Water management report: Apr'08

The following represents our report on water management at The Atrium in the above period.

1. Summary reports-

- Annexure I gives the status of bore wells as at present
- Annexure II lists current storage capacity with relation to demand estimates
- Issues and improvements are covered under pt. 3.

2. Water supply position-

Water supply suffered due to failure of joints and inadequate storage capacity leading to outage of couple of hours at some blocks. We are also facing the threat of inadequate water resources with two major borewells showing high sand/ grit content. We need to take urgent action to improve water resources as well as to arrange back up for the main J block RO plant by refurbishing the A block plant.

3. Issues and Improvements-

The following covers activities in April 08.

3.1 Stoppage in flush water supply to A-J blocks-

Failure of elbow joint supply A block aeration in the night shift led to the need to suspend pumping of water. With storage in the overhead tanks being inadequate to service drawal by residents in the morning, we had a case of stoppage of water supply for 2-3 hours.

3.2 Flushing and cleaning of Rainwater harvesting pits-

We have now got all the pts cleaned, covers replaced and thus these are ready to receive recharge from monsoon showers.

3.3 Cleaning of J block aeration tank -

Our J block aeration showed excessive algae formation and was cleaned again within the space of one month.

3.4 Purchase and installation of new 1.5 HP submersible borewell pumpset-

In line with the capex approval at the last SGM, we have purchased one more submersible pumpset at an approximate cost of **Rs. 15K.** Unfortunately, we were unable to install the same owing to the fact that the borewell (J1) where we tried to install this showed high sand grit. This would damage the impeller and also result in drawl of very muddy water.

We are examining other existing borewells by flushing these out and checking for yield. In the event we are unable to determine yield at any of the existing borewells, we might need to drill two additional borewells at a cost of **Rs. 40K each.**

3.5 Servicing of defective bore well pumpsets-

We have not been successful in completing servicing of the pumpsets lying with us (6 in all) as there were some constraints at our vendor's end. We hope to salvage at least two pumpsets from this lot.

3.6 Other improvements planned (not covered above, some carried over form previous report)-

The idea behind listing these items is to serve as a checklist. Some items

- o Re-painting and marking of all water piping.
- Servicing of 'A block' RO plant (this could result in expenditure of Rs. 1L that is budgeted)- will be taken up within May 08
- Improved gauging and deployment of measurement devices.
- Re-positioning of switchgear box for RO plant at J block.
- o Improvement in ramp drainage system at A, B and M blocks. This has been once again brought to our notice as a priority time to be completed prior to the next monsoon.
- Weather-proofing of RO plant control panel.

4. CBRE performance-

CBRE has shown significant improvement in performance. While the interruptions in supply were largely due to issues outside their control, they have pro-actively suggested some measures for monitoring water level. Overflow incidents are also now at a minimum.

For any clarifications on this report kindly contact me at lilram@gmail.com.

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Annexure I

Groundwater facility status

The Atrium - status of borewell pumpsets: May 05, 2008

Borewell designation	Location	Bore size	Depth	Yield (lph)	Total possible drawal per day (Itrs)	Remarks	Recommendation
A1	Temple	N/a	N/a	N/a	N/a	Abandoned	Abandoned
A2	A Block	5"	100'	1200	18,000	In working condition	No action
A3	A Block	5"	200'	1200	18,000	In working condition	No action
A4	A Block	7"	110'	1200	18,000	In working condition	No action
B2	B Block	5"	250'	1200	18,000	New I.5 HP pumpset installed and working	Old pumpset lying as spare
С	Sports complex	N/a	200'	4000	60,000	New 3 HP pumpset installed and working	Old pumpset lying as spare
D	D Block	7"	200'	1200	18,000	Working	No action
E	E Block	N/a	N/a	1000	15,000	New I.5 HP pumpset installed and working	Old pumpset lying as spare
J1	J Block	5"	90'	1200	18,000	Abandoned	Abandoned
J2	J Block	5"	250'	1200	18,000	Abandoned	Abandoned
K1	K Block	7"	150'	1200	18,000	High Fe content	Borewell abandoned
K2	K Block	N/a	N/a	3000	45,000	Brackish water- used for gardening	Operated for direct supply to gardening with re-conditioned 1.5 HP pumpset
Store spares	Store	N/a	N/a	5 pun	npsets	Not working	5 pumpsets as at B2, C, E above, 1 extra spare pumpset, one from J1 lying in non- working condition; would like to see if 2 can be salvaged
Total	drawal in Itrs (b	asis-15 hrs c	165,000	165,000			

Note: In all 6 pumpsets are not working/ under service; 4 in stores and 2 at Gem electricals; **AddIly, I new 1.5 HP pumpset is lying un-installed.**

Annexure II

The Atrium

Water storage tanks- details May 08

SI. No.	Category/ designation	Capacity (KL)	Ratio to daily consumption	Remarks
Α	RO water			
1	F Block RO sump	48.000	3.20	
2	Overhead tank- 'F' block	10.181		Supplies Blocks A through J
	Overhead tank- 'L'	10.101		Supplies blocks A tillough o
3	block Overhead tank- 'M'	6.028		
4	block	4.474		
	Total overhead RO tanks	20.683	1.38	
В	Metrowater			
	A block sump	101.898		Supply at 35 KL per day with single connection
	M block sump	23.640		Used as emergency storage reservoir
	Total MW storage capacity	125.538	3.59	
С	Aeration tanks	123.330	3.39	
	A block aeration	48.098		
	C block aeration	51.370		
	H/J block aeration	48.098		
	Total aeration tanks capacity	147.566	1.48	Excludes gardening water; only borewell drawal accounted
D	Flush water OHTs	147.500	1.40	Excludes gardening water, only borewell drawar accounted
	A block FW OHT	7.915		
	B blcok FW OHT	6.076		
	C block FW OHT	18.634		
	D block FW OHT	14.692		
	E block FW OHT	14.446		
	G block FW OHT	17.572		
	H block FW OHT	9.574		
	J block FW OHT	18.842		
	K block FW OHT	15.565		
	N block FW OHT	21.047		
	Q block FW OHT	22.333		
	Total FW OHT capacity	166.696	1.67	Excludes gardening water; only borewell drawal accounted
	Daily total average	100.030	1.07	Excludes gardening water, only borewell drawar accounted
	consumption	175.000		Can go upto 200,000 lpd
	RO plant input	40.000		For supporting average consumption of 15 KLpd
	RO water consumption	15.000		Average consumption per day
	Metrowater supply	35.000		Average per day
	Gardening water consumption	15.000		Average per day, ex-K2- not stored
	Net borewell avg. drawal	100.000		Includes gardening water