000 litres / yr
*Total cost of project	Rs /-
No. of structures	4 Recharge trench with one bore-well One Recharge trench with two bore-wells
Contractor for project	Mr Dipak Ummat Ph: 9953160591

Details:

RWH Structures	Location	Recommended Size and Type
S1	In front of Parking Area and Near Parking	6m*2.5m*3m Recharge Trench with 2 Borewells each of 15m Depth
S2 and S3	1 in each park adjacent to entry gate	4m*2.5m*3m size Recharge trench with 1 borewell 15 m depth
S4 and S5	Back Side of Conference Hall	5.5m*2.5m*3m Recharge Trench with 1 Borewells each of Depth 15 m

Maintenance requirement - Clean connecting inlet pipes, manholes regularly to allow maximum water to flow in.

Clean de-silting chamber atleast thrice a year before monsoon, mid-monsoon & post monsoon
Clean borewell manually / pressure cleaning once in 3 years.

THE RAINWATER HARVESTING PLAN

SALIENT FEATURES OF THE PROPOSED RECHARGE PLAN

Based on the annual average rainfall, rainfall intensity, catchment areas, distribution of land coverage such as roof top, paved and open land along with the geological, hydrogeological factor, are considered for designing the rain water harvesting and artificial recharge structures. The salient macro-features of the plan for Sri Ram College, New Delhi are given here below:

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|--|--|
| 1. TOTAL AREA- | 16.18 acres |
| 2. TOTAL AREA CONSIDERED FOR RECHARGE- | 88,000 sq. m. |
| 3. AVERAGE ANNUAL RAINFALL- | 811 mm. |
| 4. GEOLOGICAL FORMATION- | alluvial formations overlying
quartzite |
| 5. DEPTH TO WATER LEVEL | 25-35m. Bgl. |
| 6. WATER AVAILABLE FOR RECHARGE- | 1,33,19,000 litres |
| 7. RECHARGE STRUCTURES PROPOSED- | 5 Structures |

PROPOSED RECHARGE STRUCTURES

TABLE 1

Structures	Location	Recommended Size and Type
S1	In front of Parking Area and Near Parking	6m*2.5m*3m Recharge Trench with 2 Borewells each of 15m Depth
S2 and S3	1 in each park adjacent to entry gate	4m*2.5m*3m size Recharge trench with 1 borewell 15 m depth
S4 and S5	Back Side of Conference Hall	5.5m*2.5m*3m Recharge Trench with 1 Borewells each of Depth: 15 m

	Paved Area	4000	0.5	.611	1222
	Road Area	3000	0.4	.611	733.2
	Total	12000			3482.7
	TOTAL	55000			13319.8

HOURLY COMPUTATION OF RUNOFF - (25 MM/HR)

Structure	Land use type	Area Approx (m ²)	Co-efficient of runoff	Rainfall (m)	Quantity of Rainwater (m ³)
S1	Roof Top	1000	0.7	0.025	17.5
	Green Area	6000	0.2	0.025	30
	Paved Area	2000	0.5	0.025	25
	Road Area (Outside)	5000	0.4	0.025	50
	Total	14000			122.5

S2	Roof Top	500	0.7	0.025	8.75
	Green Area	5000	0.2	0.025	25

	Paved Area
	Road Area
	Total

S3	Roof Top
	Green Area
	Paved Area
	Road Area
	Total

S4	Roof
	Green
	Pave
	Road
	T

	Paved Area	2000	0.5	0.025	25
	Road Area	1000	0.4	0.025	10
	Total	8500			68.75

S3	Roof Top	500	0.7	0.025	8.75
	Green Area	5000	0.2	0.025	25
	Paved Area	2000	0.5	0.025	25
	Road Area	1000	0.4	0.025	10
	Total	8500			68.75

S4	Roof Top	3000	0.7	0.025	52.5
	Green Area	2000	0.2	0.025	10
	Paved Area	4000	0.5	0.025	50
	Road Area	3000	0.4	0.025	30
	Total	12000			142.5

	Total	8500			1680.25
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S3	Roof Top	500	0.7	.611	213.85
	Green Area	5000	0.2	.611	611
	Paved Area	2000	0.5	.611	611
	Road Area	1000	0.4	.611	244.4
	Total	8500			1680.25

S4	Roof Top	3000	0.7	.611	1283.1
	Green Area	2000	0.2	.611	244.4
	Paved Area	4000	0.5	.611	1222
	Road Area	3000	0.4	.611	733.2
	Total	12000			3482.7

S5	Roof Top	3000	0.7	.611	1283.1
	Green Area	2000	0.2	.611	244.4

COMPUTATION OF RAINFALL RUNOFF & APPROACH FOR ARTIFICIAL RECHARGE

Based on the annual average rainfall, rainfall intensity, catchment areas distribution of coverage such roof top, paved and open land along with the geological, hydrogeological are considered for designing the rain water harvesting and artificial recharge structures. Design and computations for Shri Ram College of Commerce, New Delhi are given here.

TABLE 2
RUNOFF AVAILABLE FOR RECHARGE FOR STRUCTURE

Structure	Land use type	Area Approx (m ²)	Co-efficient of runoff	Rainfall (m)	Quantity of Rainwater (m ³)
S1	Roof Top	1000	0.7	.611	427.7
	Green Area	6000	0.2	.611	733.2
	Paved Area	2000	0.5	.611	611
	Road Area (Outside)	5000	0.4	.611	1222
	Total	14000			2993.9

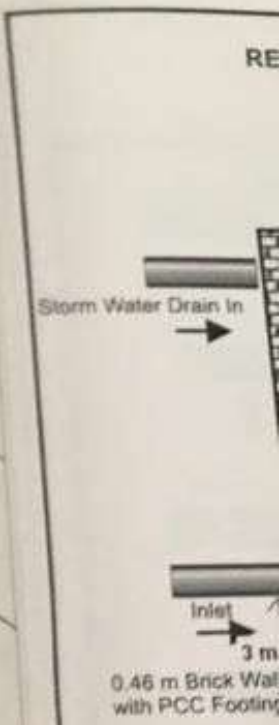
S2	Roof Top	500	0.7	.611	213.85
	Green Area	5000	0.2	.611	611
	Paved Area	2000	0.5	.611	611
	Road Area	1000	0.4	.611	244.4

S3	Total	85
	Roof Top	
	Green Area	
	Paved Area	
	Road Area	
Total		

S4	Roof Top	
	Green Area	
	Paved Area	
	Road Area	
	Total	

S5	R	
	C	

	1000	0.7	0.025	52.5
	2000	0.2	0.025	10
	4000	0.5	0.025	50
	3000	0.4	0.025	30
Total	12000			142.5
TOTAL	55000			545



DESIGN OF THE STRUCTURE

STRUCTURE	Recommended Size and Type
S1	6m*2.5m*3m Recharge Trench with 2 borewells each of Depth 15 m
S2 and S3	4m*2.5m*3m size Recharge trench with 1 borewell 15 m depth
S4 & S5	5.5m*2.5m*3m Recharge Trench with 1 Borewell of depth 15 m

The slot shall be formed in the concrete slab after drilling subject to the approval of the engineer in charge. The construction shall be as per the design and shall be rechecked after completion.