

PROJECT - NIRALA ASPIRE AT GREATER NOIDA

WATER REQUIREMENT CALCULATIONS

sl. no.	Description	No. of units	Unit Population	Built up Area	Population	Unit Water Consumption	Total Water Required	Recycle Water Requirement	Total Recycle Water
				(Sq M)	(persons)	(liters)	(liters)	(liters)	(liters)
1	Apartments (Phase-1)	1604	4.5		7218	135	974430	45	324810
2	Servant Units (Phase-1)	96	2.25		216	135	29160	45	9720
3	Apartments (Phase-2)	2322	4.5		10449	135	1410615	45	470205
4	Servant Units (Phase-2)	12	2.25		27	135	3645	45	1215
5	Studio Apartments (Phase-2)	84	4.5		378	135	51030	45	17010
6	Club & Floating Population				2700	15	40500	5	13500
7	Staff				500	45	22500	15	7500
8	Commercial / Shopping				400	45	18000	15	6000
9	Nursery School				500	45	22500	15	7500
10	Filter Backwash						55000		0
11	Make-up water for swimming pool						10000		0
12	Horticulture			36352		4	145408	100%	145408
						total	2,782,788		1,002,868

SUMMARY OF WATER REQUIREMENT

Total Permanent Population	=	18288	persons	
Total Domestic Water Requirement	=	2,782,788	lit/day	
Total Recycle Water Requirement	=	1,002,868	lit/day	
Net Domestic Water Requirement	=	1,779,920	lit/day	
Total Sewage Load (total domestic water required - horticulture - s.pool makeup - filter backwash)	=	2,572,380	lit/day	
Net Sewage Flow - 80% of total sewage load	=	2,057,904	lit/day	
Sewage Treatment Plant capacity required	=	2060	KLD	690 kld x 3
Total recycle water required	=	1,002,868	liters	
Net water balance (to discharge into drainage system)	=	1,055,036	liters	
UGT Capacity (for Domestic Use) = 16 hrs storage	=	1,186,613	liters	1200 KL
UGT Capacity (for Fire Fighting)	=			550 KL
Total UGT Capacity (Domestic + Fire)	=			1750 KL