

6.4.9 Final Disposal / Recycling of Excess Treated Effluent

The quantity of treated effluent from the Sewage Treatment Plant is 326 KLD. It is proposed to recycle this treated effluent for the following purposes:

- For Irrigation/Horticulture Purposes
- For Flushing water
- Balance water to be used for non-potable purposes in certain sectors of the master plan as per requirements i.e. HVAC and DG Cooling towers etc

6.7.5 Calculation of Total quantity of solid waste

As per the data as given above, the details of total quantity of solid waste generated by each unit/complexes for the entire township is given in Table.

Sr. No.	Classification	Area (m ²)	Area (ft ²)	Per Capita Waste Generated	Total Waste Generated Daily
1	Residential	102889	1107429	0.5kgs/capita/day	39118 Kgs.
2	Clubhouse	6615	71203.2	0.4kgs/capita/day	1538 Kgs.
				Total	20656 Kgs.
				Say	20 Ton/Day
				Total Area required	474 scm

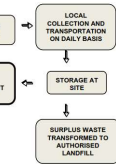
Collection & Segregation System

- **Three-Bin System at Source:**
 - o Green Bin: Organic waste
 - o White Bin: Dry recyclables
 - o Black Bin: E-waste, glass, metals
- **Special Waste Streams:**
 - o Horticulture waste: On-site vermicomposting
 - o OSD waste: Stored and sent to authorized processors
 - o Medical/Inert waste: treatment & disposal by authorized vendor
- **Collection Mechanism:**
 - o Door-to-door collection by trained staff
 - o Segregated waste transported via planned routes to an on-site sorting station (542 sq.m)

Sorting & Recycling Facility

- **Manual Sorting Infrastructure:**
 - o Covered platform, sorting tables, balers,
- **Sorted Waste Streams:**
 - o Dry recyclables
 - o Compostables

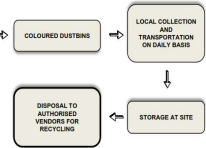
Disposal of Biodegradable Waste



Composting & Circular Economy

- On-site composting for residential and commercial kitchens
 - Centralized vermicomposting in landscaped zones
 - Use of compost within township gardens or by residents
 - Community reuse hubs and informal recycler integration
- Outcome:**
This integrated SWM plan will ensure:
- 100% waste segregation at source
 - On-site treatment of organics
 - No untreated waste sent to landfill
 - Inclusion of local waste workers and recyclers
 - Long-term compliance with environmental regulations

Disposal of Plastic Waste and Non-Biodegradable Waste



Water Calculations

Type	Plots	Units/Plot	Pop/unit	T Pop	domestic water	flushing water
Type A (0-50 sq.)	-	1	5	-	90	45
Type B (50-150 sq.)	426	2	5	4,260	383,400	191,700
Type C (150-300 sq.m)	261	4	5	5,220	469,800	234,900
Type D (> 300 sq.m)	-	4	5	-	-	-
	687			9,480	853,200	426,600

Domestic Water **853,200 lit**

UG & OH Tanks shall be suitably sized based location, water extraction & growth of the township.

STP calculation

Water requirement	1,279,800 lit
Discharge	80%
STP capacity	1,023,840 lit
	Say 1,024 KLD

STP shall be built modularly in phases basis the growth and occupation within the township, and meeting the requirements of UPPCB

Water Calculations for EWS & LIG

Type	Plots	Units/Plot/unit	T Pop	domestic water	flushing water
EWS	69	1	5	345	31,050
LIG	69	1	5	345	31,050
	138	2	690	62,100	31,050

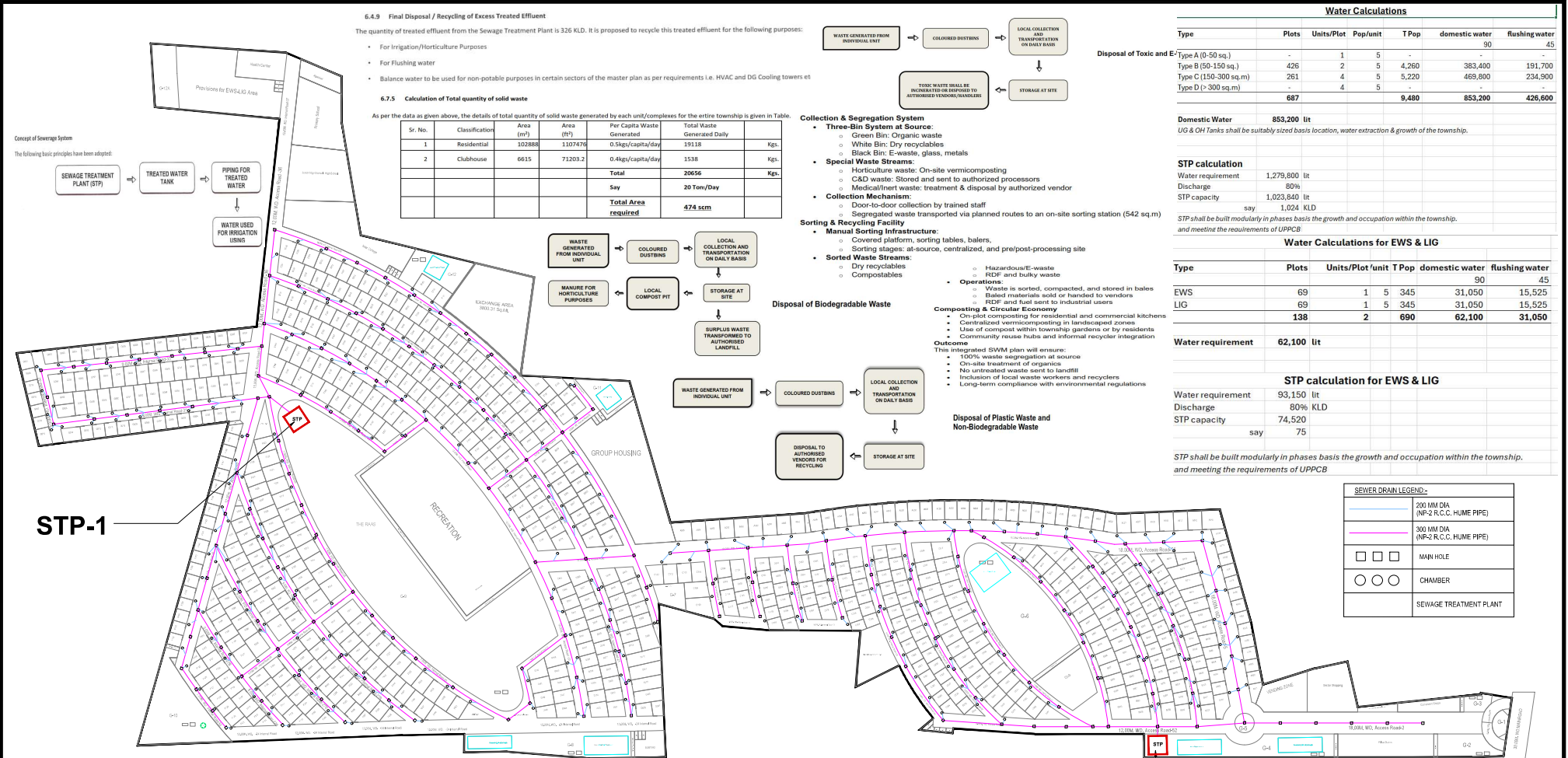
Water requirement **62,100 lit**

STP calculation for EWS & LIG

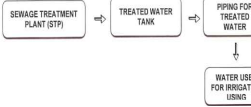
Water requirement	93,150 lit
Discharge	80% KLD
STP capacity	74,520
	Say 75

STP shall be built modularly in phases basis the growth and occupation within the township, and meeting the requirements of UPPCB

SEWER DRAIN LEGEND:-	
	200 MM DIA (NF-2 R.C.C. HUME PIPE)
	300 MM DIA (NF-2 R.C.C. HUME PIPE)
	MAN HOLE
	CHAMBER
	SEWAGE TREATMENT PLANT



Concept of Sewerage System
The following basic principles have been adopted:



STP-1

STP-2

02/08/2025

DRAWING TITLE:

SEWER LINE PLAN

PROJECT:

VILLAGE JULHENDI, VRINDAVAN

THE HOUSE OF ABHINANDAN LODHA

SCALE

CHECKED BY

DATE

02/08/2025

